

**Annual report**

**2005**







## Annual Report 2005



This annual report was filed with the French financial market authorities AMF (Autorité des Marchés Financiers) on April 28, 2006, in accordance with articles 211-1 to 211-42 of its General Regulations. It may be used in support of a financial transaction if it is accompanied by an offering circular signed by the AMF.



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## General comments

This annual report contains information on AREVA's objectives, prospects and strategies, particularly in Chapters 4 and 7. This information is not meant as a presentation of past performance data and should not be interpreted as a guarantee that events or data set forth herein are assured or that objectives will be met. Forward-looking statements made in this document also address known and unknown risks, uncertainties and other factors that could, were they to translate into fact, cause AREVA's future financial performance, operating performance and production to differ significantly from the objectives presented or suggested herein. Those factors include, in particular, changes in international, economic or market conditions, as well as risk factors presented in Section 4.15.3. Neither AREVA nor the AREVA group is committing to updating forward-looking statements or information contained in the annual report.

This annual report contains information on the markets, market shares and competitive position of the AREVA group. Unless otherwise indicated, all historical data and forward-looking information are based on Group estimates (source: AREVA) and are provided as examples only. To AREVA's knowledge, no report is available on the AREVA group's markets that is sufficiently complete or objective to serve as a sole reference source. The AREVA group developed estimates based on several sources, including in-house studies and reports, statistics provided by international organizations and professional associations, data published by competitors and information collected by AREVA subsidiaries.

The main sources, studies and reports used include (i) the International Atomic Energy Agency (IAEA), the International Energy Agency (IEA), the World Nuclear Association (WNA), the Nuclear Energy Institute (NEI), Nuclear Assurance Corporation (NAC), the European Atomic Energy Community (Euratom) and the Commissariat à l'Énergie Atomique (CEA) for the nuclear business; and (ii) the IAEA for the electricity transmission and distribution business.

AREVA believes that this information provides an adequate picture of the size of these markets and of the Group's competitive position. However, the estimates and studies used by the AREVA group have not been verified by independent experts. Accordingly, AREVA does not provide any guarantee that another person would obtain comparable results using different methods to compile, analyze or compute this information.

In this document, the company is referred to as "AREVA". The "Group" or the "AREVA group" refers to AREVA and its subsidiaries.

A glossary defining all technical terms can be found at the end of this annual report.

A table of concordance between appendix I of the mentioned regulations (CE) No. 809/2004 from the European Commission dated 29 April 2004 and the plan of this annual report can be found on page 442.

Pursuant to article 28 of the above-mentioned regulations (CE) and article 212-11 of the regulations issued by the French Market Authority (AMF), the following elements have been integrated for reference:

- AREVA's consolidated financial statements for the year ending 31 December, 2004 and the Statutory Auditors' report on the consolidated financial statements ending 31 December 2004 discussed respectively on pages 242 to 305 and 240 to 241 in the annual report submitted to the French Market Authority (AMF) on 18 April 2005 registered under the number D.05-0477, and,
- AREVA's consolidated financial statements for the year ending 31 December, 2003, and the Statutory Auditors' report on the consolidated financial statements ending 31 December 2003 discussed respectively on pages 172 to 225 and 170 to 171 of the annual report submitted to the French Market Authority (AMF) on 29 April 2004 registered under the number R.04-068.

The chapters of the annual report No. D.05-0477 and the annual report No. R.04-068 above are either not applicable to the investor or covered in another section of this report.





# 1

## PERSON RESPONSIBLE FOR THE ANNUAL REPORT AND PERSONS RESPONSIBLE FOR AUDITING THE FINANCIAL STATEMENTS

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## 1.1. Person responsible for the annual report

# 1.1. Person responsible for the annual report

Mrs Anne Lauvergeon

Chairman of the AREVA Executive Board

## 1.2. Attestation by the person responsible for the annual report

"I hereby attest, having taken every reasonable measure to this effect, and to the best of my knowledge, that the information contained in this annual report fairly reflects the current situation and that no material aspects of such information have been omitted.

I have received an end-of-engagement letter from the Statutory Auditors indicating that they have verified information relating to the financial position and the financial statements provided in this annual report and have read the entire report.

The end-of-engagement letter does not contain any observations.

The historical financial information presented in this annual report has been covered in reports by the Statutory Auditors.

The Statutory Auditors' report on the consolidated financial statements for the year ending December 31, 2005, on page 268 of this annual report contains an observation concerning the methods of valuing end-of-life-cycle assets and liabilities described in note 1.18 and 25 to the consolidated financial statements.


The Statutory Auditors' report on the consolidated financial statements for the year ending December 31, 2004, on pages 240 and 241 of the AREVA 2004 annual report contains observations on:

- the changes in presentation concerning the provisions for losses on contracts, the non-consolidation of dedicated investment funds, and the consolidation of the entity carrying the perpetual subordinated bond described in Note 1.1. to the consolidated financial statements;
- the uncertainties concerning the valuation of final waste disposal costs and the share to be borne by EDF in the back end of the cycle, described in Note 22 to the consolidated financial statements.

The Statutory Auditors' report on the consolidated financial statements for the year ending December 31, 2003, on pages 170 and 171 of the AREVA 2003 annual report contains observations on:

- the changes in presentation concerning the provisions for future costs, the assets earmarked for facility decommissioning, and the interest-bearing prepayments from customers described in Note 1.1. to the consolidated financial statements;
- the uncertainties inherent in the valuation of end-of-life-cycle costs and the share to be borne by customers, particularly EDF, described in Note 22 to the consolidated financial statements."

Done at Paris, April 27, 2006



Mrs Anne Lauvergeon

Chairman of the AREVA Executive Board

# 1.3. Persons responsible for auditing the financial statements for 2003, 2004 and 2005

The term of office of the Statutory Auditors is six years.

## 1.3.1. STATUTORY AUDITORS

### **Mazars & Guérard**

Le Vinci - 4, allée de l'Arche - 92075 La Défense Cedex - France

- Term began: first term granted by the Annual General Meeting of Shareholders convened June 26, 1989, and renewed at the Combined Meeting of Shareholders convened June 18, 2001.
- Term ends: Annual General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2006.

### **Deloitte & Associés**

185, avenue Charles de Gaulle - 92524 Neuilly-sur-Seine Cedex - France.

- Term began: term granted by the Annual General Meeting of Shareholders convened May 31, 2002, to replace Barbier Frinault & Autres, resigning.

- Term ends: Annual General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2006.

### **Salustro Reydel, member of KPMG International**

1, cours Valmy - 92923 Paris La Défense - France

- Term began: term granted by the Annual General Meeting of Shareholders convened May 31, 2002.
- Term ends: Annual General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2007.

## 1.3.2. DEPUTY AUDITORS

### **Max Dusart**

Espace Nation - 125, rue de Montreuil - 75011 Paris - France.

- Term began: term granted by the Annual General Meeting of Shareholders convened June 18, 2001.
- Term ends: Annual General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2006.

### **BEAS**

7-9, villa Houssaye - 92524 Neuilly-sur-Seine cedex - France.

- Term began: term granted by the Annual General Meeting of Shareholders convened May 31, 2002, to replace Alain Gouverneyre, resigning.

- Term ends: Annual General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2006.

### **Jean-Claude Reydel**

1, cours Valmy - 92923 Paris La Défense - France.

- Term began: term granted by the Annual General Meeting of Shareholders convened May 31, 2002.
- Term ends: Annual General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2007.

## 1.4. Persons responsible for financial information

## 1.4. Persons responsible for financial information

The persons responsible for financial information are:

- Gérald Arbola, Chief Financial Officer and member of the Executive Board  
Address: 27-29, rue Le Peletier - 75009 Paris - France  
E-mail: gerald.arbola@areva.com
- Vincent Benoit, Investor Relations Director  
Address: 27-29, rue Le Peletier - 75009 Paris - France  
E-mail: vincent.benoit@areva.com

## 1.5. Communications policy and tentative financial communications schedule

The Executive Board's objective is to report on the Group's operations to shareholders and investment certificate owners. Accordingly, AREVA has had a financial communications program in place since it was formed. The goals of this program are to build strong relations with our shareholders and investment certificate owners and to develop the Group's presence on the financial markets by providing more information on our operations.

### 1.5.1. INFORMATION PROGRAMS

Information of a financial, commercial, organizational or strategic nature that may be of interest to the financial community is provided to the national and international media and to press agencies via press releases. All information provided to the financial markets (press releases, audio and video presentations of a financial or strategic nature) is available at [www.arevagroup.com](http://www.arevagroup.com) in the "Finance" section. Individuals wishing to receive press releases by e-mail may register on the Group's site, which also features a schedule of upcoming events and announcements.

AREVA publishes half-year and annual results and makes quarterly sales announcements, in accordance with French legislation. It should be noted that, in the nuclear business, comparisons of quarterly data from one year to that of the preceding year may show significant variances that may not be a good indicator of the expected trend for the year as a whole.

At least twice a year, the Group organizes information meetings to comment on its business and financial performance. These meetings are usually broadcast live on the Internet.

## 1.5. Communications policy and tentative financial communications schedule

## 1.5.2. TENTATIVE FINANCIAL COMMUNICATIONS SCHEDULE

A tentative schedule of upcoming events and announcements is provided below. It is regularly updated on the AREVA website.

Date	Events
27 April 2006	First quarter 2006 sales
02 May 2006	Annual General Meeting of the Shareholders
30 June 2006	Dividend payment for fiscal year 2005
27 July 2006	First half 2006 sales
27 September 2006	First half 2006 income
27 September 2006	Conference call on first half 2006 income (media, analysts, investors)
26 October 2006	Third quarter 2006 sales
February 2007	2006 sales
March 2007	2006 income

## 1.5.3. TECHNICAL INFORMATION ON THE GROUP'S BUSINESSES

The AREVA group organized a series of presentations and site tours to enhance the financial community's understanding of the Group's operations from a technical as well as economic point of view.

This was the purpose of the "AREVA Technical Days" (ATD) program. Five sessions have been held since 2002 to present our businesses: a general overview in Paris, an overview of the Back End Division at La Hague, an overview of the Reactors and Services Division in Chalon-sur-Saône, an overview of the Front End Division in Avignon, and an overview of the Transmission & Distribution Division in Istanbul and Gebze, Turkey. About a hundred participants attended each session.

To ensure that those not attending receive the same information as those attending the sessions, delayed broadcasts of the meetings and related question-and-answer sessions may be seen in the ATD program section of AREVA's website.

In addition, plant tours are held throughout the year to introduce investors to the Group's operations.

## 1.5.4. CONTACTS

The Investor Relations Director (see paragraph 1.4.) is assisted by:

- Frédéric Potelle, Deputy Director, Investor Relations  
Address: 27-29, rue Le Peletier - 75009 Paris - France  
E-mail: frederic.potelle@areva.com
- Anne Mills, Senior Manager of Financial Information and Retail Shareholding  
Address: 27-29, rue Le Peletier - 75009 Paris  
E-mail: anne.mills@areva.com

- Pauline Briand, Marketing, Investor Relations  
Address: 27-29, rue Le Peletier - 75009 Paris  
E-mail: pauline.briand@areva.com

In 2004, the Group also set up an individual shareowner relations desk that can be reached at a toll-free number (calls in France only), 0810 699 756, or by e-mail to [actionnaires@areva.com](mailto:actionnaires@areva.com).



# 2

## INFORMATION PERTAINING TO THE TRANSACTION

**Not applicable**

In the event of a transaction involving publicly-raised funds, information covered by this chapter will be disclosed in a prospectus and filed with the Autorité des Marchés Financiers (AMF, French Financial Markets Authority) for approval.

# 3

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## 3.1. Information on AREVA

## 3.1. Information on AREVA

### 3.1.1. LEGAL NAME (ARTICLE 2 OF THE BYLAWS)

The company's legal name is Société des Participations du Commissariat à l'Énergie Atomique.  
The company's trade name is AREVA.

### 3.1.2. ESTABLISHING ORDER

The establishing order for Société des Participations du Commissariat à l'Énergie Atomique (CEA) is decree n° 83-1116 of December 21, 1983. This decree was amended, mainly by decree n° 2001-342 of April 19, 2001, then by decree n° 2003-94 of February 4, 2003, which provides for the following:

- changes to company bylaws are approved by decree; however, capital increases are subject to joint approval by the Minister of Industry and the Minister of the Economy (article 2, sections 2 and 3);
- CEA shall retain the majority of the company's capital (article 2, section 1);
- the sale or exchange of any AREVA shares held by the Commissariat à l'Énergie Atomique (CEA) is subject to the same conditions as for capital increases (article 2, section 2);
- a government controller shall attend Supervisory Board meetings (article 4, section 2) ;
- the company is subject to the articles of decree N°. 53-707 of August 9, 1953, except for article 2 of the decree, which deals among others with the remuneration of executives of public sector companies (article 5, section 1);
- decisions of the Supervisory become automatically effective only after a ten-day waiting period, during which time the government comptroller may reject them (article 5, section 2).
- sales of AREVA shares are subject to approval by AREVA's Supervisory Board, except for shares traded on a regulated stock market (article 6).

### 3.1.3. LEGAL FORM OF THE COMPANY AND APPLICABLE LEGISLATION (ARTICLE 1 OF THE BYLAWS)

AREVA is a Société anonyme à Directoire et Conseil de Surveillance (business corporation with an Executive Board and a Supervisory Board) governed by book II of the French Commercial Code, by the decree n° 67-236 of March 23, 1967 decree on business corporations and by the decree n° 83-1116 December 21, 1983.

### 3.1.4. PURPOSE OF THE COMPANY (ARTICLE 3 OF THE BYLAWS)

The corporate purpose of the company, in France and abroad, is:

- to acquire direct or indirect participating and equity interests, in whatever form, in any French or foreign company or enterprise involved in financial, commercial, industrial, real estate or securities operations;
- to purchase, sell, exchange, subscribe or manage any equity shares and investment securities;
- to provide any type of service, particularly services supporting the operations of all of the Group's companies;
- to manage any industrial or commercial operation, especially in the nuclear, information technology, electronics and connectors fields, and to this end:
  - examine projects concerning the creation, development or reorganization of any industrial enterprise;
  - implement any such project or contribute to its implementation by all appropriate means, especially by acquiring participating or equity interests in any existing or proposed business venture;
  - provide financial resources to industrial enterprises, especially by acquiring equity interests and through loan subscriptions.
- more generally, the company's objective is to undertake any industrial, commercial, financial, real estate or securities operation, in France or abroad, that is directly or indirectly related to the above in furtherance of its purpose or supporting that purpose's achievement and development.

### 3.1.5. CORPORATE OFFICE (ARTICLE 4 OF THE BYLAWS)

The company's corporate office is located at 27-29, rue Le Peletier, 75009 Paris, France.  
Telephone number: +33 (0)1.44.83.71.00

### 3.1.6. STATUTORY TERM (ARTICLE 5 OF THE BYLAWS)

AREVA was registered to do business in France on November 12, 1971. Its business registration expires on November 12, 2070, unless this term is extended or the company is dissolved beforehand.

The statutory term of the company is ninety-nine years from its date of registration, unless earlier extended or the company is dissolved beforehand.

### 3.1.7. BUSINESS REGISTRY, BUSINESS CODE, REGISTRATION NUMBER

AREVA is registered at the Business Registry of Paris under number 712 054 923  
Business code (APE): 741J (Company management)  
Business registration number (Siret): 712 054 923 00032

### 3.1.8. AVAILABILITY OF INCORPORATING DOCUMENTS

The incorporating documents, or copies thereof, may be reviewed at AREVA's corporate office at 27-29, rue Le Peletier, 75009 Paris, France:

- The establishing decree n°. 83-1116 of December 21, 1983, and the bylaws of AREVA.
- Any report, correspondence and other documents, historical financial data, assessments and statements given by an expert at AREVA's request, some of which are included or referred to in the present document.

- Historical financial data of AREVA and its consolidated subsidiaries for the fiscal years ending December 31, 2003, December 31, 2004 and December 31, 2005.
- Any other document which is made available to the shareholders.

### 3.1.9. ANNUAL FINANCIAL STATEMENTS

#### 3.1.9.1. Accounting year (article 43 of the bylaws)

The accounting year is the 12-month period beginning January 1 and ending December 31 of each year.

Any shareowner, investment certificate owner or voting right certificate holder has the right to review these documents, as well as any other document that must be provided by law, subject to the conditions stipulated in current regulations. He or she may also request that these documents be provided to him or her by AREVA, as provided by the regulations.

#### 3.1.9.2. Corporate financial statements (article 44 of the bylaws)

After year-end closing, the company's Executive Board presents a balance sheet, an income statement with notes and a management report. The Supervisory Board submits its remarks on the Executive Board's report and on the financial statements to the Annual General Meeting of Shareholders.

#### 3.1.9.3. Information on subsidiaries and equity interests (article 45 of the bylaws)

Information on subsidiaries and equity interests required by law is included in the report presented to the Annual General Meeting of Shareholders by the Executive Board and, as applicable, by the registered auditors.

### 3.1. Information on AREVA

The Executive Board reports on the operations of all subsidiaries, defined as companies in which the Group's participation is greater than 50% of capital. The report is segmented by business line and discloses actual financial performance.

The Executive Board attaches a table to the balance sheet presenting the position of said subsidiaries and equity interests in the format required by law.

#### 3.1.9.4. Consolidated balance sheet and financial statements (article 46 of the bylaws)

The Executive Board prepares the consolidated balance sheet, income statement, notes to the financial statements and management report.

The method used to prepare the consolidated balance sheet and income statements must be disclosed in a note attached to those documents.

#### 3.1.9.5. Appropriation and distribution of profits (article 48 of the bylaws)

1. The net profit or loss for the period consists of the difference between income and expenses, net of depreciation, depletion, amortization and provisions.
2. No less than 5% of the profits for the year, adjusted for any prior year losses, are allocated to a reserve fund called "legal reserve". This allocation is no longer required once the legal reserve reaches 10% of the company's capital stock.
3. The profit available for distribution is equal to the profit for the year less prior year losses, and less reserve allocations required by law and the company bylaws, plus retained earnings.
4. Except in cases of capital reduction, there shall be no profit distribution to the combined shareowners and equity investors if shareholders' equity is less than an amount equal to capital stock plus legal reserves, in accordance with the law and the company's bylaws, or if the distribution would cause it to fall below that amount.

### 3.1.10. INFORMATION ON GENERAL MEETINGS OF SHAREHOLDERS AND VOTING RIGHT CERTIFICATE HOLDERS

#### 3.1.10.1. Provisions common to all meetings

##### ***Forms and deadlines for Notices of Meeting (article 30 of the bylaws)***

Meetings are convened as provided by law.

##### ***Admission to Meetings – Deposit of securities (article 32 of the bylaws)***

1. Any shareholder or holder of a voting right certificate may participate in person or by proxy in General Meetings of Shareholders, as provided by law, by offering proof of his or her identity and of his or her ownership of the shares or voting right certificates, either by registering the shares or certificates with the company at least three days before the General Meeting of Shareholders or, in the case of bearer shares (when such shall exist), by providing a statement confirming the non-availability of the shares until the date of the Meeting.

2. In the event of the subdivision of share or certificate ownership, only the voting right holder may participate in or be represented at the General Meeting.
3. Joint owners of undivided shares and/or voting right certificates are represented at the General Meeting by one of the joint owners or by a single proxy who shall be designated, in the event of disagreement, by order of the president of the Commercial Court in an urgent ruling at the request of any of the joint owners.
4. Any shareholder or voting right certificate holder who owns securities of a given class may participate in any Special Meeting of the Shareholders for that particular class of securities, subject to the conditions outlined above.
5. The Company Works Council shall designate two of its members to attend General Meetings of Shareholders, one from among the company's managers, technicians and supervisors, and the other from among its administrative/clerical personnel and craft/manual workers. Alternatively, the persons mentioned in paragraphs 3 and 4 of article L. 432-6 of the French Labor Code may participate in the meetings.

***Voting procedures (article 35 of the bylaws)***

1. The voting rights attached to shares of capital stock or jouissance shares and to voting right certificates are proportionate to the fraction of capital represented by such shares. Each full share shall be entitled to at least one vote.
2. The voting right attached to a share or a voting right certificate belongs to the usufructuary in Annual General Meetings of the Shareholders and to the bare owner in Extraordinary General Meetings or meetings dealing with statutory matters.

Voting rights attached to shares given as collateral remain with the owner of the shares.

**3.1.10.2. Rules governing Annual General Meetings of Shareholders*****Quorum and majority (article 39 of the bylaws)***

The Annual General Meeting of Shareholders may deliberate validly after the first notice of meeting only if the shareholders and/or voting right certificate holders present in person, represented by proxy or voting by mail, or attending via videoconference or a telecommunications medium allowing them to be identified, possess at least 25% of the shares and certificates entitled to a vote. No quorum is required for a meeting held after a second notice of meeting has been given.

The law of July 26, 2005, for the Confidence in and Modernization of the Economy amended the provisions of the French Commercial Code concerning the quorum required to hold Annual General Meetings, which is henceforth 20% of the shares and certificates entitled to vote on the first notice of meeting; no quorum being required after a second notice of meeting has been given. AREVA proposes to amend the bylaws accordingly at an upcoming Extraordinary General Meeting of Shareholders.

The Annual General Meeting of Shareholders adopts resolutions by a majority vote of the shareholders and/or voting right certificate holders present in person, represented by proxy or voting by mail, or attending the Annual General Meeting via videoconference or a telecommunications medium allowing them to be identified.

**3.1.10.3. Rules governing Extraordinary General Meetings of Shareholders*****Purpose and conduct of Extraordinary General Meetings of Shareholders (article 40 of the bylaws)***

1. The Extraordinary General Meeting of Shareholders has sole authority to amend any of the provisions of the company bylaws, or to increase or decrease the company's capital stock. However, the Extraordinary General Meeting of Shareholders may not increase the obligations of any shareholder or investment certificate holder, except in the case of share combinations that have been properly executed or in the case of fractional shares resulting from a capital increase or decrease.
2. As an exception to the exclusive jurisdiction of the Extraordinary General Meeting of Shareholders in matters of bylaws amendment, the Executive Board may modify bylaw provisions relating to the company's capital stock or the number of shares, investment certificates or voting right certificates representing such capital, insofar as such changes automatically result from a duly authorized capital increase, decrease or amortization.

***Quorum and majority (article 41 of the bylaws)***

Unless otherwise provided by law, the Extraordinary General Meeting of Shareholders may deliberate validly after the first notice of meeting only if one third of the shareholders and voting right certificate holders are present in person, represented by proxy or voting by mail, or attending the Meeting via videoconference or a telecommunications medium allowing them to be identified, in accordance with applicable laws and regulations. The quorum required after the second notice of meeting is 25% of all shares and voting right certificates entitled to vote.

If no quorum has been reached for the second notice of meeting, the second Meeting may be postponed for two months after the date for which it had been called.

The law of July 26, 2005, for the Confidence in and Modernization of the Economy amended the provisions of the French Commercial Code concerning the quorum required to hold Extraordinary General Meetings of Shareholders, which is henceforth 25% of the voting right certificates on the first notice of meeting and 20% of the voting right certificates on the second notice of meeting. AREVA proposes to amend the bylaws accordingly at an upcoming Extraordinary General Meeting of Shareholders.

Unless otherwise provided by law, resolutions of the Extraordinary General Meeting are adopted by a two-thirds majority of the voting rights of the shareholders and/or voting right certificate holders present in person, represented by proxy, voting by mail, or participating via videoconference or a telecommunications medium allowing them to be identified, in accordance with applicable laws and regulations.

## 3.1. Information on AREVA

**3.1.10.4. Rules governing Special Meetings of Investment Certificate Holders (article 42 of the bylaws)*****All investment certificate holders may participate in the Special Meeting.***

The Special Meeting has the authority, in instances provided by law, to waive the preemptive subscription right held by investment certificate holders. The Special Meeting is called at the same time and in the same form as General Meetings of Shareholders called to decide on a proposed capital increase, convertible bond issue, or bond issue with share purchase warrants.

Investment certificate holders may attend the meeting following the same procedures as those applicable to the shareholders, described in article 32 of the bylaws.

The law of July 26, 2005 for the Confidence in and Modernization of the Economy amended the provisions of the French Commercial Code concerning the quorum required to hold Special Meetings, which is henceforth one-third of the voting right certificates on the first notice of meeting and 20% of the voting right certificates on the second notice of meeting. AREVA proposes to amend the bylaws accordingly at an upcoming Extraordinary General Meeting of Shareholders.

## 3.2. Information on share capital and voting rights

### 3.2.1. CAPITAL STOCK (ARTICLE 6 OF THE BYLAWS)

#### 3.2.1.1. Capital stock issued

The company's capital stock is fully paid up and stands at one billion three hundred forty-six million eight hundred twenty-two thousand six hundred thirty-eight euros (€1,346,822,638), divided into thirty-four million thirteen thousand five hundred ninety-three shares (34,013,593) with a par value of thirty-eight euros (€38.00) per share, and one million four hundred twenty-nine thousand one hundred eight (1,429,108) investment certificates with a par value of thirty-eight euros (€38.00) per certificate, and one million four hundred twenty-nine thousand one hundred eight (1,429,108) voting right certificates.

There is only one class of shares.

#### 3.2.1.2. Authorized share capital

No distinction is made between authorized share capital and outstanding capital stock. There are no securities outstanding that could ultimately result in the creation of new shares. Accordingly, the concept of potential capital does not apply to AREVA.

As of the date of registration of this annual report, the Annual General Meeting of Shareholders had not passed any resolution authorizing the issuance of securities giving access to AREVA share capital.

#### 3.2.1.3. Changes in share capital – Paying up of shares

Subject to the regulatory rules applicable to AREVA concerning increases in its share capital, the company's capital can be increased or decreased on one or several occasions under the terms laid down by the laws and regulations applicable to French *sociétés anonymes* (corporations).

In the event of a capital increase for cash, provided there are still investment certificates outstanding, and unless the holders of investment certificates have waived their preferential investment rights as provided by law, the holders of the investment certificates have a preferential right – in proportion to the number of certificates they hold – to subscribe to shares that carry the same rights as the investment certificates.

## 3.2. Information on share capital and voting rights

## 3.2.2. CHANGES IN SHARE CAPITAL SINCE 1989 (ARTICLE 7 OF THE BYLAWS)

### Changes in share capital since 1989

		Number of capital securities issued/canceled			Nominal amount of increase/ decrease in capital*	Total premium stock issue/ asset contribution*	Number of capital securities after transaction				Nominal amount*		
Transaction Date	Transaction	Shares	IC <sup>(1)</sup>	Total			Cumulative amount*	Shares	IC.	Total	Shares	IC.	Total*
May 29, 1989	Capital increase (conversion of 3,112 participating shares)	0	12,448	12,448	3,112,000	311,200	3,423,200	27,985,200	12,448	27,997,648	250	250	6,999,412,000
May 31, 1990	Capital increase (conversion of 17,088 participating shares)	0	68,352	68,352	17,088,000	1,708,800	18,796,800	27,985,200	80,800	28,066,000	250	250	7,016,500,000
March 23, 1992	Capital increase (conversion of 337,077 participating shares)	0	1,348,308	1,348,308	337,077,000	33,707,700	370,784,700	27,985,200	1,429,108	29,414,308	250	250	7,353,577,000
June 23, 2000	Capital Reduction (for conversion into euros)	0	0	0	(3,301,883)	n.a.	n.a.	27,985,200	1,429,108	29,414,308	38	38	1,117,743,704
September 3, 2001	Capital increase (for acquisition merger of Biorisys and Framatome SA)*	5,279,748	0	5,279,748	200,630,424	1,540,164,350	1,740,794,774	33,264,948	1,429,108	34,694,056	38	38	1,318,374,128
September 3, 2001	Capital increase (for payment of transfer of Cogema shares)*	748,645	0	748,645	28,448,510	143,931,861	172,380,371	34,013,593	1,429,108	35,442,701	38	38	1,346,822,638

\* In French francs until June 23, 2000, in euros thereafter.

(1) IC: investment certificates.

The share capital has not been modified since September 2001.



## 3.2. Information on share capital and voting rights

## 3.2.3. AREVA SHAREHOLDERS AND VOTING RIGHTS

The company's share capital as of December 31, 2005, is as follows:

- 34,013,593 shares;
- 1,429,108 investment certificates (IC);
- 1,429,108 voting right certificates.

In addition to AREVA's ordinary shares, there are investment certificates and voting right certificates. An original share is reestablished with full rights and privileges when a voting right certificate and an investment certificate are reunited. The CEA owns all of the voting right certificates. The investment certificates are quoted on Compartment B of the Eurolist by Euronext™ market and are held by the public.

With the exception of investment certificates, which by definition are devoid of voting rights, all AREVA securities carry a single voting right.

Each member of the AREVA Supervisory Board, including representatives of salaried personnel but excluding members representing the French State, holds one share of stock. Members of the Executive Board do not own stock in the company.

To AREVA's knowledge, no agreement exists whose implementation could result a change in its control at a later date.

The table below shows the percentages of share capital and voting rights owned by shareholders, holders of investment certificates, and holders of voting right certificates as of December 31, 2005:

	December 31, 2001		December 31, 2002		December 31, 2003		December 31, 2004		December 31, 2005	
	% capital	% voting rights	% capital	% voting rights	% capital	% voting rights	% capital	% voting rights	% capital	% voting rights
CEA	78.96	82.99*	78.96	82.99*	78.96	82.99*	78.96	82.99*	78.96	82.99*
French State	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19
Caisse des Dépôts et Consignations	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.59
Erap	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21
EDF	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
Framéparagne (employees)	1.58	1.58	1.18**	1.18**	1.06**	1.06**	0.86**	0.86**	0.79**	0.79**
Calyon	-	-	0.40**	0.40**	0.52**	0.52**	0.72**	0.72**	0.79**	0.79**
Total company	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
IC holders (public)	4.03	-	4.03	-	4.03	-	4.03	-	4.03	-
Supervisory Board members	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

\* The reason for the difference in the percentage of share capital and percentage of voting rights held by the CEA in AREVA is that the CEA owns all of the voting right certificates.

\*\* Calyon, formerly Crédit Agricole Indosuez, entered into a liquidity guarantee with Framéparagne under which it agreed to acquire, in the event of insufficient liquidity, AREVA shares held by Framéparagne that the latter would have to sell to meet share repurchase requirements. Pursuant to this guarantee, Calyon purchased some AREVA shares beginning in July 2002.

## 3.2. Information on share capital and voting rights

**3.2.4. TREASURY SHARES**

AREVA does not own any treasury shares, whether directly, in its name, or through its subsidiaries.

**3.2.5. FORM OF SHARES, INVESTMENT CERTIFICATES AND VOTING RIGHT CERTIFICATES (ARTICLE 11 OF THE BYLAWS)**

Subject to the condition precedent that the shares and/or investment certificates issued by AREVA are listed for trading on a regulated market, the holders may, at their discretion, record their ownership on the company's registers or hold their securities as bearer shares. All securities are registered in an account in accordance with applicable laws and regulations.

Provided that securities that confer an immediate or future right to vote in meetings of AREVA shareholders are listed for trading on a regulated stock market, the company may request the name

(or the legal name in the case of a legal entity), nationality, year of birth (or year of establishment in the case of a legal entity) and address of each holder of such securities from the clearing organization at any time for the purpose of identifying the holders of the securities as well as the number of securities held by each and any restrictions on same, in accordance with the law in these matters.

Ownership of voting right certificates must always be recorded on the company's registers.

**3.2.6. TRANSFER OF SHARES, INVESTMENT CERTIFICATES AND VOTING RIGHT CERTIFICATES (ARTICLE 12 OF THE BYLAWS)**

1. Shares and investment certificates are transferred from account to account upon sale. If the shares or investment certificates transferred are not fully paid up, the transferee must also sign the transfer order. Any transfer expenses are borne by the buyer.

2. The sale to a third party of company shares not listed for trading on a regulated market, for whatever reason, even when the sale is limited to bare ownership or usufruct of such shares, is subject to the prior approval of the Supervisory Board in the manner and under the conditions set forth below.

a) The request for approval of transfer shall be delivered to the company by registered mail with return receipt requested and shall include the last name, first name, middle name and address of the transferee, the number of shares to be transferred, and the price offered.

b) If the sale is approved, the company shall notify the transferor by registered mail with return receipt requested. However, the request shall be deemed to have been granted if no answer is provided within three months of the date of the request.

c) If the Supervisory Board rejects the transfer and the transferor maintains its intention to sell the shares, the company shall, within a legal time period, cause a third party to acquire the shares, or shall acquire the shares itself for the purpose of reducing the company's capital. The original transfer request shall be deemed approved if the company-sponsored acquisition has not been completed within the time frame mentioned above. However, the deadline may be extended by a court ruling at the company's request.

d) In the absence of an agreement between the parties, and in all instances of acquisition under the provisions of the preceding paragraph, the share price shall be set by an appraiser as provided under Article 1843-4 of the French Civil Code.

3. Investment certificates may be sold freely.

A voting right certificate may be sold only in combination with an investment certificate, unless the buyer already owns an investment certificate, in which case the transaction shall result in the permanent recreation of a share.

### 3.2.7. RIGHTS AND OBLIGATIONS ATTACHED TO SHARES, INVESTMENT CERTIFICATES AND VOTING RIGHT CERTIFICATES (ARTICLE 14 OF THE BYLAWS)

Possession of a share, an investment certificate or a voting right certificate automatically signifies acceptance of the company's bylaws and of the resolutions duly adopted in any General Meeting of Shareholders.

The rights and obligations attached to any share, investment certificate or voting right certificate remain attached to the securities regardless of owner.

The French Atomic Energy Commission (CEA), as AREVA's principal shareholder, does not hold specific rights attached to the shares or voting right certificates it holds.

### 3.2.8. LIENS

There are no liens on AREVA shares or investment certificates.

There are no liens on any significant AREVA asset.

The shares of Group subsidiaries held by AREVA are similarly unencumbered by pledges.

### 3.2.9. BREACHING SHAREHOLDING THRESHOLDS

On the date this Annual report was filed, there were no statutory thresholds which, if breached, would give rise to any reporting obligation, other than those prescribed by law.

## 3.3. Investment certificate trading

## 3.3. Investment certificate trading

### 3.3.1. TRADING EXCHANGE

The investment certificates are quoted on Compartment B of the Eurolist by Euronext™ market, under the reference code Euroclear 004540972 and the reference code ISIN FR 0004275832.

### 3.3.2. CUSTODIAN SERVICES

Custodian and transfer services are provided by:

CACEIS Corporate Trust

14, rue Rouget de Lisle

92160 Issy-les-Moulineaux Cedex 9

Tel.: +33 1 43 23 23 18

Fax: +33 1 43 23 24 11

E-mail: [actionnariat.ge@caceis.com](mailto:actionnariat.ge@caceis.com)

### 3.3.3. HISTORICAL DATA

Summary of investment certificate prices and trading volume since January 2003.

#### 2003

<i>(in euros)</i>	<i>High*</i>	<i>Low*</i>	<i>Volume traded</i>	<i>Values</i>
January	150.0	134.2	96,171	14,030,000
February	137.6	126.0	59,654	7,874,000
March	149.5	126.0	40,132	5,386,000
April	168.5	137.3	53,489	7,895,000
May	188.0	158.0	61,966	10,673,000
June	183.9	167.3	61,216	11,017,000
July	177.7	165.0	39,301	6,785,000
August	185.1	171.6	38,115	6,932,000
September	193.9	180.1	93,271	17,432,000
October	195.8	184.5	42,713	8,204,000
November	194.4	187.6	37,075	7,127,000
December	208.3	190.1	55,545	10,958,000

## 3.3. Investment certificate trading

## 2004

<i>(in euros)</i>	<i>High*</i>	<i>Low*</i>	<i>Volume traded</i>	<i>Values</i>
January	224.0	200.1	98,264	20,905,200
February	223.5	213.5	185,570	40,450,200
March	223.0	206.0	147,326	31,649,800
April	239.5	211.5	213,363	48,462,200
May	225.9	197.2	214,308	45,101,900
June	234.0	217.0	89,527	20,280,400
July	245.0	226.8	179,425	42,381,700
August	260.0	231.0	102,902	25,295,400
September	302.6	251.0	275,848	76,340,800
October	297.3	271.0	181,019	51,292,100
November	295.0	273.0	173,545	49,385,800
December	335.0	293.0	132,491	41,301,900

## 2005

<i>(in euros)</i>	<i>High*</i>	<i>Low*</i>	<i>Volume traded</i>	<i>Values</i>
January	339.5	305.0	123,980	39,990,600
February	379.0	299.0	399,299	130,365,600
March	395.0	315.0	288,326	101,341,300
April	350.0	301.0	152,017	49,526,656
May	336.0	302.5	121,854	39,187,668
June	369.0	325.6	104,834	36,619,044
July	395.7	353.0	121,648	46,224,508
August	400.0	334.1	66,793	25,121,602
September	472.0	372.0	131,664	56,717,980
October	443.5	365.0	137,112	55,404,036
November	409.0	373.3	71,269	27,927,086
December	412.0	372.2	118,269	46,755,504

## 2006

<i>(in euros)</i>	<i>High*</i>	<i>Low*</i>	<i>Volume traded</i>	<i>Values</i>
January	474.0	403.0	108,905	48,526,342
February	562.0	466.0	126,476	63,346,962
March	598.0	500.0	139,666	75,517,521

\* Intraday prices.

Source : Reuters.

Since AREVA's establishment on September 3, 2001, through March 17, 2006, the price of the investment certificate has risen by 262%, outperforming the CAC 40, which gained 11% over the same period. The EuroStoxx50 gained 3% over that period.

In 2005, the price of the investment certificate rose by 22%, as compared with increases of 22% for the CAC 40 and of 21% for the EuroStoxx50 index. The liquidity of the investment certificates increased sharply, with an average daily trading volume of 7,127 certificates, compared with 7,697 certificates in 2004 and 2,653 certificates in 2003. In value, average trading climbed to €2,542,000 in 2005, compared with €1,902,000 in 2004 and €447,000 in 2003.

## 3.4. Dividends

## 3.4. Dividends

### 3.4.1. DIVIDEND PAYMENT (ARTICLE 49 OF THE BYLAWS)

Dividends are paid annually on the date and place set by the Annual General Meeting of Shareholders or, in the absence of such a decision, within nine months of the fiscal year-end on the date and place set by the Executive Board.

Dividends properly received are not subject to recovery. Dividends that have not been collected within five years from the set date of distribution are forfeited to the French State.

### 3.4.2. SIX-YEAR DIVIDEND DATA

(in euros)	Dividend	Tax credit	Gross dividend
2000	22.85	11.42	34.27
2001	6.20	3.10	9.30
2001 (exceptional dividend)	12.28	6.14	18.48
2002	6.20	3.10	9.30
2003	6.20	3.10	9.30
2004	9.59	-	9.59
2005 *	9.87	-	9.87

\* Dividend proposed by the Executive Board to the Annual General Meeting of Shareholders of May 2, 2006.

### 3.4.3. DIVIDEND POLICY

No dividend distribution policy has yet been established.

The annual dividend amount is set with representatives of the French government and the CEA, which together hold a majority of the Group's capital. The Supervisory Board will submit a proposal to the General Meeting of Shareholders of May 2, 2006, to distribute a dividend of €9.87 per share or investment certificate for 2005, compared with €9.59 for the previous year.

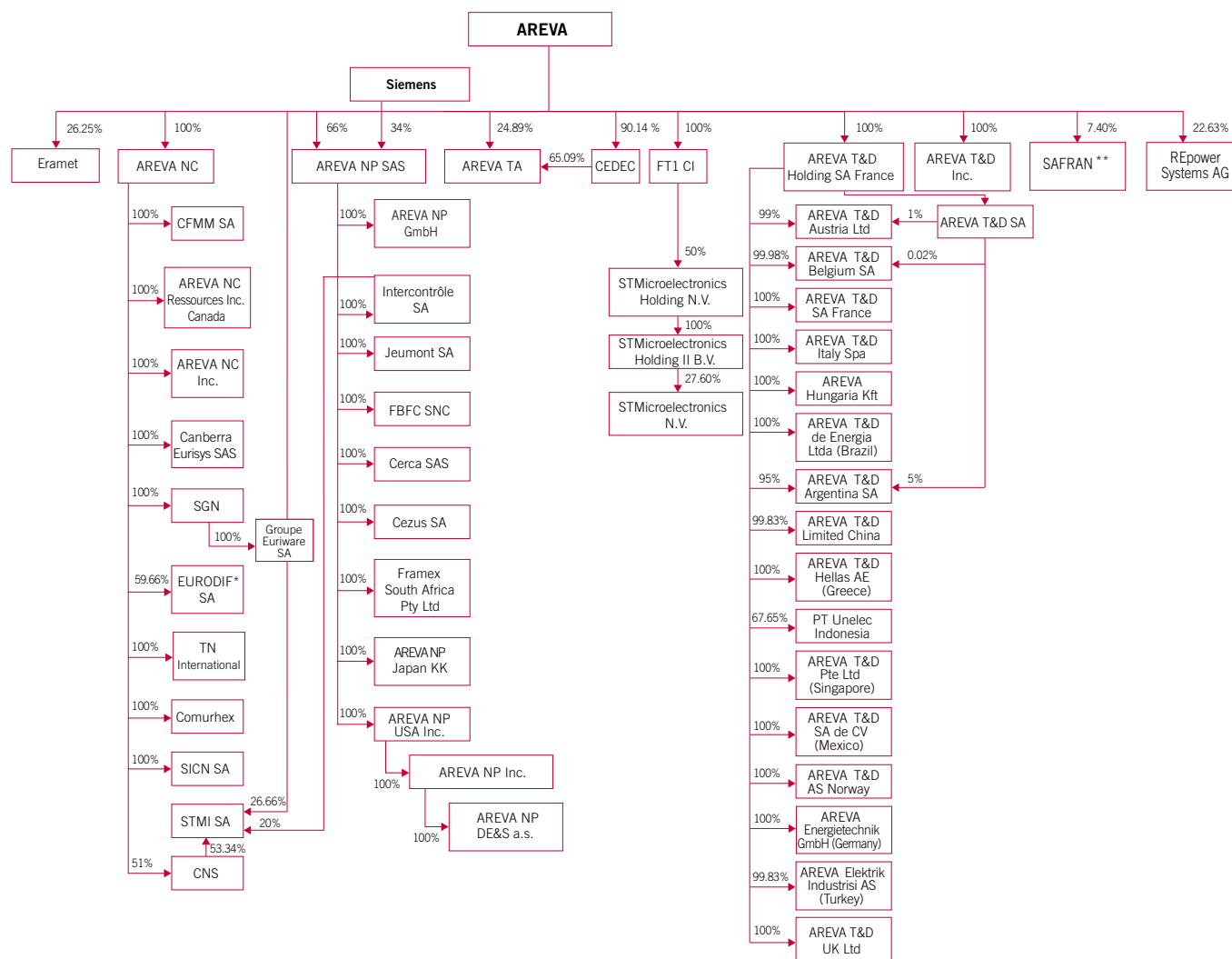
The dividend of €9.87 corresponds to a distribution rate of 33.3% of consolidated net income and will be paid on June 30, 2006. The distribution rates for 2002, 2003 and 2004 were, respectively, 92%, 57% and 80% of consolidated net income for those years. These distribution rates are not an indication of the company's future dividend policy.

## 3.5. Organizational chart of the AREVA group

*"As of March 1, 2006, all of the group's first-tier subsidiaries have a new identity. COGEMA takes on the trade name of AREVA NC, Framatome ANP takes on the name of AREVA NP and Technicatome takes on the name of AREVA TA". The new names also apply worldwide to all second-tier subsidiaries and facilities that contain "COGEMA" or "Framatome ANP". This harmony in the business names is part of the continued integration that started in September 2001 when AREVA was created. This initiative has enabled our Group to become a global and unique expert capable of providing our customers with solutions for generating and distributing CO<sub>2</sub>-free electricity. The objectives are to strengthen the visibility of its global offer, support our international development and our efforts to recruit new talent."*

\* AREVA T&D remains unchanged.

Simplified organizational chart of the AREVA group as of March 31, 2006:



\* Eurodif SA : direct and indirect participating interest via Sofidif.

\*\* Significant participating interest but company not consolidated.

## 3.6. Equity interests

## 3.6. Equity interests

The AREVA group has significant equity interests as described hereunder.

### STMicroelectronics NV

- Percent owned indirectly via holding companies: 10.94%.
- Business: STMicroelectronics is one of the largest semi-conductor companies in the world. In 2005, it had sales of \$8,882 million.
- History of AREVA group involvement: since its establishment, the CEA's laboratory, Leti, has collaborated with STMicroelectronics to develop integrated circuit technology. In 1993, STMicroelectronics was equally controlled by the Italian company Stet and public shareholders in Italy, on the one hand, and by the French company Thomson-CSF, on the other. STMicroelectronics, which at the time was in financial difficulty, received fresh capital from a French vehicle, FT1CI, jointly set up by CEA-Industrie (subsequently AREVA) and France Télécom (which has not been a shareholder of FT1CI since August 2005). FT1CI owns its interest in STMicroelectronics through holding companies jointly held with Italian partners, STMicroelectronics Holding NV and STMicroelectronics Holding II BV. STMicroelectronics Holding II BV was the majority shareholder in the past and remains the leading shareholder in STMicroelectronics today, with 27.60% of its share capital.
- Consolidation: equity method (the Group consolidates its total interest in FT1CI, i.e. 10.94%, under the equity method).
- Trading exchanges: Compartment A of the Eurolist by Euronext™ market, the New York Stock Exchange, and Milan.
- Market capitalization at December 31, 2005: \$16,341 million (€13,763 million).

### Eramet

- Percent owned: 26.25% of the share capital and 30.83% of the voting rights.
- Business: Eramet is a mining and metallurgy group that produces nonferrous metals, high-performance specialty steels and alloys. Eramet's sales as of December 31, 2005, totaled €2,712 million.
- History of AREVA group involvement: a reorganization of the French State's equity interest in Eramet was decided when the State reorganized its equity interests in mining. This reorganization was implemented, in particular, by exchanging the Eramet shares held by Erap, representing 22.5% of Eramet's capital, for AREVA NC shares. In addition, AREVA NC bought back the Eramet shares held by BRGM, representing 1.5% of Eramet's capital. AREVA NC contributed its equity interests to an entity set up for that purpose, Biorisys, whose share capital was taken over by merger with AREVA, effective September 4, 2001.
- Consolidation: equity method.
- Trading exchange: Compartment A of Eurolist by Euronext™ market.
- Market capitalization at December 31, 2005: €2,088 million.



## Safran

- Percent owned: 7.40% of the share capital and 12.50% of the voting rights held by AREVA NC, a subsidiary of which 0.06% of the share capital and 0.04% of the voting rights are held by Cogera (investment management company), an AREVA subsidiary.
- Business: Safran is a high-tech group with two operating branches: telecommunications and defense. It is ranked second in France in telecommunications and third in Europe in defense and security electronics. Safran had 2005 sales of €8,692 million.
- History of the AREVA group's involvement: AREVA NC formerly owned a 5.10% participating interest in Sagem. The AREVA group's equity position in Safran increased automatically to 17.4% in December 2003 as a result of Safran's takeover-merger of Coficem, in which the Group had purchased a 20% interest in 2002. The AREVA group's equity interest was then diluted during the takeover-merger of Snecma by Sagem, which gave birth to Safran in May 2005.
- Consolidation: this equity share is not subject to consolidation and appeared at market value on the balance sheet at December 31, 2005, as "Available-for-sale securities" under "Other non-current financial assets".
- Trading exchange: Compartment A of Eurolist by Euronext™.
- Market capitalization at December 31, 2005: €8,424 million.

## Suez

- Percent owned: 27,627,000 shares representing 2.2% of the share capital and 2.0% of the voting rights as of December 31, 2005.
- Business: Suez, an international manufacturing and services group, designs sustainable and innovative solutions for public services management as a partner to municipalities, companies and individuals in electricity, gas, energy services, water and clean-up.
- History of the AREVA group's involvement: the Group has held a stake in Suez since 1997-1998 as part of its portfolio of securities earmarked for end-of-life-cycle operations. The market value of that line was more than €500 million in 2005, before the capital increase carried out by Suez, i.e. more than 20% of the total value of the portfolio. Following the combined takeover bid made by Suez on its subsidiary Electrabel and the capital increase with prior preemptive rights, to which AREVA subscribed, the Group maintained its capital share at 2.2%. To balance its dedicated portfolio, the Group decided to remove the Suez line from the portfolio and replace it with cash, reinvested in other products.
- Consolidation: the equity share is not subject to consolidation and appeared at market value on the balance sheet at December 31, 2005 as "Available-for-sale securities" under "Other non-current financial assets".
- Stock exchanges: Euronext™ Paris (CAC 40 index), Euronext™ Brussels (BEL 20 index), New York Stock Exchange, SWX (Zurich) and the Luxembourg Stock Exchange.
- Market capitalization at December 31, 2005: €33,421 million.

## 3.7. Shareholders' agreements

## 3.7. Shareholders' agreements

The shareholders' agreements involving AREVA are described in section 3.7.1. below. The main shareholders' agreements concerning companies in which the Group has significant equity interests are described in section 3.7.2.

### 3.7.1. SHAREHOLDER'S AGREEMENTS CONCERNING AREVA SHARES

Except for agreements described in sections 3.7.1.1. and 3.7.1.2. below, there is, to AREVA's knowledge, no right of first refusal concerning the investment certificates or at least 0.5% of AREVA's share capital or voting rights.

#### 3.7.1.1. Shareholders' agreement between the Caisse des Dépôts et Consignations (CDC) and the Commissariat à l'Énergie Atomique (CEA)

Under the terms of an agreement between the CDC and the CEA dated December 28, 2001, the parties agreed in particular that, in the event that AREVA shares are admitted for public trading on a regulated market through the sale of AREVA shares owned by the CEA, the CEA agrees that CDC may, if it chooses, sell as many AREVA shares in the public offering as those offered for sale by the CEA. The CEA further agreed to undertake its best efforts to allow CDC to sell its shares in the event that the latter wishes to relinquish all of its AREVA shares under certain specific circumstances, and particularly in the event that (i) AREVA shares are not admitted for public trading by December 31, 2004, (ii) the shares of a major AREVA subsidiary (other than FCI) in which AREVA holds more than half of the share capital and voting rights were to be admitted for public trading in France, (iii) the CEA should no longer hold a majority interest in the share capital or voting rights of AREVA. CDC did not choose to dispose of its equity interest in AREVA, and continues to hold 3.59% of the company's share capital.

#### 3.7.1.2. Memorandums of understanding among Total Chimie, Total Nucléaire, AREVA and AREVA NC

Under the terms of separate memorandums of understanding dated June 27, 2001, Total Chimie and Total Nucléaire agreed to sell five-sixths of their equity interest in AREVA NC to the CEA and to contribute the remaining shares to AREVA (formerly called CEA-Industrie) prior to the split-up and merger decided by the Combined Annual and Extraordinary Meeting of Shareholders, which was completed in September 2001.

This memorandum of understanding also provides that Total Chimie and Total Nucléaire agree to retain their AREVA shares received in exchange for their contributions until such time as AREVA shares are publicly traded on a regulated market. If admission to a regulated market does not take place by September 30, 2004, at the latest, and assuming that Total Chimie or Total Nucléaire wish to sell all of their AREVA shares, Total Chimie, Total Nucléaire and AREVA have agreed to make their best efforts to ensure that the sale of the equity interest of Total Chimie or Total Nucléaire is carried out promptly and under mutually acceptable terms and conditions for all parties. To date, neither Total Chimie nor Total Nucléaire has chosen to dispose of their AREVA shares.

### 3.7.2. MAIN SHAREHOLDERS' AGREEMENTS CONCERNING AREVA'S EQUITY INTERESTS

The main shareholder agreements concerning AREVA's equity interests are set forth below.

#### AREVA NP

In July 2000, Framatome SA (subsequently taken over by AREVA) and Siemens AG reached an agreement to combine their nuclear operations in AREVA NP. Siemens AG's asset contribution to AREVA NP was implemented in two phases: the German operations were contributed on January 30, 2001, and the US operations were contributed on March 19, 2001.

These contributions were supplemented with a cash contribution by Siemens AG to AREVA NP, giving Siemens AG 34% of the share capital of AREVA NP. Siemens' nuclear operations were divided equally between AREVA's Front End Division and Reactors and Services Division in 2001.

AREVA NP is a French *société par action simplifiée* (simplified corporation) managed by a President chosen by a six-person Board of Directors designated for a five-year term by the shareholders on a simple majority vote.

Under AREVA NP's bylaws, the company's shares cannot be transferred to a third party for a ten-year period starting January 30, 2001, unless all shareholders approve the transfer. After this period of non-transferability, any sale of shares by one of the shareholders to a third party will be subject to a preemptive subscription right and prior approval by the company's other shareholders.

The shareholders' agreement concluded on January 30, 2001, between Siemens AG and Framatome SA, now taken over by AREVA, includes a put and call clause establishing sell and buy options. Under this clause, Siemens AG may exercise a sell option, thus obliging AREVA to buy all of the AREVA NP shares held by Siemens AG. Similarly, AREVA may exercise a buy option, thus obliging Siemens AG to sell all of its shares in AREVA NP to AREVA. These options may be exercised by the parties under the following circumstances:

- in the event of a confirmed and final disagreement between the parties over decisions vested in the Board of Directors, in particular, approving new company shareholders or designating the company President;
- in the event of a confirmed and final disagreement regarding a change in AREVA NP's bylaws or the shareholders' agreement;
- in the event that Siemens AG does not approve the company's business plan or its company financial statements for two consecutive years and there is no agreement with AREVA.

These options can also be exercised if one of the parties is taken over by a competitor, or if there is a significant drop in AREVA NP's market value after a change in control with respect to any of the parties.

Lastly, any party may terminate the shareholders' agreement and exercise its option on the eleventh anniversary of the agreement at the earliest, i.e. on January 30, 2012, or on each subsequent anniversary date of the agreement. From each of these dates, three-year prior notice shall be required for Siemens AG to exercise its put option or AREVA to exercise its call option.

Under the terms of the shareholders' agreement, and unless an agreement has been reached by the parties, the share price to exercise the buy or sell options described above will be set by an expert opinion, according to the terms set out in the agreement.

## 3.7. Shareholders' agreements

**Eurodif*****Agreement governing the establishment of Eurodif***

Under the terms of an agreement dated October 9, 1973, among CEA, Comitato Nazionale per l'Energia Nucleare of Italy, AGIP Nucleare, ENUSA (Empresa Nacional del Uranio) (Spain), AB Atomenergi (Sweden), SYNATOM and the Centre d'Étude de l'Énergie Nucléaire (Belgium), it was decided to establish a jointly-owned company in the form of a French *société anonyme* (corporation) with Executive and Supervisory Boards, called Eurodif, to conduct studies and research in the field of gaseous diffusion enrichment, to build and operate plants, and to market enriched uranium.

The CEA owned the majority of Eurodif's capital, with the other shareholders being minority shareholders. The CEA's equity interest was transferred to AREVA NC when AREVA NC was established in 1976. AREVA NC holds, directly and indirectly through Sofidif, 59.6% of Eurodif's capital at present.

The current shareholders of Eurodif are:

- AREVA NC: (44.65%)
- Sofidif: (25%)
- Synatom: (11.11%)
- Enusa: (11.11%)
- Enea: (8.13%)

Under the terms of an amendment to the above-mentioned Memorandum of Agreement dated December 6, 1996, Enea, Enusa and Synatome, as minority shareholders, and AREVA NC (formerly Cogema) agreed to establish a put option exercisable by these minority shareholders on AREVA NC and a call option exercisable by AREVA NC on these minority shareholders.

The periods for exercising these puts were the months of July 2001 and July 2004.

None of the parties exercised its put option.

***Agreements relating to the establishment of Sofidif***

As part of a bilateral agreement for cooperation in the field of enrichment, France and Iran signed an agreement in 1974.

This agreement led to the establishment of Sofidif.

Under those agreements, the Iranian shareholder, Atomic Energy Organization of Iran (AEOI), holds 40.4% of Sofidif's capital. AREVA NC holds the remaining 59.6% of the company's capital.

Sofidif's sole asset is a 25% equity interest in Eurodif's capital. Sofidif's role is limited to taking part in meetings of Eurodif's Supervisory Board, collecting its share of Eurodif's dividends and redistributing those dividends to its own shareholders.

**AREVA TA*****Agreement of December 28, 1993, Relating to Cedec***

On December 28, 1993, CEA-Industrie, which later became AREVA, entered into an agreement with DCN International (hereafter referred to as DCN-I) to create a joint company called Cedec, for the purpose of holding a 65.10% equity interest in AREVA TA.

AREVA currently controls 90.14% of Cedec's share capital, while DCN-I holds a 9.86% share.

The agreement of December 28, 1993, contemplates, in particular, that each party shall have a preemptive subscription right to acquire the other party's shares if these shares are sold. If this preemptive right is not exercised, any sale of shares to a third party shall be subject to advance approval by the Board of Directors, voting with a two-thirds majority. The agreement also stipulates that Cedec's Board of Directors shall consist of seven members, of which four will be recommended by AREVA and three by DCN-I.

***Agreement of March 12, 1993, relating to AREVA TA***

AREVA holds a 24.89% interest in AREVA TA, while Cedec holds a 65.01% interest and the EDF group holds the remaining shares, i.e. 10%.

An agreement on changes in the share ownership of AREVA TA was reached between CEA-Industrie (AREVA), Framatome (subsequently an AREVA subsidiary) and DCN-I on March 12, 1993, amended by letter in March 1993 and by an amendment signed by Cedec (assuming the rights and obligations of DCN-I) and AREVA NP on October 5, 2000.

The agreement stipulates, in particular, that AREVA TA's Board of Directors shall consist of fifteen directors, of whom five are elected by the employees in accordance with the law of July 26, 1983, on making the public sector more democratic, with the remaining directors designated by Cedec (six directors), AREVA (three directors), and EDF (one director). The Chairman of the Board is appointed by the Board of Directors after consultation with the various parties and on the recommendation of Cedec, subject to AREVA's approval. Some board decisions require a two-thirds majority vote, most notably approval of the annual financial statements, capital increases or reductions, changes to the bylaws, acquisition or disposal of equity interests, approval of new shareholders, authorization of certain agreements between related parties as specified by law, capital investments exceeding €1.5 million, etc. In addition, the explicit agreement of the directors nominated by Cedec and AREVA must be obtained beforehand.

In the event that EDF wishes to sell all or part of its equity interest in AREVA TA, AREVA will have priority over the other parties (Cedec) to buy the shares on mutually acceptable terms.

## 3.7. Shareholders' agreements

If either Cedec or AREVA contemplates the sale of all or part of its shares or rights in AREVA TA, Cedec and AREVA have a reciprocal and irrevocable agreement under which each would first offer the shares for sale to the other party (unless AREVA were to sell the shares to the CEA).

It is also stipulated that if the CEA were to own less than 51% of AREVA, the CEA would have to buy the Cedec or AREVA TA shares owned by AREVA, representing 90.14% of Cedec's share capital and 83.56% of AREVA TA's share capital.

## ETC

With the aim of cooperating in the field of uranium centrifuge enrichment, AREVA signed an agreement on November 24, 2003, with Urenco and its shareholders under which AREVA will buy 50% of the share capital of Enrichment Technology Company Ltd (ETC), which combines Urenco's activities in the design and construction of equipment and facilities for uranium centrifuge enrichment, as well related research and development.

The acquisition was submitted to the European anti-trust authorities, which gave their official approval on October 6, 2004. However, for the multilateral quadripartite treaty among Germany, the Netherlands, the United Kingdom and France to be implemented, it must be signed and ratified no later than July 5, 2006, unless that deadline is extended. All of the countries except the Netherlands have ratified the treaty to date.

ETC will be the exclusive vehicle for uranium centrifuge enrichment technology for Urenco and AREVA.

Once AREVA has completed the acquisition of 50% of ETC's capital, a shareholders' agreement will define the relations between AREVA and Urenco as shareholders in ETC, covering in particular the composition of the Board of Directors, the making of decisions that require a unanimous vote by the directors present, and restrictions on selling ETC shares.

## Eramet

(a publicly traded company - see section 3.6.)

AREVA's equity interest in Eramet is subject to an agreement dated June 17, 1999, among Sorame, Ceir, Erap and the shareholders in Sorame. Erap's equity interest in Eramet was transferred to AREVA NC on December 1, 1999, and then to CEA-Industrie (subsequently AREVA) on September 4, 2001. AREVA has therefore replaced Erap in its initial rights and obligations. Under the terms of this agreement, AREVA, acting in concert with Sorame and Ceir, controls Eramet. This agreement expires on June 30, 2006, and will thereafter automatically renew for one-year periods, unless previously terminated with one month notice before the end of the current period. The shareholders' agreement specifies in particular: (i) with respect to the fifteen seats on Eramet's Board of Directors, AREVA may request the nomination of three people as directors as well as an additional two people nominated in consideration of their expertise and independence from AREVA and Eramet; (ii) a reciprocal right of first refusal on any sale of Eramet shares by one of the parties consisting of a block of at least 25,000 shares, or on any planned sale of shares by the parties, on one or several occasions, over a period of twelve months for a total price of €7.5 million.

This agreement has been the subject of several decisions by the CMF: decisions n°. 199C1045 of August 3, 1999, n°. 199C2064 of December 29, 1999, n°. 201C0921 of July 25, 2001, and n°. 201C1140 of September 12, 2001.

As part of its statement of intent dated September 12, 2001, AREVA has indicated that it will not increase its equity interest in Eramet by more than 2% in any given fiscal year, either in terms of share capital or in terms of voting rights, and that it will not exceed 33.32% of Eramet's share capital at any time, unless AREVA exercises its right of first refusal or its share purchase option under the shareholders' agreement.

## FT1CI

AREVA is now the sole shareholder of FT1CI, following France Télécom's disposal of its shares in STMicroelectronics in August 2005 and in FT1CI in September 2005. FT1CI holds a 39.6% equity interest in STMicroelectronics Holding N.V. (STH), with the remaining 60.4% held by Finmeccanica and Cassa Depositi e Prestiti. STH holds 100% of STMicroelectronics Holding II B.V. (STH II), which holds 27.6% of STMicroelectronics.

## 3.7. Shareholders' agreements

**STMicroelectronics**

**(a publicly traded company - see section 3.6. above)**

STMicroelectronics (STM) is subject to a shareholders' agreement among AREVA, France Telecom, FT1CI and Finmeccanica, which are indirect shareholders via STMicroelectronics Holding N.V. and STMicroelectronics Holding II B.V. (hereinafter known collectively as "STH") <sup>(1)</sup>. The agreement, renewed on March 17, 2004, establishes rules governing the four parties' interests and is intended to improve the liquidity of their indirect holdings in the company and maintain a stable and balanced shareholding structure to support the company's growth and autonomy. The agreement provides for the preservation of equal Franco-Italian control, independent of economic interests in STH resulting from sales of shares.

In December 2004, Finmeccanica sold part of its indirect interest in STM to Cassa Depositi e Prestiti, which signed the above-mentioned shareholders' agreement on December 23, 2004. France Télécom is no longer a party to this agreement since August 2005.

The shareholders' agreement also contains provisions for defensive measures against a take-over bid, allowing the issuance of preferred shares to STH.

Its main provisions are:

- continued Franco-Italian governance with equal representation of both parties on the Supervisory Board, subject to retention of minimum equity interests with STM voting rights;
- simplification of disposals of the parties' indirect shareholdings in STM;
- the right to acquire additional STM shares under certain circumstances.

**1. Current shareholding structure**

As of December 31, 2005, AREVA, Finmeccanica and Cassa Depositi e Prestiti held indirect interests in STM of 10.9%, 6.6% and 10.1% respectively, through STH. AREVA's indirect interest is held by FT1CI. STH is equally owned, on the one hand, by FT1CI (the "French party") and, on the other, by Finmeccanica and Cassa Depositi e Prestiti (the "Italian party").

Of these equity interests, 20,000,000 of the STM shares indirectly held by Finmeccanica were underlying shares of exchangeable bonds issued by Finmeccanica. Finmeccanica lends 23,000,000 other shares to banks in connection with hedging operations.

**2. Governance**

Corporate decisions in respect of STM will remain equally shared between the French party and the Italian party for a four-year period starting from the execution of the new shareholders' agreement, i.e. March 17, 2004, subject to each of the parties indirectly holding at any time at least 9.5% (i.e. at least 19% for both parties) of the voting rights of STM (taking into account underlying shares of STM for exchangeable instruments issued by each of the parties, as long as the voting rights pertaining to such shares remain held by STH).

During that period, the two parties will recommend to the general meeting of shareholders the same number of representatives for nomination to the Board of STM, and any important decision concerning STM will require the unanimous approval of both parties.

In the event the shareholding of one of the two parties falls below the 9.5% threshold for STM voting rights due to a capital increase of STM or to an exchange of exchangeable instruments, such party will have the right to cause STH to purchase STM shares in order to increase its shareholding up to 9.5%.

If each of the parties has maintained its indirect shareholding above the 9.5% threshold for STM voting rights until the end of the four-year period, governance will remain equally shared, under the same terms and conditions, as from the end of this period, provided, however, that both parties' indirect shareholding in voting rights in STM held by STH remain at least 47.5%.

In the event that the shareholding of both parties is less than the 47.5% threshold prior to the expiration of this four-year period, such party will have the right to cause STH to purchase STM shares in order to rebalance the shareholdings of the parties.

If the indirect shareholding of one of the two parties falls below the 9.5% threshold during the initial four-year period, or below the 47.5% threshold of voting rights held by STH in STM as of the end of such four-year period, corporate decision-making powers will cease to be shared equally. However, the minority party will have a veto right on certain decisions, subject to its indirect shareholding exceeding certain thresholds.

*(1) STMicroelectronics holding NV holds 100% of the share capital of STMicroelectronics holding II BV that holds 27.6% of the share capital of STMicroelectronics.*

### 3. Disposal of STM Shares

Each of the parties to the shareholders' agreement has the right to cause STH to sell its indirect shareholding in STM shares, subject to a right of first refusal and a tag-along right of the other party. However, the right of first refusal only applies (among other conditions) to transfers of shares that result in the selling party holding less than 7% of the share capital of STM.

Such sales of STM shares can be triggered by the issue of financial instruments exchangeable into STM shares, through equity swaps or through structured finance deals. In case of an issuance of exchangeable securities, the tag-along right and, if applicable, the right of first refusal, apply on the date of such issue. In the event that all or part of the financial instruments remains un-exchanged upon the date on which they are no longer exchangeable into STM shares, the relevant party is entitled to cause STH to proceed with disposals of those STM shares without application of the right of first refusal or of the tag-along right. These restrictions apply in particular to the underlying STM shares for the exchangeable bonds issued by Finmeccanica and France Telecom, if they remain un-exchanged.

### 4. Acquisition of STM Shares

In the event of a hostile bid or similar action on STM shares, the parties have rights under an option agreement concluded between STM and STH which, if exercised, allows STH, subject to the prior consent of STM's Supervisory Board, to buy STM's preferred shares up to a limit of 50% of STM's voting rights plus one share. Exercising the option agreement is subject to ownership of a certain percentage of STM's voting rights, which percentage, in accordance with the new agreement, has been reduced from 30% to 19%.

Provided that a third party holds, acting alone or in concert, a shareholding exceeding 2% of the share capital of STM or announces its intention to take control of STM, any party will have the right to increase its indirect shareholding in STM, through the acquisition of shares in STM by STH. Such acquisition will be subject to the veto right of the other party, as long as corporate decision-making in respect of STM remains equally shared (and except for the case of a hostile take-over bid on STM). Nevertheless, if such acquisition has been vetoed, both parties will have the right to acquire the same number of shares in STM directly, without going through STH.

In the event that such direct acquisition occurs, the relevant party undertakes to vote on such shares in accordance with the vote exercised by STH in STM.

## Safran

(a publicly traded company - see section 3.6.)

On December 12, 2003, BNP Paribas, Club Sagem, and AREVA NC signed a shareholders' agreement that came into force on December 18, 2003, following Sagem's takeover-merger of Coficem, a holding company for the purchase of Sagem by its employees. The objective of the parties was to provide support to Sagem during the transition period following the takeover-merger.

This shareholders' agreement provides, in particular, for:

- BNP Paribas and AREVA NC agree not to contribute their shares in connection with a public offering on the shares of Safran without the consent of Safran's Board of Directors.
- The parties jointly agreed to a preemptive subscription first (with the possibility of replacement by another party) in the event of the transfer of shares, representing at least 0.1% of the company's voting rights after the merger, to one or more third parties. However, this right of first refusal will not apply in the event of a takeover bid or exchange offer for the company's shares.

The shareholders' agreement shall remain in force through December 18, 2008.



# 4

## INFORMATION ON COMPANY OPERATIONS, NEW DEVELOPMENTS AND FUTURE PROSPECTS

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## 4.1. Overview and strategy of the AREVA group

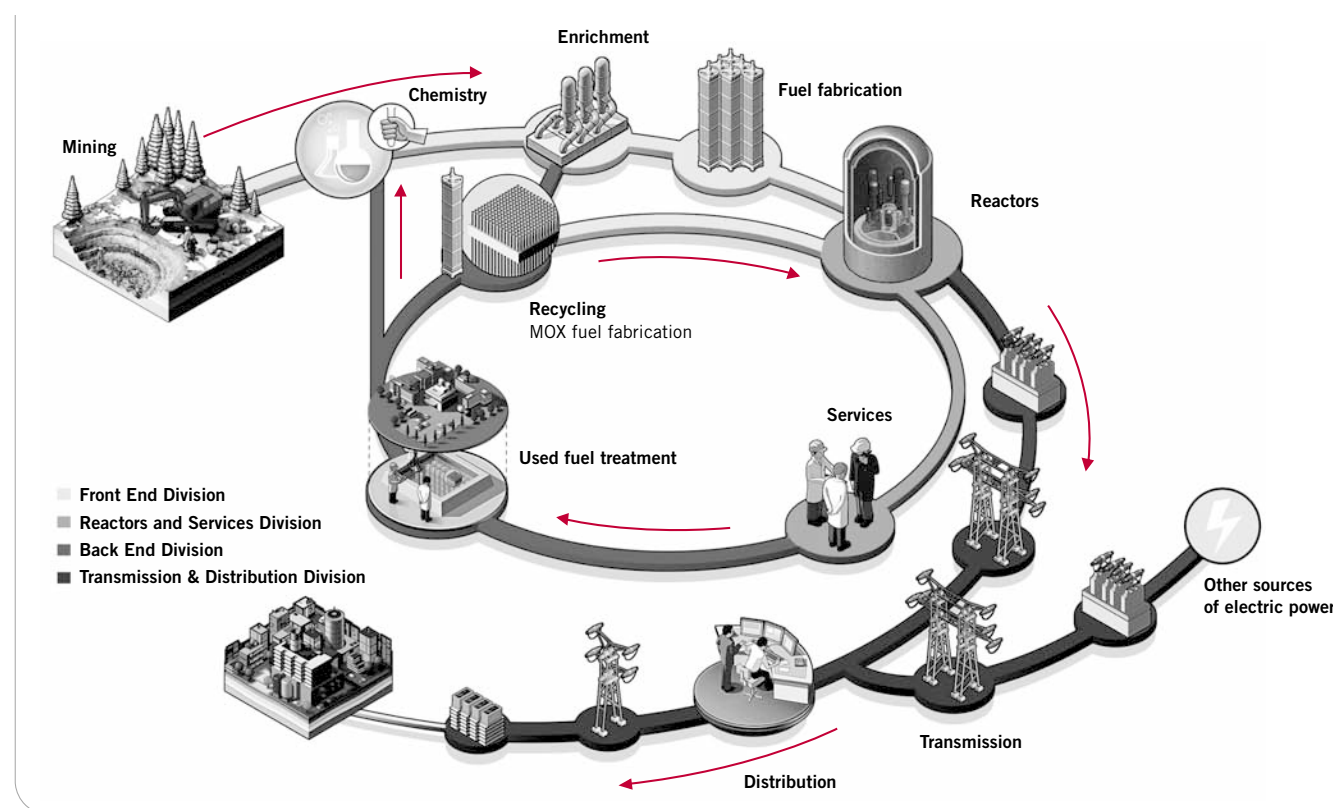
# 4.1. Overview and strategy of the AREVA group

## 4.1.1. OVERVIEW

The AREVA group is a worldwide provider of solutions for CO<sub>2</sub>-free power generation and electricity transmission and distribution. In 2005, AREVA's consolidated sales revenue rose to €10.125 billion, with consolidated net income of €1,049 million. With manufacturing facilities in close to 40 countries, AREVA employs more than 58,000 people.

Energy is AREVA's leading business. The Group is the global leader in nuclear power solutions and number three worldwide for electricity transmission and distribution products and services. It is the only group to be active in every stage of the nuclear cycle. The Group's customers include some of the world's largest utilities, with which AREVA does a large share of its business under medium- and long-term contracts. The Group's businesses are summarized in the figure below:

AREVA businesses



AREVA's energy operations consist of four divisions, including three nuclear divisions:

- **The Front End Division contributed 26% to AREVA's consolidated sales revenue in 2005**, i.e. €2,631 million. It is in charge of uranium ore exploration, mining, conversion and enrichment, and nuclear fuel design and fabrication. AREVA is the world

leader in the front end of the nuclear cycle. The Group controls a diversified portfolio of mining properties in countries such as Canada, Kazakhstan and Niger. In addition, AREVA owns and operates top-notch industrial facilities, most of which are located in Europe, including France, Germany and Belgium, and in the United States.

## 4.1. Overview and strategy of the AREVA group

- **The Reactors and Services Division contributed 23% to AREVA's consolidated sales revenue in 2005**, i.e. €2,348 million. It is in charge of nuclear reactor design and construction. It also offers products and services to maintain, operate, upgrade and optimize nuclear power plants. AREVA is the world's leading supplier of nuclear reactors in terms of installed capacity, and the leading supplier of heavy replacement components for nuclear power plants. Recurring business represents 85% of the division's total operations. From a strong engineering and industrial base in France and Germany, the division successfully expanded into the United States, where AREVA is the leading supplier of services and heavy components. To date, AREVA is the only nuclear reactor constructor with a contract to supply a third-generation Evolutionary Pressurized Reactor (EPR - see Glossary).
- **The Back End Division contributed 19% to AREVA's consolidated sales revenue in 2005**, i.e. €1,921 million. It is in charge of operations for the treatment and recycling of fuel following its use in nuclear reactors. The division also provides logistics, engineering and cleanup services. AREVA is the world leader in the back end of the nuclear cycle. The Group offers a complete range of used fuel management solutions, including dry storage for the once-through nuclear fuel cycle, and treatment and recycling for the close fuel cycle. AREVA's customer base in the back end of the fuel cycle is comprised primarily of European utilities. The Group has also signed agreements to transfer technology to Japan and the United States in preparation for facility decommissioning.
- **The Transmission & Distribution Division contributed 32% to AREVA's consolidated sales revenue in 2005**, i.e. €3,212 million. The T&D Division manufactures, installs and maintains equipment and systems to transmit and distribute medium and high voltage electricity. T&D is one of a very few global suppliers on the electricity transmission and distribution market. T&D is the third largest supplier worldwide. With a global presence consisting of 61 manufacturing sites in 20 countries, AREVA T&D is recognized for the strength of its technology, particularly in high voltage systems.

**AREVA's ability to meet customer requirements in every stage of the nuclear cycle is an important asset.** As a supplier of nuclear materials, nuclear fuel, equipment, services and solutions to store and recycle used fuel, AREVA is the only supplier able to satisfy customer requirements at every stage of the value chain. The Group also meets their expectations for global solutions that are consistent with stringent safety criteria.

**AREVA is recognized for its technological expertise in every stage of the nuclear cycle.** AREVA's expertise is backed by 30 years of research and operating experience, and by a corps of more than 1,500 scientists. Technology constitutes a significant barrier to market entry, and the Group's technology gives it a considerable competitive advantage, particularly in the fields of new reactors and the back end of the fuel cycle.

**AREVA does business primarily in Europe, North America and Asia. The Group is guided by sustainable development principles** in achieving profitable growth in a socially responsible manner. For example, AREVA's Nuclear business is limited to countries that have signed the complete Treaty on the Non-Proliferation of Nuclear Weapons (NPT), thereby agreeing to ongoing safeguards by the International Atomic Energy Agency (IAEA).

**AREVA's baseload business provides excellent visibility.** In the Nuclear divisions, which contribute close to 70% to AREVA's sales revenue, medium- and long-term contracts and recurring services represent a significant portion of the Group's business. Visibility is also excellent in the T&D Division, thanks to a diversified backlog of orders from a wide range of customers seeking to maintain established relationships.

**AREVA's business is the growing energy market.** Electricity demand is in a continuous growth cycle fueled by strong economic development in several emerging countries, particularly China and India. In this environment, AREVA believes that nuclear power will be a necessary component of the energy mix in the coming years. In fact, nuclear power contributed 15% to the world's electricity production in 2005 (source: Nucleonics Week, supplemented by AREVA estimates), and has proven competitive in terms of generating costs, which are relatively immune to commodity price increases and free of harmful CO<sub>2</sub> effects.

Nuclear power plants will have to be replaced in due time. Their number is, in fact, likely to grow over the medium to long term. At the very least, existing reactors will be upgraded or their generating capacity increased, as is already the case in the United States, for example. Finland and France have already contracted to build EPR reactors. China has issued several calls for tenders to expand its nuclear power program. In addition to the reactor construction and upgrading activities, which will benefit the Reactors and Services Division directly, the renewal and expansion of nuclear power programs will benefit all of AREVA's nuclear operations, including the Front End and Back End divisions. Similarly, electricity transmission and distribution networks must be modernized or upgraded. There will also be a move towards grid interconnection because of market deregulation and expansion to accommodate new electric generating capacity.

Building on its presence in regions where power generation will undoubtedly grow, AREVA has the necessary experience and assets to respond to the key challenges of its utility customers: to generate power at a competitive cost without generating greenhouse gases (CO<sub>2</sub>), and to transport electricity.

It should be noted that AREVA sold FCI, the holding company for its Connectors Division, not considered part of the Group's core business, to the investment fund Bain Capital. The company was deconsolidated retroactively to January 1, 2005.

## 4.1. Overview and strategy of the AREVA group

## 4.1.2. STRATEGY

**“Enable everyone to have access to ever cleaner, safer and cheaper energy”: that is the mission we have set for ourselves at AREVA.** The AREVA group offers solutions and technologies for CO<sub>2</sub>-free power generation and electricity transmission and distribution. As a leader on these two markets, AREVA is a strategic partner for electric utilities. Both businesses are expected to grow steadily as demand for energy – and particularly electricity – increases worldwide. The Group is convinced that nuclear power – in combination with other sustainable sources – is indispensable to meeting the planet's energy and environmental challenges.

AREVA's business development strategy is therefore to expand and/or strengthen our Group's leading positions along several lines:

- **In the nuclear sector, we are aiming to increase our leadership position and capture one-third of the world market by 2010, with double-digit operating margin:**
  - Leverage our fuel cycle integration model and our leadership position on all market segments to offer global solutions to electric utilities. These solutions aim to optimize the utilities' energy infrastructure in terms of service life and cost while meeting the most stringent nuclear safety requirements.
  - Consolidate our position as world leader in the front end of the cycle by replacing our production facilities and accelerating our exploration programs to increase our mineral resources.
  - Increase our share of the reactor construction market significantly by developing and promoting our EPR reactor, the only third-generation reactor currently under construction worldwide. To achieve this goal, we will develop partnerships and strengthen our local engineering resources, for instance in North America and in Asia.
  - Actively anticipate changes in national used fuel management policies, especially in the United States and Japan, where the Group is already a solutions supplier.
  - Maintain our leadership position by hiring new talent and developing the technologies of the future, especially in next-generation reactors and fuel cycles.
  - Capitalize on a solid record of nuclear safety, occupational safety and risk prevention.
- **Boost the development of our Transmission & Distribution Division to become one of the most profitable leaders on this market by 2010:**
  - Fulfill the objectives of our 2004-2007 optimization plan. This industrial redeployment and profitability improvement plan revolves around four key drivers: greater control and centralization of purchasing, improvement of business processes, industrial redeployment, and optimization of our portfolio of businesses. The goal is to restore the T&D Division's financial performance to levels commensurate with those of the sector's leading players by 2007.
  - Achieve profitable growth by investing in fast developing regions such as China, India and the Persian Gulf.
  - Target selected acquisitions to take advantage of market reorganization.
- **Explore growth opportunities on renewable energy markets complementary to AREVA's other businesses.** Along with nuclear energy, renewable energies meet the same challenges of reducing greenhouse gas emissions and energy independence. They also require strong interaction with deployment of electricity transmission and distribution infrastructure. Three market segments have been identified:
  - Wind energy: in 2005, AREVA acquired 21% of the German company REpower, to which we will provide support to develop the business.
  - Biomass: AREVA intends to expand its existing Engineering, Procurement and Construction business by developing its own technologies.
  - Fuel cells: AREVA is focusing on medium power cells for self-contained or decentralized environments, in particular in the transportation and manufacturing sectors.
- **Strengthen our international operations in a balanced manner, building from the three pillars of Europe, North America and Asia.** First, the Group is focusing on internal growth, especially through continuing investment and innovation, which will benefit our customers. The Group also plans to build strength through targeted acquisitions and partnerships with regional players, enabling us to accelerate penetration of key markets. The integration of the transmission and distribution businesses supplements our offering and strengthens our strategic local presence near all of the world's utilities. It broadens our core competencies as a Group and enables us to expand our portfolio of customers along with our international presence.

#### 4.1. Overview and strategy of the AREVA group

- **Promote sustainable development as a core AREVA value and a key to operating excellence.** The Group will continue to implement the AREVA Way initiative, which incorporates sustainable development into management methods in all of our businesses. The underlying methodology of the program consists of self-assessments by each unit of its economic, social and environmental performance in relation to AREVA's sustainable development commitments. Each unit establishes its own continuous improvement objectives to achieve the Group's overall strategic goals, which are reviewed periodically by AREVA's executive management.

- **Maintain a strong balance sheet and solid cash flows:**

- It is the Group's policy to maintain a strong balance sheet. This is a guarantee of security for our customers and enables us to enter into major contracts, especially in connection with new reactor sales. It is also essential to the success of our businesses and for financing future investments.
- AREVA has set up provisions for its decommissioning liabilities and created a dedicated financial portfolio to cover all of its estimated decommissioning expenses when they come due. A special committee of the Supervisory Board monitors the dedicated asset portfolio and our coverage of future end-of-life-cycle expenses.
- Maintaining strong and recurring operating cash flow allows us to fund our capital expenditures and create value for our shareholders. Towards that end, the Group will continue to improve productivity while maintaining visibility in our operations.

## 4.1. Overview and strategy of the AREVA group

## 4.1.3. BACKGROUND OF THE AREVA GROUP

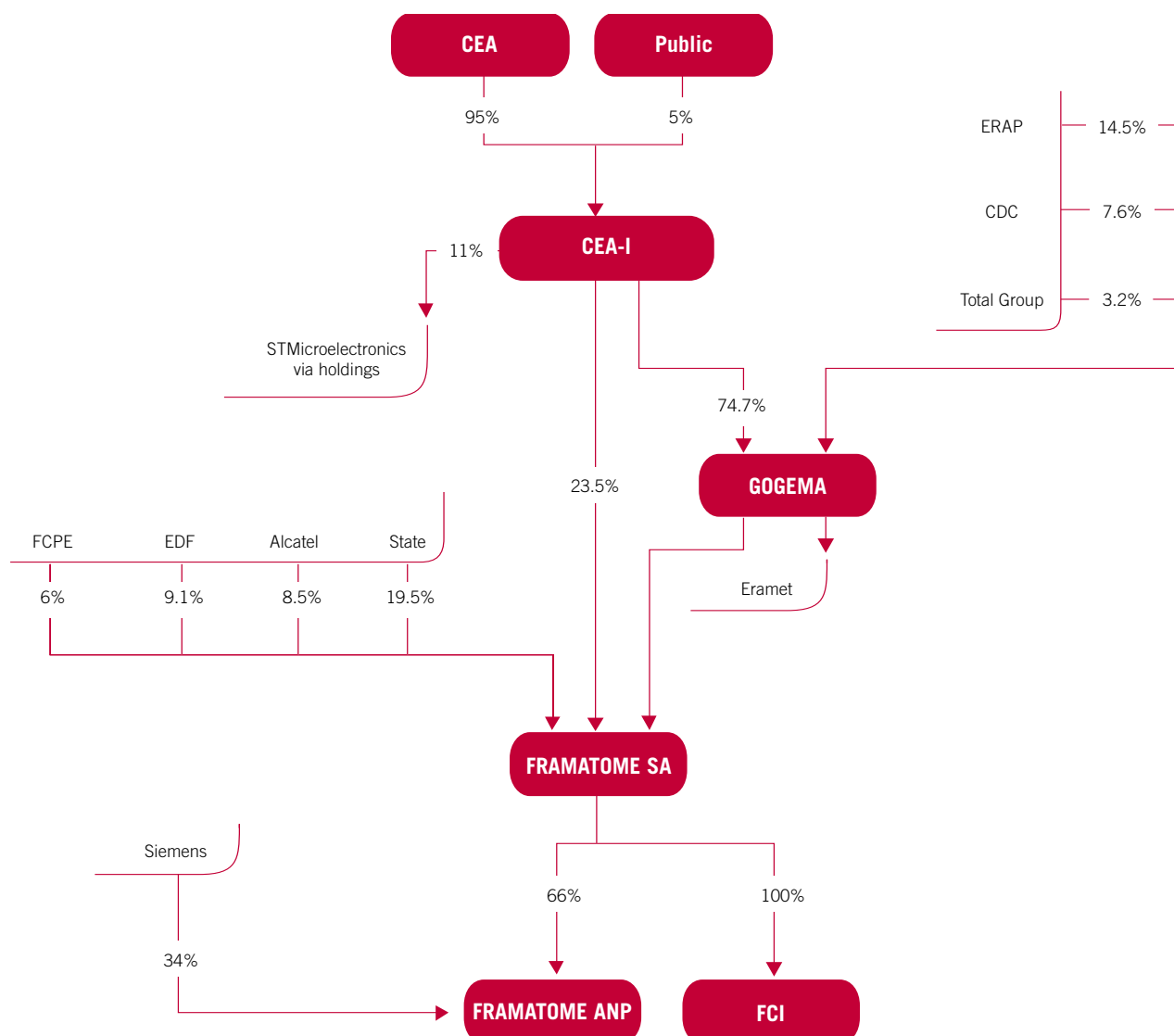
Two major nuclear industry companies held directly and indirectly by CEA-Industrie – AREVA's former name – were combined to form the AREVA group on September 3, 2001:

- Cogema (Compagnie Générale des Matières Nucléaires), established in 1976 to acquire the majority of CEA's production department operations: uranium mining, uranium enrichment and used fuel treatment.

- Framatome, established in 1958, is one of the world's leading companies in the design and construction of nuclear reactors, in nuclear fuel and in the supply of services relating to those activities. In 2001, Framatome established Framatome ANP as a joint company held by Framatome (66%) and Siemens (34%), thus merging the nuclear operations of those two groups.

Before this merger, the CEA-Industrie group was organized as indicated below:

## Structure of the CEA-Industrie group in early 2001



#### 4.1. Overview and strategy of the AREVA group

The purpose of AREVA's establishment was to create an industrial group with a world leadership position in its businesses and a streamlined organization, giving the Group:

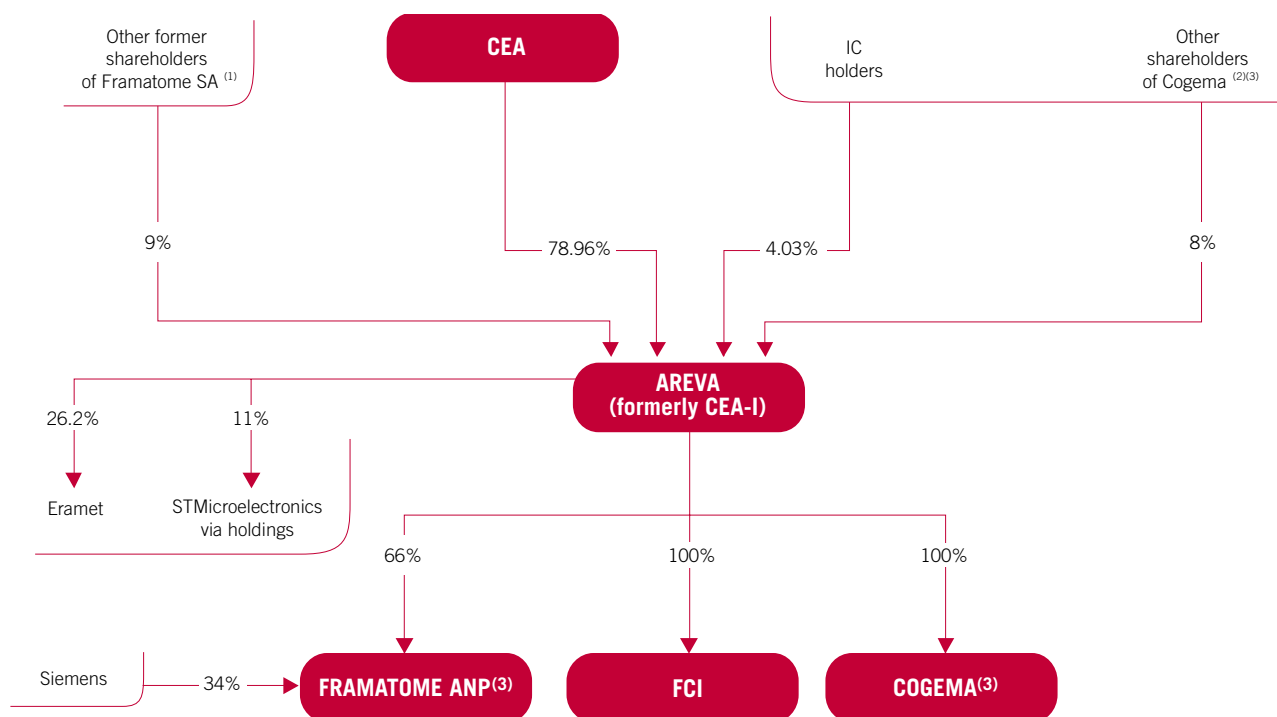
- complete coverage of every aspect of the nuclear business and a unified strategy with respect to major customers;
- an expanded customer base for all of the Group's nuclear products and services;

- better cost control by pooling the purchasing function and some overhead costs, and

- optimized financial resource management.

This restructuring entailed a series of asset contributions and mergers resulting in the establishment of the AREVA group. The organization of the Group following that restructuring is shown below:

##### Structure of the AREVA Group immediately after the merger in 2001



(1) French State, Framéparagne employee savings plan.

(2) Total, CDC, Erap.

(3) Cogema's trade name was changed to AREVA NC in March 2006 and Framatome ANP's trade name was changed to AREVA NP in March 2006.

### 4.1. Overview and strategy of the AREVA group

AREVA was thus formed from the legal structure of CEA Industries. It kept the Euronext Paris listing of a portion of its share capital in the form of investment certificates.

Below are some of the milestones since the creation of AREVA in 2001:

#### 2002

- Acquisition of Duke Engineering & Services, a U.S. nuclear engineering and services company.
- The U.S. government chooses AREVA's technology to recycle surplus defense plutonium as mixed uranium-plutonium fuel (MOX - see Glossary).

#### 2003

- AREVA signs an agreement with Urenco that would give AREVA access to the world's most efficient uranium enrichment technology: the gaseous centrifuge technology.
- Finnish utility TVO chooses AREVA's EPR as its next reactor.
- To streamline its operations, the Connectors Division sells its Military/Aerospace/Industrial business to Axa Private Equity.

#### 2004

- Acquisition of the Transmission & Distribution Division on January 9, 2004. The AREVA group seals an agreement with the Alstom group finalizing the acquisition of the Transmission & Distribution business (T&D), after approval by the European Commission and other relevant antitrust organizations. The purchase is financed entirely with the Group's own funds. The T&D acquisition strengthens AREVA's strategic position in the energy business and broadens its offering.
- EDF selects AREVA to build a third-generation EPR reactor in Flamanville. This first EPR unit in France announces the renewal of EDF's reactor fleet over the longer term.
- AREVA acquires control of Katco, a mining company in Kazakhstan, giving AREVA access to 30,000 metric tons of uranium.

#### 2005

- Frédéric Lemoine replaces Philippe Pontet as Chairman of the AREVA Supervisory Board.
- AREVA establishes Unistar Nuclear as a joint company with Constellation Energy to promote the third-generation EPR reactor in the United States. AREVA and Constellation Energy joined forces to ensure the future of nuclear power in the United States by offering an innovative framework for developing the EPR.
- Finnish utility Teollisuuden Voima Oy (TVO) officially lays the cornerstone for its third-generation EPR at the Olkiluoto site in Finland.
- AREVA finalizes the sale of the Connectors Division (FCI) to Bain Capital. The gain from the FCI divestment contributes €853 million to the Group's cash and has a positive impact of €528 million on consolidated net income for 2005.
- AREVA acquires a 21.1% equity interest in REpower, a German wind turbine manufacturer that employs 558 people and posted sales of €301 million in 2004. The acquisition strengthens AREVA's strategic position in CO<sub>2</sub>-free power generation and electricity transmission and distribution. REpower offers manufacturing and marketing/sales synergies with AREVA's Transmission & Distribution Division.

#### 2006

- Since March 1, all of the Group's first-tier companies are known and communicate under the trade name AREVA. Cogema's trade name is now AREVA NC, Framatome ANP is now AREVA NP, and Technicatome is AREVA TA. AREVA T&D does not change its name. This harmonization is the culmination of an integration process begun when the Group was established in September 2001. One of the goals is to improve the efficiency of the Group's communication budgets and to promote its visibility. AREVA is now the sole brand for all communication activities.



#### 4.1. Overview and strategy of the AREVA group

#### 4.1.4. OPERATING ORGANIZATION

The AREVA group includes four divisions (Front End, Reactors and Services, Back End, Transmission & Distribution) comprised of 19 Business Units.

The AREVA group's management organization is aligned with the markets to which it provides products and services, as shown below (as of April 1, 2006). The Group's legal organization is described in chapter 3.5.



\* *Members of Executive Board.*

(1) AREVA NC Business Unit.

(2) AREVA NP Business Unit.

## 4.2. The Nuclear Power and Transmission &amp; Distribution markets

## 4.2. The Nuclear Power and Transmission & Distribution markets

### 4.2.1. THE GLOBAL ENERGY SITUATION

Fueled by economic growth and increased use of electricity, world power consumption is set to increase steadily over the long term.

The International Energy Agency (IEA)'s World Energy Outlook, published in October 2004, expects global primary energy use to grow by 1.7% during the period 2002-2030 as world population and access to energy increase. The world's primary energy use swelled from 6 billion tons of oil equivalent (Gtoe) in 1973 to 10 Gtoe in 2001, and should reach 16.3 Gtoe by 2030. According to this report, developing countries will account for two-thirds of new requirements and fossil fuels (oil, gas and coal) will meet close to 85% of the demand for energy. Factors that could influence these assumptions include population growth, the availability of fossil fuels, and government policies on energy conservation, nuclear power and the reduction of greenhouse gas emissions.

World electric power generation had climbed to 18,340 TWh in 2005, compared with 5,217 TWh in 1971. Growth was 6%, significantly higher than the average recorded over the 1971-2005 period (3.8%), and was particularly strong in Asia-Pacific (+8.8%), North America (+4.2%), and the Africa-Middle East region (+4.5%), but more moderate in Europe (+2.4%) and South America (+3.6%). On a per capita basis, electricity consumption in 1990 was approximately 6,000 kWh in OECD countries, compared with less than 1,000 kWh in other countries. By 2030, power consumption per capita should soar to approximately 10,000 kWh in OECD countries and 2,000 kWh in other countries, assuming annual world GDP growth of approximately 3%. This means that electric power generation should continue to grow at about 2.5% per year over the 2001-2030 period, according to the IEA.

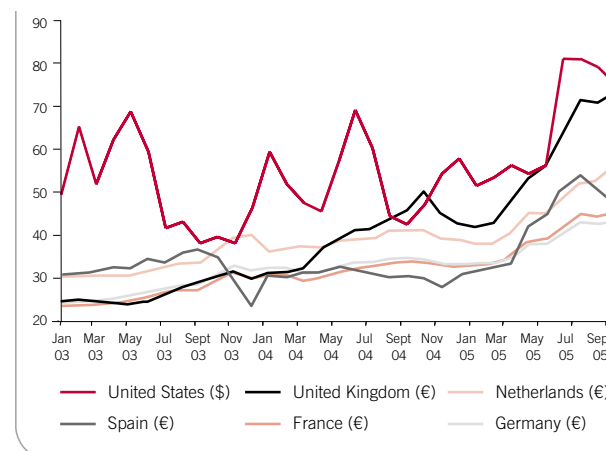
Again according to the IEA, capital spending in the electricity sector is forecast at \$10,000 billion over the same period, including \$4,400 billion for power generation projects (4,600 GWe of additional capacity for power plant replacement and to meet growing demand) and \$5,600 billion for electricity transmission and distribution projects, with networks expected to expand from 3.5 million kilometers currently to 7.2 million kilometers by 2030.

Moreover, energy markets are expected to become more and more interdependent as deregulation increases. The electricity market is becoming increasingly regional, requiring additional

interconnections between power grids to improve their efficiency. Grid interconnection is one way to reconcile occasional gaps between power demand and power production, without building and maintaining excess capacity. These interconnections reduce costs without penalizing the final user.

Another factor is prices for fossil fuels (coal, oil and natural gas), which have risen sharply over the last four years. Over the 2002-2005 period, geopolitical tensions and especially strong demand in developing countries such as China have contributed to a large increase in the prices of these resources. Prices were up 130% for coal, 110% for oil and 120% for natural gas in Europe and 230% in the United States, with increase volatility. This pushed electricity prices up on all markets. In the European Union, the IEEE index published by Enerpresse rose from €24 per MWh in 2002 to more than €40 per MWh in 2005.

2003-2005 electricity prices in Europe and the United States



Source: Platts for European prices (forward prices) and PJM for U.S. prices.

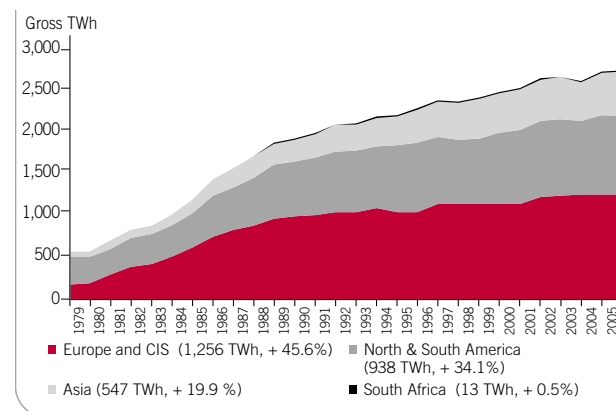
## 4.2. The Nuclear Power and Transmission & Distribution markets

### 4.2.2. NUCLEAR POWER'S CONTRIBUTION TO ELECTRICITY GENERATION

#### 4.2.2.1. Nuclear power's contribution to electricity generation

The first nuclear power programs were launched in the mid-1960s in the United States and in the early 70s in Europe. In the 1970s, with fears of fossil fuel shortages rising, several countries decided to reduce their dependency on imported energy by launching nuclear power programs. The 1970s and 1980s saw a sharp rise in nuclear power programs, as shown below.

**Nuclear power generation from 1978 to 2005  
(in TWh)**



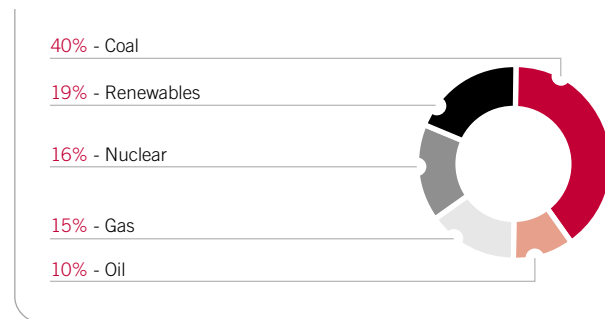
Sources: IEA/OECD (1990) and Nucleonics Week (1995-2004), AREVA.

Strong initial growth slowed when the public became concerned after nuclear accidents at Three Mile Island in 1979 and Chernobyl in 1986.

Whereas 399 reactors were built during the 1970-1990 period, installed capacity rose by only 1.2% per year during the 1989-2005 period. Large nuclear programs in North America and Western Europe were eclipsed by new programs in Eastern Europe and Asia. Nonetheless, improved productivity of existing reactors boosted nuclear power production by 2.1% annually over the 1989-2004 period. In particular, the average load factor of nuclear reactors worldwide increased from 67% of nominal capacity in 1989 to more than 80% at the end of 2005.

Nuclear power generation is estimated at 2,754 TWh in 2005, up 0.4% over the previous year. This percentage is well below the rate of growth of electric power generation worldwide, i.e. 5.1%. Nuclear power's share of world electricity generation decreased from 16% in 2004 to approximately 15% in 2005. The chart below shows the various sources of electric power generation as of December 31, 2004.

**World electricity generation by source**



Source: World Nuclear Association (WNA), January 2005.

As indicated below, the region in which nuclear power has the largest share of electric power generation is Europe.

**Nuclear power's share of electricity generation in 2005**

Regions	Nuclear power generation	Nuclear power generation/ Electric power generation in 2005
Europe (including CIS)	1,256 TWh	24.5%
North & South America	938 TWh	15.4%
Asia-Pacific	547 TWh	9.2%
Africa & Middle East	13 TWh	1.1%

Source: AREVA, BP 2005 and IEA.

A total of 444 reactors representing 392 GWe of capacity were connected to the grid in 31 countries as of December 31, 2005, in the world's largest power consuming regions. A total of 434 reactors were operating in 2005, representing 385 GWe in capacity.

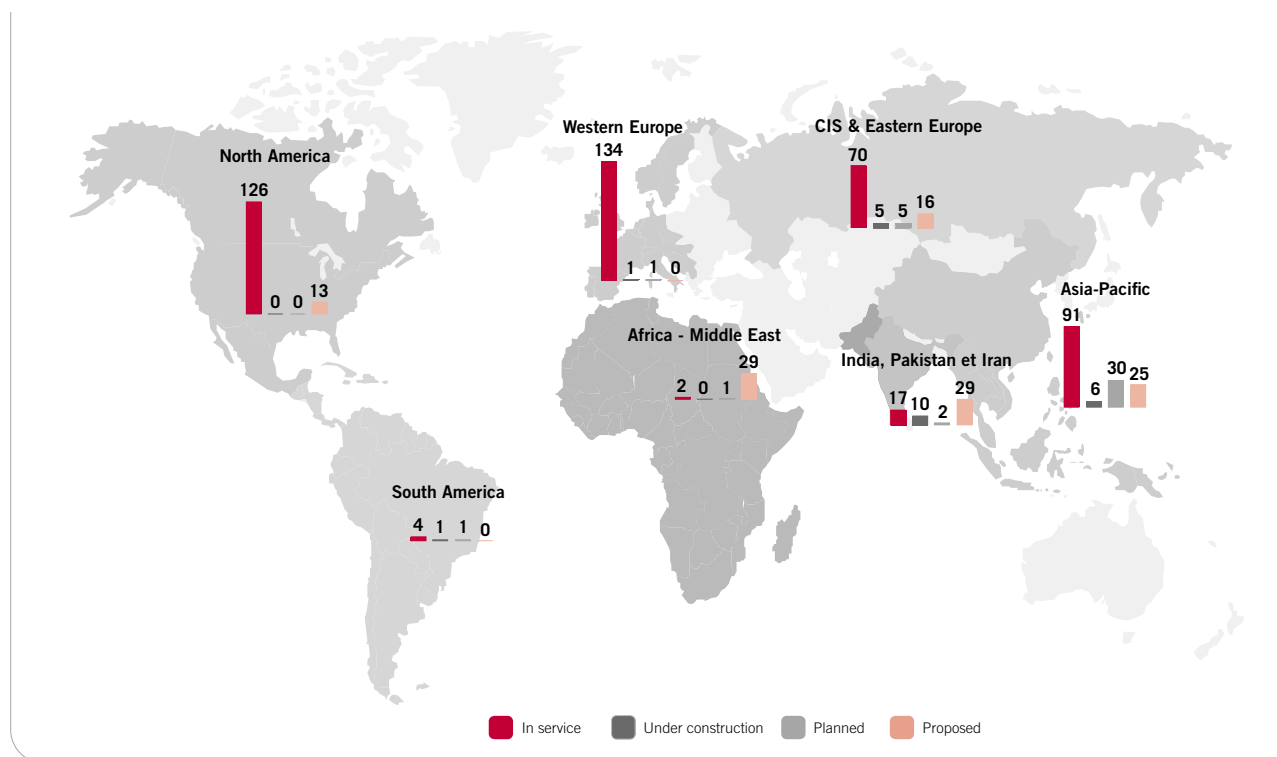
With almost 50% of the world's installed capacity, Europe is the leading region for nuclear power generation, ahead of North America, which represents approximately one third of global capacity.

## 4.2. The Nuclear Power and Transmission &amp; Distribution markets

Through 2015, most of the growth potential is located in Asia (Japan, Korea and now China) and, to a lesser extent, in the CIS, as indicated below.

At the end of 2005, 23 reactors were under construction around the globe and 39 more were on order or in the design phase. A total of more than 110 are planned for the coming years.

## Reactors connected to the grid, under construction or planned as of year-end 2005



Source: AREVA (WNA and IAEA data).

These reactors represent three main technologies:

- Most of the world's operating reactors are light water reactors, including pressurized water reactors (PWR) and boiling water reactors (BWR). A total of 363 of these reactors are connected to the grid, including 53 VVER (PWR) reactors using Russian technology.
- There were only 40 Canadian-designed heavy water Candu reactors connected to the grid in 2005.
- There are 22 gas-cooled reactors (Magnox and AGR) in service in the United Kingdom. These reactors are scheduled to be shut down.

A few other reactors use graphite as a moderator (Russian RBMK light water reactors) or breeder technology.

## 4.2.2.2. Status of nuclear power

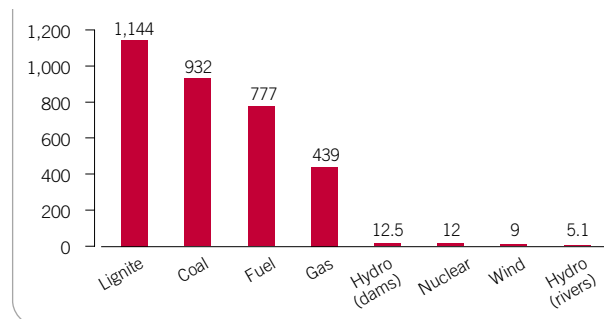
*Energy and the environment*

The strong growth in energy consumption could have serious consequences in terms of climate change. The IEA anticipates a 70% increase in CO<sub>2</sub> emissions, one of the main causes of climate change. This could trigger a temperature increase of 2 to 4°C by the end of the century, according to the Intergovernmental Panel on Climate Change.

Nuclear power is one the few major sources of energy that does not emit significant quantities of CO<sub>2</sub>. In its July 2004 report, the World Energy Council compared emissions for each energy source based on their full generating cycle, in metric tons of CO<sub>2</sub> equivalent emitted per unit of electricity generated (see chart below). The difference between fossil fuels (lignite, coal, oil and natural gas) and non-fossil fuels (nuclear and renewable energies) is clearly visible. The ratio ranges from one to five, or even much higher when no CO<sub>2</sub> scrubbing equipment has been installed.

## 4.2. The Nuclear Power and Transmission & Distribution markets

### CO<sub>2</sub> emissions by electric power energy source



Source: AREVA, from data provided by the World Energy Council, July 2004 – Survey of the life cycle of various sources of electric power generation.

Countries that ratified the Kyoto Protocol have agreed to reduce their greenhouse gas emissions from 2008 to 2012 to below 1990 levels. Simultaneously, the European Union set up a system to cap CO<sub>2</sub> emissions and established a quota trading system that became effective on January 1, 2005. These provisions assign an economic value to CO<sub>2</sub> emission reduction, with a market price in excess of €20 per metric ton (MT) of CO<sub>2</sub> as of December 31, 2005.

According to the Climate Change brochure published by Foratom in 2005, the world's nuclear power plants reduce CO<sub>2</sub> emissions by 2 billion MT each year, i.e. 9% of global emissions, estimated at 23.6 billion MT in 2002 according to the 2004 World Economic Outlook of the International Monetary Fund. All European Union countries have ratified the Kyoto Protocol. Their greenhouse gas reduction objective for the 2008-2012 period is 0.4 billion MT below 1990 levels. This can be compared with the CO<sub>2</sub> emissions

avoided by nuclear power in the European Union, i.e. approximately 0.7 billion MT of CO<sub>2</sub> per year. In the United States, nuclear power plants also reduced CO<sub>2</sub> emission by 0.7 billion MT. This is tantamount to the emissions of all of the country's 58 million automobiles. More and more, nuclear power is showing itself to be an essential component of the energy mix.

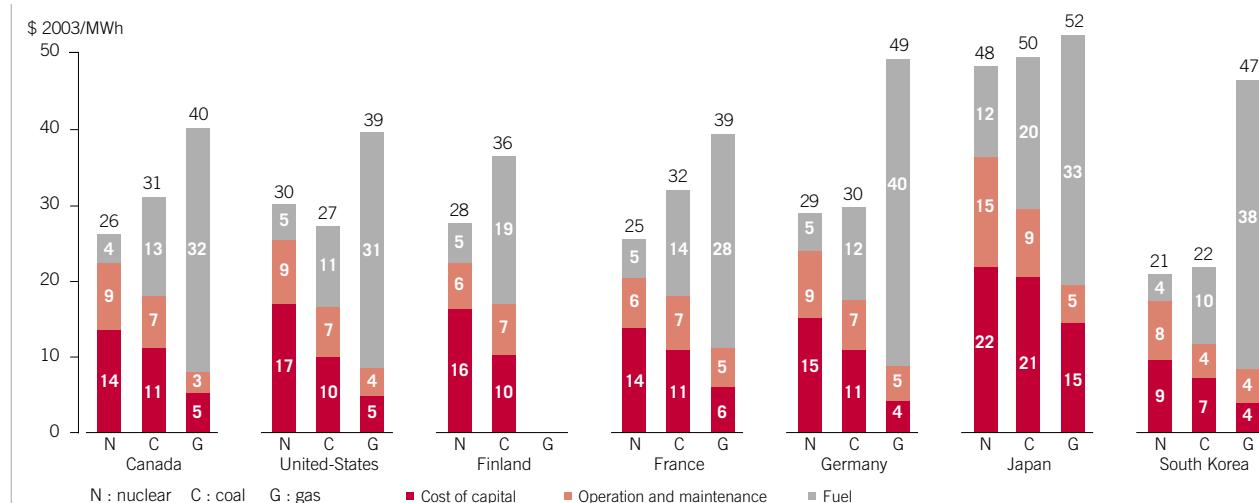
### Competitiveness of various sources of energy

In terms of cost, the "Projected Costs of Generating Electricity" study, updated by the OECD/IEA/NEA in 2005, indicates that nuclear power's competitiveness has improved since 1998. Based on a 5% discount rate, nuclear power is the most competitive baseload option in 12 of 13 countries that selected this approach. Using a 10% discount rate, nuclear power remains the most competitive energy source in 9 out of 13 countries.

The study is based on an 85% load factor and assumes a 40-year service life for reactors and coal-fired plants and a 25- to 40-year service life for gas-fired plants. Generating costs include the decommissioning of facilities at the end of their service life and waste disposal.

Unlike its fossil fuel competitors, nuclear power has the additional advantage of being relatively insensitive to fluctuations in fuel prices, according to the "Reference costs of electric power generation" report published by the French Department of Energy and Raw Materials in July 2003. The cost of electricity would increase from €28.4/MWh to €29.8/MWh, i.e. approximately 5%, if the price of uranium were to increase from \$20/lb to \$40/lb. At the end of 2005, the price of uranium as U<sub>3</sub>O<sub>8</sub> was \$36.3/lb.

### Competitiveness of electricity generated by nuclear power compared with coal and natural gas (in 2003 \$/MWh, excluding CO<sub>2</sub> costs)



Source: OECD NEA/IEA study updated in 2005, discount rate of 5%.

## 4.2. The Nuclear Power and Transmission & Distribution markets

As shown in the chart below, the World Energy Council report comparing the merits of different sources of energy for electric power generation identified nuclear power and hydropower as the

most advantageous solutions, based on three criteria: competitiveness (energy accessibility and availability), energy security and environmental impacts.

### Comparison of energy sources used for electric power generation

Important decision-making criteria	Type of fuel burned				Nuclear	Hydro	Wind	Sun
	Coal	Oil	Gas	Biomass				
<b>Competitiveness</b> (linked to direct energy costs)								
<b>Energy availability</b> (security and reliability of supply)								
<b>Acceptability of energy</b> (impacts of external environment)								

**Relative rank on selected decision-making criteria**

■ Favorable energy source     
 ■ Medium/neutral energy source     
 ■ Unfavorable energy source

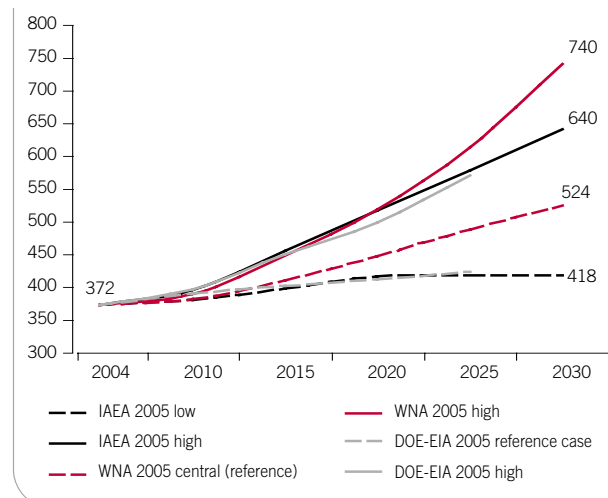
Source: World Energy Council (WEC), July 2004.

### 4.2.2.3. Outlook for nuclear power around the globe

A number of institutions presented forecasts regarding nuclear power programs by 2030. These projections are summarized in the figure below.

In 2005, nuclear reactors connected to the grid represented 372 GWe net (392 GWe gross). These reactors were 28 years old on average. Assuming a 40-year reactor life on average, approximately three out of four reactors will have to be replaced by 2030 to maintain overall capacity. Only 120 GWe would have to be replaced by 2030 if the life of the reactors is increased to 50 or even 60 years, as contemplated by many utilities worldwide. Overall, depending on the scenario, between 150 and 500 GWe net will have to be built by 2030.

#### Outlook for world nuclear power programs (in net GWe)



Sources: AREVA, World Nuclear Association, U.S. Department of Energy

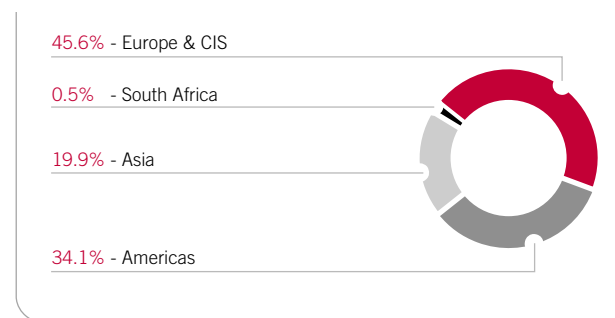
## 4.2. The Nuclear Power and Transmission & Distribution markets

### 4.2.2.4. The challenges of nuclear power in various regions of the world

As the benefits of nuclear power are recognized, existing reactors will be modernized, their service life extended and their available capacity increased. In addition, new reactor construction activities to renew and expand nuclear power programs will benefit all of AREVA's nuclear operations over the longer term.

The chart below illustrates the importance of Europe, Americas, and Asia as the three pillars of nuclear power generation in 2005:

Electric power generation by region in 2005



Sources: AREVA, BP 2005 and IEA.

Interest in nuclear power was rekindled in 2005 as soaring fossil fuel prices and security of supply concerns took center stage. Numerous countries outlined their vision during the Paris international conference of ministers organized by the IAEA in March 2005. The conference's final statement concluded: "a vast majority of participants affirmed that nuclear power can make a major contribution to meeting energy needs and sustaining the world's development in the 21st century, for a large number of both developed and developing countries."

Actual deployment, however, will depend on political decisions that vary from one region to the next.

In Western Europe, reactor replacements and new reactor construction in countries with more recent units cannot be expected until the next decade, unless energy policies change dramatically. Some utilities have indicated their interest in taking a participating interest in the first EPR reactor to be built in Flamanville, France, where a nuclear reactor replacement program is on the agenda. Suez-Electrabel is also contemplating the construction of a new reactor. Finland is building its first EPR, ordered in 2003. Some Eastern European projects may also translate into orders in the not so distant future.

In North America, utilities began extending reactor service life in 2000. These programs are expected to continue through 2015. After 2010, these initiatives should be supplemented in the United States with the construction of new reactors. AREVA intends to participate actively in this market with the EPR reactor. The recently enacted Energy Bill offers many incentives to utilities for the construction of the first new reactors. Interest has been expressed in Canada and Latin America as well.

In Asia, in addition to the programs of South Korea and Japan, China and India are set to be the leader in new power plant construction, with goals outlined in a 2005-2020 plan. Longer term, China has vowed to develop its own nuclear power reactor. Other countries have also shown interest in nuclear power over the long term, including Vietnam and Indonesia.

### Europe

Europe has 204 nuclear reactors representing 181 GWe in capacity. These reactors generated 1,256 TWh of electricity in 2005, down 0.8% from 2004. This compares with 5,140 TWh in total electric power generation from all sources during the year, up 2.4% from 2004.

On average, nuclear power represented 25% of all electricity produced in Europe in 2004, with significant differences from one country to the next. For instance, nuclear power represents a large proportion of all electricity generated in France and Belgium (78% and 55%, respectively) and a smaller proportion in Germany (31%), Finland (33%) and Russia (16%). A breakdown of nuclear power in the main European countries is provided in the table below.

	Gross capacity (GWe)		Gross generation (TWh)	
	2005	2004	2005	2004
France*	65.9	65.6	450.6	447.6
Germany	21.4	21.4	162.1	167.1
Russia	23.2	23.2	146.8	142.9
United Kingdom**	12.8	12.8	82.0	82.7
Ukraine	13.9	13.9	88.8	85.4
Sweden	9.2	9.8	70.5	77.3
Spain	7.9	7.9	57.5	63.7
Belgium	6.1	6.1	47.6	47.3
Finland	2.8	2.9	23.3	22.7
Other	18.1	18.0	127.3	130.0
<b>Total</b>	<b>181.2</b>	<b>181.6</b>	<b>1,256.5</b>	<b>1,266.5</b>

\* Excluding Phoenix, considered a research reactor.

\*\* 2005 data unavailable for British Energy. Data based on 2004 production.

Source: Nucleonics Week, February 2006, restated by AREVA.



## 4.2. The Nuclear Power and Transmission & Distribution markets

Positive developments occurred in the European Union in 2005, although countries that had decided to phase out nuclear power have not revisited their positions. The European Union is now focusing on the issue of security of supply, with a Green Book to be published in early 2006.

- In France, the public inquiry process to approve EDF's choice of Flamanville as the site of the first French EPR reactor has begun. A public debate was initiated after completion of the research required by the French law of 1991 on long-lived high-level waste. The French Parliament is expected to enact legislation in 2006. In addition, article 4, paragraph 4 of programmatic legislation establishing the framework for the energy policy of July 13, 2005 provides that "the State shall take care to retain a large proportion of France's electric power generation for nuclear power, which contributes to security of supply, energy independence, competitiveness, the fight against global warming, and the influence of an excellent industrial system(...)". France has therefore set as its first priority in the electricity sector "to keep the nuclear option open in the 2020 time-frame by having at its disposal, around 2015, an operational next-generation reactor enabling the replacement of the current generation."
- In Belgium, the Ministry of Economy and Energy has established a commission of experts ("Énergie 30") to review energy policy and security of supply. The commission is expected to issue its conclusions at the end of 2006. The debate in Parliament should begin in early 2007. In the meantime, Electrabel continues to modernize its nuclear power plants. Approximately 400 people are expected to be hired in the nuclear sector over the next three years.
- The platform of the German government led by Angela Merkel included a commitment to the law requiring the gradual phase-out of nuclear reactors by 2021. However, the disruption of natural gas supplies from Russia at the end of 2005 led to a reopening of the debate. In the meantime, capital upgrades continue at existing plants. Nevertheless, the Obrigheim reactor (357 MWe) was shut down in May 2005, as required by the law. The Brunsbüttel, Neckarwestheim and Biblis A and B reactors are scheduled to be shut down by the end of the decade.
- Construction of the Olkiluoto 3 EPR reactor and of the used fuel storage site continues in Finland. This is the first reactor of this type to be built in the world. The country is debating the possibility of building a sixth reactor.

- The UK government is preparing a public inquiry on a new national energy policy in 2006. This inquiry will include a proposal to build new nuclear plants, as recommended by Prime Minister Blair. In the meantime, the government is finalizing the sale of Westinghouse and continues to restructure and sell BNFL assets. In addition, the government is providing support for the startup of the Nuclear Decommissioning Authority (NDA), in charge cleaning up British nuclear sites.
- In Sweden, the second Barsebäck reactor (615 MWe) was shut down as planned in May 2005, following a decision in the 1980s to phase out nuclear power. Opinion polls show that a majority of Swedes wants to keep existing plants. In parallel, utilities continue to invest in their plants and in used fuel storage facilities.
- The Spanish nuclear power program has not seen any new developments since a government decision in 1997. Nuclear power represents 20% of the country's generating capacity and the nuclear option remains open.

Countries that had not shown any interest in nuclear power for a long time, such as Italy and Portugal, now have renewed interest.

Elsewhere, five of the ten new European Union member countries – the Czech Republic, Hungary, Lithuania, Slovakia and Slovenia – operated 18 nuclear reactors as of year-end 2005. European Union safety standards require that these units be upgraded or shut down. Some countries are contemplating a possible renewal of their generating capacity, in particular Lithuania and its Polish and Baltic neighbors, as well as Slovakia. Future EU members Romania and Bulgaria have decided to build new reactors. In fact, Bulgaria issued a call for tenders at the end of 2005 to complete the Belene 1 reactor and build a second reactor at the Belene site.

Elsewhere in Europe, development of the Russian nuclear power program is slower than planned. This is also true of the establishment of the first Russian independent power generators (Gencos). In the Ukraine, new authorities installed following the Orange Revolution at the end of 2004 have affirmed their intention to develop nuclear power as independently from Russia as possible, including developing local uranium ore deposits. In Armenia, power supply issues are becoming critical in view of the planned shut down in 2009 of the 408 MWe Metamor reactor. In Turkey, the construction of three nuclear reactors starting in 2011 is contemplated.



## 4.2. The Nuclear Power and Transmission & Distribution markets

### Americas

A total of 130 nuclear reactors representing 125 GWe in capacity are located in Americas. These reactors generated 938 TWh in 2005, down 0.5% from 2004. This compares with approximately 5,130 TWh in total electric power generation from all sources, up 4.2% from 2004.

	Gross capacity (GWe)		Gross generation (TWh)	
	2005	2004	2005	2004
Canada	15.0	16.1	92.5	91
United States	105.7	102.6	817.9	822.6
Mexico	1.4	1.5	10.8	9.2
Brazil	2.0	2.0	9.8	11.5
Argentina	1.0	1.0	6.9	8.2
<b>Total</b>	<b>125</b>	<b>123.2</b>	<b>937.8</b>	<b>942.6</b>

Source: Nucleonics Week, February 2006, restated by AREVA.

On average, nuclear power represented 18% of all electricity generated in the Western Hemisphere in 2005, with significant differences from one country to the next. Nuclear power represents 20% of all electricity generated domestically in the United States and 15% in Canada, but represents only 3% in Brazil. The status of nuclear power in the main countries of the region is described below.

- In the United States, mergers are ongoing in the utility sector, particularly among nuclear plant operators. FPL acquired Constellation Energy in December 2005, creating one of the largest electric utilities in the country, with 45,000 MWe in installed capacity, including 8,100 MWe at nine reactors. The industry continued to apply for license renewals extending plant life to 60 years: 39 reactors were granted licenses extending plant life from 40 to 60 years. An additional 10 applications are pending. Six consortiums were formed to prepare a combined license application (COL) for construction and operation of a next-generation reactor. The first reactor could be connected to the grid by 2015.

The Energy Bill signed in August 2005 by President Bush will have a favorable impact on the construction of new reactors in the short term. The bill includes a system of guarantees, tax credits on production and insurance in the event of delays. It also provides for a significant mid-range R&D program representing \$1.6 billion over three years to develop nuclear technology for the future.

One of the highlights of the year was the creation of Unistar, a joint venture between Constellation Energy and AREVA, which will establish an innovative framework for promoting the construction of a fleet of EPR reactors in the country, starting with a series of four units. Unistar has announced its intention to submit a combined license application for the construction and operation of the Calvert Cliffs site in Maryland.

End-of-life cycle issues remain more problematic. The Yucca Mountain used fuel storage program seems increasingly uncertain for technical, regulatory as well as financial reasons. Discussions between the Bush Administration and Congress point towards a decision to allow used fuel treatment and recycling, putting an end to the Carter doctrine. In January 2006, the administration announced a Global Nuclear Energy Partnership, which should accelerate research programs on used fuel recycling.

- In Canada, mining exploration programs are gaining momentum as uranium prices increase rapidly. The utilities continue to work on restarting the eight reactors shut down in 1995, which involves a heavy plant renovation program. Pickering 1 was restarted this year and a decision was made to revamp Bruce A 1 and 2, as well as Point Lepreau. However, Pickering 2 and 3 will remain shut down. In December, Ontario Power Authority recommended that the share of nuclear power be maintained in the province by building new reactors.
- In Latin America, Brazil and Argentina plan to continue their nuclear programs, and other countries, such as Chile, are showing renewed interest.

### Asia-Pacific

This region has 108 nuclear reactors representing 84 GWe in capacity. These reactors generated 547 TWh of electricity in 2005, down 5.2% from 2004. This compares with approximately 5,980 TWh in total electricity generated from all sources, up 8.8% from 2004.

On average, nuclear power represented 9% of all electricity generated in 2005, with significant differences from one country to the next. For instance, nuclear power represents a large proportion of all electricity produced in South Korea and Japan (38% and 30% respectively), yet nuclear power's share is minimal in China (3%) and India (2%). Several countries have reaffirmed and are continuing their nuclear power programs, and several major calls for tenders have been issued.

	Gross capacity (GWe)		Gross generation (TWh)	
	2005	2004	2005	2004
Japan	48.9	47.4	287.9	282.0
China	7.0	7.0	53.1	49.6
India	3.3	2.7	17.6	16.9
South Korea	17.7	17.7	145.6	129.6
Taiwan	5.1	5.1	40.0	39.5
Pakistan	0.5	0.5	2.6	2.1
<b>Total</b>	<b>83.5</b>	<b>80.4</b>	<b>546.8</b>	<b>519.6</b>

Source: Nucleonics Week, February 2006, restated by AREVA.

#### 4.2. The Nuclear Power and Transmission & Distribution markets

- Japan's nuclear power plant construction program continues, with 2 new units connected to the grid in 2005, 2 under construction and 13 in the design phase. The Japanese Cabinet approved the country's nuclear power policy in October 2005. The strategic decision to treat all used fuel was confirmed, as well as nuclear power's essential contribution to the energy mix, currently 30% and possibly more by 2030. The Rokkasho Mura fuel treatment plant has almost completed the uranium test phase and full-scale operations are scheduled to start in July 2007. After suffering some delays, the MOX program now enjoys the support of several utilities.
- China confirmed its resolve to develop nuclear power as one of the main resources to satisfy its growing need for electricity. Calls for tenders have been issued at the national and international level, not only to duplicate second-generation reactors already in service in the country, but also to acquire third-generation technologies. The goals are ambitious: by 2020, 28,000 MWe must be added to the existing 12,000 MWe already in service or under construction. China intends to capitalize on the size of its program to develop its own front end and back end fuel cycle. Contacts have been established around the globe to secure uranium supplies.
- India has stated that it wishes to accelerate its nuclear power program to meet its growing need for energy. However, the country has not signed the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and has not opened all of its civilian facilities to IAEA inspections, thus barring it de facto from buying products and services from NPT signatory countries and members of the Nuclear Suppliers Group, including France, the United States and the United Kingdom. A solution may have been found, however, consisting of separating its defense and civilian programs and changes to the rules imposed by members of the Nuclear Suppliers Group. Negotiations will continue in 2006.

#### **Africa**

The South African government designated the Pebble Bed Modular Reactor (PBMR) as a "Project of national interest". South Africa is the only African country with a nuclear power program. Two reactors at Koeberg generate approximately 6% of the nation's electricity. Future power needs would require the construction of 15,000 to 20,000 MWe in additional capacity, including at least 5,000 MWe from nuclear power. South African utility Eskom is criticized for its failure not to predict the increase in demand, resulting in a series of blackouts. It is now urgently acquiring small natural gas plants to satisfy peak demand.

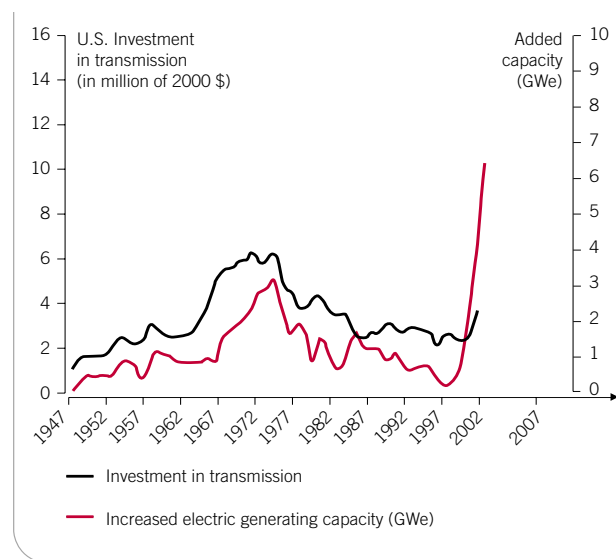
## 4.2. The Nuclear Power and Transmission & Distribution markets

### 4.2.3. THE TRANSMISSION & DISTRIBUTION MARKET AND CHALLENGES IN VARIOUS REGIONS OF THE WORLD

#### 4.2.3.1. The Transmission and Distribution market

Transmission and distribution are critical to electric power grid operation and management. The market is buoyed by rising electricity consumption, itself fueled by the creation of wealth at the national and regional level. Building reliable and efficient power systems is both a requirement for and a consequence of economic growth and of investment in power generation, as shown in the figure below.

**Correlation between capital investment in electric power generation and capital investment in the T&D grid in the United States**



Source: Cambridge Research, 2002.

The T&D market also benefits directly from positive external factors such as:

- changes in national energy policies and the development of renewable energies;
- the optimization and replacement of aging equipment to improve network safety and reduce the risk of power supply interruptions;
- interconnection of regional networks to link sources of power generation with areas of power consumption;
- deregulation of electricity markets, with diverse impacts on national T&D markets, depending on the characteristics of existing infrastructure;
- the change in behavior on the part of electric utilities, such as centralization of procurement.

All of these factors are used to predict demand for power generation equipment and contribute to T&D market growth.

#### 4.2.3.2. The challenges of power transmission and distribution in various regions of the world

##### Europe

While not the most dynamic market, Europe offers a number of opportunities related to new infrastructure requirements. On the one hand, European Union countries are well aware of the problems caused by obsolete infrastructure, including the risk of blackouts. Their goal is therefore to modernize their equipment and promote the establishment of a unified European network. The Mediterranean Ring interconnection project in the Mediterranean region, in the process of being finalized, is a good example of this approach. On the other hand, renewable energies are capturing a growing share of the electric power market, thus creating new technical constraints and challenges for operators in areas such as connection to the grid and network quality.

In the United Kingdom, the Office of Gas and Electricity Markets (OFGEM) reports that electricity transmission companies need to invest between €8 and 11 billion to upgrade networks during the 2007-2012 period. In France and Germany, replacement equipment will be needed for aging networks over the medium term.

## 4.2. The Nuclear Power and Transmission & Distribution markets

Growing economies in Central and Eastern Europe are also confronted with network obsolescence issues and rising demand for electric power. Russia is a typical example of infrastructure requirements in the region. Network obsolescence and lack of capacity caused a blackout in Moscow in 2005. Between two and four million people were affected by this power failure, triggered by an explosion at substation that was more than 40 years old.

To remedy this situation, European and local electric utilities are planning major investments, which will contribute to the strength of the T&D market. In Russia, energy holding company RAO UES recently announced a €6 billion capital spending plan for power generation and T&D facilities over a three-year period.

Several interconnection projects are contemplated to create regional networks, for instance between Russia and Western Europe or in the Baltic region (Baltic Ring).

### **Americas**

The United States now recognizes the need to establish reliable power supply networks as the country experiences regular power failures with severe economic consequences. The Energy Bill enacted in 2005 encourages capital spending and grid modernization. This new legislative framework emphasizes three aspects:

- establishment of regulations to ensure network reliability;
- promotion of capital spending through financial incentives; and
- regulatory conditions governing utility compensation.

Actual implementation of this program is the responsibility of the Federal Energy Regulatory Commission, whose authority was strengthened.

The restructuring of the energy sector brought about by the reform has not yet produced any major program for grid development and rejuvenation. Due to the maturity of the North American markets, demand for grid management systems and maintenance services is also expected to grow.

Significant transmission and distribution investment is also planned in Latin America. Brazil announced the launch of seven model projects to upgrade its network. Interconnection plans are also contemplated in Central America. The Central American Interconnection System (SIEPAC) is planning to connect the networks of six Central American countries, i.e. Costa Rica, Salvador, Honduras, Guatemala, Nicaragua and Panama. Bolivia and Peru are also discussing a possible connection of their power grids. Establishing regional networks should help resolve the problems caused by power failures on the continent and eliminate the blackouts that affect countries such as Venezuela on a regular basis (56 events recorded in 2005).

### **Asia**

China is one of the most promising countries in terms of demand growth for electrical equipment, particularly T&D products. China must develop efficient networks to satisfy demand fueled by its booming economy and to correct significant shortcomings. To satisfy these needs, numerous projects are being implemented, both for power generation and for electricity transmission and distribution. The 11<sup>th</sup> five-year plan contemplates gigantic investment in the electric power sector, thus creating an unprecedented challenge in terms of technology and industrial capacity.

Confronted with the same macroeconomic conundrum, India has developed a sustainable energy policy. A major effort was made to generate more electricity. In addition, the Indian Energy Ministry has decided to reduce power losses on the network, leading to investment in transmission and distribution.

Network inadequacy is responsible for major power failures in Asia, such as the blackout experienced by Indonesia in 2005 on Java. This incident, triggered by malfunctions in various areas of the network, cut off power supply to more than 100 million people.

### **Africa and Middle East**

High oil prices continue to have a favorable impact on the ability of Persian Gulf countries to finance capital expenditures. Major interconnection projects are being implemented in the Gulf area, including Kuwait, Saudi Arabia, Bahrain, Qatar, Oman and the United Arab Emirates.

In Africa, transmission and distribution investment is limited to projects financed by multilateral development organizations. However, South Africa is trying to ensure the security of power supply and to limit the economic impact of power failures, which affect the country's power grid on a regular basis.

## 4.3. AREVA group energy businesses

### 4.3.1. NUCLEAR POWER

#### 4.3.1.1. A few fundamental concepts for an understanding of the Group's nuclear power operations

##### *Fission and chain reaction: fundamentals of nuclear energy*

Nuclear fission and the chain reaction are events triggered in the core of nuclear power plants, where they produce useful energy in the form of heat.

All matter is made of atoms. Each atom has the same structure: most of its weight is concentrated in the central nucleus of the atom, consisting of protons and neutrons, while most of its volume is occupied by electrons that spin around the nucleus. Protons and electrons carry an electrical charge, with each proton carrying a positive charge, while each electron carries a negative charge. Neutrons do not carry an electrical charge. Each atom is electrically neutral in that there are an equal number of protons and electrons. For example, the oxygen atom consists of eight electrons that spin around a nucleus consisting of eight protons and eight neutrons. The uranium 238 atom consists of 92 electrons, 92 protons and 146 neutrons.

The nuclei of atoms that make up a chemical element may have differing numbers of neutrons. In that case, several isotopes of the element are said to exist. Uranium 238 and uranium 235 are the two most abundant isotopes of uranium. In the natural state, the proportion of uranium 238 to uranium 235 is invariably 0.7%. The nucleus of uranium 235 consists of 92 protons, but it has only 143 neutrons, unlike the 146 for uranium 238.

Uranium 235 is a natural element with unique properties. The uranium 235 atom is scarce in natural uranium (0.7%), but it is the only element to possess very high reactivity to slow-moving neutrons. When a neutron strikes the atom, it splits into two smaller atoms, expelling neutrons and releasing energy: this is the fission process.

The fission process is a reaction that produces a large amount of energy. Each of the neutrons expelled during fission of a uranium 235 atom can strike another atom, causing it to fission and to release more energy and expel more neutrons, which will in turn strike other atoms: this is the "chain reaction". Because of its reactivity to neutrons, uranium 235, even in small proportions, can sustain the chain reaction. The reaction propagates at very high speed from one atom to the next, considerably increasing the cumulative amount of energy: the fission reaction of one kilogram of enriched uranium can supply as much energy as is produced by burning 10 metric tons of oil.

Both phenomena – nuclear fission and the chain reaction – are used to advantage in a nuclear power reactor. For use in a light water reactor, uranium is slightly enriched in uranium 235 (around 4%). The energy released by the fuel during the fission process is recovered in the form of heat and converted into electricity through a steam cycle.

##### *Using fission energy in nuclear power plants*

A nuclear power plant is an electric generating station with one or more reactors. Like all conventional thermal power plants, it consists of a steam supply system that converts water into steam. The steam drives a turbine, which in turn drives a generator, producing electricity.

In nuclear power plants, the only area in which radioactivity is present is the steam supply system, called the "reactor".

The reactor is enclosed in a reinforced containment building meeting nuclear safety requirements. The three main components needed to sustain, control and cool the fission process in the reactor core are fuel, a moderator and a coolant. Reactor types are a function of the combination of these three components. Several combinations have been tested, but only a few of them have gone beyond the prototype stage to commercial operations.

##### *A heat source and a cooling source*

Like all other power plants, a nuclear power plant has a heat source (the nuclear steam supply system with its heat exchangers) and a cooling source to remove the resulting heat. This is why power plants are usually built near the sea or a river – the water is used to cool the steam. Many power plants also have cooling towers, where the water is sprayed, evaporating as it falls and dissipating residual heat.

### 4.3. AREVA Group energy businesses

#### Moderator and coolant

During the fission process, neutrons are released at very high speed. They slow down as they strike lighter atoms, making them react much more with uranium 235 atoms. Reactors called “thermal neutron” (slow) reactors take advantage of this property, which reduces the uranium 235 enrichment level required for the chain reaction. In light water reactors, water is the slowing medium (moderator) as well as the heat removal medium (coolant).

#### The world's most prevalent reactor: the pressurized water reactor

In pressurized water reactors (PWRs), the fuel is made of slightly enriched uranium and the moderator and coolant both consist of water.

The reactor core is flooded with pressurized water from the primary cooling system. The fission reaction heats the water. The heat is transferred via heat exchangers to water in a secondary cooling system, converting it to steam. The nuclear steam supply system consists of the reactor core and the steam generators. For safety reasons, the primary cooling system is separate from the secondary cooling system, whose steam drives the turbo-generator.

PWR reactors have a triple containment system to prevent the release of radioactive fission products. The primary barrier in this system is the metal cladding around the fuel. The secondary barrier consists of the separation of the primary and secondary cooling systems. The third barrier consists of the nuclear steam supply system enclosed in a concrete containment building designed to contain hazardous products in the event of a leak. Most of the reactors in the French nuclear power program are PWRs, as is the case around the globe.

Boiling water reactors (BWR) are generally comparable to PWRs. The main difference is that the water boils when it is exposed to the fuel and the primary and secondary cooling systems are not separate.

#### 4.3.1.2. AREVA's nuclear businesses

The AREVA group operates in every area of the nuclear cycle. It is organized into three divisions: the Front End Division, the Back End Division, and the Reactors and Services Division.

In the front end of the cycle, AREVA supplies uranium and offers the conversion and enrichment services needed to fabricate the fuel assemblies that go into the reactor core. In the Reactors and Services Division, the group has expertise in all of the processes and technologies needed for the design, construction, maintenance

and continuous improvement of reactor performance. AREVA focuses principally on the PWR and BWR markets. In the back end of the cycle, AREVA is a specialist in the management and treatment of used fuel, from which the Group recovers reusable materials to fabricate fresh uranium-plutonium fuel (MOX) that is recycled in PWR and BWR reactors.

The **Front End** Division's operations include:

- uranium ore exploration, mining and concentration into oxide ( $U_3O_8$ );
- conversion of uranium as  $U_3O_8$  into uranium hexafluoride ( $UF_6$ );
- uranium enrichment;
- design and fabrication of nuclear fuel.

The **Reactors and Services** Division's operations include:

- nuclear power plant design, construction and upgrades;
- equipment supply to nuclear power plants;
- nuclear services, particularly during scheduled reactor outages.

The **Back End** Division's operations include:

- used fuel treatment to recover reusable materials, which are recycled in reactors either as MOX fuel or as  $UO_2$  fuel;
- design of transportation and storage casks for nuclear materials;
- nuclear materials transportation and logistics.

In summary, the Group:

- sells uranium to its utility customers;
- supplies uranium processing services to produce fuel, and designs and fabricates fuel assemblies;
- designs and builds power plants and provides plant life extension services;
- offers engineering services and equipment to optimize power plant performance; and
- recycles its customers' used fuel to recover reusable materials and/or treat them for the safe disposal of nuclear waste.

However, AREVA does not normally own the materials provided by customers for processing, nor is it responsible, in most instances, for the waste generated by used fuel treatment on behalf of customers or nuclear power plants. AREVA does not operate nuclear reactors.

### 4.3. AREVA Group energy businesses

#### AREVA's competitive position by business sector

Due to the unique character of the processes involved, each stage in the nuclear cycle constitutes an industry in its own right, with its own technologies and business models. The AREVA group has built

up know-how that places it in the lead worldwide and has adopted an industrial organization that is consistent with these different business sectors. AREVA is the world leader in civilian nuclear power, as illustrated below:

Global competitive positions by business sector, 2004-2005 (AREVA estimates)

	Market 2004-2005	Cameco**	Urenco	Usec**	AREVA	Toshiba**/ Westinghouse	BNFL/BNG	FAE (Russia)	General Electric**	Other
Front End	Mining/Natural uranium*	67,000 MT	20%	5% <sup>(1)</sup>	20%			25%		30%
	Conversion/Chemistry	66,000 MT	20%	5% <sup>(1)</sup>	25%		5%	25%		20%
	Enrichment*	41 million SWU***		20%	25%		Urenco shareholder	20%		10%
	Natural uranium fuel (UO <sub>2</sub> )	6,800 MT			30%	30%		20%	10%	10% (Hitachi, MHI)
Back End	<b>Reactors and Services</b>	€11 billion			30%	25%		10%	5%	30%
	Treatment	1,550 MT			70%		25% <sup>(2)</sup>	5%		JNFL <sup>(3)</sup> in 2008
	Recycling (MOX fuel)	185 MT			80%		1%			19% <sup>(4)</sup> (Belgonucléaire) JNFL in time <sup>(3)</sup>

\* In comparison to 2004, natural uranium requirements decreased in 2005 due to a lowering of tails assays in enrichment. This change required more SWUs.

\*\* Publicly traded company.

\*\*\* SWU: Separative Work Unit.

(1) USEC sells natural uranium and conversion services, but does not own the corresponding production facilities.

(2) BNFL's treatment facility was shut down in April 2005. A decision to restart the facility will be made soon, after conclusion of an ongoing inquiry.

(3) The 800-MT JNFL treatment plant and the 130-MT MOX fuel fabrication plant should enter in service in 2008 and 2014 respectively.

(4) Belgonucléaire has announced the closure of the MOX fuel fabrication plant in Dessel, Belgium, in 2006.

Source: AREVA – based on average data for the last three years.



## 4.3. AREVA Group energy businesses

## 4.3.2. ELECTRICITY TRANSMISSION AND DISTRIBUTION OPERATIONS

### 4.3.2.1. A few fundamental concepts for an understanding of the transmission and distribution business

Electricity is generated at relatively low voltages of 10,000 to 25,000 volts. Current voltage is stepped up before the electricity is transmitted. Transmission over high voltage lines (230,000 to 765,000 volts) reduces power losses attributable to heating, enabling electricity to be transported over long distances at low cost.

The electric power supply system consists of the transmission lines and their connection to stations and substations. Electricity moves through the network according to a law of physics known as the “path of least resistance”, like water flowing through a canal system. Electricity enters a medium voltage distribution system via a substation. A final substation reduces the voltage to 120 or 240 volts for use by the consumer.

The deregulation of electricity markets and the need to transport electricity across borders require the development of inter-connections between power systems operated by different companies.

### 4.3.2.2. The Transmission and Distribution business

Electricity transmission and distribution includes the supply of electricity transmission and distribution products, systems and services used to regulate, switch, transform and dispatch electric current in electric power supply systems connecting the power plant to the final user. The Transmission & Distribution Division's products and solutions play an essential role in electric grid reliability, quality and safety.

The Transmission and Distribution Division designs, manufactures and installs complete product lines used at every stage of electricity transmission and distribution. The Transmission & Distribution Division is ranked third in the sector worldwide and is the world's second largest supplier to electric utilities.

The Transmission & Distribution Division supplies products, systems, services and software for:

- high voltage power transmission, including conventional equipment, shielded substations, instrument transformers and power transformers;
- medium voltage distribution, including compact transformer substations, distribution transformers, circuit breakers, engine starting cells and lightning protection systems;
- substation protection and control;
- grid management.

The Division's customers are electric utilities as well as the oil, mining, metals, wind energy, paper, glass, transportation and power electronics industries.



## 4.4. Front End Division

### KEY DATA

(in millions of euros, IFRS)

	2005	2004
Sales revenue	2,631	2,524
Operating income	374	370
Workforce at year end	11,047 people	10,952 people

#### 2005 sales revenue by Business Unit and by region

28% - Enrichment

11% - Chemistry

19% - Mining

42% - Fuel



42% - France

24% - Americas

23% - Europe (excluding France)

9% - Asia-Pacific

2% - Africa & Middle East



### OVERVIEW

In 2005, the **Front End** Division represented 26% of AREVA's consolidated sales revenue. It combines all of the fuel cycle operations that take place before nuclear power is generated:

- uranium ore exploration, mining and concentration by the *Mining* Business Unit;
- conversion into uranium hexafluoride (UF<sub>6</sub>) by the *Chemistry* Business Unit;
- uranium enrichment by the *Enrichment* Business Unit;
- nuclear fuel design and fabrication by the *Fuel* Business Unit.

**AREVA is the only international group to operate in every stage of the nuclear cycle.** This gives us a decided competitive edge, as we offer comprehensive solutions to our customers while creating synergies among our Business Units. We estimate that our Group ranks first worldwide in the front end of the nuclear cycle.

- **In Mining**, AREVA is the world's third largest producer of uranium (see paragraph 4.4.1.4.), with an output of 6,020 MT in 2005, a market share of around 20%, i.e. 13,200 metric tons (MT) sold. The Group has an excellent diversified mining portfolio in operation in Canada, Kazakhstan and Niger, or under development, most notably Cigar Lake in Canada. The Group's 140,000 MT of reserves are equal to 20 times its 2005 production. AREVA's long-term contracts also provide the Group with strong visibility in this business.
- **In Chemistry**, AREVA is the world's foremost supplier of conversion services, with about a 25% share of the world market and a very strong market position in Europe.
- **In Enrichment**, AREVA is one of the world leaders in enrichment services, with some 25% of the world's available capacity. The Group should also profit from new opportunities as it implements centrifuge technology at the future Georges Besse II plant.
- **In Fuel**, AREVA ranks first worldwide. It supplies around 30% of the world's nuclear fuel requirements and 40% for the boiling water reactors (BWRs) and pressurized water reactors (PWRs) used in the West.

#### 4.4. Front End Division

Customers retain ownership of the materials used in these operations. They buy uranium concentrates from AREVA, which then undergo processing in industrial facilities, up through production of the fuel assembly.

The Group operates mines and manufacturing plants in Europe, North America, Asia, Australia and Africa. Its customers are the leading nuclear power plant operators (utilities), and research laboratory operators.

This division mainly serves light water reactors (LWRs), a potential market of some 350 units. Taken together, the world's LWRs require some 6,000 to 7,000 MT of enriched uranium fuel for their operations. Every year, it takes around 68,000 MT of natural uranium and 40 million Separative Work Units (SWU - see Glossary) to produce this enriched uranium.

The division's economic model is characterized by capital-intensive production facilities. These require large capital outlays over a long period, creating major barriers to entry. In light of this, commercial relationships tend to be sealed by medium- to long-term contracts averaging five years whenever possible. This business model gives the division good visibility on order backlogs, which amounted to €8,086 million at year-end 2005, or around three years of sales revenue for the division. Over the short to medium term, this revenue is not very sensitive to natural uranium prices, or to the cost of its enrichment or conversion.

## STRATEGY AND OUTLOOK

AREVA plans to strengthen its position in the front end of the cycle by developing its mining resources and by optimizing or replacing its production facilities and fuel products. At the same time, it will increase its mining resources by stepping up its exploration activities.

### • Replenish and develop mineral resources

For more than 15 years, the market for natural uranium has suffered from a severe imbalance between the supply of uranium and demand. This imbalance is offset by the use of so-called secondary resources. The secondary resources come from strategic inventories stockpiled by utilities in the 1980s and, beginning in the late 1990s, from the arrival on the market of materials originating in the former Soviet Block. They also stem from the arrival on the civilian market of natural uranium derived by diluting highly enriched uranium (HEU) from dismantled Russian and American weapons.

The "Megatons to Megawatts" agreement entered into between the United States and Russia on February 18, 1993, is the first non-proliferation agreement providing for commercial reuse of fissile materials. For 20 years, or through 2013, Russia has agreed to convert 500 MT of HEU from its dismantled nuclear warheads into low-enriched uranium for civilian use. The conversion is done in Russia using a dilution process. The 5.5 million SWUs of HEU recovered each year in this manner are covered by a marketing agreement with the U.S. Enrichment Company (USEC), sole agent authorized to market this component. The natural uranium component, which represents about 9,000 MT of natural uranium per year on average, is covered by a marketing agreement between Russia and a team consisting of AREVA, Cameco and RWE Nukem. AREVA's share averages some 2,600 MT of natural uranium per year. The contracts expire in 2013.

The gradual depletion of secondary resources has two main effects:

- It places considerable pressure on spot prices for natural uranium: the spot price in U.S. dollars continued to increase, reaching \$36.00 per lb in January 2006, or five times the price recorded in 2001. This in turn puts pressure on prices negotiated between suppliers and electric utilities for their medium- and long-term contracts.
- It means that major players, including AREVA, must continue their exploration efforts and increase their uranium production capacities. This will enable them to fill the gap with primary resources when the time comes early in the next decade. At the beginning of 2005, AREVA launched the "Turbo" project to increase its exploration activities significantly and develop new ore bodies. With mineral rights in the key regions of Canada, Niger and Kazakhstan, AREVA is well positioned in this regard. AREVA will also benefit from the start-up of production at the Katco site in Kazakhstan and at Cigar Lake in Canada. Increasing production at these sites between 2006 and 2010, along with other initiatives undertaken as part of the Turbo project, should allow AREVA to double its production capacity in the beginning of the next decade.

#### 4.4. Front End Division

##### • Renewing Enrichment and Conversion production plants

The enrichment market is structured around a small number of international players in the United States, Europe and Russia. Demand is stable, but growth is moderate, in line with growth in installed reactor capacity. The Group's Georges Besse enrichment plant was initially designed for a useful life of 20 years. It has been operating successfully since 1979. Through regular investment in maintenance and modernization, the plant's technical sustainability is assured until early in the next decade, but the outlook is uncertain thereafter. In addition, the price of electricity, which comes to around 60% of the cost of enrichment by gaseous diffusion, is a sensitive issue.

To deal with these technical and economic considerations, AREVA intends to shut down the plant early in the coming decade and to replace it with a new one. AREVA plans to use gaseous centrifuge enrichment technology, which has been proven from both a production and economic standpoint (see section 4.4.3.3). Construction of the George Besse II plant will require significant capital outlay of approximately €3 billion from 2006 through 2018 for 7.5 million SWUs of capacity, including the cost of rights to the technology. This assumes that the agreement with Urenco is ratified (see section 4.15.3.2.). Replacement of conversion capacities at the Comurhex plant is also contemplated as part of this program.

##### • Improving productivity in our nuclear fuel business

The fuel fabrication industry has strong barriers to entry consisting of a wide range of technical specifications, which only reactor designers can fully grasp. It is nonetheless still a highly competitive market, given the excess production capacity worldwide. Market growth is also a function of installed generating capacity and load factor, minus the effect of heightened fuel performance.

Against this backdrop, the Group plans to continue its productivity efforts by optimizing site operations and standardizing its product range. AREVA intends to remain world leader in fuel fabrication, where it controls one third of the market.

AREVA's main competitors operate in only part of the front end of the cycle. These competitors are Cameco in the *mining* and *chemistry* sectors, Urenco and USEC for the *enrichment* business, and Westinghouse and the U.S.-Japanese partnership in *fuel fabrication*, Global Nuclear Fuel. Russia's FAE (Rosatom) is the only competitor that can offer products and services spanning the entire front end, although it is positioned differently than AREVA, particularly due to its domestic market. As a result, AREVA is the world leader in the entire nuclear fuel fabrication chain. The Group intends to maintain this position and to participate in new regional development.

## 4.4. Front End Division

## 4.4.1. MINING BUSINESS UNIT

## 4.4.1.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	508	475
Workforce at year-end	2,657 people	2,390 people

## 4.4.1.2. Operations

In addition to uranium trading, the *Mining* Business Unit's four main activities are:

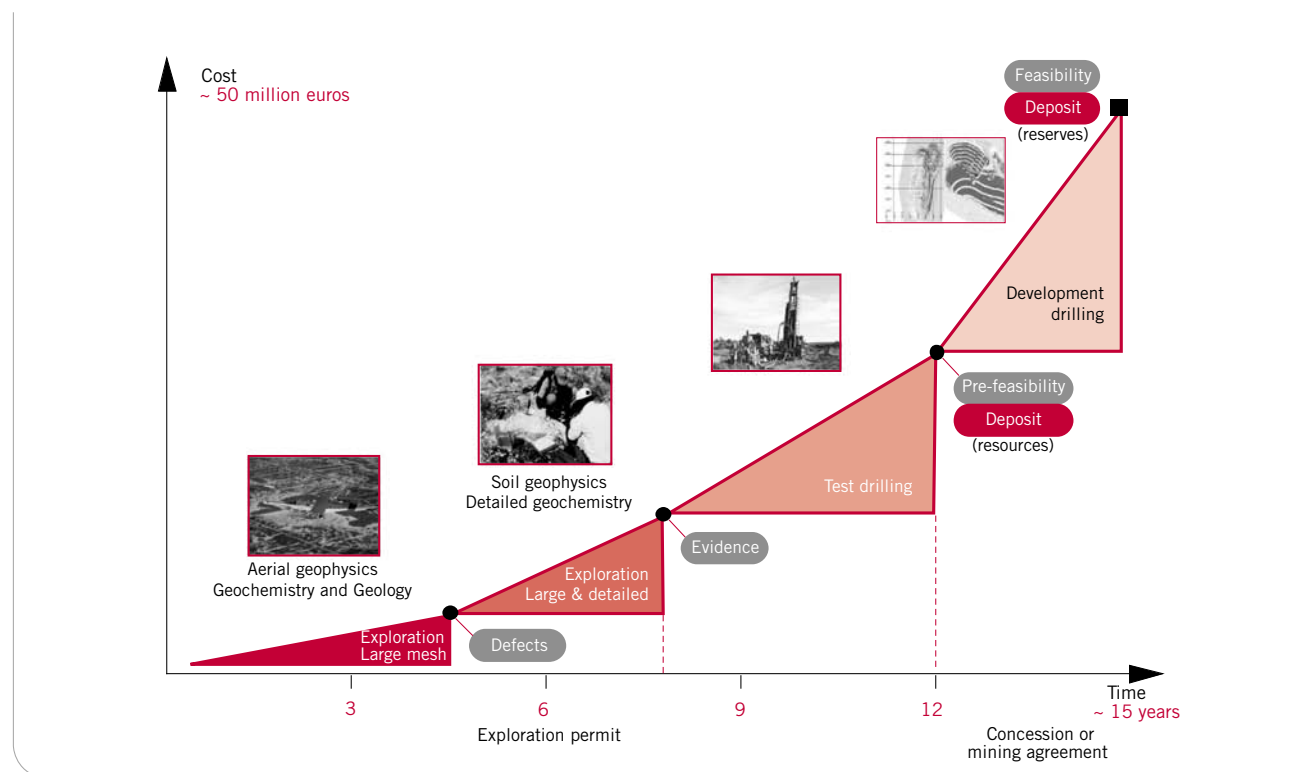
- mineral exploration, i.e. discovering new ore bodies for future mining;
- mining operations: ore extraction using various methods and technologies;
- ore processing: concentration of uranium contained in ore using chemical processes;
- site reclamation after mining: restoration of mining sites in accordance with stringent environmental standards.

The Group's mining operations focus first and foremost on uranium. A relatively abundant metal that is evenly distributed in the Earth's crust, uranium contains three main isotopes: non-fissile U238 (99% by weight), fissile U235 (0.7%) and U234 in very small proportions.

AREVA also produces gold. In the 1980s, gold was a diversification opportunity when the uranium market weakened after large deposits were discovered. Discontinuation of nuclear power programs in certain countries and the use of secondary sources of supply also contributed to the weakness of the uranium market. AREVA's teams of geologists took advantage of gold's similarity to uranium in terms of site selection, mining and processing techniques. Gold is also very easy to sell on the spot market.

The Business Unit's mining operations cover particularly long cycles requiring significant capital expenditures over several years before mining operations themselves begin, i.e. until the first deliveries of uranium are made and the first sales proceeds collected. Then cash flow increases before once again falling off in the final years of operation.

## Uranium mining business model: a particularly long gap from exploration to mining feasibility\*



\* Before licensing (obtaining a license and construction: 5 to 10 years).  
Source: AREVA

## 4.4. Front End Division

The first phases of exploration consist of detecting surface or underground indicators using aerial or ground geophysical prospecting, made possible by the radiation emitted by the uranium rock, geochemistry and surface geological surveys. AREVA selects targets based on promising mineralization history. This is followed by test drilling to develop an initial estimate of the deposit's resources.

Once the attractiveness of the deposit has been confirmed, the drilling grid is tightened to refine the estimate of resources and confirm mining feasibility, both technically and economically. These operations, which generally require an exploration permit eventually conferring mining rights, take an average of 10 to 15 years at an average cost of €50 million per ore body for the entire period.

Once technical and financial feasibility has been demonstrated, the ore is extracted, either from open pit or underground mines, or using in-situ leaching techniques (see Glossary). The choice of method is dictated by the ore body's characteristics.

Ore extracted from open pit and underground mines is transported to a processing plant, where it is crushed. The uranium is then stripped out of the ore with acid solutions. The uranium-bearing or "pregnant" liquors are precipitated and dried to produce a uranium concentrate called "yellowcake". This product is packaged and shipped to the conversion facility of the customer's choice. In-situ leaching techniques are used to recover uranium from low-grade or very-low grade deposits. In-situ leaching mines can be developed quickly. The process consists of injecting oxidizing solution into the mineralized area to dissolve the uranium selectively. The solution is then pumped to the surface and stripped of uranium in processing plants.

The reclamation of mining sites operated by the Group is an important activity that calls for specialized mining and civil engineering techniques and implements a full range of disciplines from the Earth and life sciences.

### 4.4.1.3. Manufacturing capabilities and human resources

The Group's personnel is located in Africa, North America, Asia, Europe and, to lesser extent, Australia (gold exploration and production).

Production sites are located in three countries: Canada, Niger and Kazakhstan. The site facilities are operated by companies in which AREVA has a participating interest, as shown below. This percentage may differ from the share of production allocated to AREVA. This information is provided in paragraph 4.4.1.5.

### Canadian sites

AREVA receives production from two mining sites: McClean Lake, operated by AREVA, and McArthur River/Rabbit Lake, operated by Cameco Corporation. In 2007, operations will begin at Cigar Lake, a third ore body also operated by Cameco Corporation. All sites are located approximately 600 kilometers from Saskatoon and belong to joint ventures.

The Group deploys ISO 14001-compliant environmental management systems at all sites and in all operations. McClean Lake, Cluff Lake (shut down four years ago) and our exploration activities were certified for ISO 14001 in 2000 and 2004 respectively.

For the past two years, AREVA has stepped up its exploration efforts in Canada, particularly in the Athabasca basin, which remains the country's most promising region for uranium mining.

### McClean Lake

McClean Lake is operated by AREVA, which owns 70% of the ore body (Denison Mines Ltd 22.5%, Ourd Co. Ltd of Japan 7.5%).

Uranium production started in 1999 from ore extracted from small rock deposits near the surface.

The ore is processed in the Jeb mill, commissioned less than ten years ago. The mill, which has a capacity of 8 million pounds of  $U_3O_8$ , is undergoing expansion.

At the end of 2006, after completion of an expansion project needed to process Cigar Lake's ore, the mill's capacity will be increased to 4,600 MT/year (12 million lbs  $U_3O_8$ ). This joint venture has 450 employees, 40% of whom come from the local community.

### McArthur River

McArthur River is operated by Cameco Corporation, which owns 69.8% of the ore body (AREVA: 30.2%). McArthur is the richest uranium deposit in the world, in terms of both uranium content and grade.

The deposit was discovered in 1988 and mining began in December 1999.

Remotely operated equipment is used to mine the deposit to prevent direct exposure of the miners to the very high-grade ore body. The ore is processed at the Key Lake mill, located approximately 100 kilometers south of the mine, which has a capacity of 7,190 MT of uranium per year (18.7 million lbs of  $U_3O_8$ ). The mill is operated by Cameco Corporation, which owns 83.3% of the shares (AREVA 16.7%). This JV employs about 310 people.

## 4.4. Front End Division

New operating procedures and new pumping capacities have been established under the oversight of province regulators since the excavation incident that occurred in 2003, causing partial flooding of the mine.

**Cigar Lake**

Cigar Lake will be operated by Cameco Corporation, which has an equity stake of 50.03% (AREVA 37.1%, Idemitsu Uranium Exploration Canada Ltd. 7.88% and Tepco Resources Inc. 5%).

Cigar Lake has the world's second highest grade of uranium, after McArthur River.

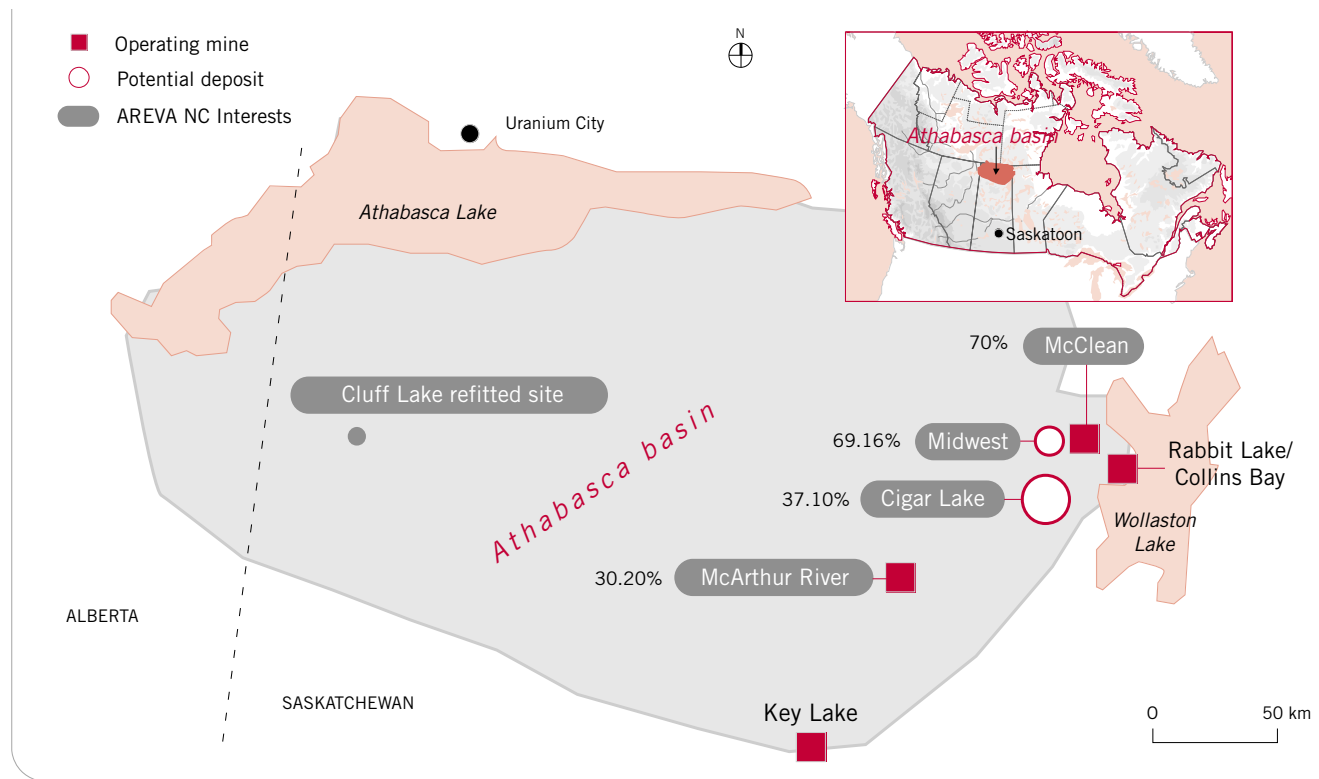
AREVA discovered the deposit in 1981 and proposed the mining technique to be used, then contributed to its development. Located 450 meters below the surface in brittle, water-saturated rock, the deposit cannot be mined with conventional methods. The partners, including AREVA, therefore developed a technology to harden the

ground by freezing it. The ore will be removed with high-pressure water jets (jet boring technique). Support galleries will be located in solid rock under the deposit to position the equipment, drill the ore body to freeze the ground, and mine it by jet boring.

Following receipt of the administrative permits, the partners made the decision to mine the deposit in December 2004. Permits were issued in January 2005. The construction phase started thereafter and, according to Cameco, is expected to be completed at the end of 2007.

A total of 350 people are currently working at the site. Staffing will be reduced to 250 during regular operations.

Cigar Lake will produce 6,900 MT of uranium per year (18 million lbs of  $U_3O_8$ ) once full capacity has been reached. The ore will be processed at the McClean Lake and Rabbit Lake mills during the first phase of operations, lasting approximately 15 years.

**Main mining sites in Canada**

### Niger sites

CEA exploration teams detected uranium in Niger in the 1960s. The uranium deposit is located in the piedmont area west of the Aïr mounts. The deposits are sedimentary.

Two companies, Somaïr and Cominak, were established to operate the mines, located approximately 800 kilometers north of Niamey. Mining development led to the establishment of two new cities, Arlit and Akokan.

Approximately 1,700 people work at the sites. In addition to providing jobs, the companies offer health, social and educational services to the local populations of this isolated and economically deprived area.

As of today, deposits have only been mined in the Arlit region. AREVA's concession covers 360 square kilometers (140 sq. miles). Both Somaïr and Cominak have ISO 14001 certification.

The discovery of new deposits in this uranium-rich province is a strong probability. The Group has intensified its exploration efforts and requested a permit for an aerial prospecting, carried out in 2004.

### Somaïr

Somaïr (Société des Mines de l'Aïr) was created in 1968. The company is operated by AREVA, which owns 63.4% of the shares, with the government of Niger owning the remaining 36.6% through Onarem, the national mining resources agency.

Somaïr has operated several mines near Arlit since 1971.

The ore is extracted in open pit mines and processed in a 2,000 MT mill (5.2 million lbs of  $U_3O_8$ ) at the site. Somaïr employs about 600 people.

### Cominak

Cominak (Compagnie Minière d'Akouta) was created in 1974. AREVA is the operator of the company and owns 34% of its shares. Other shareholders include Onarem of Niger (31%), Overseas Uranium Resources Development Company Ltd of Japan (OURD, 25%), and Enusa Industrias Avanzadas S.A of Spain (Enusa, 10%).

Since 1978, Cominak has operated two large deposits near Akokan, Akouta and Akola. Cominak employs about 1,100 people.

The ore is extracted underground. The on-site mill has a capacity of 2,000 MT of uranium per year (5.2 million lbs of  $U_3O_8$ ).

### Main mining sites in Niger



Source: AREVA.

## 4.4. Front End Division

**Kazakhstan's sites**

The Katco mining company was established in 1997 to develop and operate the Muyunkum and Tortkuduk deposits in southern Kazakhstan, approximately 250 kilometers north of Simkent. The company headquarters are located in Almaty.

Shareholders include AREVA (51%) and the Kazakh company Kazatomprom (49%), which is responsible for overseeing nuclear operation, particularly natural uranium production.

Development of the two mining sites, located approximately 100 kilometers apart, started in April 2004, after execution of a series of agreements between the shareholders. These concluded

a feasibility study lasting more than three years, including testing of a full-scale pilot plant. The nominal production objective for both deposits combined is 1,500 MT of uranium per year (3.9 million lbs of  $U_3O_8$ ). A \$150 million capital spending program will be required through 2008.

Production could be increased substantially by 2010, considering the size of the deposits, the prospects for ore discovery in new areas under permit to the company, and the recent 35-year extension of Katco's underground mining concession.

The Muyunkum processing plant, built in 2005, began production in November of that same year. The Tortkuduk processing plant is under construction, with start-up scheduled for 2007.

**Main mining sites in Kazakhstan**

Source: AREVA.

**Site reclamation**

To date, the group has spent more than €400 million to dismantle mining facilities and reclaim 13 sites in France, Gabon, the United States and Canada. Once reclamation has been completed, the land is reseeded and monitored, which involves sampling and analysis of numerous environmental parameters. Monitoring is conducted as part of AREVA's environmental management system over a period of time that depends on the stability of chemical and radiological

parameters, with objectives going well beyond the regulatory requirements. This period is specific to the sites' natural characteristics as well as to local expectations on a societal level. Experience to date indicates that this period is generally 10 years or more.

In France, mill tailings are listed by Andra, the French radioactive waste management agency. AREVA NC owns the tailings, which are subject to specific radiological and environmental monitoring certified under ISO 14001.



### 4.4.1.4. Market and competitive position

#### Market

The demand for uranium by nuclear power programs worldwide, i.e. "gross" demand, expressed in natural uranium equivalent, was around 68,000 MT in 2005. Demand has risen modestly over the last five years, from 0.5% to 1% per year, reflecting increased load factors, the commissioning of new reactors and increased capacity at an ever-larger number of reactors. Demand has now reached a plateau due to lower tails assays at enrichment facilities, triggered by the jump in uranium prices over the last two years, while enrichment services prices remained stable.

Production around the globe, up slightly, represents a little less than two-thirds of the uranium used. Additional demand was recorded last year, partly to rebuild inventories and partly speculation. The net effect is an imbalance between market supply and demand. Indeed, since the beginning of the 1990s, more than 40% of the demand has been satisfied with secondary resources: excess inventories held by utilities and fuel cycle companies, material from diluted HEU, use of mixed uranium/plutonium oxide fuel (MOX) (see Glossary), uranium from used fuel treatment and re-enrichment of depleted uranium.

Due to the depletion of excess uranium inventories, particularly those of the utilities and those stockpiled by Russia, primary sources will represent a growing share of supply and demand, as shown in the chart below. However, additional sources of supply will be limited in the near future, considering the time necessary to develop new production, for both technical and regulatory reasons.

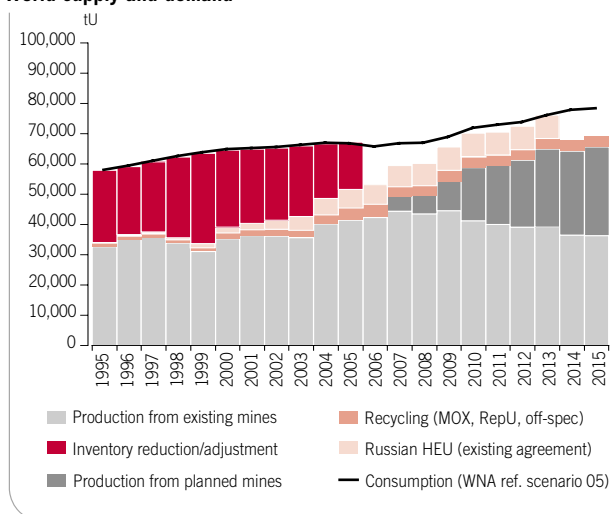
In the medium term, remaining secondary sources will have to be used to satisfy demand. These sources include re-enrichment of depleted uranium (enrichment tails), other inventories held by producers or by utilities as strategic reserves, and increased production, if market conditions allow. The use of these inventories is not included in the chart below.

The increase in production will be the product of new mines offsetting mine shutdowns contemplated after 2010.

The most significant of these projects include:

- Cigar Lake, starting in 2007;
- Various projects in Kazakhstan, such as Katco beginning in 2006, Inkai in 2007, and Mynkuduk in 2008;
- In Africa, the Langer Heinrich mine beginning in 2006 and expansion of the Rössing mine after 2009;
- In Australia, expansion of Olympic Dam after 2010.

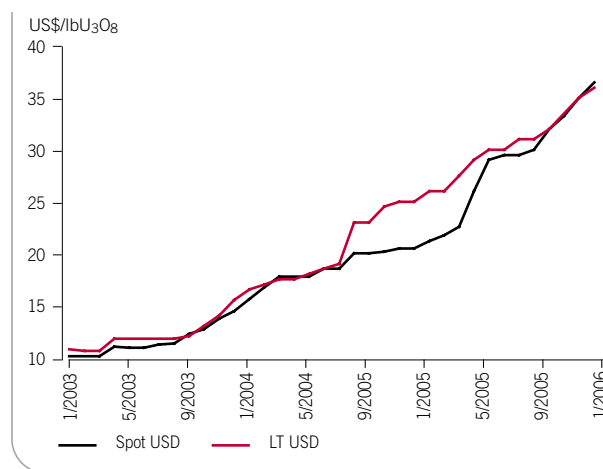
World supply and demand



Source: Per UxC, October 2005 & WNA 2005.

The pressure on uranium prices is likely to remain strong, as primary production once again becomes the dominant source of supply to satisfy demand, given the heavy investment that will be required over the long term. This increase in production requires increased capacity and an extension of the life of some mines, the start of mining operations at new deposits, and rapid resumption of exploration.

Recent trend in uranium spot price indices (USD)



Source: TradeTech.

## 4.4. Front End Division

**Estimated world production in 2005**

In geographical terms, nearly half of the estimated 42,200 MTU produced worldwide in 2005 came from Canada and Australia, followed by Central Asia (including Russia) and the African continent, as shown in the table below.

**Estimated worldwide uranium production in 2005**

The world's three largest producers of uranium concentrates in 2005 were AREVA, Cameco and Rio Tinto. These three producers each accounted for 15-20% of total uranium production worldwide. The

seven largest producers combined represent approximately 80% of world production. AREVA's competitive strength is based on a well-organized and diversified mining portfolio covering three of the world's four main producing regions. This situation gives its customers the benefit of security of supply under long-term contracts.

Development costs for new projects and their time to market pose a significant entry barrier that limits the risk of seeing new players in the market. Given these conditions, AREVA is in a favorable position that should enable it to help to meet the growing demand for uranium in the years to come.

**Top ten uranium-producing countries**

Country	Estimated production in 2005 (MTU)	Approximate (%)	Cumulative (%)
Canada	11,790	28	
Australia	9,350	22	50
Kazakhstan	4,100	10	60
Russia	3,300	8	68
Niger	3,200	8	76
Namibia	3,050	7	83
Uzbekistan	2,600	6	89
United States	1,100	3	92
South Africa	850	2	94
Ukraine	850	2	96
Other	2,010	4	100
<b>Total</b>	<b>42,200</b>		

Source: AREVA.

**Top ten uranium producers**

Producers	Estimated production in 2005 (MTU)	Approximate (%)	Cumulative (%)
Cameco	8,320	20	
Rio Tinto (ERA + Rössing) <sup>(2)</sup>	6,370	15	35
AREVA <sup>(1)</sup>	6,020	15	50
Kazatomprom	3,820	9	59
BHP-Billiton/ODM (incl. WMC)	3,550	8	67
TVEL (Russia)	3,300	8	75
Navoi (Uzbekistan)	2,600	6	81
Vostgok (Ukraine)	850	2	83
Nufcor (South Africa)	850	2	85
CNNC (China)	800	2	87
Other	5,440	13	100
<b>Total</b>	<b>42,200</b>		

(1) This production and AREVA's secondary resources make up the 20% market share indicated in paragraph 4.3.1.2.

(2) Production of the ERA and Rössing mines operated by Rio Tinto was consolidated in a single marketing entity as of the fall of 2005. In 2005, 100% of Rössing's production and 69% of ERA's production was allocated to Rio Tinto. Rio Tinto's share of ERA production is likely to increase in 2006, since minority interest holders have sold their shares of the mine.

Source : AREVA.

### 4.4.1.5. Resources, reserves and production sites

#### Uranium

Mineral reserves in deposits accessible to AREVA total approximately 140,500 MTU, or more than 20 times the Group's production in 2005. Reserves in the ground are supplemented with so-called secondary sources. In particular, AREVA has access to the equivalent of close to 2,600 MT of natural uranium per year through 2013 in connection with so-called "Russian HEU" agreements to reuse uranium from Russia's dismantled nuclear weapons.

As in 2004, the 2005 annual report was prepared based on mineral resources in the ground, to ensure consistency with reporting methods used by AREVA's partners and competitors.

Reserves remained almost stable at approximately 140,500 MT (down 2,150 MT from 2004), though production was 6,019 MT. Approximately 82,000 MT can reasonably be expected to be recorded as reserves over the medium term, down by approximately 8,250 MT. This change reflects the transfer of some of these resources to reserve status, the write-off of unminable reserves at the Cominak mine in Niger, and poor results from drilling at the Arlit concession in Niger and the McArthur mine operated by Cameco in Canada. In addition, the Group had nearly 247,000 MT of additional mineral resources in the ground at year-end 2005.

The Group's total mineral resources in the ground thus come to nearly 330,000 MT of uranium. The difference between the 2005 figure of 330,000 MT for global resources and the 2004 figure of 490,000 MTU is primarily due to the fact that reserves are no longer included in resources in 2005.

AREVA is expanding its research and exploration activities around sites that have already been mined in well-characterized geological settings or in little-explored regions with promising uranium potential. The timetables for these activities span more than ten years.

AREVA's resources and reserves at year-end 2005, together with its uranium production in 2005, are listed in the table below. Uranium from HEU (approximately 21,000 MT) and other secondary sources is not included.

#### Estimating methods

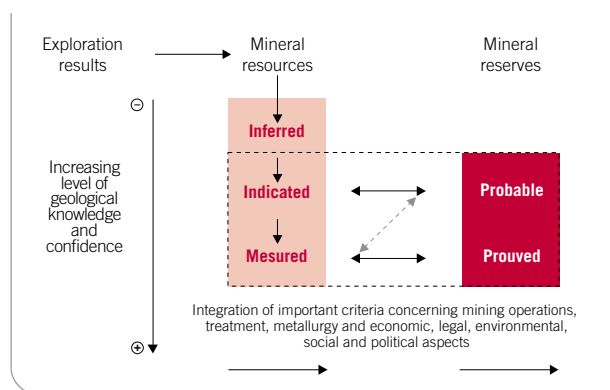
AREVA's resources and reserves are estimated based on data gathered by the Group's employees or are derived from audited reports. The Group's Reserves Department is responsible for these estimates.

In Canada, the Group's reserves are established based on independent estimates or audit reports by the shareholders of the companies operating the mines. In Niger, they are established in a certification report meeting Canadian standard NI-43-101 prepared by Geostat Systems International, Inc.

- "Mineral reserves in the ground" are defined as the portion of the resources offering the most accurate estimate and which were the subject of a feasibility or pre-feasibility study based on calculated or estimated costs. They are presented separately from the "resources" category.
- "Mineral resources in the ground" correspond to resources ranging from well-known resources to resources known to a lesser extent. In any event, these resources are estimated based on drilling results, but before a mining feasibility study. Mining is either planned or even just contemplated. These resources do not include the reserved described above.
- "Additional resources in the ground" correspond to resources that cannot be mined for administrative reasons or that cannot be mined profitably under current market conditions.

NB: these resources are calculated "in the ground", i.e. before processing losses.

The terms "measured", "indicated", and "inferred" relate to the level of reliability in estimates of mineral resources in terms of quantity, grade, density, form and physical characteristics (see Glossary).



## 4.4. Front End Division

## Criteria and parameters

Country	Site	AREVA share			Reserve criteria			
		Operator	Participating interests (%)	Share of production (%)	Recovery (%)	Life of deposit (years)	Type*	Mining permit Beginning End
Australia	Koongarra	AREVA NC	100.00	100.00	-	-	OP	n.a. n.a.
Canada	Cigar Lake	Cameco	37.10	37.10	98.56	12.9	UG	n.a. n.a.
Canada	Dawn Lake	Cameco	23.09	23.09	-	-	n.d.	n.a. n.a.
Canada	Key Lake	Cameco	16.67	30.20	97.90	0.0	OP	n.a. n.a.
Canada	Kiggavik	AREVA NC	99.00	99.00	-	-	OP	n.a. n.a.
Canada	McArthur	Cameco	30.20	30.20	97.90	20.8	UG	2004 2008
Canada	McClean	AREVA NC	70.00	70.00	97.50	2.1	OP/UG	2005 2009
Canada	Midwest	AREVA NC	69.16	69.16	98.50	3.2	n.d.	n.a. n.a.
Canada	Sissons Schultz	AREVA NC	50.00	50.00	-	-	UG	n.a. n.a.
United States	Malco Texas	AREVA NC	71.00	71.00	-	-	ISL	n.a. n.a.
United States	Malco Wyoming	AREVA NC	71.00	71.00	-	-	ISL	n.a. n.a.
United States	Pathfinder	AREVA NC	100.00	100.00	-	-	OP/UG	n.a. n.a.
France	Aquitaine	AREVA NC	100.00	100.00	-	-	n.d.	n.a. n.a.
Kazakhstan	Muyunkum Phase 1	AREVA NC	51.00	100.00	79.04	11.9	ISL	2000 2039
Kazakhstan	Muyunkum Phase 2	AREVA NC	51.00	51.00	79.04	12.3	ISL	2000 2039
Kazakhstan	Tortkuduk Phase 1	AREVA NC	51.00	100.00	79.00	9.9	ISL	2000 2039
Kazakhstan	Tortkuduk Phase 2	AREVA NC	51.00	51.00	79.00	2.0	ISL	2000 2039
Niger	Arlit Concession	AREVA NC	100.00	100.00	-	-	OP	n.a. n.a.
Niger	Cominak	AREVA NC	34.00	46.40	96.20	11.3	UG	1975 2043
Niger	Imouraren	AREVA NC	70.00	100.00	-	-	n.d.	n.a. n.a.
Niger	Somair	AREVA NC	63.40	100.00	94.90	13.5	OP	1968 2043

\*OP: open-pit.

UG: underground.

n.d.: not defined (not defined at the present time, since mining has not begun).

ISL: in-situ leaching.

## Estimated mineral reserves in the ground at year-end 2005

Country	Site	Proven			Probable			Total reserves			
		Mineral MT in thousands	Grade % <sup>(2)</sup>	Metal MTU <sup>(1)</sup>	Mineral MT in thousands	Grade %	Metal MTU	Mineral MT in thousands	Grade %	Metal MTU	AREVA share Participating interest <sup>(3)</sup> MTU Share of production <sup>(4)</sup> MTU
Canada	Cigar Lake	518	167.80	86,996	58	35.40	2,069	577	154.39	89,065	33,043 33,043
Canada	Key Lake	62	4.40	272	0	0.00	0	62	4.40	272	45 82
Canada	McArthur	363	206.67	75,118	364	204.96	74,531	727	205.81	149,649	45,187 45,187
Canada	McClean	720	6.82	4,912	0	0.00	0	720	6.82	4,912	3,438 3,438
Canada	Midwest	170	60.50	10,262	0	0.00	0	170	60.50	10,262	7,097 7,097
Kazakhstan	Muyunkum Phase 1	5,233	0.60	3,140	6,610	0.60	3,966	11,843	0.60	7,106	3,624 7,106
Kazakhstan	Muyunkum Phase 2	0	0.00	0	12,255	0.60	7,353	12,255	0.60	7,353	3,750 3,750
Kazakhstan	Tortkuduk Phase 1	0	0.00	0	19,716	0.60	11,829	19,716	0.60	11,829	6,033 11,829
Kazakhstan	Tortkuduk Phase 2	0	0.00	0	3,954	0.60	2,373	3,954	0.60	2,373	1,210 1,210
Niger	Cominak	1,698	4.66	7,909	3,664	4.29	15,737	5,362	4.41	23,647	8,040 10,972
Niger	Somair	5,687	2.94	16,716	0	0.00	0	5,687	2.94	16,716	10,598 16,716
<b>Total</b>		<b>14,451</b>	<b>14.21</b>	<b>205,325</b>	<b>46 622</b>	<b>2.53</b>	<b>117,859</b>	<b>61,073</b>	<b>5.29</b>	<b>323,184</b>	<b>122,066 140,431</b>

NB: the terms "proven" and "probable" relate to the level of reliability in estimates of mineral reserves in terms of quantity, grade, density, form and physical characteristics (reliability of estimates ranging from the highest level to the lowest level in this table).

(1) MTU: metric tons of uranium.

(2) Ore grade in %.

(3) Participating interest: percentage of AREVA's equity stake in the mining joint venture.

(4) Share of production: the share of uranium produced during the year and "sold/distributed" to AREVA by the mining joint venture.

Source: AREVA.

## 4.4. Front End Division

## Estimated mineral resources in the ground at year-end 2005

		Measured			Indicated			Measured + indicated			AREVA share	
Country	Site	Mineral MT in thousands	Grade ‰ <sup>(2)</sup>	Metal MTU <sup>(1)</sup>	Mineral MT in thousands	Grade ‰	Metal MTU	Mineral MT in thousands	Grade ‰	Metal MTU	Participating interest <sup>(3)</sup> MTU	Share of production <sup>(4)</sup> MTU
Canada	McArthur	41	86.63	3,542	40	71.01	2,830	81	78.92	6,372	1,924	1,924
Canada	Midwest	0	0.00	0	123	18.31	2,247	123	18.31	2,247	1,554	1,554
Niger	Cominak	756	3.36	2,544	1,820	3.14	5,725	2,577	3.21	8,269	2,812	3,837
Niger	Somaïr	0	0.00	0	3,875	1.65	6,397	3,875	1.65	6,397	4,056	6,397
<b>Total</b>		<b>797</b>	<b>7.63</b>	<b>6,086</b>	<b>5,858</b>	<b>2.94</b>	<b>17,199</b>	<b>6,655</b>	<b>3.50</b>	<b>23,285</b>	<b>10,345</b>	<b>13,712</b>

		Inferred			AREVA share	
Country	Site	Mineral MT in thousands	Grade ‰ <sup>(2)</sup>	Metal MTU <sup>(1)</sup>	Participating interest <sup>(3)</sup> MTU	Share of production <sup>(4)</sup> MTU
Canada	Cigar Lake	317	143.51	45,446	16,860	16,860
Canada	McArthur	585	62.35	36,451	11,007	11,007
Canada	Midwest	57	39.31	2,252	1,558	1,558
Kazakhstan	Muyunkum Phase 2	2,091	0.58	1,210	617	617
Kazakhstan	Tortkuduk Phase 2	18,228	0.60	10,937	5,578	5,578
Niger	Arlit Concession	3,500	4.00	14,000	14,000	14,000
Niger	Cominak	7,575	2.47	18,718	6,364	8,685
Niger	Somaïr	3,397	2.98	10,115	6,413	10,115
<b>Total</b>		<b>35,750</b>	<b>3.89</b>	<b>139,130</b>	<b>62,397</b>	<b>68,420</b>

NB: the terms "measured", "indicated", and "inferred" relate to the level of reliability in estimates of mineral resources in terms of quantity, grade, density, form and physical characteristics (reliability of estimates ranging from the highest level to the lowest level in this table).

(1) MTU: metric tons of uranium.

(2) Ore grade in ‰.

(3) Participating interest: percentage of AREVA's equity stake in the mining joint venture.

(4) Share of production: the share of uranium produced during the year and "sold/distributed" to AREVA by the mining joint venture.

Source : AREVA.

## 4.4. Front End Division

## Other estimated mineral resources in the ground at year-end 2005

		Measured			Indicated			Measured + indicated			AREVA share	
Country	Site	Mineral MT in thousands	Grade ‰ <sup>(2)</sup>	Metal MTU <sup>(1)</sup>	Mineral MT in thousands	Grade ‰	Metal MTU	Mineral MT in thousands	Grade ‰	Metal MTU	Participating interest <sup>(3)</sup> MTU	Share of production <sup>(4)</sup> MTU
Australia	Koongarra	624	10.55	6,585	188	5.33	1,000	812	9.34	7,585	7,585	7,585
Canada	Dawn Lake	0	0.00	0	347	14.36	4,977	347	14.36	4,977	1,149	1,149
Canada	Kiggavik	0	0.00	0	8,338	2.07	17,255	8,338	2.07	17,255	17,082	17,082
Canada	McClean	789	10.29	8,115	91	10.50	957	880	10.31	9,072	6,350	6,350
Canada	Sissons Schultz	0	0.00	0	15,810	2.50	39,572	15,810	2.50	39,572	19,786	19,786
United States	Malco Texas	0	0.00	0	808	0.84	677	808	0.84	677	481	481
United States	Malco Wyoming	1,773	0.88	1,557	6,400	0.93	5,949	8,173	0.92	7,506	5,329	5,329
United States	Pathfinder	247	4.30	1,060	2,253	2.16	4,868	2,499	2.37	5,928	5,928	5,928
France	Aquitaine	143	1.20	172	6,249	1.81	11,279	6,392	1.79	11,451	11,451	11,451
Kazakhstan	Muyunkum Phase 2	0	0.00	0	11,542	0.75	8,661	11,542	0.75	8,661	4,417	4,417
Niger	Cominak	2,099	3.63	7,630	0	0.00	0	2,099	3.63	7,630	2,594	3,540
Niger	Imouraren	0	0.00	0	105,800	1.12	118,100	105,800	1.12	118,100	82,670	118,100
Niger	Somaïr	11,327	0.75	8,539	3,571	1.94	6,930	14,898	1.04	15,469	9,807	15,469
<b>Total</b>		<b>17,002</b>	<b>1.98</b>	<b>33,657</b>	<b>161,395</b>	<b>1.36</b>	<b>220,225</b>	<b>178,397</b>	<b>1.42</b>	<b>253,882</b>	<b>174,630</b>	<b>216,668</b>

					Inferred			AREVA share	
Country	Site	Mineral MT in thousands	Grade ‰ <sup>(2)</sup>	Metal MTU <sup>(1)</sup>	Mineral MT in thousands	Grade ‰	Metal MTU	Participating interest <sup>(3)</sup> MTU	Share of production <sup>(4)</sup> MTU
United States	Pathfinder	2,967	1.21	3,576				3,576	3,576
France	Aquitaine	287	0.48	139				139	139
Kazakhstan	Muyunkum Phase 2	4,180	0.64	2,684				1,369	1,369
Niger	Imouraren	24,700	1.03	25,500				17,850	25,500
<b>Total</b>		<b>32,134</b>	<b>0.99</b>	<b>31,899</b>				<b>22,934</b>	<b>30,584</b>

NB: the terms "measured", "indicated", and "inferred" relate to the level of reliability in estimates of mineral resources in terms of quantity, grade, density, form and physical characteristics (reliability of estimates ranging from the highest level to the lowest level in this table).

(1) MTU: metric tons of uranium.

(2) Ore grade in ‰.

(3) Participating interest: percentage of AREVA's equity stake in the mining joint venture.

(4) Share of production: the share of uranium produced during the year and "sold/distributed" to AREVA by the mining joint venture.

Source: AREVA.

## Production

(in units tons)

Country	Site	Total <sup>(1)</sup> 2005	Share of <sup>(2)</sup> production 2005
Canada	McArthur	7,200	2,171
Canada	McClean	2,112	1,478
France	Div. Min. Herault	3	3
United States	Malco Wyoming	48	48
Kazakhstan	Muyunkum Phase 1	38	38
Niger	Cominak	1,778	966
Niger	Somaïr	1,315	1,315
<b>Total</b>		<b>12,494</b>	<b>6,019</b>

(1) MTU: metric tons of uranium in the concentrates after milling.

(2) Share of production: the share of uranium produced during the year and "sold/distributed" to AREVA by the mining joint venture.

Source: AREVA.

## 4.4. Front End Division

### Changes recorded

The change in estimated reserves and resources relates to minerals in the ground.

#### Proven reserves

(in units tons)		December 31, 2004	Quantities mined in 2005 <sup>(1)</sup>	Change in estimates	December 31, 2005
Country	Site				
Canada	Cigar Lake	86,996	0	0	86,996
Canada	Key Lake	272	0	0	272
Canada	McArthur <sup>(2)</sup>	128,438	(7,121)	(46,199)	75,118
Canada	McClean <sup>(3)</sup>	6,836	(2,164)	240	4,912
Canada	Midwest	10,262	0	0	10,262
Kazakhstan	Muyunkum Phase 1	3,182	(42)	0	3,140
Niger	Cominak <sup>(4)</sup>	7,890	(1,979)	1,998	7,909
Niger	Somaïr <sup>(5)</sup>	5,569	(1,526)	12,673	16,716
<b>Total proven reserves</b>		<b>249,444</b>	<b>(12,831)</b>	<b>(31,288)</b>	<b>205,325</b>

#### Probable reserves

(in units tons)		December 31, 2004	Quantities mined 2005 <sup>(1)</sup>	Change in estimates	December 31, 2005
Country	Site				
Canada	Cigar Lake	2,069	-	0	2,069
Canada	McArthur <sup>(2)</sup>	32,908	-	41,623	74,531
Kazakhstan	Muyunkum Phase 1	3,966	-	0	3,966
Kazakhstan	Muyunkum Phase 2 <sup>(6)</sup>	7,521	-	(168)	7,353
Kazakhstan	Tortkuduk Phase 1	11,829	-	0	11,829
Kazakhstan	Tortkuduk Phase 2 <sup>(7)</sup>	3,117	-	(744)	2,373
Niger	Cominak	15,737	-	0	15,737
Niger	Somaïr <sup>(5)</sup>	7,921	-	(7,921)	0
<b>Total probable reserves</b>		<b>85,070</b>	<b>-</b>	<b>32,789</b>	<b>117,859</b>

(1) Uranium contained in the ore extracted. The difference between this data and production corresponds to rates of recovery, inventories in process in the mill and the time lag from extraction to production

(2) "Proven reserves" downgraded to "probable reserves" by the operator (Cameco).

(3) Reserves upgraded at the Sue E open pit mine.

(4) New reserves estimates and assessments for the Akola and Akouta sectors.

(5) Resources upgraded to reserve status, based on feasibility of the Artois deposit.

(6) New estimates and assessment of part of the Muyunkum resources.

(7) New estimates and assessment of part of the Tortkuduk resources.

## 4.4. Front End Division

**Measured resources***(in units tons)*

Country	Site	December 31, 2004	Change in estimates <sup>(2)</sup>	December 31, 2005
Canada	McArthur <sup>(1)</sup>	3,791	(249)	3,542
Kazakhstan	Muyunkum Phase 2 <sup>(2)</sup>	369	(369)	0
Niger	Cominak <sup>(3)</sup>	4,092	(1,548)	2,544
Niger	Somaïr <sup>(4)</sup>	461	(461)	0
<b>Total measured resources</b>		<b>8,714</b>	<b>(2,628)</b>	<b>6,086</b>

**Indicated resources***(in units tons)*

Country	Site	December 31, 2004	Change in estimates	December 31, 2005
Canada	McArthur <sup>(1)</sup>	2,830	0	2,830
Canada	Midwest	2,247	0	2,247
Kazakhstan	Muyunkum Phase 2 <sup>(2)</sup>	1,214	(1,214)	0
Niger	Cominak <sup>(3)</sup>	6,969	(1,244)	5,725
Niger	Somaïr	6,397	0	6,397
<b>Total indicated resources</b>		<b>19,657</b>	<b>(2,458)</b>	<b>17,199</b>

**Inferred resources***(in units tons)*

Country	Site	December 31, 2004	Change in estimates	December 31, 2005
Canada	Cigar Lake	45,446	0	45,446
Canada	McArthur <sup>(1)</sup>	40,597	(4,146)	36,451
Canada	Midwest	2,252	0	2,252
Kazakhstan	Muyunkum Phase 2 <sup>(2)</sup>	120	1,090	1,210
Kazakhstan	Tortkuduk Phase 2 <sup>(5)</sup>	9,538	1,399	10,937
Niger	Arlit Concession <sup>(6)</sup>	22,200	(8,200)	14,000
Niger	Cominak <sup>(3)</sup>	21,458	(2,740)	18,718
Niger	Somaïr	10,127	(12)	10,115
<b>Total inferred resources</b>		<b>151,739</b>	<b>(12,609)</b>	<b>139,130</b>

*(1) New estimate of resources after completion of a drilling campaign by Cameco.**(2) New estimates and downgrade of part of the Muyunkum resources.**(3) Combined effects of decrease in resources due to negative results of a drilling campaign in Akola, the downgrade to "other resources" of part of the resources of the Akola and Akouta sectors, and a new assessment of the Ebba North and Ebba South deposits after completion of a drilling campaign.**(4) Increase in the quantity of resources upgraded to reserve status after completion of a new feasibility study concerning the Artois deposit.**(5) New estimates and downgrade of part of the Tortkuduk reserves.**(6) Write-off of the Argus and Arcadia deposits after a negative drilling campaign.*



4.4. Front End Division

**Other measured resources**

(in units tons)

Country	Site	December 31, 2004	Change in estimates	December 31, 2005
Australia	Koongarra	6,585	0	6,585
Canada	McClean	6,727	1,388	8,115
United States	Malco Wyoming	1,557	0	1,557
United States	Pathfinder	1,060	0	1,060
France	Aquitaine	172	0	172
Kazakhstan	Muyunkum Phase 2 <sup>(1)</sup>	9,783	(9,783)	0
Niger	Cominak <sup>(2)</sup>	4,046	3,584	7,630
Niger	Somaïr	8,670	(131)	8,539
<b>Total measured resources</b>		<b>38,600</b>	<b>(4,943)</b>	<b>33,657</b>

**Other indicated resources**

(in units tons)

Country	Site	December 31, 2004	Change in estimates	December 31, 2005
Australia	Koongarra	1,000	0	1,000
Canada	Dawn Lake	4,977	0	4,977
Canada	Kiggavik	17,255	0	17,255
Canada	McClean	957	0	957
Canada	Sissons Schultz	39,572	0	39,572
United States	Malco Texas	677	0	677
United States	Malco Wyoming	5,949	0	5,949
United States	Pathfinder	4,868	0	4,868
France	Aquitaine	11,279	0	11,279
Kazakhstan	Muyunkum Phase 2 <sup>(1)</sup>	3,211	5,450	8,661
Niger	Imouraren	118,100	0	118,100
Niger	Somaïr <sup>(3)</sup>	10,537	(3,607)	6,930
<b>Total indicated resources</b>		<b>218,381</b>	<b>1,844</b>	<b>220,225</b>

**Other inferred resources**

(in units tons)

Country	Site	December 31, 2004	Change in estimates	December 31, 2005
United States	Pathfinder	3,576	0	3,576
France	Aquitaine	139	0	139
Kazakhstan	Muyunkum Phase 2 <sup>(1)</sup>	0	2,684	2,684
Niger	Imouraren	25,500	0	25,500
<b>Total inferred resources</b>		<b>29,215</b>	<b>2,684</b>	<b>31,899</b>

(1) New estimates and downgrade of part of the Muyunkum resources.

(2) Downgrade to "other resources" after assessment of the Akola and Akouta sectors.

(3) Reclassification of resources based on the feasibility study of the Artois deposit.

## 4.4. Front End Division

AREVA uses the JORC classification system for Australian resources and the CIM classification system for Canadian resources.

**GOLD**

## Criteria and parameters

Country	Site	AREVA share			Criteria applicable to reserves				
		Operator	Participating interests (%)	Share of production (%)	Recovery (%)	Life of deposit (years)	Type*	Mining permit	
								Beginning	End
Australia	Mungari East	Cominor	51.00	51.00	-	-	OP	1994	2025
Australia	Mungari West	Cominor	51.00	51.00	96.20	1.4	OP	1999	2023
Australia	Polaris	Cominor	68.01	68.01	-	-	n.d.	n.a.	n.a.
Ivory Coast	Fetekro	Cominor	65.00	100.00	-	-	n.d.	n.a.	n.a.
Ivory Coast	SMI	Cominor	51.00	100.00	82.80	11.1	OP	1989	2006**
Sudan	AMC	Cominor	40.00	40.00	85.97	3.7	OP	1991	2018

\* OP: open-pit mine; n.d.: not defined (not defined at the present time since mining has not begun).

\*\* Permit renewal in four-year installments.

## Estimated mineral reserves in the ground at year-end 2005

Country	Site	Proven			Probable			Total reserves				
								AREVA share				
		Mineral MT (in thousands)	Grade g/MT	Metal kg	Mineral MT (in thousands)	Grade g/MT	Metal kg	Mineral MT (in thousands)	Grade g/MT	Metal kg	Participating interest <sup>(1)</sup> kg	Share of production <sup>(2)</sup> kg
Australia	Mungari West	1,316	2.55	3,356	482	1.55	747	1,798	2.28	4,103	2,092	2,092
Ivory Coast	SMI	2,882	5.48	15,779	140	4.00	560	3,022	5.41	16,339	8,333	16,339
Sudan	AMC	4,135	4.94	20,437	0	0.00	0	4,135	4.94	20,437	8,175	8,175
<b>Total</b>		<b>8,333</b>	<b>4.75</b>	<b>39,573</b>	<b>622</b>	<b>2.10</b>	<b>1,307</b>	<b>8,955</b>	<b>4.57</b>	<b>40,880</b>	<b>18,601</b>	<b>26,607</b>

## Estimated mineral resources in the ground at year-end 2005 (excluding reserves)

Country	Site	Measured			Indicated			Measured + indicated				
								AREVA share				
		Mineral MT (in thousands)	Grade g/MT	Metal kg	Mineral MT (in thousands)	Grade g/MT	Metal kg	Mineral MT (in thousands)	Grade g/MT	Metal kg	Participating interest <sup>(1)</sup> kg	Share of production <sup>(2)</sup> kg
Australia	Mungari East	895	6.27	5,611	1,887	5.56	10,501	2,782	5.79	16,112	8,217	8,217
<b>Total</b>		<b>895</b>	<b>6.27</b>	<b>5,611</b>	<b>1,887</b>	<b>5.56</b>	<b>10,501</b>	<b>2,782</b>	<b>5.79</b>	<b>16,112</b>	<b>8,217</b>	<b>8,217</b>

NB: the terms "proven" and "probable" relate to the level of reliability in estimates of mineral reserves in terms of quantity, grade, density, form and physical characteristics (reliability of estimates ranging from the highest level to the lowest level in this table).

(1) Participating interest: percentage of AREVA's equity stake in the mining joint venture.

(2) Share of production: quantity of gold "sold/distributed" to AREVA by the mining joint venture.

Source: AREVA.

## 4.4. Front End Division

		Inferred				
					AREVA share	
Country	Site	Mineral MT (in thousands)	Grade g/MT	Metal kg	Participating interest <sup>(1)</sup> kg	Share of production <sup>(2)</sup> kg
Australia	Mungari East	559	5.63	3,145	1,604	1,604
Australia	Mungari West	22	2.55	57	29	29
Ivory Coast	Fetekro	2,769	2.17	6,020	3,913	6,020
<b>Total</b>		<b>3,349</b>	<b>2.75</b>	<b>9,221</b>	<b>5,546</b>	<b>7,653</b>

Source : AREVA.

## Other estimated mineral resources in the ground at year-end 2005

		Measured			Indicated			Measured + indicated				
								AREVA share				
Country	Site	Mineral MT <i>(in thousands)</i>	Grade g/MT	Metal kg	Mineral MT <i>(in thousands)</i>	Grade g/MT	Metal kg	Mineral MT <i>(in thousands)</i>	Grade g/MT	Metal kg	Participating interest <sup>(1)</sup> kg	Share of production <sup>(2)</sup> kg
Ivory Coast	SMI	702	4.39	3,083	30	8.24	249	733	4.55	3,331	1,699	3,331
Total		702	4.39	3,083	30	8.24	249	733	4.55	3,331	1,699	3,331

## 4.4. Front End Division

## Changes recorded

**Proven reserves**

<i>(in gold kilograms)</i>		December 31,	Quantities mined	Change	December 31,
Country	Site	2004	2005 <sup>(1)</sup>	in estimates	2005
Australia	Mungari East	1,353	1,438	85	0
Australia	Mungari West	3,356	0	0	3,356
Ivory Coast	SMI	17,420	1,705	64	15,779
Sudan	AMC <sup>(2)</sup>	23,507	8,853	5,783	20,437
<b>Total proven reserves</b>		<b>45,636</b>	<b>11,996</b>	<b>5,932</b>	<b>39,573</b>

**Probable reserves**

<i>(in gold kilograms)</i>		December 31,	Quantities mined	Change	December 31,
Country	Site	2004	2005 <sup>(1)</sup>	in estimates	2005
Australia	Mungari East <sup>(3)</sup>	1,056	0	(1,056)	0
Australia	Mungari West	747	0	0	747
Ivory Coast	SMI	560	0	0	560
<b>Total probable reserves</b>		<b>2,363</b>	<b>0</b>	<b>(1,056)</b>	<b>1,307</b>

(1) Gold in the ore extracted. The difference between this data and production corresponds to rates of recovery, inventories in process in the mill, and the time lag from extraction to production.

(2) New assessments of the projects.

(3) End of open pit mining; discrepancy with estimates.

**Measured resources**

<i>(in gold kilograms)</i>		December 31,	Change	December 31,
Country	Site	2004	in estimates	2005
Australia	Mungari East	5,611	0	5,611
<b>Total measured resources</b>		<b>5,611</b>	<b>0</b>	<b>5,611</b>

**Indicated resources**

<i>(in gold kilograms)</i>		December 31,	Change	December 31,
Country	Site	2004	in estimates	2005
Australia	Mungari East	10,501	0	10,501
<b>Total indicated resources</b>		<b>10,501</b>	<b>0</b>	<b>10,501</b>

**Inferred resources**

<i>(in gold kilograms)</i>		December 31,	Change	December 31,
Country	Site	2004	in estimates	2005
Australia	Mungari East	3,145	0	3,145
Australia	Mungari West	57	0	57
Ivory Coast	Fetekro	6,020	0	6,020
<b>Total inferred resources</b>		<b>9,221</b>	<b>0</b>	<b>9,221</b>

**Other measured resources**

<i>(in gold kilograms)</i>		December 31,	Change	December 31,
Country	Site	2004	in estimates	2005
Ivory Coast	SMI	3,083	0	3,083
<b>Total other measured resources</b>		<b>3,083</b>	<b>0</b>	<b>3,083</b>

#### 4.4. Front End Division

##### Other indicated resources

(in gold kilograms)		December 31, 2004	Change in estimates	December 31, 2005
Country	Site			
Ivory Coast	SMI	249	0	249
<b>Total other indicated resources</b>		<b>249</b>	<b>0</b>	<b>249</b>

##### Other inferred resources

(in gold kilograms)		December 31, 2004	Change in estimates	December 31, 2005
Country	Site			
Australia	Polaris	611	0	611
Ivory Coast	Fetekro	2,919	0	2,919
<b>Total other inferred resources</b>		<b>3,530</b>	<b>0</b>	<b>3,530</b>

No change was recorded.

#### 4.4.1.6. Relations with customers and suppliers

##### Customers

The Business Units supplies products and services to nuclear power reactors worldwide. Most of these customers wish to conclude multiyear contracts covering five-to ten-year periods in order to ensure security of supply for their reactors.

Prices are usually calculated according to formulas in which a base price is generally indexed on a factor of inflation.

Tighter supplies created an upward pressure on prices in 2005. As a result, pricing formulas continued to reflect a trend initiated in 2004, where prices include a combination of a base price indexed on inflation and price indicators reflecting market conditions at the time of delivery. It is likely that spot prices at the time of delivery will become an essential component of pricing conditions as the imbalance between supply and demand continues in the medium term.

##### Suppliers

Except for uranium obtained by diluting High Enriched Uranium from Russia weapons, as described in the "Strategy and Outlook" section of paragraph 4.4 of this report, all uranium delivered to customers by the Business Unit is mined by companies or joint ventures affiliated with AREVA.

It should be noted that current increases in commodity prices have an impact on the Business Unit's production costs.

#### 4.4.1.7. Research and Development

##### Mineral exploration

Unlike most uranium mining companies, AREVA continued its mineral exploration program during 20 years of market collapse. Approximately 3% of the Business Unit's revenue is allocated to this program. With this strategy, AREVA was able to maintain the know-how of its geology department, to collect and update scientific data, and to identify new deposits for mining when the market recovers. AREVA is launching an ambitious exploration program for the coming years, with a budget of some €16 million in 2005 and triple that amount in the medium term.

##### Short-term outlook

AREVA is augmenting the number of its geologists by 70% to achieve the staffing levels that enabled the Company to discover the large deposits of France, Niger and Canada, including Cluff Lake and Cigar Lake.

The first actions are to accelerate development efforts near active mining sites and to prepare new exploration campaigns in uranium-rich provinces familiar to the Group. These efforts have already yielded practical results, even though AREVA knows that many years may be required before a minable ore body is discovered.

In Niger, data collected during an aerial geophysics campaign carried out in 2004 resulted in new permit applications for specific targets. These permits could be issued in 2006. In the eastern part of Canada, new exploration programs yielded encouraging results in Shea Creek, south of the former Cluff Lake mining site. In Southern Australia, north of Adelaide, negotiations with the aborigines resulted in an agreement to start exploration in 2006. In Finland, initial on-site exploration has identified three promising areas. A permit application was submitted at the end of 2005.

#### 4.4. Front End Division

##### Medium- and long-term outlook

Teams of geologists, miners, chemists and economists are working on projects identified in the past and on emerging projects, particularly in North America and Central Asia.

##### Research

The Business Unit's research programs are focused on mining and ore processing techniques such as milling or leaching.

#### 4.4.1.8. Operations and highlights

The Group sold 13,200 MT of uranium in 2005, including trading activities, compared with 12,500 MT in 2004. Production was 6,020 MT, marginally lower than in 2004. As in 2004, most production originated in Canada and Niger.

The development of mining operations at the Katco project in Kazakhstan and the Cigar Lake project in Canada continued in 2005. These projects were launched in 2004.

In Kazakhstan, production began at the Muyunkum South deposit at the end of 2005 and operations started at the first processing plant. In October 2005, Katco's mining concession was extended for a 35-year period. This transaction ensures that AREVA will be able to maintain its operations in the country, which has become one of the planet's major producers.

In Canada, underground development and surface infrastructure construction continued as planned at Cigar Lake throughout the year. Employee housing, 57 kilometers of roads and several underground and surface facilities were completed.

At the end of 2005, AREVA's Australian subsidiary, Interuranium Australia, sold its 7.8% participating interest in the Australian company Energy Resources of Australia, Ltd. (ERA), which operates the Ranger uranium mine in northern Australia. This purely financial interest gave no access to uranium and had no strategic advantage. The proceeds of the sale will be reinvested in new mining opportunities.

In France, the Lower Criminal Court of Limoges (central France) found in favor of AREVA NC in a case involving a claim filed by two local associations alleging waste dumping and damage to fish wildlife. Both associations have appealed the decision on a purely civil basis (see paragraph 4.15.5.).

The market was very active in terms of sales in 2005, in particular for long-term contracts outside France. AREVA is benefiting from this trend, which has two facets. First, utilities now wish to sign contracts covering much longer periods than before. Some utilities want to ensure the supply of their reactors for ten years, or even

for the life of the reactor. Secondly, a number of utilities are accelerating procurement to anticipate the depletion of secondary sources of supply and the growing demand resulting from renewed interest in nuclear power.

Uranium is thus becoming a strategic supply for utilities and a powerful marketing asset for the AREVA group.

#### 4.4.1.9. Outlook and development goals

The Business Unit had a significant backlog of orders at year-end 2005 equivalent to five years of sales revenue. The Business Unit intends to diversify its portfolio of customers over the longer term.

At the end of 2005, approximately 64% of the backlog is based on pre-2003 prices and 36% was gradually placed under contract under prices from the 2004-2005 period. The pressure on uranium prices should begin to have a positive impact on the Business Unit's sales revenue and earnings starting in 2008, and an even greater effect starting in 2009. Less than 40% of the Business Unit's revenue for the period 2006-2008 will be affected by post-2005 market price developments.

Considering the renewed interest in nuclear power, AREVA is already a key player on the uranium market, and initially intends to double production by 2010. However, the cost of new resources will probably be impacted by more difficult operating conditions at the new mines.

To increase its production capacity, AREVA has already initiated a vast exploration program around the globe as part of the "Turbo plan", while continuing to invest in existing sites.

## 4.4.2. CHEMISTRY BUSINESS UNIT

### 4.4.2.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	283	232
Workforce at year-end	1,640 people	1,652 people

### 4.4.2.2. Businesses

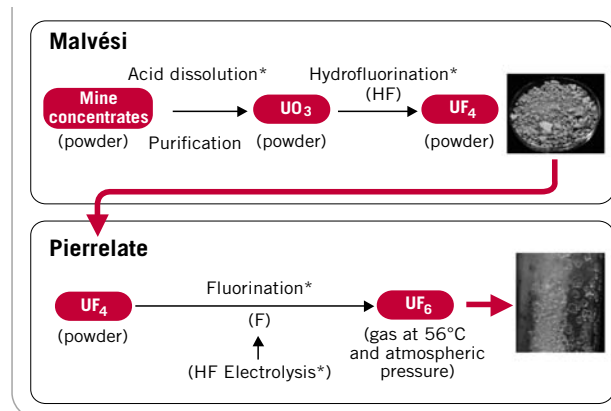
#### Conversion of natural uranium ( $U_3O_8$ ) into uranium hexafluoride ( $UF_6$ )

The *Chemistry* Business Unit's primary business is to convert natural uranium into uranium hexafluoride. Uranium enrichment, the necessary next step in nuclear fuel fabrication, requires uranium in the chemical form of  $UF_6$  as feed material for all types of enrichment technologies.

Uranium concentrates shipped from the mine for conversion are owned by the electric utility customer. Conversion is a two-stage process. In the first stage, the uranium is converted into uranium tetrafluoride ( $UF_4$ ). This involves dissolving the mine concentrates with acid, then purifying, precipitating and calcining them to produce  $UO_3$  powder. This product is then hydrofluorinated with hydrofluoric acid, which converts it into  $UF_4$ , which is granular and green in appearance. These operations are carried out at the Comurhex Malvési plant in Narbonne, France.

In the second stage, the  $UF_4$  is converted into uranium hexafluoride ( $UF_6$ ) through fluorination. One of the chemical characteristics of  $UF_6$  is that it turns into a gas when heated at relatively low temperature. The fluorine used in this process is produced through electrolysis of hydrofluoric acid. These operations are carried out in the Comurhex Pierrelatte plant in southern France.

The following diagram summarizes the process:



\* Purely clinical operations.

#### Stabilizing uranium hexafluoride ( $UF_6$ ) through defluorination

The uranium enrichment process (see *Enrichment* Business Unit) generates depleted uranium hexafluoride, which is converted into stable, insoluble and non-corrosive uranium oxide that can be safely stored pending reuse. The AREVA NC Pierrelatte defluorination plant is the only facility in the world to convert depleted uranium hexafluoride into oxide on a production scale. The conversion of depleted uranium hexafluoride into an oxide generates an ultra-pure 70% hydrofluoric acid, a marketable by-product.

#### Recycling of uranium from fuel treatment

After a residence time of three to four years, nuclear fuel is unloaded from the reactor still containing 96% uranium. The uranium is recovered through treatment operations performed at the AREVA NC La Hague plant (see *Treatment* Business Unit) and is shipped to the *Chemistry* Business Unit's Pierrelatte site in the form of uranyl nitrate for conversion into a stable oxide (denitration) or reconversion into uranium hexafluoride. Some European reactors, including the Cruas power station in France, are loaded with fuel made of recycled uranium from used fuel treatment.

#### Other fluorine derivatives

The Business Unit's conversion know-how, particularly in the field of uranium fluorination, has been used to develop non-nuclear applications as well.

For instance, Comurhex developed a line of fluorine derivatives that now represent 2% of the Business Unit's sales:

- tungsten hexafluoride is used in the microelectronics industry to manufacture cell phones, smart cards and global positioning systems...
- fluorine-nitrogen products are used in the automotive industry to treat plastic materials and seal gasoline tanks,
- chlorine trifluoride is used to clean Eurodif's gaseous diffusion enrichment barriers and, in its ultra-pure form, to fabricate microprocessors.

In the fluorochemicals sector, Air Liquide and Air Products are the two main customers. The Group is the leading producer of fluorine in Europe and the second largest in the world.

## 4.4. Front End Division

**Technology sales**

Cogema earns a return from its internationally recognized expertise in depleted uranium defluorination by selling its technology to world-class companies. For example, AREVA and Russian company Tenex signed a technology transfer agreement in May 2005 for the construction of a defluorination plant in Siberia. AREVA's know-how will enable Tenex to store this reusable material safely and to produce hydrofluoric acid that can be marketed to the chemical industry.

**4.4.2.3. Manufacturing and human resources**

The *Chemistry* Business Unit operates primarily at five plant sites, all of which are located in France:

- the Comurhex Malvézi plant produces  $UF_4$  in five furnaces, which operate concurrently,
- the Comurhex Pierrelatte plant produces  $UF_6$  in two flame reactors,
- the AREVA NC Pierrelatte plant defluorinates depleted uranium in four production lines,
- three AREVA NC and Comurhex plants at Pierrelatte convert uranyl nitrate, through denitration, into oxide or hexafluoride,
- the AREVA NC Miramas plant recycles lithium.

The Business Unit has an annual production capacity of 14,500 metric tons (MT) of  $UF_6$  conversion, 14,000 MT of defluorination, 2,800 MT of denitration and 80 MT of fluorine derivatives for industry.

The proximity of the *Chemistry* Business Unit's facilities to those of the *Enrichment* Business Unit represents real savings for our customers by reducing  $UF_6$  transportation costs to Eurodif.

The Business Unit's personnel are certified for work involving the use of potentially toxic chemicals and uranium.

All of the necessary skills to operate, produce and develop with optimum safety and security are thus in place.

Administrative and support functions (analytical laboratories, radiation protection, etc.) account for 36% of the *Chemistry* Business Unit's personnel, while 64% work in production.

**4.4.2.4. Market and competitive position**

The annual demand for conversion services in 2005 was around 62,000 MT, including 22,000 MT in Western and Central Europe, 6,000 MT in Eastern and Southeastern Europe, 20,000 MT in North America, and 12,700 MT in Asia.

AREVA continues to be the world leader, with 14,000 MT of  $UF_6$  production in 2005.

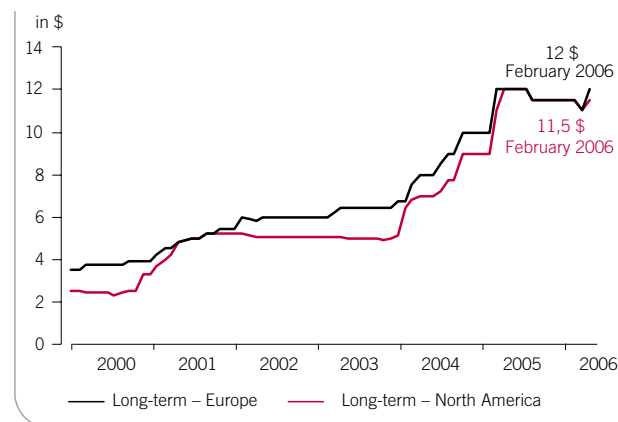
Its main competitors are Cameco in Canada, Converdyn in the United States, BNFL in the United Kingdom and FAE in Russia. Cameco's and Converdyn's nominal conversion capacities are comparable, at 12,500 MT/yr and 12,700 MT/yr respectively. BNFL, the only European competitor, has a nominal production capacity of around 6,000 MT. After announcing in 2001 that it would withdraw from the market in the 2006 time frame, Cameco and BNFL signed a commercial agreement in the first quarter of 2005 whereby BNFL would convert 5,000 MT per year of  $UO_3$  supplied by Cameco into  $UF_6$  for ten years. Russia has a large amount of underused capacity at its FAE plants due to technical and geographical limitations. The plants are mainly used to satisfy the needs of Russian reactors.

Prices for  $UF_6$  conversion tumbled in 2000-2001, falling to \$2.50 per kilogram of uranium contained in the  $UF_6$ , mainly due to the arrival of  $UF_6$  inventories on the market in the wake of USEC's privatization in the United States and to the use of HEU<sup>(1)</sup>. Prices rose in 2002-2003, as shown in the graph below. By the end of 2002, they had returned to the levels of the early 1990s, i.e. around \$6/kg. Since 2004, the representative price for  $UF_6$  conversion in Europe has shot up, reaching close to \$12/kg in early 2005 under the cumulative effect of the absorption of  $UF_6$  inventories available on the market, Converdyn's problems, reduced quantities of  $UF_6$  stemming from the use of HEU, and BNFL's announced intention of withdrawing from the market. The long-term index in North America also fell in line with this trend. In 2005, the market prices for the different regions have been brought into alignment, stabilizing at \$12-13/kg, despite BNFL's announcement that it plans to continue to operate its plant.

(1) HEU: Highly Enriched Uranium.



UF<sub>6</sub> conversion price indices in dollars



Source: Tradetech.

#### 4.4.2.5. Relations with customers and suppliers

##### Customers

At the request of nuclear utility customers, the average term for recently signed conversion contracts is rising from three to five years to as much as ten years. In 2005, Comurhex delivered to more than 30 utility customers and traders across the world. Most of the *Chemistry* Business Unit's customers are located in Europe, Asia and the United States. Technology sales contracts are usually for five-year terms.

##### Suppliers

The *Chemistry* Business Unit limits its exposure to interruptions of chemical reagent supplies needed for production operations by contracting with suppliers based in Europe as well as in the rest of the world.

#### 4.4.2.6. Operations and highlights

In 2005, a total of 14,042 MT of U<sub>3</sub>O<sub>8</sub> was converted into UF<sub>6</sub>, essentially the same level as in 2004 (14,067 MT).

In 2005, major long-term contracts were signed with the Japanese (such as Kansai), Korean (KHNP), European (Enusa, Vattenfall) and American utilities for a total amount of more than €230 million, equivalent to over two years in conversion sales revenue. These contracts illustrate AREVA's geographically diversified portfolio in terms of conversion activities.

The *Chemistry* Business Unit also produced 1,475 MT in the denitration business, 11,401 MT in the defluorination business, and around 300 MT of oxide for the MOX fuel business.

#### 4.4.2.7. Outlook and development goals

The *Chemistry* Business Unit's strategic objective is to bolster its position on the uranium conversion market, especially in Europe. It will continue to benefit from the integration of AREVA group businesses and its physical proximity to Europe's enrichment plants.

To achieve this objective, the *Chemistry* Business Unit launched a production plant rejuvenation project called "Comurhex 2". This initiative is consistent with the Group's enrichment programs and in particular plans to build the Georges Besse II enrichment plant at the Tricastin site.

## 4.4. Front End Division

## 4.4.3. ENRICHMENT BUSINESS UNIT

## 4.4.3.1. Key data

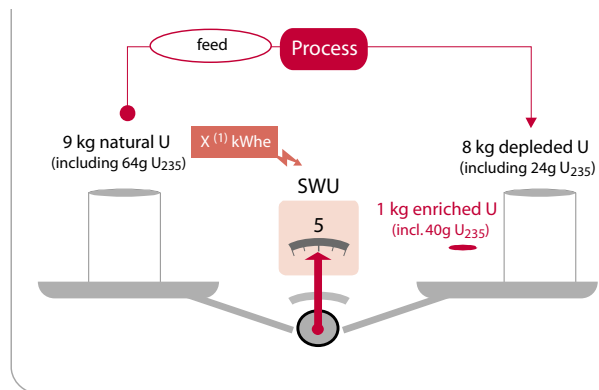
(in millions of euros, IFRS)	2005	2004
Sales revenue	727	681
Workforce at year-end	1,498 people	1,517 people

## 4.4.3.2. Businesses

The *Enrichment* Business Unit enriches natural  $UF_6$  delivered to the enrichment plant by the customer. Natural  $UF_6$  is a chemical compound of uranium and fluorine that is gaseous at a temperature of 80°C and contains the fissile isotope of uranium,  $U_{235}$ , needed to fabricate fuel for light water reactors. Enrichment is the process by which the 0.7% content of  $U_{235}$  in natural  $UF_6$  is raised to 3-5% to achieve a level of fuel reactivity suitable for reactor requirements.

An enrichment plant's production is expressed in separative work units (SWU). This unit is proportionate to the quantity of uranium processed and is a measure of the work required to separate the fissile isotope. As shown in the figure below, it takes nine kilograms of  $UF_6$  and five SWUs to produce just one kilogram of enriched uranium (at a 4% enrichment level) and eight kilograms of depleted uranium (at 0.3%).

## Enrichment process



(1) Variable, depending on process used.

Source: AREVA.

Two enrichment processes are currently in use worldwide: centrifugation and gaseous diffusion. Currently, the AREVA group uses the latter process.

However, an agreement signed with Urenco and its shareholders in 2003 should give AREVA access to centrifuge technology, which will consume 50 times less electricity than the gaseous diffusion

process while lowering facility maintenance costs. Another advantage of centrifuge technology is its modular construction, enabling gradual ramp-up of production and adjustment of production capacity to market demand. This technology is set to be used in the new Georges Besse II plant, whose estimated cost is €2.5 billion. Construction is expected to span the period from 2006 to about 2018.

The capital-intensive enrichment industry also has a strong political dimension. Historically, major nuclear nations have sought their own production capabilities to ensure energy self-sufficiency while limiting nuclear proliferation. This aspect is vital to understanding decisions by the key market players and placing them in their proper context.

## 4.4.3.3. Manufacturing and human resources

The *Enrichment* Business Unit is located at the Tricastin nuclear site in France's Rhône valley.

The Business Unit uses the plant of its subsidiary Eurodif to perform enrichment services. Cogema holds a 59.7% stake in Eurodif, directly or indirectly, and the remaining 40.3% is held by foreign partners<sup>(1)</sup>. Most of the *Enrichment* Business Unit's employees – about 80% – are based at the Eurodif plant. Of those, about 10% are engineers and managers.

The Eurodif enrichment plant, known as the Georges Besse plant, consists of an enrichment cascade with 1,400 diffusion stages divided into 70 groups. The plant's modular design, the possibility of isolating groups, and the ability to modify the profile of the cascade are such that a shutdown of groups for technical or commercial reasons does not affect plant capacity, which is set at a maximum of 10.7 million SWU per year. The plant load factor varies from 40% to 100%, depending on the time of year. The modular concept also accommodates a wide range of enrichment assays and production quantities on short notice.

The gaseous diffusion process takes advantage of the difference in atomic weights between  $^{235}UF_6$  and  $^{238}UF_6$  to separate those isotopes. The gas molecules are in perpetual motion and strike the walls of whatever encloses them. Since these molecules all have the same kinetic energy, the lighter ones – those of the  $U_{235}$  isotope – are also the fastest, and strike the wall of the enclosure more often statistically than the heavier molecules of the  $U_{238}$  isotope. If that wall is porous, the lighter molecule has a higher probability of crossing through this barrier than the heavier molecule.

(1) The other shareholders of Eurodif SA are Synatom of Belgium, Enea of Italy, Enusa of Spain, and Sofidif, a company owned by French and Iranian interests. AREVA NC has a 60% stake in Sofidif.

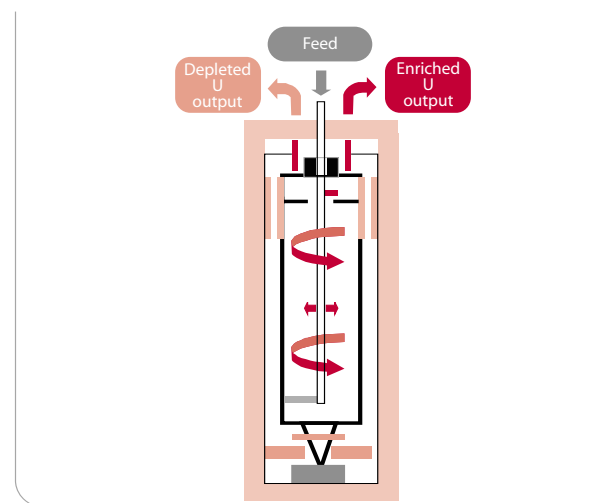
The  $UF_6$  is brought to the gaseous state and enriched in a series of steps in a cascade of 1,400 diffusion barrier stages. The resulting isotopic separation is measured in “Separative Work Units” (SWU). This is what constitutes the enrichment service sold to electric utilities. The SWU is an international unit of measure for enrichment services and sales, and is independent of the separation technology used.

The gaseous diffusion enrichment process uses large amounts of energy: electricity represented some 60% of the enrichment production cost in 2005. In providing enrichment services to some 100 reactors operated by 30 electric utilities worldwide, the *Enrichment* Business Unit consumes as much electricity as the greater Paris area, or an average of 3 to 4% of France’s entire generation of electricity. For some customers, representing about half of the volume, including EDF, the *Enrichment* Business Unit’s biggest customer, SWU sales are made under a processing contract in which the customer provides the electricity necessary for its own enrichment requirements. Consequently, the customer only pays for the enrichment service, and not for the cost of the electricity. For other customers, the Business Unit purchases electricity directly from various suppliers. The Eurodif plant adjusts its electric power requirements to seasonal peak and off-peak demand to get the best available power rates (see section 4.4.3.5).

The Georges Besse II plant, expected to start up by 2009, will be operated by Société d’Enrichissement du Tricastin, a wholly-owned subsidiary of the AREVA group.

Like gaseous diffusion, the centrifuge enrichment process to be deployed in the future plant uses the difference in atomic weight between U235 and U238, though the approach is different.

#### Centrifuge enrichment concept



Source: AREVA.

An elongated cylinder spins in a vacuum at very high speed inside a sealed housing. Uranium in the form of gaseous uranium hexafluoride ( $UF_6$ ) is introduced, as in the gaseous diffusion process.

The centrifugal force throws the heaviest particles to the cylinder walls, separating them from the lighter isotope. The gas enriched in the lighter isotope, located closer to the center of the bowl, flows towards the top of the machine, while the gas with the heavier isotope flows towards the bottom. The enriched and depleted products are recovered at either end of the machine.

#### 4.4.3.4. Market and competitive position

Available worldwide enrichment capacity<sup>(1)</sup> is approximately 34 million SWU, excluding 5.5 million SWU from the dilution of HEU from Russia’s defense program (see section 4.4., “Strategy and Outlook” of the Front End Division), for which USEC is the sole importer. Available capacities are shown below:

Operator	Available capacity	Technology
USEC-production	5 million SWU/yr	Gaseous diffusion
USEC-Russian HEU	5.5 million SWU/yr	Dilution
AREVA/Eurodif (France)	10 million SWU/yr	Gaseous diffusion
FAAE (Russia)	10 million SWU/yr	Centrifugation
Urenco (UK, Germany, Netherlands)	7.4 million SWU/yr	Centrifugation
CNEIC (China)	1 million SWU/yr	Centrifugation
JNFL (Japan)	< 1 million SWU/yr	Centrifugation
<b>Total</b>	<b>39 to 40 million SWU/yr</b>	

Source: AREVA.

The AREVA group thus has approximately 25% of the world’s total available capacity. World supply is equal to world demand, estimated at 40 million SWUs in 2005, as follows:

- Eastern Europe: 14%
- Asia: 22%
- Western Europe: 32%
- Americas: 32%

AREVA has the largest share of the Western European enrichment market, ahead of Urenco and FAAE. In Eastern Europe, the demand is almost entirely met by FAAE, for historical reasons.

In the United States, close to 50% of the demand is met with enriched uranium diluted from HEU recovered from Russian weapons and imported by USEC under an exclusive agreement,

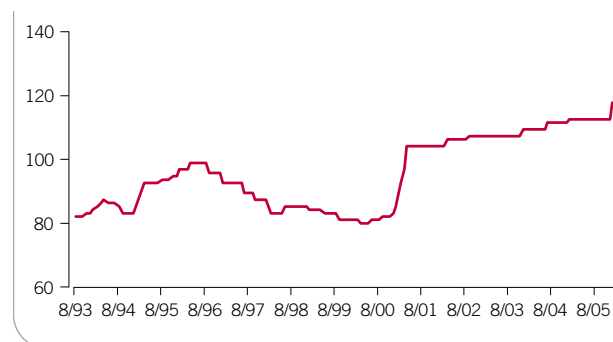
(1) Taking into account agreements limiting Russian access to the European Union and the United States.

#### 4.4. Front End Division

supplemented in part by USEC's domestic production. Both Urenco and AREVA operate in the U.S. market, despite the edge that USEC has due to its access to HEU, but USEC has filed dumping and illegal subsidies claims against them. The decisions handed down in 2005 were favorable to AREVA and Urenco (see section 4.15.5). USEC is also the largest supplier to Asia, mostly for historical reasons, ahead of Urenco and AREVA, with JNFL supplying marginal quantities.

Excess capacity characterized the 1995-2000 period, mainly due to the use of HEU, which caused prices to fall. This was amplified by USEC's commercial strategy faced with growing competition from the other enrichers at a time when the U.S. dollar was very strong against the euro. Since 2001 and USEC's lawsuit against the European enrichers, spot prices have been rising, primarily in the U.S. market, going from \$80 to \$118 per SWU in early 2006, as shown in the figure below. These price levels are holding steady in a context of balanced supply and demand. However, the price rise in dollars is significantly offset by the fall in the dollar/euro exchange rate over the period. Most of AREVA's sales are made in euros in the euro zone, and much of the backlog from Asia and North America, quoted in dollars, is hedged.

**SWU spot prices from 1990 to 2005**  
(in current \$)



Source: average SWU values published monthly by Ux.

Market growth is limited in volume but relatively secure, especially in Asia, where nuclear power programs are growing faster than in the other three major regions of the world. The growth in this market is also due to the widespread increase in nuclear power plant load factors, burn-ups requiring higher enrichment assays, and new projects. The general lowering of tails assays requested by the utilities, driven by the rapid price increase for natural uranium, is another factor.

The market is also regulated by geopolitical considerations. In Europe, the Euratom Supply Agency monitors the supply of uranium and enrichment services in accordance with the Corfu Declaration, which governs SWU imports into the European Union. In the United States, implementation of the HEU agreement allows imports into the U.S. of materials from dismantled Russian weapons. Pursuant to the Suspension Agreement, Russia also agrees not to deliver any other enrichment service to the United States.

#### 4.4.3.5. Relations with customers and suppliers

##### Customers

The market for enrichment services is a medium-term market, with contracts currently signed for 3-5 year periods. In addition to EDF, which represents about 50% of its business, the *Enrichment* Business Unit has close to 30 utility customers divided among the United States, Europe and Asia, representing commitments from a hundred reactors worldwide.

##### Suppliers

The Business Unit's largest procurement is electricity, mainly from EDF. The Business Unit is negotiating the renewal of its electricity supply contract with EDF, which expired at the end of 2005, for its export operations (i.e. non-EDF). The *Enrichment* Business Unit also secured other resources, particularly through the re-enrichment of depleted uranium produced by enrichment operations.

#### 4.4.3.6. Operations and highlights

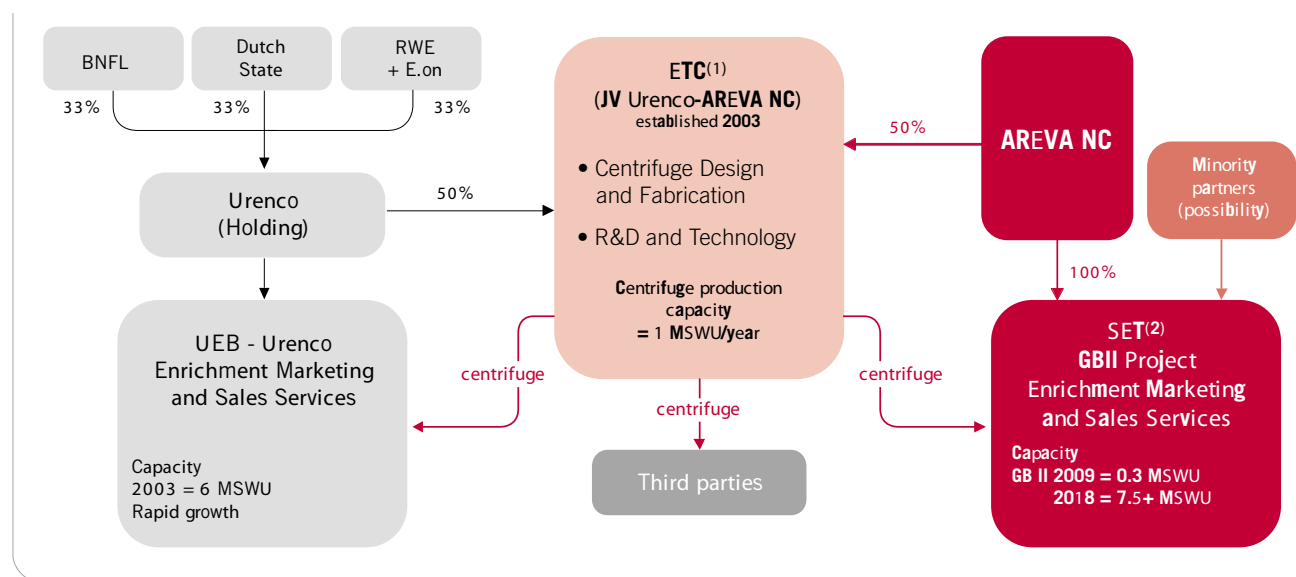
In 2005, the volume of SWU sales stabilized at 10.4 million, backing up the very high level of 10.6 million SWUs reached in 2003.

Commercially, it was a fruitful year, with a high level of enrichment services sales continuing from previous years and new orders, especially from Asia and Europe, strengthening the backlog. The Georges Besse plant achieved scheduled production levels and deliveries while demonstrating its ability to adjust to work load. Eurodif continued to optimize its energy supply strategy during the year by purchasing energy from other European utilities in addition to using EDF.

The Group continued to plan for the future in 2005 by pursuing the process to develop a new centrifuge enrichment plant. In November 2003, AREVA signed an agreement with Urenco and its shareholders to acquire a 50% participating interest in Enrichment Technology Company Ltd (ETC).

That company will design and fabricate centrifuges, some of which will be earmarked for AREVA's new Georges Besse II enrichment plant to be built at the Tricastin site in France. The European Commission approved the merger on October 6, 2004. Before the November 2003 agreement can come into force, the multilateral treaty among France, Germany, the United Kingdom and the Netherlands, whose purpose is to modify the Almelo treaty so that AREVA can acquire a participating interest in ETC, must be ratified. The final milestone in this process is set to be reached in the first half of 2006, when the Dutch Parliament votes on it. The legal structure of the holdings is shown in the following figure.

Target legal organization chart for ETC



(1) *Enrichment Technology Company.*

(2) *Société d'Enrichissement du Tricastin.*

Source: AREVA.

In connection with the customs dispute initiated by USEC against Eurodif, the U.S. Department of Commerce (DOC) reduced the countervailing duties against Eurodif, paid in 2003, by almost 45% in September 2005. The duties paid in 2004 are currently under review. In addition, the U.S. Court of Appeals for the Federal Circuit (CAFC) rendered a decision on the merits on March 3, 2005 confirming Eurodif's legal analysis. The CAFC confirmed its decision following a new audience requested by USEC and the DOC, thus extinguishing any possibility of a remedy from the CAFC for the DOC.

Neither the U.S. government nor USEC have filed an appeal with the U.S. Supreme Court to reverse the lower court decisions concerning the qualification of Eurodif's enrichment contracts as a "good or service" (see section 4.15.5.).

### 4.4.3.7. Outlook and development goals

Demand is assured for the next 20 years, based on current nuclear power programs and the known service life of reactors. Growth is limited but relatively steady. Growth in Asia should coincide with nuclear power revivals in some countries, particularly the United States and Finland.

In the medium-term, and subject to a rising U.S. dollar compared with the euro, the *Enrichment* Business Unit should see its backlog continue to fill up and be more evenly balanced among the three large markets of Europe, the United States and Asia. The export backlog has risen. As of the end of 2005, the average export backlog was equal to five years of sales.

Eurodif and EDF signed an amendment to the enrichment services supply contract in January 2006, extending the contract for at least one more year. The contract has been in force since 1996.

The *Enrichment* Business Unit's objective for the coming years is to ensure a successful transition from "gaseous diffusion" technology to "centrifuge" technology as it replaces its production plant. The total capital outlay for the Georges Besse II project will be about €3 billion from 2006 to 2018, including the cost of technology rights, for a production capacity of roughly 7.5 million SWUs. Assuming that the agreement with Urenco regarding ETC becomes effective quickly (see above), the plant should begin production within three years, and ramp up gradually until around 2017-2018.

## 4.4. Front End Division

## 4.4.4. FUEL BUSINESS UNIT

## 4.4.4.1. Key data

(in millions of euros, IFRS)

	2005	2004
Sales revenue	1,113	1,136
Workforce at year-end	5,252 people	5,393 people

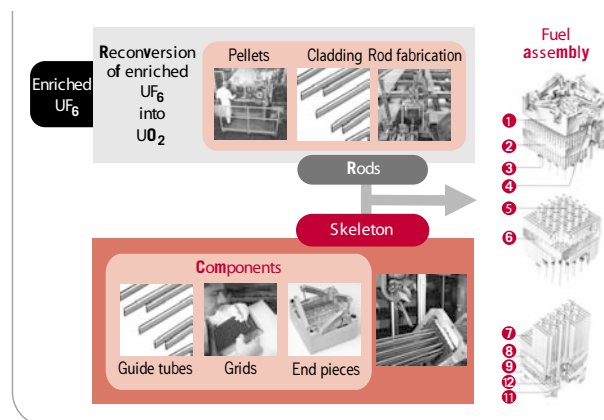
## 4.4.4.2. Businesses

The *Fuel* Business Unit designs, fabricates and sells nuclear fuel assemblies for PWR and BWR power plants and for research reactors. The fissile material remains the property of the customer. In addition to conventional enriched uranium oxide fuel, the Business Unit also supplies MOX fuel and enriched reprocessed uranium fuel (ERU – see Glossary) using fissile materials recycled from used fuel. The *Fuel* Business Unit sells part of the Group's MOX fuel. The Back End Division's *Recycling* Business Unit fabricates the MOX fuel (see section 4.6.1.) and may also sell MOX fuel rods directly to other fuel designers/vendors.

Fuel is a very high-tech, consumable product that must be replaced at regular intervals. Fuel assemblies form the reactor core, where energy-producing nuclear fission occurs. For example, a modern pressurized water reactor such as the 1,600 MWe EPR contains close to 120 metric tons of fissile material divided among the 241 assemblies that form the reactor core, the only part of the reactor that is truly “nuclear”.

A fuel assembly is made of cylindrical tubes called “fuels rods” containing sintered uranium oxide pellets – the fissile material – held in place in a metal frame, or “skeleton”, usually made of zirconium alloy. An assembly can contain 200 to 500 kilograms (~440 to 1,102 pounds) of fissile material, depending on the type of assembly.

## Main stages in fuel assembly fabrication



Source: AREVA.

Reactor safety is a function of several requirements:

- containment of all radioactive materials, as defined by nuclear safety standards, under both normal and accidental conditions,
- control of the chain reaction, and
- cooling of the reactor core.

Fuel assemblies contribute to reactor safety by sealing fissile materials and radioactive fission products inside zirconium alloy cladding, which forms the primary containment barrier.

The fuel assembly is designed so that the fissile material needed to control the chain reaction is appropriately spaced. Fuel design also aims to minimize damage under accidental conditions, allowing control rods (see Glossary) to be inserted and the reactor core to be cooled under all circumstances.

Once unloaded from the reactor, the fuel assembly must continue to provide fissile material and fission product containment. Fuel design must also allow for residual heat dissipation and fuel handling, even after having been stored for relatively long periods. The fuel must also be designed to allow for treatment when the closed fuel cycle has been chosen.

Used fuel is replaced every 12 to 24 months with partial core reloads representing 20% to 50% of the total number of assemblies in the reactor, depending on core management techniques and fuel assembly performance. The number of assemblies replaced simultaneously constitutes a reload.

The *Fuel* Business Unit is expert in the entire design and fabrication process, from the production of zirconium and its alloys up to fabrication of the final fuel assembly, to meet the very demanding operating conditions and specific requirements of each customer. Nuclear fuel is by no means an ordinary or easily substituted product. A large number of high-level scientific and technical skills are needed to achieve flawless design and fabrication quality, an absolute requirement. The *Fuel* Business Unit has expertise in three key areas:

- design: This includes neutronic, thermo-hydraulic and mechanical strength codes and a database built on lessons learned from many years of reactor operations. Fuel designs are referenced in the reactor license application, making the fuel designer one of the utility's most important partners during discussions with the nuclear safety authorities;
- zirconium and zirconium alloy production: This draws on chemical and metallurgical processes and technologies;
- fuel assembly fabrication: this requires knowledge of chemistry, powder metallurgy, various assembly techniques, including advanced welding, mechanical systems and machining, and numerous non-destructive examination techniques and physical/chemical analyses.

The *Fuel* Business Unit also manufactures and markets finished and semi-finished zirconium products. Several of the Business Unit's competitors – fuel designers and/or fabricators – are also its customers.

#### 4.4.4.3. Manufacturing capabilities

The *Fuel* Business Unit is organized into three business lines:

- “design and Sales”, based in Germany, France and the United States;
- “zirconium”, with five plants in France and one in Germany, each specializing in one aspect of zirconium metallurgy or forming;
- “Fuel Fabrication”, revolving around seven plant sites, two in the United States and five in Europe, which mainly supply European utilities.

The Group has nominal fuel fabrication capacity of 2,750 metric tons of heavy metal per year (MTHM – see Glossary), including 1,850 in Europe and 900 in the United States. This represents one third of the world's installed fabrication capacity for light water reactors and close to half of the annual fuel requirements of those reactors.

The *Fuel* Business Unit includes two other entities:

- Cerca has plants in France and is mainly active in the fabrication and sale of fuel elements for research reactors, a market in which it is the world leader. It also fabricates and sells radioactive sources for medical and laboratory applications.
- Federal Operations, located in the United States, provides nuclear engineering services to the U.S. Department of Energy (DOE) as well as to other federal government programs.

#### 4.4.4.4. Market and competitive position

The *Fuel* Business Unit's principle business is the fuel assembly market for BWRs and PWRs – excluding the Russia-designed VVERs – and for research reactors. AREVA controls close to 40% of this market.

In 2005, the worldwide market (excluding ex-USSR) represented about 6,000 MTHM (uranium or plutonium) contained in the assemblies. The United States accounts for 37% of world demand, Europe 35% and Asia 27%.

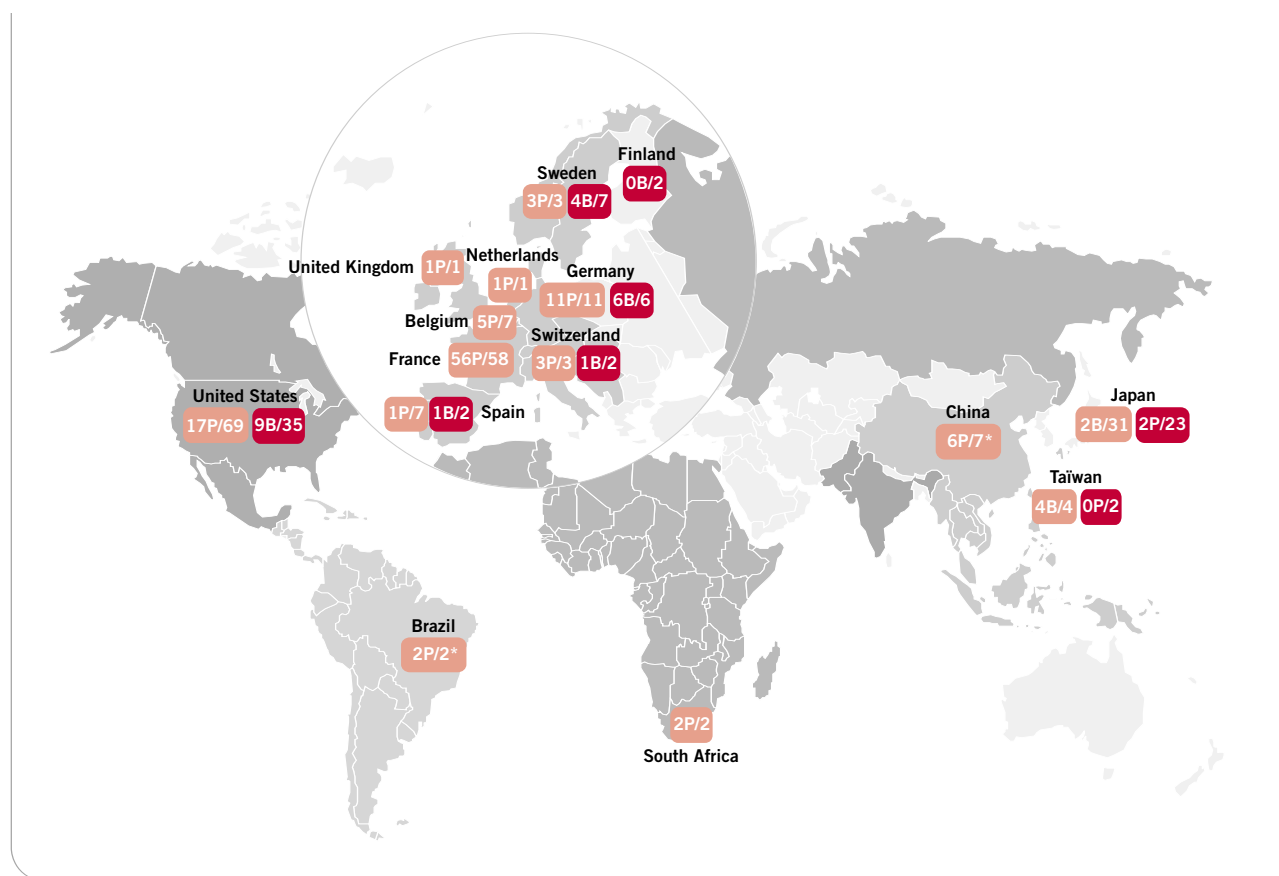


## 4.4. Front End Division

The fuel industry has reorganized several times over the past few years, leaving three leading groups to satisfy 80% of global fuel demand: AREVA, BNFL-Westinghouse and GNF (GE, Toshiba and Hitachi). The AREVA group has supplied a total of close to

175,000 fuel assemblies, two-thirds of them PWR and one-third BWR. Today, 137 of the world's 307 operating PWRs and BWRs (as of the end of December 2005, excluding VVERs) routinely use AREVA fuel, as shown in the figure below.

World map of reactors loaded with AREVA fuel



\* Local fabricator using AREVA NP technology.

NB 1: P = Pressurized Water Reactor and B = Boiling Water Reactor. (-/-) = Number of reactors using fuel supplied by AREVA/total number of reactors in service.

NB 2: in addition to the 285 PWR and BWR reactors in operation worldwide shown on this map, there are also PWRs and BWRs that do not use AREVA fuel, located in Mexico (2 BWR), Slovenia (1 PWR), South Korea (16 PWR), India (2 BWR) and Pakistan (1 PWR).

Sources: IAEA, WNA, Nuclear Assurance Corporation (December 2005).

Of the 137 reactors supplied with fuel by AREVA:

- two-thirds are reactors designed by AREVA, demonstrating the synergies between the *Fuel* Business Unit and the Reactors and Services Division, which accounts for 95% of AREVA's installed capacity; and
- the other third represents 22% of AREVA's competitors' installed capacity.

As the following chart shows, the AREVA group is the European leader. Its market share has risen significantly in the United States and is continuing to expand in Asia.



### Market share of fuel players in 2005

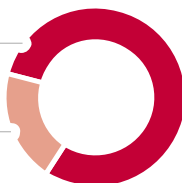
#### EUROPE

Total European market: 2,065 MT/year

REP market in Europe = 1,740 MT/year

80% - AREVA

20% - BNFL-Westinghouse + Enusa



REB market in Europe = 325 MT/year

38% - AREVA

19% - GNF Genusa (Geus + Toshiba + Hitachi)

43% - BNFL - Westinghouse + Enusa



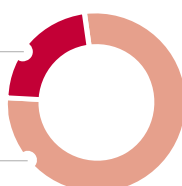
#### UNITED STATES

Total United States market: 2,200 MT/year

REP market in United States = 1,425 MT/year

22% - AREVA

78% - BNFL-Westinghouse + Enusa



REB market in United States = 775 MT/year

24% - AREVA

2% - BNFL-Westinghouse + Enusa

74% - GNF Genusa (Geus + Toshiba + Hitachi)



#### ASIA

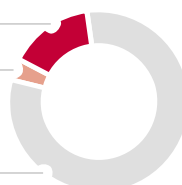
Total Asian market: 1,575 MT/year

REP market in Asia = 845 MT/year

15% - AREVA

4% - BNFL-Westinghouse + Enusa

81% - Other



REB market in Asia = 730 MT/year

8% - AREVA

19% - Other

73% - GNF Genusa (Geus + Toshiba + Hitachi)



Source: Nuclear Assurance Corporation (Fuel Trac, 8/2005 edition); average values for 2005 +/- 1 year.

In 2005, in accordance with requirements laid down by the European authorities in 2001 for EDF to open up its fuel supply market to operators other than AREVA, BNFL-Westinghouse entered the French market. AREVA is still EDF's main supplier, with about 85% of its fuel supply in 2005.

Certification processes for products and suppliers are very demanding; they require operating experience and are a formidable barrier to the entry of new players.

A key discriminator is each supplier's ability to develop a strong, long-term partnership with its customers based on:

- technical support for reactor license applications (from DGSNR in France, NRC in the United States, TÜV in Germany); and
- continual reductions in operating costs through enhanced fuel designs and service offerings.

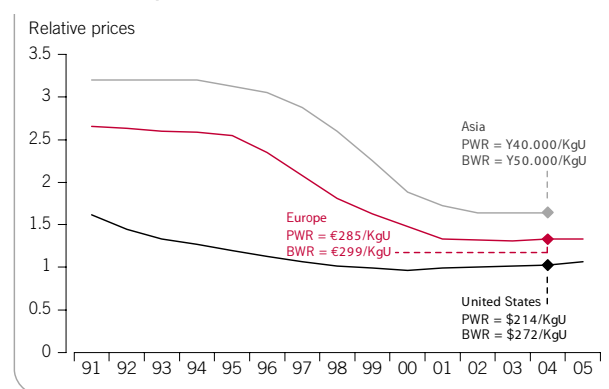
## 4.4. Front End Division

The utility's operating costs depend on factors such as:

- fuel reliability, which is a direct function of design and fabrication quality, with one lost day of reactor operation due to fuel failure costing five times the fabricator's added value in the fuel assembly (the fissile material is supplied by the utility); and
- the amount of energy produced by the fuel before it is "used up", measured in terms of burn-up and expressed as megawatt days per metric ton of heavy metal (MW days per MTHM).

Market volume is up very slightly, with the impact of continuing fuel enhancements offset by the steady increase in load factors and capacities of operating plants. On the other hand, following a period of plunging prices (25-40% from 1995 to 2003) due to competition among suppliers and excess capacity, and with demand at roughly 65% of installed capacity, the situation appears to be leveling. In fact, prices began to recover slightly in the United States, where they were up 2.9% from 2003 to 2005.

## Fuel fabrication prices



Source: CKA.

The spreads between prices by region – Asia, Europe and North America – are essentially unchanged from 2005 (about +/- 25%). The markets are regional and the prices AREVA charges are competitive in each of these three regions.

## 4.4.4.5. Relations with customers and suppliers

## Customers

We operate mainly under multiyear contracts covering one or more reactors for the same utility. These contracts usually include services such as transportation and handling, technical support for fuel loading and unloading operations, fuel inspection during scheduled outages, or even underwater repair of damaged fuel rods or assemblies at the utility's reactor site. Given their importance for customer operations, the contracts normally include penalty clauses, generally capped at the amount of the fuel supplier's services. Warranties are provided for:

- fuel integrity under normal operating conditions and up to the contractual "burnup" (see Glossary),
- satisfactory reactor operations at nominal power,
- compatibility with fuel assemblies already in the reactor, recognizing that the reactor core is refueled in fractions, and
- transportability and the ability to be stored safely after irradiation.

## Suppliers

Fuel fabrication entails chemical and physical preparation of enriched uranium, followed by its "encapsulation" in a metal structure. The Business Unit's electric utility customers supply the enriched UF<sub>6</sub> delivered by the enrichment plant.

Generally speaking, rising energy prices and pressures on demand coming from China's economy have increased prices for all commodities.

The zirconium needed to fabricate most of the *Fuel* Business Unit's products is affected by pressures in the zircon market. Zircon is the basic commodity from which metallic zirconium is extracted at the Jarrie plant. On top of a 30% hike in 2004, prices rose again in 2005 by 33%. This trend is likely to continue for the foreseeable future due to strong demand from China and because zircon production is a by-product of titanium oxide extraction. New mine openings are planned for the mid-term and should help ease market tensions.

The other two key commodities are metallic magnesium and carbon black, whose prices have risen by 5% and 11% respectively.

The risk management program involving certifying new suppliers continued in 2005, with certification of a U.S. zircon supplier for significant volumes and certification of a second Chinese supplier of magnesium. Back-up contracts for procurement of scrap, sponge and tubular blanks from external suppliers have been maintained and renegotiated with satisfactory terms.

Subcontracted fabrication services primarily relate to spacer grid stamping, a key structural component of the fuel assembly. We have a partnership agreement with Metalis, the leading supplier of these services.

#### 4.4.4.6. Operations and highlights

Numerous commercial successes were recorded in 2005, with reload supply contracts won for the majority of reactor programs, including the following:

- Duke Power selected AREVA to supply fuel assemblies to all seven of its reactors. The contract, signed in January 2005, is valued at more than \$100 million and runs from 2007 to 2014.
- In late February 2005, EDF and AREVA extended the UO<sub>2</sub> fuel supply contract for another year. The contract is valued at more than €200 million. EDF also awarded a contract at the beginning of the second quarter of 2005 to supply control rod drive mechanisms for 900 MW plants over the 2005-2007 period, with an option for 2008-2009.
- In April 2005, Goesgen awarded a contract for the 2008 to 2013 period, with options going up to 2017, for a total value in excess of €200 million.
- Swedish utility Vattenfall contracted with AREVA in June 2005 to supply fuel to six of its seven reactors. Deliveries will span the 2007 to 2010 period, with an option for 2010. The total contract value is around €100 million.
- U.S. utility Progress Energy selected AREVA in November 2005 to supply fuel to its entire fleet of reactors for the 2008 to 2015 time frame. The contract is valued at more than \$250 million.
- In December 2005, Swiss utility NOK awarded a supply contract to AREVA for its reactor for 2011 to 2020, when the reactor is scheduled to shut down, and extended the existing contract through 2010. The contract is valued at around €200 million.

The BLEU pellet fabrication facilities at Erwin and Richland have entered the operating phase. Some 280 assemblies containing BLEU pellets fabricated in these facilities were loaded in TVA's Browns Ferry 2 reactor in 2005.

In manufacturing, the Business Unit continues to optimize its manufacturing capabilities:

- The Romans renovation program begun in 2004 is on schedule and within budget. The €100 million project, to be carried out during the 2005-2008 period, will meet more demanding safety, security and radiation protection standards.
- After several months of review, the Lingen site received a license to increase conversion capacity from 500 MT/yr to 650 MT/yr. The increased capacity will provide the necessary flexibility to respond to a wide range of customer requirements.
- The first reload of AFA3G assemblies fabricated in Germany based on French technology, following parallel licensing of the Romans plant in France and the Lingen plant in Germany, was delivered to our customer EDF in early 2005. In addition to the added flexibility, productivity gains and optimization are anticipated from this approach to fabrication.

Major milestones were met in 2005 to integrate the Business Unit's skills in France, Germany and the United States. The Design and Sales line was organized into three Customer Centers and a matrix organization was set up in the Zirconium line. Harmonized products, now in the marketing phase, further enhance the product offering by capitalizing on the best components and technological advances, including the M5TM alloy, the HMP grid assembly, and the Robust FuelGuard nozzle. At the same time, the *Fuel* Business Unit is preparing for the future by developing next-generation PWR and BWR assemblies as part of the GAIA (PWR) and DELTA (BWR) development projects.

#### 4.4. Front End Division

##### 4.4.4.7. Outlook and development goals

Annual market growth is limited in volume but relatively secure. The *Fuel* Business Unit's backlog represented three years of sales as of the end of 2005. The Business Unit's objective is to bolster its international market share by expanding its market positions in the United States and Asia, chiefly China and Japan, while maintaining its strong European base.

Meanwhile, care will be taken to preserve operating margin until the first reactor cores are fabricated, beginning in 2009, impacting margins favorably due to better use of installed capacity.

The *Fuel* Business Unit also plans to take advantage of a revitalized product range to position itself favorably for tenders, particularly the Chinese request for tender for new power plant construction.

To achieve that objective, the Business Unit is implementing a series of targeted actions:

- on the product side, the main activity involves enhanced fuel assembly designs and leveraging the combined staff of AREVA NP and Siemens following the merger of their nuclear businesses, while continuing to streamline the portfolio of existing products and reduce its fabrication programs;
- on the manufacturing side, the Business Unit continued to optimize its production plants to gain the flexibility needed to respond to a wide spectrum of customer requirements and improve productivity. The Business Unit is also pursuing renovation of the Romans site;
- The organization of the Design and Sales line into Customer Centers will help strengthen and expand cooperation between regions and integrate the various engineering departments.

These targeted actions have been carried out under the umbrella of the Zero Tolerance for Failure initiative (ZTF) launched in 2003 in all sectors of the Business Unit with a view to providing state-of-the-art, reliable and competitive products to our customers.

## 4.5. Reactors and Services Division

### KEY DATA

(in millions of euros, IFRS)

	2005	2004
Sales revenue	2,348	2,146
Operating income	87	95
Workforce at year-end	14,323 people	14,066 people

#### 2005 sales revenue by Business Unit and region

33% - Plants

6% - Consulting & Information Systems

7% - Nuclear Measurement

13% - AREVA TA

10% - Equipment

31% - Nuclear Services



37% - France

1% - Africa & Middle East

5% - Asia-Pacific

27% - Americas

30% - Europe (excluding France)



### OVERVIEW

**The Reactors and Services Division contributed 23% to AREVA group sales.** The division designs and builds the two leading types of reactors currently in use around the world – pressurized water reactors (PWR) and boiling water reactors (BWR) – as well as naval propulsion and research/test reactors. It also offers products and services for upgrades, inspection, servicing and day-to-day operations of all types of nuclear power plants, as well as for nuclear propulsion and nuclear measurement.

The Division is organized into six Business Units:

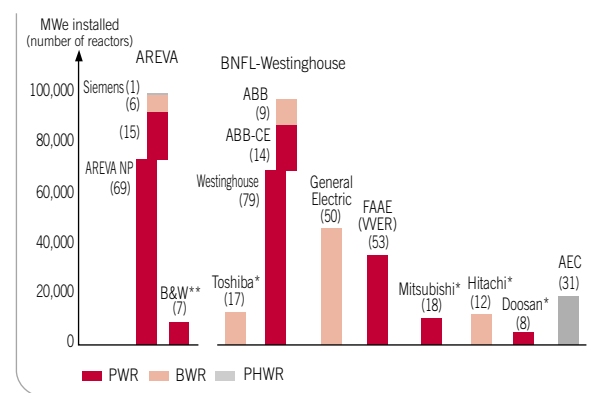
- **Plants** Business Unit: design, construction and engineering of nuclear power plants,
- **Equipment** Business Unit: design and fabrication of nuclear power plant components,
- **Nuclear Services** Business Unit: maintenance, inspection and servicing of nuclear power plants,

- **AREVA TA** Business Unit: design and fabrication of naval propulsion reactors and safety systems,
- **Nuclear Measurement** Business Unit: design and fabrication of nuclear measurement instrumentation,
- **Consulting and Information Systems** Business Unit: consulting, systems integration and MIS outsourcing.

**AREVA is the world's leading supplier of nuclear power equipment and services and is ranked first in terms of installed capacity**, with close to 100 MWe, ahead of BNFL (including ABB/Combustion Engineering and Westinghouse) and General Electric. The Group had built 91 of the 308 BWRs and PWRs in service around the globe as of the end of 2005 (excluding VVERs), or close to one third of the world's operating capacity.

## 4.5. Reactors and Services Division

Installed capacity by company



\* Licensed by Westinghouse to Mitsubishi and Doosan; by GE to Hitachi/Toshiba.

\*\* Following AREVA NP purchase of the commercial reactors business from B&W at the end of the 1990s, AREVA may be considered as the preferred service partner for these reactors in the United States, although it is not liable as a constructor.

Source: AREVA.

These PWR and BWR power plants are clustered in three regions: the United States, Europe and Asia, particularly Japan.

**Recurring operations, i.e. support for existing reactors, accounted for about 85% of the Division's sales revenue in 2005.** Business increased due to the large size of the installed generating capacity served by the Group as well as sales and marketing efforts outside this base. The Division mainly provides services, such as maintenance, inspection and engineering, and equipment for reactor upgrades, capacity increases and service life extension.

Power plant life extensions, which generate heavy investment in replacement equipment and improve the performance of existing plants, is one of the key contributors to the Division's growth, in addition to the prospect of renewed investment in new nuclear power generating capacities.

The average service life of a nuclear power plant is initially 40 years. However, depending on the country, and subject to approval by the safety authorities, that service life could be extended by 10 to 20 years, depending on inspection results. This has already been done for 39 of the United States' 103 operating plants. The world's first power reactors were built in the United States in the 1960s and are often 10 to 15 years older than their European counterparts. The need to modernize aging plants thus emerged in the United States market first.

United States utilities long focused on reducing their operating and maintenance expenses. Today, the trend is towards increasing capital spending, not for new reactors, but for existing ones. These investments, generally to replace heavy equipment or to upgrade control systems, are justified because they extend the service life of the facilities.

United States nuclear power plant performance has improved considerably in recent years because of these upgrades. In ten years, the gross load factor, or Kp (similar to utilization factor), went from 70% to 90%, or the equivalent of almost 19 new 1,000 MWe reactors operating with a load factor of 90%. The same reactors are thus producing one third more power than in the early 1990s. This translates into a lower price per kilowatt-hour (kWh) for nuclear-generated power, and thus better economic performance for the utility.

**Non-recurring operations, i.e. new reactor construction, amounted to roughly 15% of the division's sales revenue in 2005.** In structural terms, this percentage should increase in the medium term as new reactors are built to replace and expand existing installed generating capacity and to meet the growing demand for electric power, especially nuclear power. In this area, AREVA's technology has 30 years of demonstrated operating experience. AREVA is the only player in the market to have been awarded contracts, in Finland and France, to build third-generation reactors. The technological breakthroughs of the Group's Evolutionary Power Reactor (EPR) promise significantly improved operating performance and economic competitiveness as well as enhanced safety levels. Also in 2005, AREVA submitted its proposal to build four EPRs to China and entered into a partnership with United States utility Constellation to promote the construction of four EPRs in the coming decade.

**The Division has successfully expanded from its stronghold in Europe to the United States, where it has become the leader, and continues to expand in Asia.** Its main manufacturing facilities are located in its large markets of France, Germany and the United States.

In Europe, the Group traditionally has very strong positions in France and Germany, which offer a recurring base for business. The Group has also substantially increased its business with other major operators, particularly in Northern Europe. Finland and Eastern European countries, with their 38 Russian-designed plants, are also a market for upgrades. Because Russian reactor technology is similar to Western PWR technology, AREVA is able to offer services to upgrade safety and performance levels. The problem with this market is that the utilities have difficulty obtaining the necessary financing.

## 4.5. Reactors and Services Division

The Division is experiencing strong growth in the United States, which has the world's largest installed capacity, mainly due to the integration of Siemens' nuclear operations in 2001 (and its large U.S. branch) and the buyout of Duke Engineering & Services in 2002. In the past three years, AREVA has conquered considerable market share for heavy equipment replacement, control system modernization and service life extension. Moreover, drawing on its vast experience in the design and construction of nuclear power plants, the Division is able to offer global solutions through "Alliancing" type contracts based on a partnership with the customer.

In Asia, the key uncommitted market is China. The Group has been active in China for 20 years, having built four of the eight units in existence as of the end of 2005 and developed joint ventures in the front end of the cycle. In February 2005, AREVA responded to a call for tenders for the construction of four third-generation nuclear reactors.

**Deregulation and an increasingly competitive market have prompted customers to demand new contracting mechanisms that are more financially attractive, streamlined and global.** The preference is for global service proposals covering the supply of replacement components, replacement operations themselves, and related engineering and licensing support. With its capabilities in design, manufacturing, installation, licensing support and services, the AREVA group fully meets these demands. As an example, the policy of establishing long-term contracts with U.S. utilities, begun in 2002, is continuing.

The Division's leading Business Units are harvesting strong synergies to provide global services to electric utilities, strengthening the Division's competitive position.

The expansion of the Group's installed reactor capacity is also a source of growth for the Front End and Back End Divisions.

## STRATEGY AND OUTLOOK

AREVA's primary goal for this Division is to maintain its leadership role, especially in view of anticipated strong growth in demand for new reactors. This goal gives rise to the following objectives.

- **Capitalize on unmatched expertise** built on the experience of the EPR projects in Finland and France. AREVA is the only company in the world with third-generation reactors under construction.
- **Step up marketing of third-generation technologies in Europe and elsewhere in the world.** To this end, AREVA plans to develop a local center of competence in China and to pursue licensing of EPR-type reactors in North America.
- **Build long-term strategic alliances** with our customers. For example, in the United States, AREVA and Constellation Energy created Unistar, a joint company, in September 2005 to promote a U.S. EPR in partnership with Bechtel.
- **Bolster engineering resources to meet a sharp increase in demand** in the coming years. A major recruitment effort has been under way since 2004. The Group is also bringing its project management practices into alignment for an increasingly global market. Moreover, the Group plans to continue selective acquisitions of companies in the engineering and services fields.

- **Secure all procurements** needed for reactor construction, either by investing or through alliances.
- **Continue building up expertise in reactor services.** To this end, AREVA recently modified its international nuclear services organization to enhance synergies between regions. This has improved heavy component replacement operations during reactor outages on an international scale. The business will continue efforts to improve its work methods and acquire high-performance equipment and tooling.
- **Pave the way for the reactors of the future,** in particular by participating in international research and development programs pertaining to fourth-generation fast neutron reactors and high-temperature reactors. The Group has a strong technology base from past efforts in France and Germany.

## 4.5. Reactors and Services Division

## 4.5.1. PLANTS BUSINESS UNIT

## 4.5.1.1. Key data

(in millions of euros, IFRS)

	2005	2004
Sales revenue	769	582
Workforce at year-end	3,962 people	3,605 people

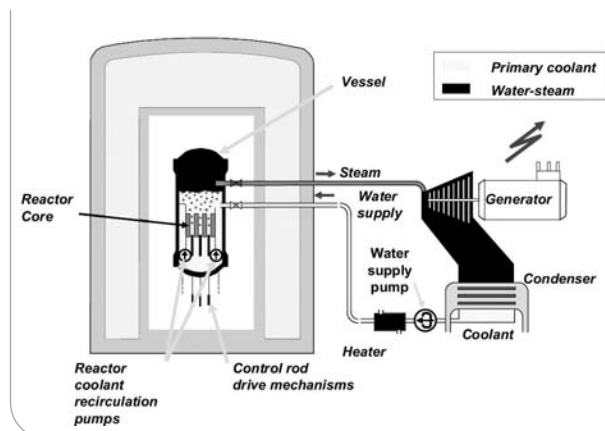
## 4.5.1.2. Introduction and definitions

A “nuclear power station” (or nuclear power plant) is defined as an industrial plant that generates electrical or thermal energy from one or more nuclear reactors. A “nuclear reactor” is a system that produces heat from the energy released by the fission of uranium and plutonium atoms during a controlled chain reaction. A “nuclear steam supply system” is the combination of equipment used to produce pressurized water vapor from fission energy. A “nuclear island” is the system encompassing the nuclear steam supply system and the fuel-related facilities, as well as the equipment required for the system’s operation and safety. A “conventional island” consists of the turbine and the alternating current generator coupled to it, along with the equipment required for their operation.

A nuclear power station consists of a nuclear island, a conventional island and various equipment.

In nuclear power stations, the turbogenerator unit is driven by the steam produced by energy released through fission of the material in the fuel constituting reactor core.

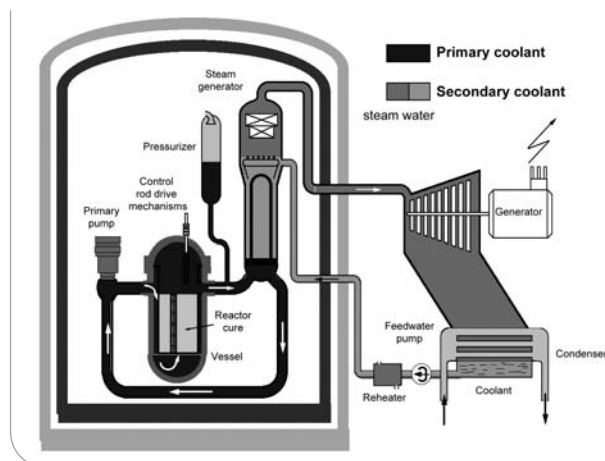
There are two main types of “light” water reactors: boiling water reactors (BWR) and pressurized water reactors (PWR). In BWRs (see figure below), water vaporizes in the vessel containing the core, consisting of fuel assemblies. The heat from the core is released in the water flowing through it. This steam drives the turbine, then cools and returns to liquid form in the condenser before being injected back into the reactor vessel. Thus, in a BWR, the water is in a closed cycle in which the steam expands directly into the turbine.

Boiling Water Reactor (BWR)  
operating concept

Source: AREVA.

In a PWR (see figure below), an intermediate cooling system – the secondary cooling system – is placed between water in the primary cooling system, which has been heated by the reactor core, and the turbine. The heat generated in the reactor’s primary coolant system is transferred to the water in the secondary coolant system via heat exchangers called steam generators. The water is vaporized in the secondary part of the steam generators, in turn driving the turbine. The “energy production” function is thus separate from the “steam generation” function. This functional separation prevents the secondary coolant from coming into contact with water that was in contact with the fuel, facilitating major maintenance operations, among other things.

## Pressurized Water Reactor (PWR) operating concept



Source: AREVA.



## 4.5. Reactors and Services Division

### 4.5.1.3. Businesses

The *Plants* Business Unit is involved in every aspect of nuclear steam supply system and nuclear island construction, from design through connection to the grid. It also provides services for reactor service life extension, performance enhancement and renovation. The Group provides nuclear islands for both PWRs and BWRs.

The Business Unit's main resource is its engineering staff. It serves as project manager for reactor upgrades and construction. The Business Unit does not have its own manufacturing capabilities, turning instead to the *Equipment* Business Unit and subcontractors for that purpose.

The Business Unit is active in:

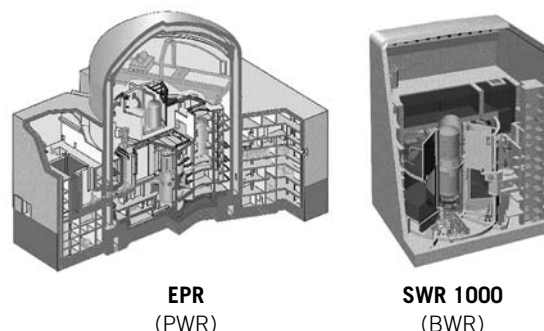
Recurring operations, i.e. engineering for existing reactors:

- renovation of any type of reactor in existence worldwide, especially to manage aging so as to extend service life, and related engineering services;
- performance improvement services, such as capacity increases and improvements in availability;
- upgrades and retrofits to control systems for existing nuclear power stations;
- services for liquid metal fast breeder reactors, including their dismantling;
- a variety of services for research reactors; and
- detailed safety analyses and license applications for large component replacements and reactor restarts, as well as engineering studies of unit operations, including license renewals, service life extensions, increasing availability and performance, and shortening of outage times and exposures.

Non-recurring operations:

- design, construction and commissioning of nuclear islands and various nuclear facilities; and
- design and fabrication of electrical systems and advanced control systems for new reactors.

The Group offers two third-generation reactor models



The Evolutionary Power Reactor, or EPR, is the most advanced PWR (third-generation reactor) marketed by AREVA. It uses either 5%-enriched uranium oxide fuel or MOX fuel (see Glossary). Its net electrical output is approximately 1,600 MWe. Compared to earlier reactor generations, the EPR provides substantially improved performance paired with increased economic competitiveness, significant technological advances that give it an even better safety level, simplified operating and maintenance conditions, and even more satisfactory solutions to environmental concerns, with a 15% reduction in the generation of long-lived radioactive waste. The EPR also has an estimated service life of 60 years, as compared to an initial service life of 40 years for other types of reactors.

There have not yet been any orders for the SWR 1000 (Siede Wasser Reaktor), the most recent boiling water reactor model developed by AREVA. Positioned in the medium-capacity market, the SWR 1000's electrical output is from 1,000 to 1,250 MWe. This new generation of reactors takes advantage of existing technology, reduced maintenance requirements and a 60-year service life to reduce the cost of the kilowatt-hour. Waste volumes are reduced by optimizing burnup. Passive safety systems enhance overall reactor safety, especially in the hypothetical event of a meltdown.

The Business Unit's operations are those of an engineering firm and are not capital-intensive. Nonetheless, significant guarantees are required to cover reactor performance commitments. There is growing reliance on partnerships with local engineering firms and constant attention to updating skills.

## 4.5. Reactors and Services Division

## 4.5.1.4. Manufacturing and human resources

The *Plants* Business Unit's primary assets are engineering resources in:

- France (35% of the workforce),
- Germany (45% of the workforce),
- the United States (20% of the workforce), and
- personnel on temporary assignment with customers worldwide.

The *Plants* Business Unit also has its own technology development and testing capabilities, with facilities at its technical centers in Karlstein and Erlangen, Germany, and in Creusot and Chalon, France.

To prepare for growth prospects in the non-recurring business segment, a plan to strengthen the Business Unit's human resources was set in motion in 2003, resulting in the hiring of almost 400 engineers per year since then, mainly in France, Germany and the United States. The plan significantly lowered the age pyramid, while stepping up subcontracting and mobility within the Group. The plan also served to strengthen ongoing interaction among personnel based in France, Germany and the United States, thereby revitalizing the pooling and dissemination of skills.

In addition to these developments, the Business Unit is adopting a new organization, to be rolled out in 2006. The new organization aims to prepare the Business Unit for a sharp increase in demand, strengthen customer orientation in entities dedicated to specific markets and customers, broaden efforts to integrate multinational personnel, especially in the engineering field, and increase cost-competitiveness.

## 4.5.1.5. Market and competitive position

For recurring business, AREVA estimates the uncommitted market on which the Business Unit may compete (i.e. consisting of signatory countries of the Non-Proliferation Treaty) at approximately €1.8 billion per year. The *Plants* Business Unit is the market leader in the design of nuclear steam supply systems (NSSS), for which it is the original equipment manufacturer. Business in the control systems and electrical systems market segments is growing.

For non-recurring operations, such as the expansion or replacement of existing generating capacity, AREVA is the only Western reactor constructor to have received orders for new reactors since 1999. Its competitors are BNFL-Westinghouse in the United Kingdom, General Electric in the United States, FAE in Russia, and AECL in Canada.

New reactor construction is a market that will inevitably grow. According to estimates, from 150 to 500 gigawatts of new electric generating capacity will be needed by 2030 (see paragraph 4.2.2.3.).

## 4.5.1.6. Relations with customers and suppliers

**Customers**

The Business Unit's customers are nuclear utilities all over the world, whether for non-recurring business under contracts for large amounts or for recurring business for a wide range of contracts and unit amounts.

**Suppliers**

Generally speaking, the *Equipment* Business Unit is the in-house supplier of strategic equipment, i.e. the main components of nuclear reactors, including the reactor vessel, steam generators, primary coolant pumps and pressurizers. Auxiliary equipment such as piping, valves, tanks and heat exchangers, is purchased from traditional suppliers that the Group has certified for quality assurance.

## 4.5.1.7. Research and development

Research and development conducted within the framework of the Group's research and development programs represented 5% of the *Plants* Business Unit's sales, 80% of which was funded by the Business Unit itself. Whether conducted in-house or in partnership with research organizations, R&D efforts focused on:

- all of the key technologies for pressurized water and boiling water reactors, and
- development and validation of process design and nuclear safety modeling tools and related methods, control of hydraulic and thermo-mechanical events, materials performance and quantification of damage modes.

Also in 2005, the licensing process for the United States EPR began gearing up. The Business Unit's budget for licensing is around €120 million over the next six years. Expenditures of €13 million in 2005 are in addition to the figures above.

The Business Unit continued to prepare for the future through a project to develop a high-temperature reactor (HTR) for mixed commercial electricity/heat generation, known as ANTARES (AREVA New Technology based on Advanced gas-cooled Reactors for Energy Supply). Progress was made on defining the reference configuration and a preconceptual design document is to be ready in 2006.

The Business Unit is also expanding its international relations on this subject, chiefly with the United States, China and the Republic of South Africa, via the latter's Pebble Bed Modular Reactor project (PBMR), a direct-cycle HTR (see also paragraph 4.14.1.4.).

## 4.5. Reactors and Services Division

### 4.5.1.8. Operations and highlights

#### *Reactor construction projects*

##### *In France*

Framework energy policy legislation enacted on July 13, 2005 clearly lays the legal groundwork for EDF's decision to build the first in a series of EPRs at Flamanville. The public inquiry – the next step in the “FA3” project – began in October 2005 and ended in February 2006, led by an ad hoc commission. Once the commission has issued its report, the licensing project for the FA3 project can go forward.

The Business Unit signed a contract for engineering services connected with this project in October 2005. It also replied to a request for proposals for the operating control system and is preparing a proposal for long-lead forged steel parts for large primary components.

##### *In Finland*

Work on the turnkey Olkiluoto 3 project to build a 1,600 MWe EPR for TVO continued at a very brisk pace for the AREVA-Siemens team throughout 2005. Several major milestones were met during the year:

- the Finnish government issued the construction permit for the new unit, based on the safety assessment report prepared by STUK, the Finnish safety authority;
- the first concrete for the nuclear island was poured at the end of June 2005;
- a cornerstone laying ceremony was held on September 12, 2005, attended by 400 key figures from Finland and Europe.

The entire foundation mat for the nuclear island is now ready. Building construction began in 2006, while design and procurement continued in parallel. At the end of 2005, an estimated six-month delay was announced for the project, which spans a period of more than five years. The delay was reassessed at 8-9 months on April 21, 2006, mainly due to initial difficulties in producing concrete with the requisite level of quality (see paragraph 4.15.3.2., Risk Factors).

##### *In China*

Development of the country's nuclear plant construction program continues along three concurrent lines:

- duplication of existing second-generation nuclear units;
- international calls for tenders for third-generation reactors;
- development of China's own improved second-generation model, the CNP 1000.

With regard to duplication of the Ling Ao units via construction of Ling Ao 3 and 4, also known as Ling Ao Phase II, the Business Unit won a design and procurement contract in 2005 for all of the primary cooling system components (“primary package”) and, teamed with Siemens, a contract to supply control systems. It also signed technical support contracts with the Nuclear Power Institute of China (NPIC) and with China Nuclear Power Engineering Company (CNPEC).

For duplication of Qinshan 2, the Business Unit was awarded a contract in late 2005 to supply a system to monitor post-accident core cooling margins for both new units of Qinshan 2 Phase II.

With regard to generation 3 calls for tenders, the Business Unit submitted a proposal on February 28, 2005 for the turnkey supply of four nuclear islands to the Sanmen site in Zhejiang Province and the Yangjiang site in Guangdong Province, and to transfer the related technology. Negotiations have continued since then, with several alternative bids being submitted, including a proposal to increase the proportion of work carried out in China. A decision is expected in 2006.

##### *In United States*

The Energy Act was promulgated in August 2005, after many years in the pipeline. This law contains a very comprehensive system of economic incentives for resuming new nuclear power plant construction. Several utilities, faced with soaring fossil fuel prices and the realization that nuclear power is cost-competitive, have announced their intention of requesting a combined nuclear power plant construction and operating licensing (COL).

In February 2005, the Business Unit publicly announced plans to launch the EPR in the United States. With backing from influential utilities, it is preparing a license application for submittal in late 2007. On September 15, 2005, AREVA, Inc. and its utility partner, Constellation Energy, announced the creation of UniStar Nuclear, the business development entity that will promote the construction of the first four EPRs in the U.S. UniStar Nuclear offers nuclear and non-nuclear utilities and financial partners a new business model for combined design, construction, licensing and operation of a fleet of U.S. EPRs. Bechtel is the company's architect-engineer partner.

For its own requirements, Constellation Energy has chosen its Calvert Cliffs site in southern Maryland and Nine Mile Point site in northern New York State to host the first two EPRs, and has announced that it will seek a COL for one of the two sites in 2006.

#### 4.5. Reactors and Services Division

##### In Bulgaria

In late 2005, the Business Unit responded to a call for tenders issued by NEK pertaining to the Russian-designed VVER 1000 unit in Belene. The Business Unit would serve as a subcontractor to the Russian firm AtomStroyExport.

##### In Canada

Interest in the EPR is building and the Canadian Nuclear Safety Commission (CNSC) is to perform a preliminary review to identify potential licensing issues.

#### ***Recurring operations***

Recurring business represented close to two-thirds of the Business Unit's sales revenue in 2005. This high level was consistent in every region of the world, with control system upgrades claiming a growing share. Recurring operations cover a very wide range of services, as illustrated by the examples below:

##### In France

Following the contract awarded in 2004 for the turnkey installation of sump filters at six 900 MWe units, the Business Unit received contracts for an additional twelve 900 MWe units and four N4 units, bringing the total to 22 of EDF's 58 units.

The Business Unit responded to a request for bids pertaining to renovation of the control rod drive mechanism at 34 units, all 900 MWe.

##### In Germany

The "grand coalition" is maintaining the political consensus on the phase-out of nuclear power, thus discouraging utilities from launching major programs. Some of them, however, have decided to continue investing to improve production plant performance, like EnBW, which chose the Business Unit in 2005 to replace the plant protection system at the Neckarwestheim 1 unit.

##### In United States

Services to operators continue to grow, especially in the control system field.

##### In Sweden

The new regulatory safety requirements (SKIF 2004: 2) require upgrades to the existing units. For the operators, this will be an opportunity to increase capacity or extend service life to shorten the payback for upgrades made necessary by these new requirements.

##### In Bulgaria

The project to modernize units 5 and 6 of the Kozloduy plant continued to make progress. Modernization of unit 5 has been completed. That unit was reconnected to the grid on August 15, 2005, four days ahead of the preliminary outage schedule.

##### In Czech Republic

A major milestone was met in 2005 on the control system renovation project for the four Dukovany units with the successful restart of unit 3, the first to be equipped with the new digital control system. The other three units will be renovated from 2006 to 2009.

##### In Switzerland

Work was completed on the PISA project to renovate the surge protection system for the primary cooling system at the Gösgen plant. The plant was reconnected to the grid on July 1, 2005, ahead of the preliminary schedule by 4.7 days.

##### In China

The Business Unit was awarded the contract to replace the plant protection system at the Qinshan 1 unit. This marks the first control system modernization contract in China.

##### In Finland

In late 2004, the AREVA-Siemens team won a contract to renovate all control systems at both Loviisa units.

#### **4.5.1.9. Outlook and development goals**

For the recurring operations, the outlook is still good due to the utilities' determination to optimize reactor reliability and availability, extend service life, and enhance performance, particularly in the United States. The Business Unit's objective is to secure recurring operations for the future by adjusting its offer to its customers' new needs and by improving its methods and working tools.

With regard to new reactor construction projects, the Business Unit's short-term objective is to strengthen its leadership position in new power plant construction and to seize the many opportunities offered in particular by the acceleration of the Chinese nuclear program and by utility initiatives in the United States. Longer term, the Business Unit will reap the benefits of growing public awareness of the need for nuclear power in addition to other energy sources, which pollute the environment and/or are subject to erratic fuel prices.

## 4.5.2. EQUIPMENT BUSINESS UNIT

### 4.5.2.1. Key data

<i>(in millions of euros, IFRS)</i>	2005	2004
Sales revenue	227	242
Workforce at year-end	1,922 people	1,787 people

### 4.5.2.2. Businesses

The *Equipment* Business Unit's primary activity is the fabrication of mechanical components for the nuclear island:

- it designs and manufactures heavy components for the nuclear island, including reactor vessels, steam generators and pressurizers,
- it designs and fabricates moving components for the nuclear island, such as primary motor pump units for the reactor coolant system, and control rod drive mechanisms that regulate the reaction in the reactor core. The Business Unit has worked for many years on optimizing these components for EDF, thereby acquiring recognized expertise and a strong competitive advantage in this area, particularly in control rod drive mechanisms.

In addition, the Business Unit has non-nuclear electromechanical operations related to the design and manufacture of motors and electrical alternators for wind turbines. The Business Unit also maintains this equipment and provides related services.

### 4.5.2.3. Manufacturing and human resources

The Saint-Marcel plant near Chalon-sur-Saône, France, is dedicated exclusively to manufacturing heavy nuclear equipment for the nuclear steam supply system (NSSS). The main building covers a surface area of 33,000 m<sup>2</sup> (8.15 acres) and has a lifting capacity of 1,000 metric tons. With an average workforce of 700 people in 2005, the plant has a productive capacity of a little more than 600,000 man-hours, enabling it to manufacture the equivalent of two nuclear islands per year, not including moving equipment. Since opening in 1975, the plant has manufactured all of the heavy components for the 900 MWe to 1,450 MWe units in the French nuclear program and had delivered more than 501 heavy components – reactor vessels, closure heads, steam generators and pressurizers – to customers around the world as of the end of 2005. Having reached its maximum production capacity, the Group has launched a capital spending program to increase capacity while expanding subcontracted work. Capital improvements include increasing the capacity of the heavy component hall by 2,900 m<sup>2</sup> (0.72 acre), doubling broaching capacity, and revamping key machinery.

The Jeumont plant in northern France manufactures nuclear and non-nuclear equipment. Built in 1896, the plant has a lifting capacity of 350 metric tons and its workshops cover a surface area of 59,000 m<sup>2</sup> (14.6 acres). A total of 800 people were employed by the plant in 2005. The size of the plant is such that capacity can be added without major difficulty. In nuclear equipment, the plant specializes in the manufacture of moving mechanical components for the nuclear island and replacement parts for this equipment, including primary reactor coolant pumps and control rod drive mechanisms. It also provides related services.

In its non-nuclear work, the Jeumont plant manufactures and sells electrical generators and motors for industry and the Navy. In addition to manufacturing new equipment, the plant does a substantial business in services to the electromechanical industry. A subsidiary of the Business Unit, Sarelem, maintains and repairs low-capacity motors and generators. That unit employs 94 people and is located near Nantes, France.

Jeumont also developed an innovative concept for direct-thrust, variable-speed wind turbines. For the past two years, operations in this field have been limited to maintaining existing wind turbines.

Another subsidiary, Somanu, has a facility for nuclear power plant equipment decontamination prior to repair. That company is located in Maubeuge, in northern France, and employed 48 people in 2005.

## 4.5. Reactors and Services Division

## 4.5.2.4. Market and competitive position

**Nuclear equipment**

The nuclear equipment market consists of two segments: the component replacement market and the new power plant market. The market has grown substantially with the arrival of power plant extension programs and the restart of new power plant construction. This trend coincides with more exacting demands from customers, stiffer competition, and price pressures accentuated by the dollar's continuing weakness. The Business Unit must also cope with growing pressures on the commodities market, especially for steel.

Supply slightly exceeds demand in the replacement market, where the competition, consisting of five companies, is global: Doosan and Mitsubishi Heavy Industries in Asia, Ensa and Camozzi (formerly Ansaldo) in Europe, and Babcock & Wilcox in North America. In the United States, the Asian and European competitors are often associated with Westinghouse of the U.S., which provides engineering and project management.

In France, the Business Unit has a dominant position, although EDF has completely opened up the large steam generator fabrication market to the competition. At the same time, the increased cost of commodities, especially forged parts and tubing, have caused a significant price increase. Despite the challenging situation, the Business Unit's market share should stay at around 80%.

Prices pressures continue overseas, where the competition is not waning. After having largely penetrated the United States market, the Business Unit encountered difficulties consolidating its market share faced with competitors seeking to keep their plants operating at the cost of a price increase. This situation, coupled with the weak dollar, will make it challenging to maintain the leadership position the Business Unit acquired in the United States market over the past five years, where its average market share is 30%, without locating production there. It is worth noting that the U.S. market differs from the European market in the wide range of requirements from United States utilities. Appropriate responses are required, incorporating not only the supply of heavy components for a variety of reactor models, including those of Westinghouse, Babcock & Wilcox and Combustion Engineering, but also their integration and installation in the existing plant, sometimes with capacity increases. In this context, the synergies between

the products and services of the Business Unit's two plants and of the United States-based engineering and services teams are crucial to bringing the global solutions expected by the utilities and are a key discriminator in terms of the competition. There are also component replacement opportunities in Brazil and South Africa. Conversely, access to the markets of former Eastern Block countries and Japan is still limited.

The market for moving components is also oriented towards replacement parts and equipment maintenance services. The Jeumont plant's main competitor in this market is Westinghouse, especially in the United States. The Japanese company MHI is also a challenger.

The replacement market will continue to sag until around 2010, both in France and in the United States. Fortunately, this trend is largely offset by the restart of new reactor construction programs (see *Plants Business Unit*). The new reactor market generated 25% of the Business Unit's activity in 2005. In 2006, that should rise to more than half. The context for this development will be similar to that of the replacement market: fierce competition and constant downward pressures on prices, with the ability to locate production in the customer's country proving to be a key success factor.

**Non-nuclear operations**

For the Jeumont plant's electromechanical operations, the market is still highly competitive. AREVA estimates that its share of the world market for medium-capacity generators (10 to 60 MWe) varies between 5 and 10%, depending on the year, with powerful competitors such as GE (also a customer), FKI (United Kingdom), ABB and Alstom generally offering a complete turbine-generator platform.

In the maintenance market, Jeumont and its subsidiaries control around 25% of the French market. Alstom is the main competitor for servicing EDF's large turbine generators. In submarine propulsion, AREVA estimates that it has roughly one third of the world market via shipyards such as DCN in France, Izar in Spain and Kockums in Sweden. The main competitor in this area is Siemens.

For wind turbines, the European market is still the largest, despite a significant slowdown since 2003. The market is divided among six manufacturers, dominated by Danish and German companies such as Vestas, Neg Micron, Siemens-Bonus and REpower. AREVA acquired a 21% interest in the latter at the end of 2005.



### 4.5.2.5. Relations with customers and suppliers

#### Customers

EDF is the Business Unit's leading customer. Export sales are largely to U.S. utilities. Deregulation and an increasingly competitive market are leading United States customers to demand more financially attractive contracting mechanisms, especially with regard to warranties, delivery schedules and performance-based remuneration. The preference is for global service proposals covering the supply of replacement components, the replacement operations themselves (see *Services Business Unit*), and related engineering and licensing support. As the only entity in this market capable of offering all of these supplies and services, the AREVA group has a considerable competitive advantage.

#### Suppliers

The *Equipment Business Unit* uses two main categories of suppliers in the nuclear field: tube-makers for steam generator tubing and steel companies for heavy components made of forged steel parts. These supplies are the most critical from a technical standpoint, as component quality and performance depend on them, and the most substantial in terms of benefit and cost.

There is only a handful of steam generator tubing manufacturers. For the Western market, there are three: Sandvik in Sweden, Valinox in France, and Sumitomo in Japan. Because they have insufficient capacity to meet demand for the coming years, these three suppliers tend to regulate the steam generator market. Accordingly, the Saint-Marcel plant has entered into alliances with two of these companies by reserving capacity for the coming years.

There are also very few forging companies capable of meeting the quality standards of the nuclear industry. The largest are concentrated in Europe, with Creusot Forges in France, Safas and TERNI in Italy, Lehigh in the United States. As for Asia, there is Doosan in South Korea and JSW in Japan. The *Equipment Business Unit* has also diversified its procurement sources by implementing a certification program for new suppliers and by developing partnerships.

The rising price of raw materials and steel, as well as the limited available capacity considering the demands of the oil market, positions these suppliers on the critical path for fabrication in terms of most of the Business Unit's components (forged steel and tubing for heavy components, forged steel for the volute casings of the primary motor pump units).

### 4.5.2.6. Operations and highlights

For nuclear equipment, 2005 will be remembered for its mixed economic conditions, with growing commercial prospects in the new reactor market on the one hand, and very strong price pressures on forged steel on the other, and strong competition underlying it all.

#### Nuclear equipment

On the commercial level, significant contracts were won. In France, the largest order was for nine replacement steam generators for EDF. Negotiations for an additional six units are in progress. Nonetheless, this buoyancy signals an important turning point in our commercial relations with EDF, which opened its procurement to the competition for the first time and awarded a not insignificant share of the request for proposals to Mitsubishi Heavy Industries of Japan. In the United States, the largest order concerned the supply of two "once-through" steam generators, a Babcock & Wilcox technology, to the Three Mile Island plant. In China, results are encouraging, with an order for a complete nuclear island for the Ling Ao plant extension project and for reactor vessel head replacement at the Qinshan I power plant. A large proportion of both contracts will be produced in China.

On the production level, the Saint-Marcel plant capacity upgrade program continued throughout the year to cope with the high workload brought on by new power plant construction projects and performance on numerous contracts for EDF and U.S. customers. To fulfill the Olkiluoto 3 contract successfully and ramp up for expansion of the heavy component hall, which will add 2,900 m<sup>2</sup> (more than 31,000 ft<sup>2</sup>) by March 2006, the plant's average workforce was increased by 19% in 2005 through new hires, with employees manning three shifts a day, seven days a week. Several heavy components were also delivered to the U.S. market during the year, including four steam generators for the Callaway plant, two "once-through" steam generators for the Arkansas plant and several reactor vessel heads for the Turkey Point, Salem and Saint Lucie plants. Meanwhile, more than 40 heavy components are currently in fabrication and some 20 additional components are on order. The market for forged steel is experiencing very strong pressures, both on price and on production capacities, putting steel-makers on the critical path for the fabrication of all heavy nuclear components. The situation calls for strengthened security of supply via special supply contracts, even before the equipment supply contracts are signed.

In the area of moving components, business was relatively stable during the first half of the year, then picked up towards the end of the year as the Olkiluoto 3 project ramped up. Business development in China in this segment was solidified by the establishment of a joint venture with the Chinese firm Don Fang Electrical Machineries (DFEM) to manufacture primary motor pump units designed by Jeumont and market them in China. Production is slated to start up in 2007, once facility construction is complete in Sichuan Province.

## 4.5. Reactors and Services Division

***Non-nuclear operations***

Following a particularly difficult year in 2004, the situation gradually improved for conventional electromechanical operations. Jeumont Sarelem Electric (JSE) pursued its strategy for developing a strong services base, drawing on its large installed capacity to offer a very wide range of generators, from low-capacity machinery to nuclear and thermal power plant generators, to domestic customers.

Commercially, key contracts were won in the high-capacity generator renovation market, especially from EDF and the German utility RWE. Workload in this business over the medium term appears to be ensured, with important proposals in progress for the naval sector, including supply of electric propulsion generators for Barracuda submarines and multimission frigates.

**4.5.2.7. Outlook and development goals*****Nuclear equipment***

The year 2006 should be characterized by continued strong growth in nuclear operations. Commercially, the beginning of the year will be devoted mainly to winning requests for proposals in progress with EDF and to consolidating our positions in China and the United States.

On the production level, the key challenge concerns the Saint-Marcel plant, which will continue to ramp up to absorb a 20% hike in workload from 2005 to 2006. More extensive use of partial or total subcontracting for some components will be necessary to meet this workload. In this context of strong growth, the plant's first objective will be to enhance industrial productivity and successfully integrate its newly hired employees.

The Jeumont plant will also experience a sharp upturn in production operations as equipment supply contracts for new power plants (mechanisms and pumps) in Finland and in China begin flowing in.

The prospect of a nuclear power revival in the United States over the medium term will require that we enter into one or more partnerships with local industry to establish the foundations of heavy nuclear component fabrication in North America.

***Non-nuclear operations***

For Jeumont Sarelem Electric (JSE), the priority over the coming months will be to enter into a partnership with a view to selling this non-core business. For wind turbines, the focus will be on completing the reliability program for turbines manufactured by Jeumont.



## 4.5.3. NUCLEAR SERVICES BUSINESS UNIT

### 4.5.3.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	727	696
Workforce at year-end	3,317 people	3,012 people

### 4.5.3.2. Businesses

The *Nuclear Services* Business Unit offers services enabling utilities to extend the service life of their plants and to improve availability and productivity while maintaining a high level of safety:

- these include outage services, which are recurring maintenance operations for which the *Nuclear Services* Business Unit coordinates and integrates the various servicing and inspection operations to reduce outage times. A scheduled outage must be kept as brief as possible and may require teams of more than 1,000 people, some of whom are *Nuclear Services* Business Unit employees, while others are subcontractors and still others the customer's subcontractors. In this case, the *Nuclear Services* Business Unit's mission may be to coordinate all co-contractor operations and activities;
- non-destructive inspections: these are safety inspections of equipment required by regulation. The *Nuclear Services* Business Unit is the world leader in reactor vessel and steam generator inspections, with a wide range of inspection services for all types of operating reactors;
- decontamination and chemical cleaning to reduce radiation exposure during repairs and servicing;
- engineering services and upgrades, drawing on the designer/constructor skills and experience of the *Plants* Business Unit;
- primary component services, including repairs, servicing and replacement of heavy components in the NSSS;
- services for reactor control systems and electrical systems;
- offsite servicing of contaminated components in hot workshops in Europe and the United States;
- some dismantling is also performed on equipment in the primary cooling system, where expertise in component size-reduction, disassembly and decontamination, particularly in Germany, can be offered.

### 4.5.3.3. Manufacturing and human resources

By definition, the *Nuclear Services* Business Unit provides services to customers that operate nuclear power stations. The Business Unit has all of the resources it needs to develop and certify the processes and tooling it uses to carry out these services.

In addition, the Business Unit has access to hot workshops<sup>(1)</sup> in Europe and the United States for offsite maintenance, and to two facilities dedicated to personnel training: Cetic in France, co-owned by EDF and AREVA NP, and another facility in the United States.

Staff is regionally based for proximity to the customer and to provide personalized service:

- France: 1,500 people,
- Germany: 700 people,
- United States: 700 people.

The Business Unit also operates through subsidiaries in Sweden (Uddcomb), Spain (Tecnimarse), Canada (AREVA NP Ltd.), China (SNE) and South Africa (Lesedi).

As of the end of 2005, fewer than 300 people had part-time status, mainly in the United States.

The services business is a highly seasonal one, dictated by reactor outage schedules, and the Business Unit must adjust to a strong trend towards reducing outage times and to optimizing regional electricity supply. A maximum number of operations must be concentrated into a minimum amount of time. To cope with these periods of extremely intense activity, the Group has signed partnership agreements with a variety of suppliers. These suppliers and service providers are certified in terms of quality and technical ability to ensure that the basic requirements for this type of work are met.

(1) A hot workshop is a specialized workshop in which contaminated components can be cleaned, maintained and repaired, while meeting the schedule for plant outages.

## 4.5. Reactors and Services Division

### 4.5.3.4. Market and competitive position

The potential market for the *Nuclear Services* Business Unit consists of PWRs and BWRs and, to a lesser extent, Candu and VVER reactors.

Outages are scheduled for these reactors every 12 to 24 months for servicing and maintenance, or to replace heavy components when required. Each scheduled outage generates a market of a few million to tens of millions of euros.

AREVA estimates the worldwide nuclear services market at around €3 billion per year for PWRs and BWRs alone, divided equally among Europe, the Americas and Asia.

Three major players control about 45% of this market, according to AREVA's estimates. With around 25% of the world market for nuclear services, including the United States market, AREVA is the leader, ahead of BNFL-Westinghouse and General Electric.

The largest competitor for the remaining 55% is Mitsubishi Heavy Industries. Primarily positioned in the Japanese market, it has entered overseas markets in recent years and is seeking to expand its services operations in Europe. Next in line are powerful local companies, such as Hitachi and Toshiba in Japan or KPS in Korea, and numerous small, specialized architect-engineers, maintenance companies and component suppliers.

AREVA's *Nuclear Services* Business Unit offers the largest portfolio of services in the world to service PWR and BWR type reactors, drawing on its leadership position in the French and German nuclear power programs, recognized technical expertise, and a strong international presence. The Business Unit has gained a stronghold in the United States market in the past several years, and United States utilities now represent almost half of its business. To counter very aggressive competition in the international market, the Business Unit takes advantage of synergies among its regional teams to develop innovative offers on the technical, contractual and industrial levels.

The barriers to entry vary according to the segment. Being an original equipment manufacturer (OEM) is a decided advantage in the area of engineering services and performance improvement, just as it is for primary component services. Differing regulations can also limit access to certain domestic markets. Key market drivers are the aging of the world's plants, the construction of new reactors, and the deregulation of the electricity market, accompanied by price pressures.

### 4.5.3.5. Relations with customers and suppliers

#### Customers

The *Nuclear Services* Business Unit's utility customers are based in Europe (France, Germany, Belgium, Great Britain, Spain, Sweden, Switzerland and Slovenia), Asia (China, South Korea, Japan, Taiwan), North America (the United States, Canada), South America (Brazil) and South Africa. EDF is our leading customer, while United States utilities account for about half of the Business Unit's activity.

Deregulation pressures are pushing the market towards global solutions to achieve performance objectives, lower costs and extend power plant service life while improving safety levels. These new requirements are leading operators to merge services under integrated maintenance services umbrellas. Especially in the United States, multiyear "Alliancing" contracts can combine component supply, engineering, modifications and maintenance services, and even fuel supply.

#### Suppliers

Three-fourths of the Business Unit's procurement is for services. The services business is a highly seasonal one, dictated by reactor outage schedules and to optimization of regional electricity supply. Also, the trend is towards reducing reactor outages by concentrating a maximum number of operations in a minimum amount of time. The Business Unit must therefore adapt to extreme variations in workload every year. To achieve this, the Business Unit has entered into numerous partnership agreements with various suppliers to accommodate exceptionally heavy workloads or requests for specific crafts. These suppliers and service providers are certified in terms of quality and technical ability to ensure compliance with the basic requirements for this type of work.

## 4.5. Reactors and Services Division

### 4.5.3.6. Operations and highlights

Overall, 2005 was a very good year for AREVA's *Nuclear Services* Business Unit in terms of new business and operations, underscoring its world leadership in this market. The Business Unit set several records in 2005: the world's shortest reactor outage for replacement of four steam generators at AmerenUE's Callaway plant, in 63 days and 13 hours; the world's shortest outage for a reactor vessel head replacement at PSEG's Salem 1 plant, in 25 days, 6 hours and 3 minutes; and the world's first pressurizer replacement, successfully performed at FP&L's Saint Lucie plant.

In France, business was brisk in every segment. The integrated maintenance services contract signed in late 2004 continued in 2005, with 21 services performed according to plan.

In Germany, business was stable despite fierce competition. Several operations were performed at nuclear power plants undergoing decommissioning, particularly Stade and Wuergrassien. These operations involve decontaminating cooling systems and disassembly and size reduction of equipment from the primary cooling system.

In the United States, business was very heavy, especially in the spring and fall, the two peak periods for reactor outages. Operations were successful in both periods. Several component replacements were performed, including vessel head replacements at Salem 1 and 2, Turkey Point 4, ANO 1 and St. Lucie 1; steam generator replacements at ANO 1 and Callaway; and a pressurizer replacement at St. Lucie.

Operations were also successful in several other countries, including Spain, South Africa, China and Sweden. Local platforms participated actively in increasing our sales revenue in those countries.

In addition, we won several strategic contracts in 2005, listed below.

- EDF awarded a contract valued at more than €300 million to replace 18 steam generators at six 900 MW reactors, including an option for an additional one as well as for related services.
- Several component replacement contracts were won in the United States, including steam generator replacements for Diablo Canyon (PG&E), St. Lucie (FP&L) and Salem 2 (PSEG).
- A long-term services agreement was signed for eight outages of the Koeberg plant in South Africa.
- A new annual integrated services contract was awarded for outage of the Angra 2 reactor in Brazil.
- Several strategically important contracts were won in Sweden, including an inspection contract for control rod drive mechanisms and pin replacement, confirming our development in that country.
- CNNC awarded a turnkey equipment supply and installation contract was awarded for the Qinshan 1 plant in China, and a contract was awarded to supply two instrumentation systems for units 3 and 4 as part of Qinshan Phase II.
- KHNP awarded a contract to optimize outage times in South Korea.

The Business Unit also made two new acquisitions in the first half of the year. In Germany, the Business Unit acquired the department of Siemens specialized in control system and electrical component maintenance in April. In Sweden, Uddcomb was acquired, giving the Group a local base for service operations. In both cases, the acquisitions were made jointly by the *Plants* and *Nuclear Services* Business Units.

### 4.5.3.7. Outlook and development goals

The *Nuclear Services* Business Unit is now the world leader in its field, including the United States. It will pursue growth through several actions, described below.

- It will develop new, multiyear, integrated and innovative solutions to continue to enhance the way it responds to the technical and economic concerns of its customers. In this area, offers based on the Asset Management concept will be developed in the United States and certain European countries, including the United Kingdom and Spain.
- It will strengthen its positions in export markets by developing local partnerships, such as the one in China with SNE (acquisition of a 35% interest in 2004), in South Africa with Lesedi (45%), in Spain with Tecnimarse (100% acquisition in 2004), and now in Sweden with Uddcomb (100% acquisition in 2005). These existing local platforms have already been or will soon be developed, while new joint ventures and acquisitions are being considered in the United Kingdom, Spain, Canada, China and elsewhere in 2006.
- It will strengthen its technological leadership and its capacity for innovation in the medium to long term in areas such as robotics and non-destructive inspection, as these are key success factors in a fiercely competitive market. In 2006, the emphasis will be on the development of a shared set of tools and processes for the entire Business Unit aimed at optimizing the synergies among our international teams.

No heavy component replacement is scheduled for the United States in 2006. In the United Kingdom, British Energy recently requested a global offer from AREVA NP for operating enhancements to its fleet of advanced gas-cooler reactors (AGR). This is a large market representing a unique opportunity to bolster the *Nuclear Services* Business Unit's presence in that country.

## 4.5. Reactors and Services Division

## 4.5.4. AREVA TA BUSINESS UNIT

## 4.5.4.1. Key data

<i>(in millions of euros, IFRS)</i>	2005	2004
Sales revenue	316	316
Workforce at year-end	2,017 people	2,259 people

## 4.5.4.2. Businesses

***Design of power supply systems for naval propulsion***

The core business of the AREVA TA Business Unit is designing, manufacturing and maintaining nuclear reactors for naval propulsion and related equipment and services. This business meets stringent safety, reliability and availability requirements.

The market consists of nuclear powered vessels, industrial facilities and related testing. It requires mastery of key methodologies and technologies, such as systems architecture, project management, digital safety controls, safety analysis, thermo hydraulics and neutronics, acoustics and vibration, and integrated logistical support. For more than 30 years, nuclear reactors designed by AREVA TA have been powering the French Navy's submarines and aircraft carriers for all of their operating missions.

AREVA TA also provides propulsion-related services and systems, including operating control systems, monitoring systems, and acoustic discretion for facilities, systems and components. AREVA TA has unique experience as a designer and technical operator for the CEA. In addition to its reactor design activities, the Business Unit provides support to the reactor operator onboard submarines and aircraft carriers in the form of maintenance and training services, including service and operating support for certification, training and testing reactors aimed at preventing technological and human risk at several levels through validation of onboard reactors before sea duty, full-scale testing of innovations, endurance tests, predictive maintenance, and operator training.

AREVA TA and its subsidiary Helion have also made a technological breakthrough in the fuel cell sector. With its Syspac® line of products, Helion is aiming at applications in which a continuous source of power is vital for life support and safety.

***Engineering of complex facilities and systems and design of safe electronic systems***

The AREVA TA Business Unit has recognized expertise in the engineering of complex systems and in the design and manufacture of safe electronic systems and equipment, both on-board and on land. These systems ensure the safety, comfort, reliability and availability of highly safe installations in the manufacturing, nuclear power, and passenger and freight transport sectors.

AREVA TA has successfully ensured its place in this market, which demands performance levels approaching those of the nuclear industry in terms of safety and availability, offering:

- automated monitoring systems for guided transport,
- safety monitoring systems for train conductors,
- operating parameter recorders, commonly called "black boxes", to record operating events,
- control systems to open and close subway doors, and
- tracking systems for trains.

In 2005, national defense projects accounted for about 60% of the Business Unit's sales revenue, while civilian nuclear power and industry, including transportation, industrial applications and the environment, made up around 40%.

## 4.5.4.3. Manufacturing and human resources

The Business Unit has five main manufacturing and engineering locations in France:

- Saclay, devoted mainly to support functions and marketing and project operations,
- Aix-en-Provence, dedicated to engineering projects,
- Cadarache, focused on in-service support operations,
- Lyon, dedicated to acoustic and vibration solutions,
- Toulouse, devoted to electronic equipment for industry.

#### 4.5.4.4. Market and competitive position

AREVA TA works primarily in France in the defense, large scientific instruments, manufacturing, guided transport and aerospace industries. There are very few international business opportunities in naval nuclear propulsion due to national security issues.

Its competitors in this field are traditional systems and technology engineering firms.

#### 4.5.4.5. Operations and highlights

Some of the highlights of the year are described below:

- Significant progress was made on the RES test reactor project, which will provide land-based support to new naval propulsion reactors on nuclear Barracuda-type attack submarines. The pool module was completed and the facility was delivered to the customer for start-up by AREVA TA. The containment enclosure was assembled on site by the program's industrial partners, and the reactor was installed in the reactor building on schedule.
- AREVA TA met major milestones for onboard reactors in 2005, beginning with the fourth SNLE-NG submarine, now under construction, for which important capacities and systems were installed in Cherbourg on schedule.
- Business was buoyant in digital safety systems for rail and urban transport. In 2005, AREVA TA, project manager for the entire program, officially presented the first MF 2000 train to the Paris transit authority, RATP, with its Chairman, Anne-Marie Idrac, attending.
- The year saw significant advancement of projects in the engineering of large instrumentation systems for science and industry. The Megajoule Laser and the Jules Horowitz research reactor for the CEA are but two examples. Airbus Industrie signed the final acceptance of the third and last Airbus A380 assembly line finishing and testing station in September 2005.

#### 4.5.4.6. Outlook and development goals

The development prospects for operations not related to energy and propulsion suggest growing sales over the coming years. Moreover, the defense budget law confirmed the French government's commitment to major programs such as the Barracuda program, the fourth nuclear submarine missile-launcher and the Megajoule laser. This should contribute to relatively stable revenue in this sector.

The AREVA TA Business Unit continues to focus on supplementing the AREVA group's offering as a designer and supplier of advanced technology systems in naval propulsion and solutions for a high level of safety and reliability for the environment and transportation.

The Business Unit will also continue to maintain a strong presence in the engineering of large scientific instrumentation (Jules Horowitz reactor, Megajoule laser and ITER) and of large and complex industrial facilities, and in the management of servicing and maintenance operations.

## 4.5. Reactors and Services Division

## 4.5.5. NUCLEAR MEASUREMENT BUSINESS UNIT

## 4.5.5.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	166	157
Workforce at year-end	1,096 people	1,078 people

## 4.5.5.2. Businesses

The *Nuclear Measurement* Business Unit designs, manufactures and markets equipment and systems to detect and measure radioactivity, monitor nuclear facilities, characterize waste and for radiation protection. It also provides related services. Its products and services meet customer requirements for nuclear safety, occupational safety and monitoring of their production operations. In this respect, the *Nuclear Measurement* Business Unit plays an important role in the central issue of sustainable development for the AREVA group and for its main customers, including nuclear operators, research laboratories and government services, in the areas of nuclear safety and security.

## 4.5.5.3. Manufacturing and human resources

The Business Unit integrates equipment design, manufacturing and sales through five main marketing subsidiaries and some 30 offices on five continents.

In terms of manufacturing, the Business Unit is currently optimizing its operations worldwide by globalizing its production facilities in Europe and North America.

The Business Unit now has nine production sites in the United States, France, Canada, England and Belgium. More than 320 employees work directly in production.

## 4.5.5.4. Market and competitive position

The nuclear measurement market, including the Homeland Security program in the United States, is a global niche market worth an estimated €900 million per year. The *Nuclear Measurement* Business Unit, which includes the Canberra brand, is the world leader with a market share of around 20% in 2005. The Business Unit operates in North America, the world's largest market (51% of 2005 sales), Europe (26%, excluding France), France (14%), Asia (8%), and elsewhere around the globe (1%).

Its principal competitors are SAIC, Thermo, Synodis (MGP) and Ametek/Ortec, which together hold 40% of the market. The remaining 40% of the market is divided among a hundred minor players.

## 4.5.5.5. Relations with customers and suppliers

*Customers*

Traditionally, the nuclear measurement market's customers are nuclear power stations, fuel fabrication and treatment facilities, radiation chemistry and environmental laboratories, scientific research laboratories and the medical sector.

In addition to these customers, the Business Unit also serves public and private organizations in charge of radiation monitoring at national borders as well as emergency response teams. The response team customer category is growing, especially in the United States, with a program set up by the Department of Homeland Security.

*Suppliers*

Of the commodities used by the Business Unit, only germanium, a copper residue that does not exist in the natural state, is special because only two or three entities in the world are capable of producing the ultra-pure germanium crystals used to manufacture gamma-ray semiconductor sensors. The *Nuclear Measurement* Business Unit is the leader of these three manufacturers, and thus has a competitive advantage. The other components and materials used by the Business Unit may be acquired without any particular constraint or risk.

#### 4.5.5.6. Operations and highlights

The year saw strong business in the defense sector, with equipment orders from the U.S. Army.

The Business Unit also revised its organization:

- functionally, by strengthening the key departments of R&D, Strategic Marketing and Business Development; and
- on the production level, by beginning to streamline its manufacturing platforms in the United States and merging its French entities.

#### 4.5.5.7. Outlook and development goals

For 2006 and beyond, the Business Unit's objective is to transform niche operations into a high-tech enterprise serving customers around the world. This will be accomplished by strengthening our world leadership in the Labs & Fuel Cycle market and developing market share in Nuclear Plants and Homeland Security. Ultimately, the goal is a substantial increase in sales revenue and greater operating profitability.



## 4.5. Reactors and Services Division

## 4.5.6. CONSULTING AND INFORMATION SYSTEMS BUSINESS UNIT

## 4.5.6.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	143	133
Workforce at year-end	2,009 people	1,954 people

## 4.5.6.2. Businesses

The *Consulting and Information Systems* Business Unit, under the trade names of Euriware and its subsidiary PEA Consulting, is active in three interrelated fields:

- information systems integration and optimization, representing about 30% of sales;
- supply chain, information system and enterprise management consulting aimed at enhancing overall business performance, representing about 10% of sales;
- “evolutionary” MIS outsourcing (see Glossary), representing about 60% of the Business Unit's sales;

A majority of the Business Unit's contracts are recurring, particularly in MIS outsourcing, and more than 70% of its contracts are for periods ranging from three to five years.

In addition to the consolidated sales revenue mentioned above, the Business Unit recorded almost €100 million in sales revenue from management of the Group's information systems (IS) and industrial information technology.

## 4.5.6.3. Manufacturing and human resources

The *Consulting and Information Systems* Business Unit's workforce of close to 2,000 people at year-end 2005 was divided among four regional departments: Ile-de-France (greater Paris area, more than 40%), Western France (about 30%), Central Eastern France (about 20%) and Southeastern France (about 10%). Of the 14 operating entities located throughout France, three service centers provide hosting services as well as systems and network operating services, including remote operations.

Internationally, the Business Unit entered into strategic international partnerships with manufacturers, software publishers, operators and consulting firms to manage projects in Europe, the United States and Asia.

## 4.5.6.4. Market and competitive position

The Business Unit is active in France's information technology (IT) market, which represented more than 20 billion in 2005 (source: Syntec). The *Consulting and Information Systems* Business Unit is a recognized player in France, primarily in industrial information systems. The Business Unit competes with the leading industrial software and systems management firms, including IBM Global Services, Cap Gemini and Atos Origin.

## 4.5.6.5. Relations with customers and suppliers

*Customers*

The *Consulting and Information Systems* Business Unit's customers are major companies outside the Group, including France Télécom in the telecommunications sector, the French Ministry of Defense in the public sector, EDF and the CEA in the energy sector, Natexis Banque Populaire in the banking sector, and Sanofi-Aventis, Messier Bugatti and Renault in the manufacturing sector.

Contracts with these customers generally run for three to five years in the case of MIS outsourcing, and for shorter terms in the case of consulting and systems integration.

*Suppliers*

The Business Unit's resources consist of software, computer equipment and computer services subcontracts, all of which are incorporated into Euriware's services. Its main suppliers are software publishers, including Microsoft, PTC, Oracle, SAP, Veritas, Computer Associates, EMC2 Documentum, Business Object, Filenet and Générrix; equipment manufactures, including HP, IBM, Sun and Dell; data storage suppliers, including EMC and Adic; and service providers, such as SCC.



#### 4.5.6.6. Operations and highlights

In 2005, the consulting, systems integration and MIS outsourcing markets posted limited growth due to greater competitive pressures and low sales prices.

The Business Unit won many new contracts. In consulting, Arcelor turned to PEA Consulting for important assignments pertaining to industrial performance. For the French postal service (La Poste), Euriware headed up a major integration project related to an off-the-shelf logistics software package. In total MIS outsourcing, Euriware was awarded major contracts by companies such as Daher, an industrial services group specialized in logistics for the aeronautics industry, among others, and Sodial, a food processing group.

With regard to certification programs, Euriware received confirmation of ISO 9001-2000 certification for all of its businesses and sites in 2005.

#### 4.5.6.7. Outlook and development goals

The French software and data services market is expected to grow by 6.8% in 2006, according to forecasts by Syntec Informatique. Price pressures on the cost of services should remain strong.

The Business Unit's strategy over the medium term is to continue to develop its three main businesses, i.e. consulting, systems integration and evolutionary MIS outsourcing, as well as its high value-added services, using a streamlined and consistent approach to proposals and centering its position on its strong expertise. It also plans to expand its international business gradually and to establish new production resources for its customers in India and Russia.

Euriware is channeling its efforts into five business lines – total MIS outsourcing, industrial data processing, electronic document management, Product Lifecycle Management (PLM), and business solutions – to differentiate itself as it pursues its development.

## 4.6. Back End Division

## 4.6. Back End Division

### KEY DATA

(in millions of euros, IFRS)

	2005	2004
Sales revenue	1,921	1,946
Operating income	208	231
Workforce at year-end	10,864 people	10,697 people

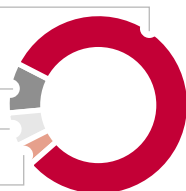
#### 2005 sales revenue by Business Unit and region

81% - Treatment and Recycling

9% - Logistics

6% - Cleanup

4% - Engineering



57% - France

10% - Asia-Pacific

6% - Americas

27% - Europe (excluding France)



### OVERVIEW

**The Back End Division, which accounted for 19% of AREVA group sales,** offers solutions for the management of used fuel. The world's installed reactors generate approximately 6,500 metric tons of heavy metal (MTHM) of used fuel each year. This is equal to the amount of fresh fuel loaded in the reactors. The total worldwide inventory was around 125,000 MTHM of used fuel at the end of 2005.

The Back End Division delivers treatment and recycling services for fuel after use in nuclear power plants, along with related operations:

- the *Treatment and Recycling* Business Units recover reusable uranium and plutonium from used fuel so that it may be recycled in nuclear reactors as MOX or UO<sub>2</sub> fuel (see Glossary),
- the *Logistics* Business Unit designs and manufactures casks to transport and/or store nuclear materials, and provides transportation services,

- the *Cleanup* Business Unit mainly provides nuclear cleanup services and cleanup logistics,
- the *Engineering* Business Unit designs and builds facilities for the front end and the back end of the fuel cycle.

The Division also manages major treatment technology transfer programs, particularly for the Rokkasho-Mura plant in Japan, the sister plant of La Hague. Other programs to transfer recycling technology related to MOX fuel are also in progress with Japan and the United States.

In line with AREVA's commitment to sustainable development and environmental protection, the Group has developed advanced technologies to treat the materials and recycle 96% of the used fuel, reduce final waste volumes and package the waste for final disposal. AREVA also offers solutions for used fuel storage without treatment.

## 4.6. Back End Division

**The Group is the world leader in both the “open” or “once-through” and the “closed” fuel cycle markets. Utilities may choose either option to manage their used fuel:**

- In the open cycle, the used fuel is considered to be non-reusable. It is stored in pools or in dry storage systems at sites designated for that purpose. The storage solutions available on the market allow the utility to manage its own used fuel for several decades. The long-term challenge will be the final disposal of the utility's inventory of used fuel, often in connection with national nuclear waste disposal programs.
- The closed cycle is based on the fact that the used fuel contains a large amount of reusable materials still capable of producing a large amount of energy. The solution is to treat the used fuel to separate the uranium and plutonium, which are reusable, from the final waste, which represents only about 4% by volume of the used fuel. The recovered uranium and plutonium are recycled into fuel for nuclear power plants. This stage lasts quite some time – some ten years – as the used fuel coming out of the reactor undergoes a treatment cycle before it can be reloaded into the power plant in the form of MOX fuel (uranium and plutonium) or ERU fuel made with reprocessed uranium.

There are major barriers to entry to both markets. Both fuel cycles require advanced technologies, and the closed fuel cycle is extremely capital-intensive.

According to an OECD report of April 1994, the total costs of both fuel cycles are essentially identical<sup>(1)</sup> and represent a relatively small percentage – about 6% – of the nuclear kilowatt-hour cost.

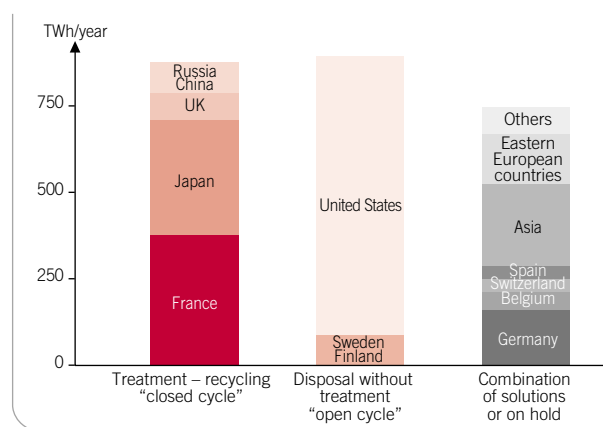
**The treatment and recycling businesses have excellent visibility due to the duration of the used fuel treatment-recycling cycle,** which starts with the unloading of the fuel from the reactor and lasts about 10 years. The Group has long-term relationships with large customers, giving it a current backlog of approximately three years of sales revenue. EDF has committed in principle to the treatment of its used fuel for the post-2007 period; the specific terms and conditions are still being negotiated. The Group has also forged long-term partnerships with foreign customers to create value with the Group's technologies.

<sup>(1)</sup> The cost of the closed cycle takes into account all uranium and plutonium recovered during treatment operations.

The processes developed and implemented by the Group in the “closed” cycle are fully demonstrated and production maturity has been achieved. The Group intends to promote this option with signatory countries of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and with their nuclear power plant operators, and to achieve even higher operating performance and cost-effectiveness with this solution.

Choosing the “closed” fuel cycle is a matter of national policy. As shown in the chart below, France, Japan, Great Britain, Russia and China have adopted the “closed” fuel cycle solution. The United States, Finland and Sweden have chosen the “open” fuel cycle. AREVA's approach is to adapt to local market conditions, country by country. Countries that have chosen interim or mixed solutions represent growth opportunities for the *Treatment* and *Recycling* Business Units.

**Used fuel management programs, by country**



Source: AREVA.

AREVA's technological and industrial advance in Treatment and Recycling positions the company very favorably to take advantage of the development potential for this management option for the back end of the fuel cycle. The Business Units spend approximately 4% of their sales revenue on R&D to maintain their technological leadership and optimize their production facilities.

## 4.6. Back End Division

## STRATEGY AND OUTLOOK

The Back End Division's goal is to consolidate its world leadership position with a four-pronged strategy:

- **Strengthen the used fuel treatment and recycling business in France.** The Group's visibility extends through 2015, thanks to its contracts with EDF. It is now working to strengthen and extend the current backlog.

- **Capitalize on its closed cycle technologies in markets worldwide.** AREVA plans to market its back-end technologies, working closely with the relevant authorities. The AREVA group already has two major references in this regard.

– In Japan, a major technology transfer program has been in place with the Division's Japanese partners and customers since 1987. The technologies transferred resulted in the construction of the used fuel treatment plant at Rokkasho Mura, Japan, by Japan Nuclear Fuel Limited (JNFL). The 200 TWh/yr plant (the equivalent of 800 MTHM of used fuel per year) is scheduled to enter commercial service in 2007. This capacity is not enough to treat all of the used fuel currently unloaded from Japanese reactors. AREVA's relationship with JNFL is continuing via start-up assistance for the Rokkasho Mura plant through the end of 2007. AREVA is also transferring technology for MOX fuel fabrication and proposes to assist JNFL during the design, construction and operation of its future plant.

– In the United States, the Group's treatment and recycling technologies form the basis of the Eurofab program ("MOX for Peace"), which involves building a MOX fuel fabrication facility in the United States for the U.S. Department of Energy (DOE) to recycle U.S. defense plutonium. With regard to treatment, the U.S. administration opted for the "open" cycle in the late 1970s solely as a response to the proliferation risks associated with the change of regime in Iran. Following the enactment of the Energy Bill in August 2005, and concurrent with pressures on energy supplies, interest has revived in the long-term development of nuclear power. For example, the DOE's Global Nuclear Energy Partnership (GNEP), launched in February 2006, reopens the treatment and recycling option, seen as an opportunity for the United States to increase Yucca Mountain's disposal capacities, recover reusable materials in a controlled manner, and reduce the risks of proliferation. AREVA's objective is to participate actively in these programs in the back end of the cycle in direct response to the U.S. administration's proposals for greater international cooperation.

- **Strengthen the Division's leadership position in the used fuel storage market, particularly in the United States,** where the Group is already the leader in storage systems, with a market share of more than 50%. Design work continues for a used fuel unloading facility at the Yucca Mountain waste repository.

- **Market products and services related to the transportation of fuel and nuclear materials.**

## 4.6.1. TREATMENT AND RECYCLING BUSINESS UNITS

### 4.6.1.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	1,553	1,541
Workforce at year-end	6,284 people	6,209 people

### 4.6.1.2. Businesses

Treatment consists of separating recyclable uranium and plutonium from final waste (see Glossary), including fuel assembly structural components and fission products, through a series of mechanical and chemical operations.

Recycling consists of recovering energy materials, i.e. uranium and plutonium, during used fuel treatment operations, and recycling them into nuclear reactors as MOX or ERU fuel. AREVA is the leading player in treatment and recycling technologies. The Group is and has been the world's largest manufacturer of MOX fuel for several years.

In line with its commitment to sustainable development and environmental protection, AREVA has developed advanced technologies to separate and recycle materials in the used fuel (96% of its content). These operations:

- conserve natural resources by recycling recovered uranium and plutonium into fresh fuel, and
- reduce the volume and radiotoxicity of non-recyclable waste generated by nuclear power plants.

The *Treatment* and *Recycling* Business Units also decommission facilities at the end of their life cycle.

AREVA provides treatment services only. The materials processed, including the uranium, plutonium and fission products, remain the property of the customers.

### 4.6.1.3. Manufacturing and human resources

#### *Treatment*

Most of the *Treatment* Business Unit's operations are conducted at two production sites: the La Hague site in northern France and the Marcoule site in southern France.

#### The La Hague site

The La Hague site treats used nuclear fuel from nuclear power reactors and test reactors. Treatment consists of separating the uranium, plutonium and fission products.

- The uranium is purified to make it suitable for reuse and concentrated in the form of liquid uranyl nitrate. It can then be converted into an oxide, re-enriched, and reused to make fresh fuel (see Front End-*Chemistry* Business Unit).
- The plutonium is purified to achieve the properties suitable for reuse and packaged in oxide form. It can then be mixed with uranium oxide to make fresh MOX fuel.
- The fission products, which contain most of the used fuel's radioactivity, are calcined and incorporated into an inert glass matrix that is poured into universal canisters made of stainless steel (CSD-V canisters). The metal structural components of the fuel are compacted and placed in universal canisters made of stainless steel (CSD-C canisters). EDF's canisters are stored at La Hague; foreign customers' canisters are returned to the country of origin.

The La Hague plant has two production lines: UP2 and UP3, which have a combined treatment capacity corresponding to the generation of 450 TWh/yr of electricity, i.e. 1,700 MTHM of used fuel per year.

## 4.6. Back End Division

### The Marcoule site

France's first treatment plant, UP1, ceased operations in late September 1997. Cleanup of the UP1 plant began in 1998 and will extend through 2040 via three separate programs.

Ownership of the site and the operating license are being transferred to the CEA.

### Mecagest and SICN

For business reasons, the *Treatment* Business Unit's scope of industrial operations was expanded in 2005 to include two new subsidiaries, Mecagest and SICN, specializing in container production and dismantling.

### Recycling

The *Recycling* Business Unit has two production facilities in France and a subcontractor in Belgium, Belgonucléaire.

### MELOX S.A.

The MELOX plant, located at the Marcoule site in southern France, provides large-scale fabrication of MOX fuel assemblies from mixed uranium and plutonium oxides for use in nuclear generating stations around the world. The plant entered service in 1995 and had already achieved its nominal production capacity of 100 MT per year by 1997. Today, it is the world leader in MOX fuel fabrication. In September 2003, the French government authorized AREVA to raise the plant's annual capacity to 145 MTHM. The capacity increase made it possible to locate all of France's MOX fuel fabrication at the MELOX plant following the shutdown of the Cadarache production units in late July 2003.

In 2004, AREVA submitted a license application to the appropriate French ministries to raise annual MOX fuel fabrication at the MELOX plant to 195 MTHM. The application is part of AREVA's strategy to consolidate all of its MOX production at the MELOX plant to meet demand and bolster economic performance.

### The Cadarache site

On July 16, 2003, the AREVA NC Cadarache plant in the southern Rhône valley of France fabricated its last MOX fuel rods for customers in Germany. The plant also produced pellets and fuel rods at the end of 2004 to fabricate four lead MOX assemblies from United States defense plutonium as part of the Eurofab program. Fuel assembly operations were performed at the MELOX plant in early 2005.

AREVA's operations at the Cadarache plant are now devoted to making fuel rods with the scrap from previous operations and to applied research and development. To prepare for facility cleanup and dismantling operations, to be phased in over the next three years, the site has been developing equipment cleaning and disassembly methods on a small scale since mid-2003. The work is expected to span a 10-year period.

### Belgonucléaire – Dessel plant

To supplement production from MELOX and Cadarache, AREVA has a contract with Belgonucléaire that sets aside a portion of that company's production capacity at its plant in Dessel, Belgium, through 2006. In late 2005, Belgonucléaire announced that it planned to close the Dessel plant in 2006.

### Service life extension of the Group's plants

To meet the requirements of its major customers, the AREVA group took action to verify the compatibility of its facilities' life spans with those projected by EDF for its reactor fleet. Technical studies conducted at the La Hague and MELOX sites looked at facility design, operating methods, operating experience from similar facilities, and R&D programs supporting them.

The AREVA group turned to Bureau Veritas to perform a critical assessment of these studies. Their report concluded that the Group can expect to use the La Hague plant until 2025 and the MELOX plant until at least 2027. The amortization periods for these facilities were extended accordingly in 2005. (see Note 1.9.4. in Notes to the consolidated financial statements).

### 4.6.1.4. Market and competitive position

The world market for used fuel treatment and recycling is extremely concentrated. Barriers to entry include the large amounts of capital expenditure required, technical constraints, and licensing requirements. The market's main characteristics are:

- a concentrated industry with a limited number of suppliers of treatment and recycling facilities, including AREVA, the only one with large capacity facilities;
- a very high level of technological expertise;
- extremely high development costs for substitute technologies;

- capital-intensive operations;
- environmental regulations and requirements; and
- a limited number of customers, with long-term contracts that are often large in scope.

With a current treatment capacity corresponding to the generation of 450 TWh/yr of electricity, or 1,700 MT of used fuel per year, the AREVA NC plant at La Hague is the world's largest used fuel treatment facility. The AREVA group's market share represents two-thirds of the world market. This installed capacity and vast experience rank the AREVA group number one worldwide in treatment. Britain's BNFL and Russia's FAE (Rosatom) are the next largest producers.

#### Worldwide treatment capacities and production in 2005

	Installed Capacity		2005 production		Cumulative production	
	MTIHM/yr*	TWh**	MTIHM/yr	TWh	MTIHM/yr	TWh
La Hague (France)	1,700	450	1,100	360	~21,000	~ 5,400
Sellafield (United Kingdom)	900	250	150		4,000	
Tcheliabinsk (Russia)	400	100	150	NC	3,900	
<b>Subtotal for 2005</b>	<b>3,000</b>	<b>800</b>	<b>1,400</b>	<b>-</b>	<b>~29,000</b>	<b>~ 7,600</b>
Rokkasho-Mura (Japan) beginning in 2007	800	200	0	0	0	0
<b>Total beginning in 2007</b>	<b>3,800</b>	<b>1,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

\* MTIHM/year) = metric tons irradiated heavy metal / year

\*\* TWh = 10<sup>9</sup> kWh

Sources: AREVA, World Nuclear Association, IAEA, BNFL, JNFL.

In 2005, about 185 metric tons of MOX containing 12 metric tons of plutonium were produced worldwide. Nominal MOX fuel fabrication capacity worldwide is currently on the order of 300 MTHM/year, representing usage of 20 MT of plutonium.

#### Worldwide recycling and fabrication capacities in 2005

(in metric tons/year)	Installed Capacity	2004 production	2005 production	Cumulative production
AREVA-Cadarache (France)	shut down	2 <sup>(a)</sup>	2 <sup>(e)</sup>	347
AREVA-MELOX <sup>(b)</sup> (France)	145	122	145	1,030
Belgonucléaire-Dessel (Belgium)	40	38	35	645
BNFL/Sellafield (United Kingdom)	120	2 <sup>(c)</sup>	2 <sup>(c)</sup>	22 <sup>(c)</sup>
<b>Total in 2005</b>	<b>305</b>	<b>164</b>	<b>184</b>	<b>2 044</b>
J-MOX (Japan)	100 <sup>(d)</sup>	-	-	-
<b>Total</b>	<b>405</b>	<b>-</b>	<b>-</b>	<b>-</b>

(a) Production of four demonstration MOX fuel assemblies for the United States.

(b) MELOX plant – Nominal capacity: 195 MTHM. Licensed capacity since September 2003: 145 MTHM per year.

(c) AREVA estimate.

(d) Plant in the design stage.

(e) Commercial production shut down in July 2003. 2005: production using scrap.

Source: AREVA.

## 4.6. Back End Division

The MELOX plant, currently licensed for 145 metric tons of heavy metal per year, is the world's largest MOX fuel fabrication facility. AREVA controls approximately 90% of the world market, about 20% of which is subcontracted to Belgonucléaire for fabrication.

### 4.6.1.5. Relations with customers and suppliers

#### Customers

The main customers of the *Treatment* and *Recycling* Business Units are utilities, chiefly from France (EDF), Germany, Japan, Switzerland, Belgium, Great Britain and the Netherlands. EDF is the Business Unit's largest customer in terms of volume. Together with the Group's Logistics and Chemistry Business Units, the *Treatment* and *Recycling* Business Units offer integrated services covering transportation, treatment, uranium conversion and MOX fuel fabrication.

The United States, Japan and Russia are also interested in the *Treatment* and *Recycling* Business Units' technologies for their fuel treatment and/or fabrication facility construction projects.

#### Suppliers

AREVA NC's La Hague and MELOX plants call on a large number of suppliers for operations that are not part of the AREVA group's core business. These companies undergo a very demanding selection process and are closely supervised, particularly in areas requiring technical expertise and concerning health, security, safety and environmental requirements.

### 4.6.1.6. Operations and highlights

#### Treatment

EDF and AREVA continued working to develop long-term agreements in the back end of the cycle. In particular, responsibility for the retrieval and packaging of legacy waste stored at La Hague and the final shutdown and decommissioning of the La Hague plant were transferred to the CEA in exchange for a lump sum payment. The financial responsibility for these operations remains with the industrial operator, which has the necessary technical expertise. In addition, EDF and AREVA negotiated the terms for a long-term extension of treatment and recycling services for EDF's used fuel pursuant to the contract signed last year related to used EDF fuel transport, treatment and packaging and to ongoing recycling contracts.

La Hague plant operations were in line with forecasts, with a slight increase in production to 1,113 MT. This was echoed by the increased number of waste packages returned to the country of origin and the overall good performance of the production facilities (shearing, vitrification, etc.). The 3,000th cask of EDF fuel was received at La Hague in 2005, bringing the total tonnage to 18,000.

Japan, like France, has chosen to treat and recycle its used nuclear fuel. Following a technology transfer agreement signed in 1987 with AREVA NC, the Japanese company JNFL built a treatment plant at the Rokkasho Mura site in northern Japan patterned after UP3, one of the two AREVA NC plants at La Hague. As part of the technology transfer, a hundred Japanese operators were trained at the La Hague site in France and some 40 French expatriates were assigned to the Rokkasho site in Japan. In December 2005, JNFL and AREVA signed an agreement extending the technical assistance agreement through commercial start-up of the Rokkasho Mura treatment plant, scheduled for mid-2007. In 2005, the assistance provided under this agreement covered uranium testing of the plant, completed without major problems.

AREVA also signed a technical support contract with British Nuclear Fuel Ltd (BNFL) related to performance improvement of the waste vitrification plant at Sellafield. Under the terms of the four-year contract, AREVA will provide the following services:

- supply of vitrification process equipment,
- transfer of expertise and knowledge of operating control methods to BNFL personnel at the La Hague plant,
- support for deployment of the equipment at the Sellafield site, and
- additional technical support from France via a help line.

Elsewhere in the world, AREVA responded to a request for proposals from Sogin in Italy to treat used fuel stored at two reactor sites.

Under the umbrella of their oversight agencies, the CEA and AREVA decided to clarify and simplify their commercial relationship for sites where they have shared commitments, i.e. La Hague, Marcoule, Cadarache and Pierrelatte. Concerning Marcoule, the following was agreed:

- Codem, the economic interest grouping charged with selecting, financing and supervising final shutdown, dismantling, and waste retrieval and conditioning operations, was dissolved,
- ownership of the site and the operating license were transferred from AREVA NC to the CEA,
- the responsibility for decommissioning was transferred to the CEA in exchange for a lump sum payment of €427 million, half of which AREVA paid to the CEA at the end of 2004, with the other half paid in the beginning of 2005,



- a total of 300 people were transferred from AREVA NC to the CEA for site support,
- AREVA NC, as the CEA's leading industrial partner, will be responsible for managing and implementing cleanup operations under a multiyear agreement currently under negotiation for the 2005-2010 period.

At the La Hague site, the professionalism of AREVA NC's staff and its dedication to environmental protection and technological innovation were recognized when the American Nuclear Society presented the Nuclear Historic Landmark Award to the site. The award was given to the La Hague plant for its contribution to the development of nuclear power around the world and for the technological advances made at the site.

### Recycling

#### MELOX S.A.

In 2005, MELOX confirmed its position as the world leader in the MOX fuel market. MELOX produced 145 metric tons of heavy metal in 2005, bringing the total since start-up to 1,000 metric tons, testifying to the confidence our customers have in the quality of our fuel.

#### The Cadarache site

As part of the Eurofab program, the site also received authorization in 2004 to fabricate fuel rods for four MOX lead assemblies for the United States in connection with the Eurofab program. These assemblies, made with U.S. defense plutonium, are being used to validate the fuel's performance in United States nuclear power plants. Fuel fabrication began during the second half of 2004, as soon as the 140 kilograms of U.S. plutonium arrived in Cadarache. The rods were subsequently assembled in the AREVA group's MELOX plant and returned to the United States at the end of March 2005. The assemblies were loaded into the reactor in mid-2005 to generate electricity.

#### Technology transfer

The Eurofab program, which lasted a few months, supported implementation of the nuclear non-proliferation commitments of the United States and the Russian Federation. The technology and know-how developed by AREVA in plutonium recycling and MOX fuel fabrication were selected by the United States and Russia as part of their mutual disarmament agreements, both countries having decided to recycle 34 metric tons of surplus defense plutonium in the form of MOX fuel and to use the fuel in civilian nuclear reactors. Both countries are planning to build a MOX fuel fabrication plant. In the United States, the U.S. government decided to build its MOX fuel fabrication facility at the Savannah River site in South Carolina. AREVA is involved in this project as part of the Duke-AREVA NC-Stone & Webster team. The groundbreaking ceremony for the U.S. MOX facility was held in October 2005 at the Savannah River site. Facility construction is to begin in 2006.

## 4.6.1.7. Outlook and development goals

### Treatment

Over the medium to long term, the La Hague plant will continue to treat used fuel from EDF reactors corresponding to the generation of approximately 280 TWh of electric power per year through 2007, i.e. 850 MTHM of treated used fuel, with negotiations in progress for the post-2007 period, and from its European customers in Germany, Switzerland, the Netherlands, and elsewhere, corresponding to the generation of about 360 TWh/yr of electricity, or an annual average production of 1,100 MTHM of treated fuel.

Return shipments of vitrified waste to the countries of origin will continue at a brisk pace. The tenth shipment of glass was made to Japan, bringing the total to two-thirds of that country's vitrified waste.

The training program for Japanese operators from JNFL's Rokkasho Mura plant ended in 2004. The existing agreement with JNFL was extended to include assistance during start-up of the plant, and work will continue through commercial start-up, scheduled for 2007. The two-year extension to this collaboration was signed in late 2005.

### Recycling

In recycling, MOX fuel fabrication for EDF will continue under current contracts at the rate of approximately 100 MTHM through 2006, with higher quantities thereafter, with EDF planning to load MOX fuel in more reactors.

In 2006, the MELOX plant should produce 145 MTHM for EDF and German customers. Once the Japanese MOX program resumes, as it is expected to do in 2008, MELOX capacity should gradually rise over the coming years to around 195 MTHM, as needed, subject to receipt of the corresponding license amendment.

MELOX produced the first MOX fuel for Japanese utilities in 1999. This fuel was to be used in 16 to 20 Japanese reactors. The Japanese program was suspended, but fabrication is expected to restart.

The *Treatment* and *Recycling* Business Units plan to continue technology transfer programs in the United States, Russia and Japan. In particular, Japan plans to establish MOX fuel fabrication capacity as part of the JMOX program.

## 4.6. Back End Division

## 4.6.2. LOGISTICS BUSINESS UNIT

## 4.6.2.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	181	222
Workforce at year-end	834 people	816 people

## 4.6.2.2. Businesses

The *Logistics* Business Unit operates in two main areas:

- cask design and management of fabrication, as well as the design and fabrication of other specialized equipment to transport and/or store nuclear materials from the front end and back end of the fuel cycle,
- organization of nuclear materials transportation, up to management of the entire transportation fleet.

## 4.6.2.3. Manufacturing capabilities

Due to the international nature of its business, the *Logistics* Business Unit has offices in three major world regions:

- Europe, primarily through the Business Unit's main entity, TN International and its subsidiaries, which together provide most of the Business Unit's know-how, transportation casks and transportation services;
- the United States, where it has two subsidiaries specialized in cask design and fabrication and nuclear materials transportation management;
- Japan, where it specializes in engineering, transportation management, and at-reactor cask maintenance.

## 4.6.2.4. Market and competitive position

The business of nuclear materials transportation and of design of nuclear materials transportation and/or storage casks is characterized by:

- the wide variety and large number of materials involved;
- the global nature of the market;
- the existence of a stringent, ever-changing regulatory framework specific to each transport mode and to each country; and
- public acceptance issues.

The Business Unit's sales revenue for 2005 was divided among North America (approximately 27%), France (36%), Asia (13%), Germany (11%), where used fuel shipments stopped in June 2005, and other European countries (12%).

The market in which the *Logistics* Business Unit operates centers on the needs of electric utilities that operate nuclear reactors and on those of nuclear industries, such as mining or enrichment. To a lesser extent, it includes the needs of national nuclear research centers/laboratories and research/test reactors.

Storage capacity requirements and the type and volume of materials transported vary from one country to the next, depending on installed nuclear generating capacity, availability of fuel cycle facilities, and the back-end option chosen by the utilities.

- In Europe, most nuclear utilities, in addition to EDF in France, call on the *Logistics* Business Unit to transport their nuclear materials, from natural uranium to final waste. Political decisions concerning the back end of the fuel cycle (once-through cycle or postponement of decision) have created a major market for used fuel storage. In this regard, the *Logistics* Business Unit has particularly strong positions in Belgium, Switzerland and Germany.
- In the United States, utilities do not presently recycle used fuel from their power plants. The government had committed to taking title to the fuel beginning in 1998 for final disposal. The start-up date for the repository has not yet been set. In the meantime, the utilities have a growing need for dry storage capacity at the reactor sites. The U.S. affiliates of the *Logistics* Business Unit are leaders in this market. Later, when the final repository becomes available, there will be substantial demand to ship used fuel to that facility.

- In Asia, the Group's strongest presence is in Japan, which has opted for the treatment and recycling of its used fuel. The country's used fuel is currently treated in France and in the United Kingdom. It subcontracts for shipments of vitrified waste and MOX from its recycled fuel from Europe to Japan.

The *Logistics* Business Unit is the world leader in both of its businesses and the only commercial entity to operate in every stage of the nuclear cycle on an international level. Its main competitors in the various market segments, i.e. shipping, brokerage, transportation systems, casks and equipment, and licensing, are:

- in Europe: NCS, BNFL, RSB, GNS, NAC and Holtec;
- in the United States: TLI, Edlow, RSB, Holtec and NAC;
- in Asia: NFT, MHI, HZ, Mitsui, Hitachi, Toshiba, NAC, Holtec and GNS.

#### 4.6.2.5. Relations with customers and suppliers

##### Customers

The *Logistics* Business Unit's customers are nuclear operators seeking solutions for radioactive materials transportation in both the front end and the back end of the fuel cycle, as well as for materials storage.

TN International provides materials transportation services to customers in Europe (EDF, Synatom, GNS, etc.), Asia (Tepco, Kansai, etc.) and the United States (DOE).

NOK, BWK and KKG, among others, have called on TN International to supply specially designed casks for nuclear materials storage.

##### Suppliers

The *Logistics* Business Unit has three types of procurements: cask fabrication, maintenance and transportation services. For cask fabrication, the *Logistics* Business Unit selects suppliers in the steel-making, welding and machining industries. Its main concern in 2005 was for security of supply due to very strong demand, which put pressure on available capacities.

#### 4.6.2.6. Operations and highlights

In shipping, 2005 saw the scheduled end of used fuel shipments from Germany. As anticipated, MOX fuel and vitrified waste shipping remained stable.

The Business Unit was in charge of MOX fuel transportation to the United States as part of the Eurofab operation.

Also in the United States, the Business Unit is involved in a contract awarded to the Group by Bechtel relating to the design of surface facilities for used fuel storage at Yucca Mountain, the final waste repository under construction in the United States (see *Engineering* Business Unit).

Several other commercial successes were recorded in 2005, particularly for the supply of TN<sup>TM</sup>24 casks to Italy and NuhomsR storage systems to Armenia. In addition, the Business Unit was the successful bidder on major projects, despite stiff competition, including the supply of TN<sup>TM</sup>24 casks to Synatom (Suez group).

#### 4.6.2.7. Outlook and development goals

The *Logistics* Business Unit is pursuing two key objectives:

- to be a world-class player in its sector's three leading markets of Europe, North America and the Far East; and
- to bolster its world leadership position in transportation and storage for the front end and back end of the nuclear fuel cycle.

In Europe, this means strengthening its already solid position in the storage market and expanding its shipping services for the front end of the cycle (UF<sub>6</sub> and fresh fuel) and for research/test reactors.

In North America, the Business Unit plans to maintain its leadership position in storage and to be involved in future shipments to Yucca Mountain.

In Asia, the objectives are to conquer market share in storage and to expand to the intercontinental transportation market for the front end.

## 4.6. Back End Division

## 4.6.3. CLEANUP BUSINESS UNIT

## 4.6.3.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	119	110
Workforce at year-end	2,613 people	2,750 people

## 4.6.3.2. Businesses

The *Cleanup* Business Unit provides global services to nuclear facility operators in the following areas:

- outsourced operation of nuclear operators' waste treatment facilities, particularly for low- and medium- level waste;
- cleanup and dismantling operations at shut-down facilities, in association with other AREVA Business Units;
- management and execution of jobsite logistics and/or support services at nuclear facilities and sites so that contractors can perform their work in compliance with all applicable nuclear safety, industrial safety and radiation protection regulations;
- special maintenance services, mechanical services, equipment handling, handling operations in nuclear facilities, and radioactive cleanup;
- consulting and/or project management services to nuclear operators concerning the selection of proven operations and maintenance solutions and for the design and execution of innovative operations;
- radiation protection and nuclear measurement services;
- training for operations in a nuclear environment and skills management support to contractors;

The *Cleanup* Business Unit operates primarily in France, providing services to EDF and other fuel cycle companies such as AREVA NC, Socodei, Andra and the CEA.

## 4.6.3.3. Manufacturing and human resources

The majority of the Business Unit's operations involve workers who are deployed domestically at customer sites. It services practically all of the French nuclear sites.

The Business Unit invests heavily in employee training, with each employing receiving an average of 32 hours of training per year. In addition, a certification program for decommissioning and nuclear logistics jobs has been in place since 2004, and leads to a Certificate of Qualification delivered by the Metallurgical Union.

The *Cleanup* Business Unit has expertise in the vast majority of techniques for low- and medium- level effluent and waste processing, volume reduction and safe packaging. The Business Unit has patented two processes to decontaminate lead and mercury. Backed by its experience and its ability to innovate, the Business Unit is able to offer cost-effective, demonstrated solutions to its customers.

The *Cleanup* Business Unit operates an environmentally regulated facility, Triade, where it maintains machinery and equipment used in controlled areas, recertifies equipment, and processes its own or its customers' low-level waste. The Business Unit also makes facilities available to customers so that they may maintain their equipment in a secure environment.

## 4.6.3.4. Market and competitive position

The *Cleanup* Business Unit operates almost exclusively in the French market (less than 2% of its sales come from the export market), which represents almost €500 million per year.

With a market share of close to 30%, the Business Unit is the leader in its sector in France. Its main competitor is the Onet group, followed by the nuclear Divisions of the Suez, Bouygues and Vinci groups, which focus more on dismantling operations.

Stiff competition and strong price pressures have prompted the *Cleanup* Business Unit to reconsider its commercial position, and it is now evolving towards high value-added global services that capitalize on the experience and skills of its seven companies.

### 4.6.3.5. Relations with customers and suppliers

#### Customers

The priority markets for the *Cleanup* Business Unit are those in which it can remain the preferred supplier for its customers, both within the Group and externally. Its customer relationships are evolving towards long-term contracts in the three- to six- year range. Most of the Business Unit's customers are nuclear facility operators:

- EDF continues to be the Business Unit's leading customer. Contracts may span several years, or shorter periods in the case of the Specialized Maintenance and Multi-service business lines.
- The other major customers are the AREVA group (internal customer), the CEA (14% of sales), Socodei and Andra.

#### Suppliers

For the Business Unit's services operations, its leading suppliers are maintenance companies (Endel), hoisting companies (Fenwick, Manutention), and specialists in other fields (Lahyer, OMS, Aris), who are also the Business Unit's partners in providing global services.

### 4.6.3.6. Operations and highlights

In 2005, the *Cleanup* Business Unit developed a global offering for its nuclear operator customers built on six business lines. This expanded offering won us an initial Global Site Support Services contract with EDF valued at more than €60 million. Accordingly, as of January 2006, the *Cleanup* Business Unit will be in charge of logistics for EDF's Paluel site for the next four years, with the possibility of a two-year extension.

Other nuclear waste processing facility operation contracts were renewed, including the environmentally regulated facility at the Cadarache site, renewed for the 2005-2008 period.

Moreover, several proposals for cleanup and dismantling studies and services were submitted in 2005, in particular concerning waste removal for EDF and dismantling of portions of the CEA's sites.

### 4.6.3.7. Outlook and development goals

The *Cleanup* Business Unit's market has been growing by 5 to 8% per year since 2004. This is due to announcements of new requirements and the ramp-up of decommissioning over the next five years by our customers EDF, the CEA and AREVA.

A major area for development consists of operating low-level waste processing facilities. EDF's growing commitment to Global Site Support Services contracts also opens up new horizons in markets with high technical and organizational added value.

The *Cleanup* Business Unit will step up its marketing efforts concerning its new business line offering, aimed at providing greater support to customers as they increase their reliance on outsourcing.

## 4.6. Back End Division

## 4.6.4. ENGINEERING BUSINESS UNIT

## 4.6.4.1. Key data

(in millions of euros, IFRS)	2005	2004
Sales revenue	69	73
Workforce at year-end	1,133 people	922 people

## 4.6.4.2. Businesses

The *Engineering* Business Unit draws on the synergies between SGN and Mécachimie:

- SGN specializes in nuclear fuel cycle engineering;
- Mécachimie is a mechanical systems integrator and turnkey contractor.

The *Engineering* Business Unit provides new facility design and construction services to worldwide nuclear operators as well as plant modifications and optimization of existing facilities. It also provides operating support in areas such as safety analysis, engineering calculations and equipment maintenance.

The Business Unit operates primarily in the front end and back end of the nuclear fuel cycle, and its engineering services encompass every stage in the plant life cycle:

- process development;
- design and installation of special equipment;
- project implementation, including project management; procurement, construction, testing and start-up;
- operating support;
- decommissioning of sites and facilities.

The *Engineering* Business Unit's almost 50 years of expertise and process development for nuclear fuel cycle facilities translate into unique added value and operating experience for its customers.

Through its operating units in France and the United States, the *Engineering* Business Unit conducts business in every country with a nuclear power program. The *Engineering* Business Unit is a partner for commercial nuclear facility operators, directly or indirectly, in France and abroad. In 2005, 70% of its sales came from the United States, while 10% came from France.

## 4.6.4.3. Manufacturing and human resources

The Business Unit's personnel provide:

- engineering services, including design, procurement, construction management and testing;
- fabrication and assembly services as a mechanical systems integrator; and
- on-site construction management and start-up services, as in the case of Rokkasho-Mura, Japan.

The Business Unit also has a development and testing facility in northern France. The *Engineering* Business Unit conducts business in the United States via AREVA NC, Inc./Engineering & Technology.

In France, the Business Unit has three regional offices in Saint-Quentin-en-Yvelines, in northwestern France near the La Hague plant, and in southeastern France near the Marcoule and Pierrelatte sites.

## 4.6.4.4. Market and competitive position

The *Engineering* Business Unit is a major player in nuclear fuel cycle engineering at the international level. The market is a very competitive one, spread out over several geographic regions and divided between the front end of the fuel cycle, involving uranium chemistry and enrichment, the back end of the fuel cycle, involving treatment and recycling, facility decommissioning and waste management. The Business Unit is the world leader in engineering for uranium defluorination (front end) and treatment-recycling (back end).

The revival of nuclear power throughout the world has created an upsurge in demand for engineering services as new design and construction projects are launched, particularly in the front end of the cycle, with the Georges Besse II enrichment plant and the defluorination plant in Russia. The market in the back end of the cycle consists primarily of optimizing existing plants and extending their service life, as in the case of British Nuclear Group's Waste Vitrification Plant at Sellafield, and of waste management and decommissioning projects.

### 4.6.4.5. Relations with customers and suppliers

#### Customers

The *Engineering* Business Unit's major customers in France are:

- AREVA NC, and more specifically the La Hague, Marcoule, Pierrelatte and Cadarache sites, where the Business Unit provides a local presence to the nuclear operator for services and is involved in capital spending projects to improve production plant performance;
- the CEA and EDF for decommissioning and waste and effluent retrieval and processing, and Andra for waste management/disposal studies.

Internationally, the Business Unit's main customers are:

- the DOE in the United States for MOX fuel and waste management,
- AECL in Canada for fuel and waste management projects,
- the Nuclear Decommissioning Agency in Great Britain.

#### Suppliers

The *Engineering* Business Unit seeks out synergies with the Group's companies, including Euriware, Canberra, Mecagest and STMI, to satisfy the procurement requirements of its customers or for its own account. Outside the Group, it applies the Group's directives for supplier selection. In France, it uses a selection board set up for each specialty, which is regularly audited. Internationally, it conducts local investigations to select potential suppliers based on project requirements.

### 4.6.4.6. Operations and highlights

The *Engineering* Business Unit provided expertise to the Group's other Business Units for their international technology transfer contracts in Europe, Asia and North America. Several major contracts were signed and launched during the year, as described below:

#### Asia

**South Korea:** design studies for a vitrification facility and related systems to process radioactive waste from nuclear power plants. A contract to supply major equipment items was signed in late 2005.

**Japan:** signature of a contract extension to provide construction and start-up support services to the Rokkasho-Mura plant in 2006 and 2007.

#### Europe

**Russia:** in association with the *Chemistry* Business Unit, the *Engineering* Business Unit signed a contract for preliminary design, process equipment procurement, installation supervision and testing connected with the construction of a depleted uranium defluorination plant.

**United Kingdom:** the *Engineering* Business Unit joined with the *Treatment* Business Unit to supply vitrification equipment, testing and training for personnel from British Nuclear Group's plant at Sellafield.

**France:** the Georges Besse II plant project was launched at Pierrelatte. The *Engineering* Business Unit is in charge of project management for plant construction, with work to take place over a period of 10 years.

#### Americas

**In the United States** the Business Unit continues work on the design for construction of the U.S. MOX fuel fabrication facility, which will recycle defense plutonium.

### 4.6.4.7. Outlook and development goals

The Business Unit has announced an increased workload for 2006 and beyond. Several factors contribute to a favorable outlook for the Business Unit:

- continued support to the Group's operators for optimizing and extending the service life of production resources;
- strong development of business in the front end of the fuel cycle in France with the Georges Besse II plant project and revamping of the *Chemistry* Business Unit's facilities;
- continuing international business in support of AREVA NC and developments in U.S. policy on nuclear power;
- ramp-up of decommissioning and waste retrieval and packaging programs.



## 4.7. Transmission &amp; Distribution Division

# 4.7. Transmission & Distribution Division

## KEY DATA

The acquisition of the Transmission & Distribution Division became effective on January 9, 2004.

(in millions of euros, IFRS)

	2005 <sup>(2)</sup>	2004 <sup>(1)</sup>
Sales revenue	3,212	3,186
Current operating income	103	39
Operating income	(61)	(103)
Workforce at year-end	22,094 people	21,816 people

(1) Scope of consolidation without India and Pakistan.

(2) Scope of consolidation: integration of India and Pakistan in August. Disposal of service businesses in Australia and New-Zealand in April and EBT low-voltage business in December.

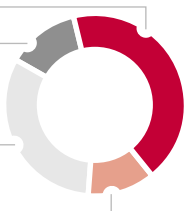
### 2005 sales revenue by Business Unit<sup>(4)</sup> and region

43% - Products

13% - Services

32% - Systems

12% - Automation



8% - France

19% - Africa & Middle East

20% - Asia-Pacific

15% - Americas

38% - Europe (excluding France)



(3) The Products, Services and Automation Business Units made sales through the Systems Business Unit that are booked in that Business Unit.

## OVERVIEW

The Transmission & Distribution Division, which represented 32% of AREVA's sales in 2005, manufactures, installs and maintains equipment and systems for the medium and high voltage markets. Its products are used to transmit and distribute electricity from the power plant to the final user. They also ensure electricity distribution reliability, quality and safety and efficient power supply system operations through real-time information management. The related services offer a high-quality resource supporting products and systems sold throughout their life cycle.

The Transmission & Distribution Division is organized into four Business Units:

- The *Products* Business Unit designs and manufactures medium and high voltage products.
- The *Systems* Business Unit supplies turnkey transmission and distribution projects.
- The *Automation* Business Unit manufactures and installs solutions for real-time power grid control and operation.
- The *Services* Business Unit provides maintenance services.



## 4.7. Transmission & Distribution Division

**The Transmission & Distribution Division was ranked third worldwide in its markets** in 2005, based on sales revenue. The Division's recognized expertise and the support it receives from the AREVA group bolster this position. The Transmission & Distribution Division

is one of the world's three "global" players, meaning that it covers the full range of medium and high voltage products and services on a technical level (through 16 product lines in 4 Business Units) across the globe.

### Overview of the Business Unit and product lines

#### Products Business Unit



Circuit Breakers



Generator Circuit Breakers



Disconnectors



Gas-Insulated Substations



Instrument Transformers



Power Transformers



Primary Distribution



Secondary Distribution



Distribution Transformers

#### Systems Business Unit



Substations



Power Electronics



Power Distribution

#### Automation & Information Business Unit



Automation Products



Automation Systems



Automation Support

#### Services



Services

Source: AREVA.

## 4.7. Transmission &amp; Distribution Division

## STRATEGY AND OUTLOOK

AREVA's Transmission & Distribution Division has key technologies and know-how enabling it to consolidate its position and take advantage of growth opportunities. It has a solid manufacturing base and its expertise is well known to its customers. Demand is growing in the Division's markets due to:

- sustained grid development in emerging countries, including China, India and Middle Eastern countries;
- capital spending on older grids in developed European countries and in the United States;
- demand for grid interconnection and management as a result of deregulation.

The Transmission and Distribution Division's business strategy focuses on three major areas:

• **Implementing the optimization plan for the 2004-2007 period**

The plan, designed to boost T&D's profitability to the levels of its chief competitors, began bearing fruit in 2005. The gains are in line with initial estimates and the goal cost reductions by 2007 is well on its way to being met. The plan is built around four key performance drivers:

- Purchasing (reduction target: 30%): The Division's objective is to set up optimized processes on a global scale, beginning with a single global purchasing strategy, defined in 2004.
- Business process improvement (reduction target: 30%): This mainly involves improving the proposal selection process, strengthening project control processes and making better use of manufacturing capacities.
- Industrial redeployment (reduction target: 25%): market conditions prompted the Division to reconfigure its manufacturing operations to bring capacities into line with markets and improve plant efficiency over the longer term. Several of the Division's largest European plants – in France, Germany and England – were reorganized and refocused on their core business. Capital spending programs were carried out to extend their service life and make them centers of excellence. Some operations were shut down because it was difficult to reestablish profitability. In taking these measures, care was taken to find new positions for every employee, preferably within the Group, in accordance with the approach negotiated with our labor partners.
- Optimization of the business portfolio (reduction target: 15%): the Transmission & Distribution Division conducted a systematic review of the entire product portfolio, resulting in decisions to streamline the product range and to launch new products, particularly in high voltage and automation. As defined in 2004, businesses that are not part of the division's core business were sold.

• **Accelerating profitable organic growth**

The Division plans to strengthen its marketing efforts to capture a major share of the investments to be made in this sector in the coming years. This means increasing production capacity in high-growth regions (China, India, etc.), where major investments have already been identified. For example, more than €200 million will be invested in new plant construction in the medium voltage and power businesses in 2006 and 2007. To ensure future profitability, greater selectivity must also be exercised concerning commercial proposals, service quality to the customer must be improved, and committed costs must be optimized.

• **Assessing targeted external growth opportunities**

The plan's encouraging results put the Division in a position to contemplate targeted acquisitions to strengthen its position in certain market segments, particularly in the high voltage and automation system segments, or in certain regions, including China, India and the Middle East.

## MARKET AND COMPETITIVE POSITION

### Market segmentation

AREVA estimates the worldwide Transmission and Distribution market for 2005 at €42 billion. Market size by segment is shown below (in billions of euros per year):

Products	23
Systems (including €5 billion in sales of products integrated into turnkey systems projects)	13
Services	7
Automation	4

The *Products* Business Unit's market represents over half of the total T&D market. The market is growing, especially for high and medium voltage switchgear. The *Systems* market is fueled by growing demand for power electronics applications, including high voltage direct current links and interconnections. The *Services* market is buoyed by rising demand for high value-added services to supplement the offerings of the *Products* and *Systems* Business Units.

Power transmission involves transporting electricity from the power plant over long distances at voltages ranging from 52 kV to 800 kV. The demand for transmission is almost entirely from integrated power generating companies and power transmission utilities. Some industrial sites that use large quantities of electricity, such as aluminum producers, may be connected directly to the transmission grid.

Distribution involves delivering electricity to local low voltage power distribution networks at voltages ranging from 1kV to 52 kV. In this market, customers include electric utilities, industrial users and the service sector. Other players include installers and integrators of medium voltage systems, but they do not have manufacturing capabilities. Electric utilities account for 45% of the demand for distribution products and systems, while manufacturing and service sector customers account for 55%.

### Customers

The Transmission & Distribution Division serves approximately 30,000 customers in 160 countries. The T&D Division has a sales network in 100 countries, which maintains and coordinates customer relations for all of the Division's products, systems and services. The sales force of 1,200 associates is divided among 13 regions.

The Transmission & Distribution Division's customers belong to one of five main categories:

- integrated power companies that manage the entire process of electricity generation, transmission and distribution, from the power plant to the final user;
- transmission companies spawned by deregulation and the split between power generation, transmission and distribution operations in some countries;
- distribution companies that deliver power to the end-user, which may be privately owned or controlled by local authorities (municipalities, etc);
- large industrial power users that need the Transmission and Distribution Division's expertise to connect their sites (oil and gas, mining and metals, etc.);
- infrastructure companies, such as airports and railway systems, which turn to the Transmission and Distribution Division for their turnkey electrical distribution projects.

### Growth engines

The Transmission & Distribution market is powered by several major growth engines:

- Power grid expansion: significant investment will be needed to transport increasing quantities of energy to meet user demand, particularly in China and India, where economic growth and demographics are fueling demand.
- Grid interconnection: large infrastructure projects will ensure the safety and reliability of power supply from the generating station to areas of demand.
- Transition to digital systems: grid operations are increasingly automated to respond to growing electricity markets, meet supply quality and reliability requirements, and integrate decentralized power generation from sources such as wind turbines or biomass.

#### 4.7. Transmission & Distribution Division

- Aging infrastructure replacement: a significant proportion of capital investment requirements is dedicated to replacing aging infrastructure, particularly in Europe and the United States.
- Deregulation: the development of competitive markets stimulates capital investment in power grids, as long as it can be covered by reasonably clear and stable rate regulations, which generally occurs after a transition period.
- Renewable energy sources and Flexible Alternative Current Transmission Systems (FACTS): These special technologies help electric grids cope with the increasing burden created by plans to optimize electric power supply transmission, distribution and quality.

These factors combine to provide a solid and recurrent base for the Transmission and Distribution market.

### Market trend

These underlying growth engines should contribute to the future development of the Transmission & Distribution market on a global scale to the same extent as in the recent past. The combination of a certain number of economic factors, buoyant growth in China and India, and the anticipated increase in the price of the barrel of oil spurred market growth well beyond initial forecasts for 2004 and 2005. The 5% growth posted in those years is expected to continue into the beginning of 2006. Volume growth could last through 2008 if all economic factors are maintained.

The Transmission & Distribution market is thus an attractive market in which key players are jockeying for position, with a resulting impact on prices. The recent hikes in commodities prices, with some of the impact partially passed through to the customer, have contributed to the rise in value of the Transmission and Distribution market.

Three major players dominate the Transmission & Distribution market: AREVA T&D, ABB and Siemens, which together controlled approximately 42% of the global market in 2005. Other competitors have neither a complete offering nor a global reach. Schneider Electric operates in the medium voltage market, in addition to its low voltage business. Japanese, Korean and Chinese players are focusing on specific geographic markets, while U.S. manufacturers are confining themselves to the medium voltage business meeting ANSI standards. Many local players operate in the medium voltage or various niche markets (digital systems, services, etc.), in particular middle market companies such as electric panel assemblers and installers.

Regionally, most of the growth opportunities are in Asia and the Middle East.

- Europe represents 29% of the market. The need to strengthen and interconnect power grids and the development of renewable energies are particularly pronounced in Western Europe. There is a potentially large market in Central Europe and Russia due to the need to replace existing equipment, though the region's dynamic economic growth can also be credited.
- North and South America represent 21% of the market. In the United States, the enactment of the Energy Bill in 2005 should be conducive to major capital spending on the electric power supply system. In Brazil, large power generation and Transmission & Distribution projects are planned.
- The Asia-Pacific region represents 35% of the market. China and India have the best potential for growth in all segments of the market.
- Africa and the Middle East represent 15% of the market. Major transmission projects for interconnection will be a source of growth, replacing the currently high demand for medium voltage.

## 4.7.1. PRODUCTS BUSINESS UNIT

### 4.7.1.1. Key data

(in millions of euros, IFRS)	2005 <sup>(2)</sup>	2004 <sup>(1)</sup>
Sales revenue	1,368	1,234
Workforce at year-end	12,856 people	11,807 people

(1) Scope of consolidation without India and Pakistan.

(2) Scope of consolidation: integration of India and Pakistan in August. Disposal of service businesses in Australia and New-Zealand in April and EBT low-voltage business in December.

### 4.7.1.2. Businesses

AREVA T&D's *Products* Business Unit designs, manufactures, markets and installs a complete range of high and medium voltage products to transport and distribute electricity from the power plant to the final user.

In general, electricity is generated in medium voltage (12 kV to 36 kV). Its voltage has to be stepped up to 132 kV to 800 kV to minimize energy losses during long-distance transmission. The voltage is then gradually decreased in the distribution networks as it gets closer to the final user. The *Products* Business Unit's products are installed in every grid point, serving primarily to raise or lower voltage, insulate or connect circuits, and measure current or voltage in real time.

The Business Unit supplies equipment for:

- high voltage electricity transmission (52 kV-800 kV): conventional switchgear, shielded substations, measurement transformers and power transformers;
- primary and secondary medium voltage distribution (1 kV- 52 kV): compact transformer substations, distribution transformers, disconnectors, circuit breakers, engine starting cells and lightning protection systems.

The Business Unit is organized into nine product lines:

- Power transformers;
- Distribution transformers;
- Circuit breakers;
- Generator circuit breakers;
- Gas-insulated switchgear (GIS);
- Instrument transformers;
- Disconnectors;
- Primary distribution;
- Secondary distribution.

### 4.7.1.3. Manufacturing and human resources

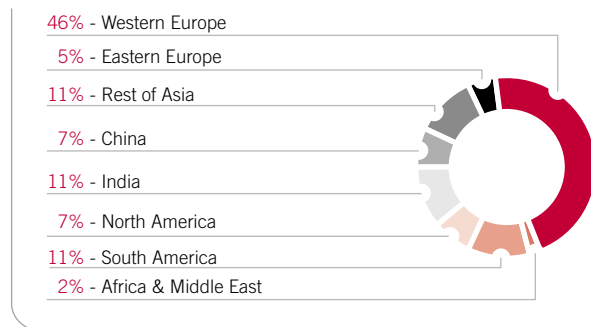
In 2005, the *Products* Business unit refocused its high and medium voltage operations on nine product lines. Low voltage operations were sold at the end of the year. Work continued to standardize product lines and streamline manufacturing processes.

The nine product lines manufacture at 55 sites around the world, including:

- large manufacturing and assembly sites, located near major electricity transmission and distribution markets in accordance with an overall strategy; and
- smaller sites dedicated to final product adaptation based on local customer requirements.

These plant sites are located in 26 countries, as shown in the following figure.

Manufacturing sites of the Products Business Unit at year-end 2005



The *Products* organization has about 12,800 employees worldwide, 44% of which are in Europe. Craft personnel make up 55% of the workforce and engineers and technicians make up the remaining 45%.

## 4.7. Transmission &amp; Distribution Division

## 4.7.1.4. Market and competitive position

The *Products* Business Unit is active in two market segments:

- the utilities, and
- the manufacturing and services sectors.

## 4.7.1.5. Relations with customers and suppliers

**Customers**

Please refer to the “Customers” heading in the overview of the Transmission & Distribution Division at the beginning of Chapter 4.7.

**Suppliers**

Production purchases represent more than half of the *Products* Business Unit's sales revenue. Purchases have been identified as a major performance driver for profitability, with three key objectives: globalization, increased procurement in low-cost regions, and involvement of the purchasing department before the project is begun.

In 2005, a worldwide purchasing strategy for T&D was rolled out and partnership agreements practically doubled during the year. All of these agreements are listed in a database so that deployment by the various units can be tracked at the business unit level. The decentralized purchasing units deployed in certain low-cost countries (India, China and Turkey) in 2004 are now completely structured and operational. At the same time, supplier commitments to engage in sustainable development activities were secured, and the identified activities were incorporated into the joint continuous improvement initiative set up with our largest suppliers.

Throughout the energy industry, 2005 was a particularly difficult year, with sharp hikes in commodity prices, especially for electrical sheet, copper and oil. We were able to stabilize prices for growing volumes by maximizing our responsiveness, even though some of these markets are subject to allocation, and especially to pass these increases through to our customers. Our 2006 requirements are secured by contract, including SF<sub>6</sub> gas and electrical sheet, for which there is a worldwide shortage. We also deployed a hedging program for copper and aluminum.

Our dependency on certain key suppliers decreased in 2005 as a result of our development of multiple sources, especially overseas.

## 4.7.1.6. Operations and highlights

**Acquisitions**

In 2005, AREVA T&D acquired Alstom's Indian sites, giving AREVA T&D a strong position in that country. The *Products* Business Unit thus acquired six new sites in India: Naini (power transformers, primary and secondary distribution), Taratala (primary distribution), Salt Lake (primary distribution), Pondichery (lightning arresters), Chennai (high voltage circuit breakers), and Bangalore (high voltage instrument transformers).

**Capital expenditure and reorganization**

As part of the 2004-2007 optimization plan aimed at resizing and focusing AREVA T&D's operations on its core markets, the following decisions were made in 2005:

- the Low Voltage business, represented by the company EBT SA, was sold in late 2005 to Comeca, the French leader in low voltage panels;
- the Ulm site in Germany was closed;
- several operations will be consolidated at manufacturing sites such as Charleroi in the United States and Tizayuca in Mexico.

For medium voltage products, one of the *Products* Business Unit's competitive advantages is its expertise in interrupt mechanisms, and particularly vacuum tubes. Vacuum tube operations were redeployed geographically in 2005 to expand technological control of this component. This took the form of consolidation of European capacities at the Lattes plant in France, an increase in manufacturing capacity at the Salt Lake site in India, and the construction of a new plant in Xiamen, China.

In addition, significant capital expenditure was devoted to the Gebze site in Turkey, the Aix-les-Bains site in France and the Chennai site in India to increase power transformer manufacturing capacity in gas insulated switchgear products in response to rising demand.

**Key contracts**

A sustained marketing effort in 2005 brought 13.3% growth to the backlog, at constant consolidation scope and exchange rate and before elimination of the inter Business Units. Most of the orders came from Asia, with two significant contracts in China: the first 550 kV GIS manufactured in China, valued at €10 million, to supply a gas insulated substation and eight T155 switchgear bays, and a €4 million contract for circuit breakers and 500 kV GIS stations. Contracts were also won in Indonesia and India for high and medium voltage equipment. With these contracts, the Business Unit has demonstrated its ability to respond to demand in this fast-growing market.

A contract signed with the Spanish turnkey contractor, Durofelguera, gave the Shanghai plant in China its first European customer. The €7.5 million contract calls for the supply of generator circuit breakers and power transformers.

**4.7.1.7. Outlook and development goals**

In the coming years, as the market begins to level off in Europe, the Asian market is expected to develop, especially in China and India, buoyed by increased construction in long distance transmission systems and rising electricity demand in urban areas.

The *Products* Business Unit therefore plans to accelerate expansion of its manufacturing capacities in China and India to meet this demand and reap the benefits of the coming growth.

The Business Unit's strategic priorities revolve around three major lines of action:

- Commercial partnerships with original equipment manufacturers (OEM) in very large countries such as China, or in countries where the size of the market does not justify having a local manufacturing presence, such as Egypt.
- Continuation and amplification of cost-reduction activities in accordance with the three-year plan.
- Ongoing R&D efforts to sustain a continuing flow of competitive products in response to customer demand.

## 4.7. Transmission &amp; Distribution Division

## 4.7.2. SYSTEMS BUSINESS UNIT

## 4.7.2.1. Key data

(in millions of euros, IFRS)	2005 <sup>(2)</sup>	2004 <sup>(1)</sup>
Sales revenue	1,020	1,047
Workforce at year-end	2,302 people	2,024 people

(1) Scope of consolidation without India and Pakistan.

(2) Scope of consolidation: integration of India and Pakistan in August. Disposal of service businesses in Australia and New-Zealand in April and EBT low-voltage business in December.

## 4.7.2.2. Businesses

The *Systems* Business Unit designs turnkey projects and grid management systems for the electricity transmission and distribution market, from the point of generation to the final user.

Drawing on substation engineering expertise and project management know-how, the *Systems* Business Unit integrates T&D equipment – transformers, medium and high voltage equipment, protection and monitoring systems, telecommunications and services – and provides solutions tailored to the electric grid of each Transmission and Distribution Division customer.

The *Systems* Business Unit offers:

- turnkey medium and high voltage substations;
- power electronics for direct-current substations, and systems to increase grid capacity and quality (FACTS and HVDC) and to convert and electrolyze energy;
- decentralized energy projects, such as connecting wind farms to the grid.

To succeed, the *Systems* Business Unit draws on technology and applications expertise, on a keen understanding of the technical and economic challenges facing its customers, and on partnerships with suppliers.

## 4.7.2.3. Manufacturing and human resources

The *Systems* Business Unit has 23 sites in Europe, North America, Asia, Australia, the Middle East and Africa. Its staff consists of more than 1,000 engineers, two-thirds of whom provide project management, who bring a good understanding of the market and the requisite level of engineering skills.

At Stafford site (United Kingdom), the Business Unit has a high voltage testing facility for power electronics and will have an energy conversion and electrolysis testing facility at Massy in 2006.

## 4.7.2.4. Market and competitive position

The systems market grew by an average of 7% in 2005. The leading customers were in the Persian Gulf, the Middle East, Brazil, Southeast Asia and India. In these fast-growing regions, customers want to buy complete systems to compensate for a lack of indigenous resources.

Demand for turnkey projects is on the rise and expanding rapidly. For some of our large customers, this takes the form of collaborative development of solutions to reduce costs on complex projects. The market is dominated by projects using gas insulation technologies.

ABB and Siemens are the leading competitors; with AREVA T&D, they constitute the top three names for customers, which systematically put them into competition with each other.

There are also regional competitors consisting of local contractors, particularly in the low-tech substation field.



## 4.7. Transmission & Distribution Division

### 4.7.2.5. Relations with customers and suppliers

#### Customers

Please refer to the "Customers" heading in the overview of the T&D Division at the beginning of Chapter 4.7.

#### Suppliers

The Business Unit's largest suppliers are the *Products* and *Automation* Business Units, which supply about 35% of the products included in its projects, mainly circuit breakers, transformers, and safety and control systems.

Outside procurement is mainly for cables, civil engineering and assembly labor.

### 4.7.2.6. Operations and highlights

Business was lively and orders were up sharply in 2005 (+16.8% like-for-like and before elimination of the inter Business Units), largely due to the signature of three large contracts in the Middle East:

- two contracts signed with the Gulf cooperation Council totaling €200 million were awarded for construction of the Middle East's first high voltage direct current transmission substation and for a fully integrated power grid automation system. The contract illustrates the competitiveness of the Transmission & Distribution Division in the highly complex HVDC market, thanks in particular to R&D advances made in this field,
- a €148 million contract was signed with the Qatar General Electricity & Water Corporation (Kahramaa) to expand its electricity transmission system in Doha. AREVA T&D will design and install six new electric substations under this contract.

Business in North Africa and the Middle East was a source of satisfaction in 2005. The United States, however, saw a drop in activity due to a technically incomplete and only partially localized product offering to serve the market (ANSI standard).

As part of the Transmission & Distribution Division's optimization plan, it was discovered in 2005 that margins were slipping on certain projects.

The Business Unit reacted by taking action to resolve these issues:

- greater selectivity in responding to requests for proposals, with emphasis on the T&D project organization;
- overhaul of the management team and organizational changes to allow for closer operating control;
- corrective actions to reduce cost slippage on orders;
- strengthening of the role of purchasing.

### 4.7.2.7. Outlook and development goals

The market has been expanding for two years. Growth should continue over the coming years to catch up with postponed capital investment and as facilities are overhauled in the UK and Germany. In addition, customers are leaning more and more towards turnkey solutions, particularly in the Persian Gulf and Asia.

GIS substations are gradually winning customers over for safety reasons, and their cost has dropped considerably as the design and technology have been simplified.

Renewed capital investment in certain European countries, including England and Central Europe, will also be to the Business Unit's benefit. A growing need for interconnection to facilitate energy exchange will continue to put pressure on demand for direct current transmission systems in Europe, India and China.

Development is expected to continue in the Gulf region, India and Southeast Asia in 2006. The demand for electricity and electrification is strong, and the Business Unit will increasingly have to locate its operations in these countries to carry out its projects and studies and take advantage of local growth.

Rising demand for power electronics solutions should also serve the Business Unit's interests in the midterm.

The *Systems* Business Unit's development priorities for the coming years follow two major lines of action:

- support growth and therefore focus effort on recruiting and training project managers and electrical engineers,
- deploy a regional organization based on regional centers of competence to support flexible local work in order to increase the Business Unit's responsiveness to customer requirements.

## 4.7. Transmission &amp; Distribution Division

## 4.7.3. AUTOMATION BUSINESS UNIT

## 4.7.3.1. Key data

(in millions of euros, IFRS)	2005 <sup>(2)</sup>	2004 <sup>(1)</sup>
Sales revenue	402	384
Workforce at year-end	3,290 people	2,346 people

(1) Scope of consolidation without India and Pakistan.

(2) Scope of consolidation: integration of India and Pakistan in August. Disposal of service businesses in Australia and New-Zealand in April and EBT low-voltage business in December.

## 4.7.3.2. Businesses

The *Automation* Business Unit's three global product lines provide solutions for real-time digital automation of T&D systems:

- digital automation **products**, including digital protection equipment to detect T&D equipment failures and send protection commands, and equipment to measure the electrical signal or transmit information;
- digital automation **systems** for substations and for energy management for remote operation of T&D networks effective electricity market operations;
- related **support services** to maintain digital infrastructure in working order, renovate automation systems and provide specialized training to their operators.

The *Automation* Business Unit's offering is based on onboard electronic technologies and real time information systems. These technologies are implemented through four major business lines:

- real time information systems integration,
- design and fabrication of onboard automation modules,
- development of software applications dedicated to electrical flow management,
- related support services.

## 4.7.3.3. Manufacturing and human resources

The *Automation* Business Unit operates three centers of excellence for Research & Development, including one in the United States and two in Europe. It also has six assembly centers for automation products, including a joint venture with a Chinese partner, and 18 engineering centers for integration and execution of automation and information system projects, including a back-office center in India.

The Business Unit has more than 3,200 employees, 31% of whom are craft personnel. In all, it employs 900 engineers and developers in project management and product development (Research & Development).

## 4.7.3.4. Market and competitive position

The market for automation and information systems for equipment and T&D networks represents approximately €4 billion per year.

Deregulation of electricity markets, a growing phenomenon, is fueling market growth. About 60% of the world's power generation is located in countries that either are deregulated or are undergoing deregulation.

Prices have been falling by about 1.5% per year as competitive pressures increase.

The Business Unit's main competitors are the other three global players in the T&D industry: ABB, Siemens and General Electric. These three competitors, along with AREVA T&D, control around 50% of the world market. Some of the *Automation* Business Unit's competitors are more specialized in a particular segment, such as Schweitzer for protection equipment in the United States, Telvent for station automation systems and control centers, or Danaher for electrical current quality measurements. Local competitors are also emerging in China, including Nari DongFang and NAEF.

AREVA T&D is ranked third in the market, with a market share of around 12%.

### 4.7.3.5 Relations with customers and suppliers

#### Customers

International power companies are the final users of automation products, systems and services. The Business Unit serves these users both directly and via integrators and resellers. A total of 80% of the *Automation* Business Unit's sales revenue came from 150 customers around the world.

#### Suppliers

The *Automation* Business Unit's objective is to double its purchasing volumes in Asia (India, China), Eastern Europe (Romania, Poland) and North Africa (Tunisia). The redeployment of our supplier base will improve the cost-competitiveness of our proposals and our profitability.

### 4.7.3.6. Operations and highlights

Business in substation automation solutions climbed sharply in 2005. Related engineering centers were established or strengthened in the United Arab Emirates (Dubai), Russia (Moscow) and Mexico to improve our local presence for the Business Unit's major customers in these regions.

The Business Unit won several major contracts in 2005: GCCIA automation's contract of a new high voltage network interconnecting the Persian Gulf's leading countries (€8 million), supply of a operations center for an interconnection system in Latin America, development of an automation solution for a distribution network in India, and a 25-year operational readiness contract for digital automation equipment at 18 high voltage stations in France.

In the United States, the main contracts related to expansion and upgrades to the installed base for major transmission system management companies.

On the technology level, 2005 saw the implementation of a strategic partnership agreement with Microsoft in 2004. The first 100% Microsoft compatible project was started up, the joint search for key accounts began, and the Business Unit participated in the launch of new database management technology solutions.

In manufacturing, it was decided in 2005 to outsource electronic board fabrication operations. The decision became effective in early 2006 following the selection of an industrial partner. In addition, an organization dedicated to the repair of digital automation products was set up, dividing repair times by three.

### 4.7.3.7. Outlook and development goals

The deregulation of electricity markets will continue to represent an opportunity for the *Automation* Business Unit as it multiplies the number of information systems and focuses major power companies' attention on system automation. These advances are expected mainly in North America and Europe. The buoyancy of the Asian markets should be confirmed, particularly in China. Capital investment for construction of new substations should continue at a high level in the Middle East.

The *Automation* Business Unit's short-term objectives are:

- improve operating performance by standardizing its offering and processes;
- finalize the establishment of its integrated organization;
- reduce its cost structure through productivity efforts and by localizing its manufacturing capabilities in leading countries.

Longer term, the Business Unit's growth will come from capturing opportunities in China, Eastern Europe, the Middle East and the United States while consolidating its position in more mature Western European markets.

## 4.7. Transmission &amp; Distribution Division

## 4.7.4. SERVICES BUSINESS UNIT

## 4.7.4.1. Key data

<i>(in millions of euros, IFRS)</i>	2005 <sup>(2)</sup>	2004 <sup>(1)</sup>
Sales revenue	421	521
Workforce at year-end	3,646 people	5,639 people

(1) Scope of consolidation without India and Pakistan. Furthermore, the workforce included 1,440 people working in sales.

(2) Scope of consolidation: integration of India and Pakistan in August. Disposal of service businesses in Australia and New-Zealand in April and EBT low-voltage business in December.

## 4.7.4.2. Businesses

The *Services* Business Unit provides services in support of products and systems sold throughout their entire life cycle. In addition to traditional service contracts for maintenance, repair and equipment/substation revamping, the Business Unit offers solutions that are more global in nature, including long-term facility maintenance.

To carry out this mission successfully, the Business Unit secures resources near its customers and draws on knowledge of existing facilities and technical expertise as a product manufacturer. Older transmission and distribution equipment, placed in service several decades ago, is now obsolete; the Business Unit is well positioned to capitalize on this market, which represents a potentially large source of revenue.

## 4.7.4.3. Manufacturing and human resources

With offices in more than 20 countries, the Business Unit operates 37 sites strategically located near its customers, with 25 in Europe, including 2 major sites in England, 8 in France and 4 in Germany, 7 sites in Asia-Pacific and the Middle East, and 5 sites in North America. A series of crosscutting knowledge capitalization and sharing programs ensure that *Services* Business Unit personnel maintain their technical expertise in AREVA T&D products and services.

The *Services* Business Unit has about 2,000 employees worldwide, 60% of which are in Western Europe. Engineers and technicians make up 65% of the workforce, with the specialized crafts working directly on various contracts making up the remaining 35%.

## 4.7.4.4. Market and competitive position

In an increasingly competitive environment, the quality and continuity of electricity supply, and thus the maintenance of power system facilities, is a major concern for customers of the T&D Division. The market is characterized by constant growth tied to the growth of our installed base coupled with the aging of that base, resulting in higher maintenance requirements.

The Business Unit's main competitive advantage is in-depth technical knowledge as a product manufacturer and synergies with the Division's three other Business Units

Its main competitors are manufacturers of T&D products, including ABB and Siemens, contractors, and our own customers.

## 4.7.4.5. Relations with customers and suppliers

The *Services* Business Unit's customers are the same as those of the T&D Division's other Business Units.

## 4.7.4.6. Operations and highlights

Since 2004, the Business Unit has focused on areas with added value for the systems and products of the Transmission & Distribution Division. A review of its portfolio of businesses led to the sale of its telecommunications and electrical services operations in New Zealand and Australia and to the sale of the power line installation and maintenance business in Germany.

A strong marketing push in 2005 delivered an 11.6% increase in orders (before elimination of the inter Business Units). Among the major contracts concluded in 2005 were a €2.5 million contract in Singapore to maintain twenty 230 kV circuit breaker bays, a maintenance and spare parts supply agreement with CFE in Mexico totaling close to €4 million per year, a €10 million contract with Chevron in Kazakhstan to install nine substations, and a three-year global maintenance contract with National Kharafi in Kuwait.

As part of the Transmission & Distribution Division's optimization plan, the *Services* Business Unit performed in line with the objectives set for 2005.

#### 4.7.4.7. Outlook and development goals

The services market is expected to grow by around 2% per year. Market development is fueled by the need to renovate the aging installed base and growing interest in service solutions integrating the entire product life cycle. However, these growth engines are partially thwarted by lower maintenance requirements for new product lines and by customers' continuing efforts to trim their facility maintenance budgets.

The *Services* Business Unit's development priorities for the coming years follow three main lines of action:

- exploit the potential of our installed base: a worldwide database project has been launched to provide needed information on our installed base to all players as well as on proposals for each type of equipment. This will foster a proactive approach with our customers;
- develop our regional presence to respond to our customers' requirements more effectively;
- design and market innovative services based on our technological know-how in anticipation of our customers' requirements: global offer (Total Asset Care), remote equipment monitoring, product modernization and others.

## 4.8. Major Contracts

## 4.8. Major Contracts

In the normal conduct of its business, the Group concludes numerous contracts of a special nature with regard to normal business operations due to their economic significance, their strategic nature, or the specific types of technologies deployed.

Pursuant to Appendix 1 of the European Commission Regulations No.809/2004 dated 29 April 2004, the contracts viewed as important by the Group are summarized hereunder. It should be noted that a confidentiality requirement attaches to all or part of these contracts.

### 4.8.1. FRONT END DIVISION

***Sales contract for a depleted UF<sub>6</sub> defluorination unit – Russia***

This contract was signed on March 25, 2005, and meets the requirements of the Zelenogorsk Combine for secure long-term storage of their depleted UF<sub>6</sub> in a chemically stable form. The contract will end in 2009.

***“BLEU” contract***

In the nuclear fuel field, AREVA NP supplied fuel assemblies filled with blended low enriched uranium (BLEU) fabricated at the Group's Richland site using “weapons-grade” enriched uranium to Tennessee Valley Authority (TVA), a civilian power plant operator. This project includes several contracts totaling more than €200 million. The assemblies have been in use since 2004 at the TVA site.

## 4.8.2. REACTORS AND SERVICES DIVISION

### ***EPR contract with TVO***

In Finland, the contract signed with the AREVA NP/Siemens team in December 2003 for the turnkey supply of a complete EPR nuclear power plant (nuclear island and conventional island) to the Finnish customer TVO at the Olkiluoto site took effect on January 1, 2004.

AREVA NP's role is the nuclear island, the safety and operating control systems, and interfaces with the conventional island.

TVO estimates the total cost of the complete plant at €3 billion, including the services of AREVA NP/Siemens and site preparation work, for which it retains responsibility.

### ***EPR contract with EDF***

In France, EDF plans to award construction of the EPR nuclear steam supply system at Flamanville to AREVA, including the safety control system. The operating control system will be subject to a request for bids. EDF will act as the architect-engineer.

The Memorandum of Understanding signed with AREVA NP in July 2005 provides for three separate contracts for the supply of the nuclear steam supply system.

The first contract, for advance engineering studies, was awarded to AREVA NP in October 2005 and is being carried out. The second concerns advance design and advance fabrication. The third involves the remaining procurement.

EDF has indicated that the total cost of the project is €3 billion; only a portion of this has been awarded to the Group.

### ***N4 reactor contracts with EDF***

The N4 is a 1,450 MW EDF reactor. The steam supply systems were supplied under contract for the Chooz site (two units) and for the Civaux site (two units). Negotiations concerning the final acceptance certificate for Civaux continued in 2005.

### ***Contracts at the Ling Ao site in China***

In October 1995, AREVA NP concluded a contract with Ling Ao Nuclear Power Company Limited for the construction of two 1,000 MW nuclear islands for the Ling Ao site in Guangdong Province, China. The first unit was connected to the grid in July 2002, while the second unit was connected in November 2002. Final acceptance of the steam generators for both units was received on May 18, 2005. The final acceptance certificate for all of unit 1 was received on September 28, 2005. Final acceptance of unit 2 is expected in 2006.

As a continuation of the previous project, AREVA is taking part in the project to build two new 1,000 MW power plants duplicating the first two units at the Ling Ao site.

### ***Modernization of the Kozloduy power plant in Bulgaria***

In addition to new reactor construction, AREVA is involved in major modernization programs for existing power plants, mainly in Eastern Europe.

For example, Nationalna Elektricheska Kompania (NEK) awarded a contract totaling around €250 million to the European Consortium Kozloduy (ECK), consisting of Atomenergoexport and AREVA, to modernize VVER units 5 and 6 of the Kozloduy plant in Bulgaria and bring them into line with Western safety standards. That contract became effective in 2001. Euratom provided financial support to the project.

## 4.8. Major Contracts

## 4.8.3. BACK END DIVISION

**AREVA NC assistance to JNFL**

In connection with the start-up of the Rokkasho-Mura treatment plant in Japan, AREVA NC signed a contract with JNFL to provide technical assistance to the future operators of that plant. An amendment to the Framework Agreement and additional agreements for assistance in France and Japan and training in Japan were signed on December 20, 2005. Delays in the start of active testing of the Japanese plant required an extension of AREVA NC's services beyond December 31, 2005. AREVA NC's assistance will end in 2007.

**Yucca Mountain**

A contract between AREVA NC, Inc. and Bechtel SAIC was signed in mid-2003. The four-year contract relates to the transfer of technology licenses and design work for the Yucca Mountain repository in the United States.

**AREVA NC vitrification assistance to BNGS**

The contract was signed in March 2005. BNGS asked AREVA NC for assistance concerning operating performance of its Sellafield facility, based on its La Hague experience. Assistance will be provided until 2009.

**Universal Canister <sup>(1)</sup> capping agreements between AREVA NC and ORC (Japan)**

Two documents were signed in September 2005:

- the first document, a Memorandum of Understanding, defines the Universal Canister capping program,
- the second is a contract for research and development to analyze the behavior of Universal Canisters when exposed to radiolysis. The study is to last six months.

(1) CSD-C: universal canisters for compacted waste.

**Return shipment of URBE <sup>(2)</sup> in Universal Canisters <sup>(3)</sup>**

The contract, signed in November 2004, has two phases: phase I

Design (2005-2007) to develop a new vitreous material to package URBE to be shipped to Japan. Phase II calls for fabrication (late 2010-2011) and equipment procurement.

(2) French acronym for "sludge and effluent residue unit".

(3) CSD-B: universal canister for bitumen waste.

**Commax, an economic interest group consisting of AREVA NC (60%) and Belgonucléaire (40%)**

Commax signed a contract with Global Nuclear Fuel of Japan on March 13, 2006, acting on behalf of the Japanese utility Chubu Electric Power Co. Inc., to supply MOX fuel for its Hamaoka reactor. Fuel assembly fabrication will be divided into six campaigns, with deliveries running through 2020. The actual duration of the contract is until the expiration of the warranties, i.e. seven years after the last delivery, to occur no later than December 2027.

**AREVA NC/DOE/DCS**

As a member of a team of three companies, AREVA NC is participating in the design for construction of a plant to convert defense plutonium into MOX fuel. Plant construction would be financed by the U.S. Department of Energy.



## 4.8.4. TRANSMISSION & DISTRIBUTION DIVISION

The following contracts are listed due to their value, which is greater than €100 million.

### **Libya Phase 2**

On October 5, 2003, Electricity General Company signed a contract with Cogelex, an economic interest group consisting of AREVA T&D Holding SA, AREVA T&D SA and Nexans France, for equipment supply, installation and services for three 400 kV substations. The contract term is 29 months after the effective date of the contract, i.e. May 4, 2005. The total amount of the contract is €183.1 million. An amendment raised that figure by 15% in October 2005. A 12-month performance bond equal to 5% of the contract amount was taken out.

### **Libya Phase 3**

The parties involved are Cobra Instalaciones y Servicios S.A. of Spain, Instalaciones Inabensa S.A. of Spain, and AREVA T&D, working as a team. The parties signed a contract on July 20, 2004, totaling €176.2 million. The contract is to supply equipment for four 400 kV substations and for the civil engineering, installation and services related to the substations. The contract term is 36 months from its effective date of January 9, 2006. Other than a 12-month performance bond equal to 5% of the contract value, no special warranties attach to this contract.

### **West Bay**

AREVA T&D's *Systems* Business Unit signed with West Bay a turnkey contract on November 28, 2005, for civil engineering over an 18-month period. The start-up date was set at March 30, 2007. The total contract amount is €147.5 million, with a portion payable in 2006 (€90.5 million) and the remainder in 2007 (€57 million). The warranty is for a 24-month period, except for the digital control system, covered by a 36-month warranty. The warranty period ends April 30, 2009.

### **Bukadra**

AREVA T&D signed a turnkey contract for substations and civil engineering with Dewa of the United Arab Emirates on March 22, 2004. The contract term is 25 months. The contract totals approximately €133 million.

### **GCCIA**

AREVA T&D signed a turnkey procurement and construction contract for three back-to-back 600 MW direct current converters with GCCIA of the United Arab Emirates on October 27, 2005. The contract term is 38 months. AREVA T&D is partnered with Cogelex, an economic interest group consisting of AREVA T&D Holding SA, AREVA T&D SA and Nexans France. AREVA T&D's share of the contract is €73.1 million, out of a contract total of €200 million. The contract has a 12-month warranty period.

## 4.9. The Group's principal sites

## 4.9. The Group's principal sites

Pursuant to annex I, point 8 of the European Regulation no. 809/2004 of April 29, 2004, information is provided hereunder on the Group's property, plants and equipment.

The Group uses a certain number of locations and plant sites in connection with its operations, of which it is either owner or lessor.

The Group's principal sites worldwide are listed hereunder. The primary criterion for listing sites is the size of the operation conducted there. If environmental regulations applicable to these assets are likely to limit their use (capacity, length of use, etc.), this is indicated.

The regulation applicable to the Group's nuclear operations and likely to have an impact on the use of the Group's sites is described in section 4.15.2 below.

The Group has listed a total of 83 principal sites.

Of these 83 sites, 77 are plant sites, 3 are offices, and 3 are combined office/plant.

The 83 sites are located as follows:

- about 50 are in France,
- 16 are in North and South America,
- 3 are in Asia,
- 3 are in Africa and the Middle East.

Several different operations are conducted at some of these sites.

*n.a.: not applicable or not available.*

*n.c.: not communicated for technical or confidentiality reasons.*

### 4.9.1. CORPORATE

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area*	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Paris 9<sup>e</sup></b> (France)	Offices, headquarters	Lease	no	28,000 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>AREVA Tower La Défense</b> (92) (France)	Offices, headquarters	Lease	no	60,960 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Vélizy</b> (78) (France)	Offices, headquarters	Full ownership & lease	no	20,673 m <sup>2</sup>	n.a.	n.a.	n.a.

\* Total surface area occupied by the different entities of the Group on the site.

## 4.9. The Group's principal sites

### 4.9.2. FRONT END DIVISION

**Front End** Division operations are carried out on 21 main sites, including 10 located in France, 3 in America, 3 in Africa and 2 in Kazakhstan.

#### 4.9.2.1. Mining Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate (mortgage, etc.)	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Arlit</b> (Niger)	Offices + production and storage facilities	Long-term concession	no	721,000 m <sup>2</sup>	Uranium concentrate	1,500 MTU/yr	100
<b>Niamey</b> (Niger)	Offices, headquarters	Lease	no	1,580 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Akokan</b> (Niger)	Offices + production and storage facilities	Long-term concession	no	499,000 m <sup>2</sup>	Uranium concentrate	2,000 MTU/yr	100
<b>McClean</b> (Canada)	Plant and base camp	JV/70%	no	42,140 m <sup>2</sup>	Uranium concentrate	3,077 MTU/yr	75
<b>Saskatoon</b> (Canada)	Offices, headquarters	Full ownership	no	2,050 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Muyunkum</b> (Kazakhstan)	Offices + production and storage facilities	Full ownership	no	25,750 m <sup>2</sup>	Eluates	1,000 MT/yr	60
<b>Almaty</b> (Kazakhstan)	Offices, headquarters	Lease	no	666 m <sup>2</sup>	n.a.	n.a.	n.a.

## 4.9. The Group's principal sites

## 4.9.2.2. Chemistry Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Pierrelatte</b> (26) (France) (INB/INBS/ICPE)	Plants and outlying areas	Ownership of building- leasing of land	no	Land 200 ha	RepU denitration Defluorination Denitration of RepU and depleted RepU and depleted UO <sub>2</sub> Storage UF <sub>6</sub>	1,500 MT 14,000 MT 1,000 MT or <sup>(1)</sup> 320 MT n.a. 14,000 MT	n.c. n.c. n.c. n.c. n.c.
<b>Miramas</b> France (INBS)	Plant	Full ownership	no	37 ha (~91 acres) unconstructed	Lithium	n.c.	n.c.
<b>Malvési</b> (11) (France)	Plant	Full ownership/ lease on land Ownership of building	no	59.43 ha (~147 acres) unconstructed	UF <sub>4</sub>	14,000 MT	n.c.

(1) The plant can operate in two different modes: a mode used for the denitration of RepU with a production capacity of 1,000 MT and a depleted uranium fabrication mode for MOX fuel with a production capacity of 320 MT. Production capacities are expressed in tons of processed uranium.

## 4.9.2.3. Enrichment Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Pierrelatte</b> (26) <b>Saint-Paul-Trois- Châteaux</b> (26) <b>Bollène</b> (84) (France)	Plant	Full ownership	no	Land 250 ha (~618 acres)	Enrichment service	10.8 M SWU	n.c.
<b>Bollène</b> (84) (France)	Plant	Full ownership	no	Land 19.6 ha (~48 acres)	Effluent treatment Equipment maintenance	n.a.	n.c.

## 4.9. The Group's principal sites

## 4.9.2.4. Fuel Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Romans-sur-Isère</b> (26) (France)	Plant	Full ownership	no	Buildings 18,140 m <sup>2</sup>  Land 180,000 m <sup>2</sup>	Fuel assemblies of UO <sub>2</sub> powder for PWR reactors and various components	1,200 MTU  820 MTU of fuel assemblies	n.c.
<b>Romans-sur-Isère</b> (26) (France)	Plant Cerca	Full ownership	no	Land 290,486 m <sup>2</sup>  Buildings 22,046 m <sup>2</sup> including buildings rented to FBFC 11,820 m <sup>2</sup>	Research reactor fuel and nuclear instrumentation	14,000 plates	n.c.
<b>Paimbœuf</b> (44) (France)	Plant	Full ownership	no	Land 64,366 m <sup>2</sup> Buildings 17,201 m <sup>2</sup>	Zirconium tubes for fuel assemblies	5,000 km	n.c.
<b>Jarrie</b> (38) (France)	Plant	Lease/ Full ownership	no	Land 97,088 m <sup>2</sup> Buildings 32,502 m <sup>2</sup>	Zirconium sponge	2,200 MT	n.c.
<b>Montreuil-Juigné</b> (49) (France)	Plant	Full ownership	no	Land 27,587 m <sup>2</sup> Buildings 5,610 m <sup>2</sup>	Zirconium tubes blanks	1,300 MT	n.c.
<b>Rugles</b> (27) (France)	Plant	Full ownership	no	Land 73,491 m <sup>2</sup> Buildings 14,638 m <sup>2</sup>	Flat products in zirconium	500 MT	n.c.
<b>Ugine</b> (73) (France)	Plant	Full ownership	no	Land 56 764 m <sup>2</sup> Buildings 25,385 m <sup>2</sup>	Intermediate products in zirconium and titanium Plug rods	1,700 MT  150 MT	n.c.
<b>Dessel</b> (Belgium)	Plant	Full ownership	no	Land 96 300 m <sup>2</sup> (including 45,200 m <sup>2</sup> in fenced area) Buildings 15,600 m <sup>2</sup>	PWR fuel assemblies (UO <sub>2</sub> and MOX)	460 MTU of fuel assemblies	n.c.
<b>Richland</b> Washington (United States)	Plant AREVA NP Inc.	Full ownership	no	Buildings 36,790 m <sup>2</sup> Land 1,700,000 m <sup>2</sup>	Powder and pellets production (UO <sub>2</sub> , Gad & BLEU) assemblies, and various components	1,800 MTU	n.c.
<b>Lingen</b> (Germany)	Plant	Full ownership	no	Land 493,301 m <sup>2</sup> Buildings 17,600 m <sup>2</sup>	PWR and BWR fuel assemblies	650 MTU	n.c.
<b>Duisburg</b> (Germany)	Plant	Full ownership	no	Land 43,918 m <sup>2</sup> Buildings 17,422 m <sup>2</sup>	Zirconium tubes for fuel assemblies	2,000 km	n.c.

## 4.9. The Group's principal sites

## 4.9.3. REACTORS AND SERVICES DIVISION

**Reactors and Services** Division operations are carried out on approximately 30 main sites, including 16 located in France, 9 in the United States and 5 in Europe.

## 4.9.3.1. Plants Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Lyon</b> (69) (France)	Offices	Lease	no	Buildings 26,000 m <sup>2</sup> (all BUs combined)	n.a.	n.a.	100
<b>Erlangen</b> (Germany)	Offices	Lease	no	43,000 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Lynchburg</b> (United States)	Offices	Full ownership	no	28,610 m <sup>2</sup>	n.a.	n.a.	n.a.

## 4.9.3.2. Equipment Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>St-Marcel</b> (71) (France)	Plant	Full ownership	no	Buildings 33,000 m <sup>2</sup> Land: 35 ha (~86 acres)	Heavy components (vessel, vessel head, steam generator, pressurizer)	n.a., on request	n.c.
<b>Jeumont</b> (59) (France)	Plant	Full ownership	no	Buildings 59,000 m <sup>2</sup> (constructed)	Pumps, control rod drive mechanisms, generators and other electromechanical products	n.a., on request	n.c.
<b>Maubeuge</b> (59) (France)	Plant	Full ownership	no	8,360 m <sup>2</sup> workshops + offices/total site of 4,5 ha (~11 acres)	n.a.	n.a.	n.c.
<b>Carquefou</b> (44) (France)	Plant	Full ownership	no	12,252 m <sup>2</sup> covered/ 32,885 m <sup>2</sup> total site	n.a.	n.a.	n.c.

## 4.9. The Group's principal sites

## 4.9.3.3. Nuclear Services Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area <sup>(1)</sup>	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Lyon</b> (69) (France)	Offices	Lease	no	Buildings 24,701 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Chalon-sur-Saône</b> (71) (France)	Offices, development center, hot facility, training center	Ownership	no	Land 254,050 m <sup>2</sup> Buildings 59,192 m <sup>2</sup>	Robotics/ tooling/ decontamination	(Custom)	n.a.
<b>Rungis</b> (91) (France)	Offices	Lease	no	Buildings 9,586 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Sully-sur-Loire</b> (45) (France)	Hot facility, offices	Ownership	no	Land 23,400 m <sup>2</sup> Buildings 4,872 m <sup>2</sup>	Decontamination	n.a.	n.a.
<b>Lynchburg</b> (United States)	Offices, hot facilities, training center	Ownership	no	Buildings 28,000 m <sup>2</sup>	Decontamination Hot maintenance facility	n.a.	n.a.
<b>Charlotte</b> (United States)	Offices	Lease	no	Buildings 12,541 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Erlangen</b> (Germany)	Offices, facilities	Lease	no	Buildings 43,000 m <sup>2</sup>	Robotics/ tooling	(Custom)	n.a.
<b>Offenbach</b> (Germany)	Offices	Lease	no	Buildings 10,570 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Toronto,</b> Ontario M3B 1Z4, (Canada)	Offices	Lease	no	Buildings 466 m <sup>2</sup>	n.a.	n.a.	n.a.

(1) Total surface area, of which a percentage is used by the departments.

## 4.9.3.4. AREVA TA Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Cadarache</b> (13) (France)	Production plant / offices	Full ownership	no Conversion in process	n.a.	Fuel	n.a.	100
<b>Aix-en-Provence</b> (13) (France)	Office building	Full ownership	no	n.a.	n.a.	n.a.	n.a.
<b>Saclay</b> (91) (France)	Office building	Full ownership except land	no	n.a.	n.a.	n.a.	n.a.

## 4.9. The Group's principal sites

## 4.9.3.5. Nuclear Measurement Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Meriden CT</b> (United States)	Offices, plant, services	Full ownership	no	16,200 m <sup>2</sup>	Standard products/ systems	6,604	85
<b>Albuquerque NM</b> (United States)	Offices, plant, services	Lease	no	2,119 m <sup>2</sup>	Standard products	1,208	95
<b>NJ, Dover</b> (United States)	Offices, plant, services	Lease	no	3,693 m <sup>2</sup>	Standard products	2,437	90
<b>TN, Oak Ridge</b> (United States)	Offices, plant, services	Full ownership	no	3,160 m <sup>2</sup>	Crystal growth	1,765	95
<b>Loches (37)</b> (France)	Plant and offices, services	Full ownership	no	4,800 m <sup>2</sup>	Standard products	3,120	65
<b>Saint-Quentin- en-Yvelines (78)</b> (France)	Offices and services	Lease	no	1,505 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Lingolsheim (67)</b> (France)	Offices, plant, services	Lease	no	2,053 m <sup>2</sup>	Specialty detectors	1,231.8	80
<b>Concord</b> Ontario (Canada)	Offices, plant, services	Lease	no	2,746 m <sup>2</sup>	Standard products	1,400	80
<b>Olen</b> (Belgium)	Offices, plant, services	Full ownership	no	1,750 m <sup>2</sup>	Standard detectors	1,400	90
<b>Harwell</b> (United Kingdom)	Offices, plant, services	Lease		1,880 m <sup>2</sup>	Standard products, systems	564	80

## 4.9.3.6. Consulting and Information Systems Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Guyancourt (78)</b> (France)	Offices	Lease	no	8,500 m <sup>2</sup>	n.a.	n.a.	100



## 4.9. The Group's principal sites

## 4.9.4. BACK END DIVISION

**Back End** Division operations are carried out on 13 main sites all located in France.

### 4.9.4.1. Treatment Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>La Hague</b> (50) (France)	Plant site	Full ownership	no	Plant land: 205 ha 48 to 34 ca	Used fuel treatment	1,700 MT	Variable, depending on facilities that make up the licensed nuclear facility
(7 licensed nuclear facilities)	Off-site: land reserve			Land excluding site: 98 ha 23 to 13 ca			

### 4.9.4.2. Recycling Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>MELOX Marcoule</b> (30) (France)	Plants and offices	Full ownership	no	Land 5 ha (~12 acres)	MOX fuel fabrication + packaging of scrap and waste	145 MTHM	100
<b>Cadarache</b> (13) (France)	Plants and offices	Lease	no	27,100 m <sup>2</sup>	MOX fuel production shut down in July 2003 (Eurofab production in 2004)	40 MTHM before production shut-down	Undergoing 100% final shut-down

## 4.9. The Group's principal sites

## 4.9.4.3. Logistics Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Saint-Quentin-en-Yvelines</b> (78) (France)	Offices, headquarters	Lease	no	5,000 m <sup>2</sup>	n.a.	n.a.	100
<b>Valognes</b> (50) (France)	Rail-road terminal	Full ownership	no	7 ha	n.a.	1,000 transfers/yr	100
<b>Tourlaville</b> (50) (France)	Warehouse	Full ownership	no	9,800 m <sup>2</sup>	n.a.	n.a.	100
<b>Tourlaville</b> (50) (France)	Offices	Full ownership	no	1,200 m <sup>2</sup>	n.a.	n.a.	100
<b>Pont-St-Esprit</b> (50) (France)	Warehouse	Full ownership	no	2,000 m <sup>2</sup>	n.a.	n.a.	100

## 4.9.4.4. Cleanup Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Bollène</b> (84) (France)	Plant	Lease	no	9,644 m <sup>2</sup>	n.a. (machine maintenance, waste processing, equipment recertification)	n.a.	100
<b>Gif-sur-Yvette</b> (91) (France)	Offices, headquarters	Lease	no	3,306 m <sup>2</sup>	n.a.	n.a.	100

## 4.9.4.5. Engineering Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Bagnols/Ceze</b> (30) (France)	Offices	Financial lease	no	7,181 m <sup>2</sup>	Engineering	n.a.	n.a.
<b>Pierrelatte</b> (26) (France)	Office	Full ownership	no	2,865 m <sup>2</sup>	Engineering	n.a.	n.a.
<b>Équeurdreville</b> (50) (France)	Offices	Full ownership	no	2,726 m <sup>2</sup>	Engineering	n.a.	n.a.
<b>Beaumont-Hague</b> (50) (France)	Test building	Full ownership	no	4,860 m <sup>2</sup>	Tests	n.a.	n.a.
<b>Bois Mouton</b> (78) (France)	Offices	Lease	no	22,374 m <sup>2</sup>	Engineering	n.a.	n.a.

## 4.9. The Group's principal sites

## 4.9.5. TRANSMISSION &amp; DISTRIBUTION DIVISION

Transmission & Distribution Division operations are carried out on approximately 260 sites in 80 different countries throughout the world. Among the 30 main sites, 10 are located in France, 13 in Europe, 4 in America and 3 in Asia.

## 4.9.5.1. Products Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Aix-les-Bains</b> (73) (France)	Plant	Ownership	no	33,000 m <sup>2</sup>	HV products	n.c.	n.c.
<b>Oberentfelden</b> (Switzerland)	Plant	Ownership	no	28,000 m <sup>2</sup>	HV products	n.c.	n.c.
<b>Villeurbanne</b> (69) (France)	Plant (30 % offices/ 70 % production)	Ownership	no	68,000 m <sup>2</sup>	HV products	n.c.	n.c.
<b>Kassel</b> (Germany)	Plant (30 % offices/ 70 % production)	Ownership	no	36,800 m <sup>2</sup>	HV products	n.c.	n.c.
<b>Charleroi</b> (United States)	Plant	Lease	no	8,700 m <sup>2</sup>	HV switchgear	n.c.	n.c.
<b>Noventa di Piave</b> (Italy)	Plant	Lease	no	7,800 m <sup>2</sup>	HV switchgear	n.c.	n.c.
<b>Montrouge</b> (92) (France)	Plant (40% offices/ 60% production)	Lease	no	8,600 m <sup>2</sup>	Instrument transformers	n.c.	n.c.
<b>Monchengladbach</b> (Germany)	Plant	Ownership	no	13,000 m <sup>2</sup>	Power and distribution transformers	n.c.	n.c.
<b>Gebze</b> (Turkey)	Plant	Ownership	no	40,000 m <sup>2</sup>	Power and distribution transformers	n.c.	n.c.
<b>Stafford</b> (United Kingdom)	Plant (50% offices/ 50% production)	Lease	no	74,000 m <sup>2</sup>	Power transformers	n.c.	n.c.
<b>Regensburg</b> (Germany)	Plant	Ownership	no	28,000 m <sup>2</sup>	MV circuit breakers	n.c.	n.c.
<b>Mâcon</b> (71) (France)	Plant	Ownership	no	41,500 m <sup>2</sup>	MV circuit breakers	n.c.	n.c.
<b>Fabrigues</b> (34) (France)	Plant	Lease	no	16,400 m <sup>2</sup>	Turnkey substations	n.c.	n.c.
<b>Bagnères</b> (65) (France)	Plant	Lease	no	3,500 m <sup>2</sup>	MV and HV lightning arresters	n.c.	n.c.
<b>Petit Quevilly</b> (76) (France)	Plant	Lease	no	34,400 m <sup>2</sup>	Transformers	n.c.	n.c.

## 4.9. The Group's principal sites

## 4.9.5.2. Systems Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Stafford</b> (United Kingdom)	Testing platform	Lease	no	1,496 m <sup>2</sup>	n.a.	n.a.	n.a.

## 4.9.5.3. Services Business Unit

Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Stafford</b> (United Kingdom)	Warehouse and offices	Lease	no	2,500 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Salford</b> (United Kingdom)	Warehouse and offices	Lease	no	21,000 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Villeurbanne</b> (69) (France)	Workshop, warehouse and offices	Ownership	no	5,200 m <sup>2</sup>	Circuit breaker parts renovation	n.a.	100
<b>Vénissieux</b> (69) (France)	Plant and offices	Lease	no	4,815 m <sup>2</sup>	Transformer repair	15,000 j/h	n.a.
<b>Regensburg</b> (Germany)	Workshop, warehouse and offices	Partly leased and partly owned	no	1,297 m <sup>2</sup>	Circuit breaker repair and rehabilitation	n.a.	n.a.
<b>Mâcon</b> (71) (France)	Plant	Ownership	no	2,306 m <sup>2</sup>	MV cells	n.a.	n.a.
<b>La Prairie</b> (Canada)	Plant, offices	Ownership	no	3,817 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Tizayuca</b> (Mexico)	Offices	Ownership	no	1,641 m <sup>2</sup>	n.a.	n.a.	70
<b>Noida</b> (India)	Offices	Lease	no	1,219 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Linz</b> (Austria)	Warehouse and offices	Ownership	no	2,765 m <sup>2</sup>	Circuit breaker and substation equipment	45,500 hours	80

## 4.9. The Group's principal sites

## 4.9.5.4. Automation Business Unit

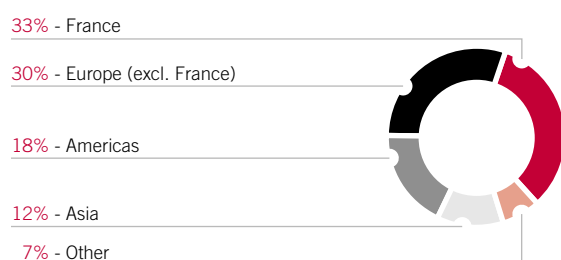
Location	Type of asset	Lease/ Full ownership	Existence of encumbrances on the real estate	Surface area	Products manufactured	Production capacity	Equipment utilization factor (%)
<b>Lattes</b> (34) (France)	Offices	Financial lease	no	9,000 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Massy</b> (91) (France)	Offices	Lease	no	9,991 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Stafford-St-Leonard</b> (United Kingdom)	Plant (80% offices, 20% production)	Lease	no	10,200 m <sup>2</sup>	MiCOM relays	20% of the surface area	85
<b>Bellevue, WA</b> (United States)	Offices	Lease	no	9,700 m <sup>2</sup>	n.a.	n.a.	n.a.
<b>Pallavaram Works</b> (India)	Plant	Lease	no	22,000 m <sup>2</sup>	MiCOM relays	80% of the surface area	85
<b>Shanghai</b> (China)	Plant (50% offices, 50% production)	Lease	no	4,000 m <sup>2</sup>	MiCOM relays	50% of the surface area	60

## 4.10. AREVA's customers and suppliers

## 4.10. AREVA's customers and suppliers

### 4.10.1. AREVA'S CUSTOMERS

#### 2005 consolidated sales by region



Source : AREVA.

The majority of AREVA's customers are large electric utilities, public entities such as publicly-owned electric power supply systems or agencies in charge of the back end of the nuclear fuel cycle, and major industries.

Geographically, the majority of its customers are located in Europe, the United States and Japan. The Group is also active in developing markets, particularly in China, India, Brazil, South Africa and the United Arab Emirates (T&D).

Some of the Group's leading customers are EDF, Vattenfall, TVO, E.On, RWE, ENBW, Entergy, Duke, the CEA and the U.S. Department of Energy. Together, they represent 41% of the Group's consolidated sales, with the five largest of them accounting for approximately 34% of sales. The largest customer, EDF, represents almost 20% of the Group's consolidated sales revenue.

Organizationally, the Business Units have their own sales teams and are responsible for their own commercial commitments. The sales teams are extremely qualified in their respective businesses and ensure rapid responses to changes in their markets.

AREVA has set up a group-level International & Marketing department responsible for recommending a commercial strategy to AREVA's Executive Board. This department is supported by an international sales network, the AREVA group marketing staff, and the key account managers. The key account managers are tasked with fostering long-term relationships with the Group's main customers as part of the "customer action plan" approved by the Executive Committee, which covers all of the Group's marketing and

sales activities. Each KAM manages a cross-cutting team consisting of the main customer contacts within the Business Units.

Global offerings involving several of the Group's Business Units are provided by project teams working under the supervision of the marketing and sales departments of the various subsidiaries and the International & Marketing Department.

### Nuclear

In the nuclear businesses, the number of customers is small, with the Group's ten largest customers representing 58% of AREVA's sales revenue from nuclear operations. The scope of the transactions is usually large: contracts can amount to several hundred million euros. EDF is the single largest customer of the Nuclear divisions, accounting for approximately 30% sales revenue. Customers are well diversified geographically, with a strong European customer base representing approximately 71% of sales revenue from nuclear operations in 2005.

It should be noted that nuclear operations have good commercial visibility, thanks to recurring services and large contracts, particularly in the nuclear fuel cycle and reactor construction businesses.

- In the Front End Division, contracts for uranium supply, related conversion and enrichment services, and fuel assembly fabrication generally are for three to seven years.
- In Reactors and Services, reactor construction contracts run for five to seven years, while heavy component fabrication generally lasts three to four years and service contracts can range from a few days to two years.
- In the Back End Division, treatment and recycling contracts are for long to very long periods ranging from three years to more than ten years.

AREVA generally has firm commitments on its long-term contracts in the nuclear cycle, with limited flexibility on quantities, and with firm and/or escalated prices pegged to indices that may be general or specific to the nuclear industry. This is true for uranium sales,

## 4.10. AREVA's customers and suppliers

enrichment services and treatment/recycling services provided to major utilities. In the case of uranium, AREVA's current sales strategy is to increase the number of contracts based on market prices so as to take advantage of the market's upward trend in the future.

For example, the treatment-recycling contract signed recently with EDF for the 2001-2007 period is based on a fixed price that is revised monthly based on an escalation formula. On this basis, the contract should produce sales revenue of €4 billion over the 2001-2007 period.

In line with market practices, customers are granted a certain number of warranties relating to performance, penalties for delays, failure to deliver, etc., especially when the company supplies reactors or heavy equipment. These warranties can represent very large sums. The Group's policy, however, is to limit the size of warranties (and penalties) to a portion of the contract value. The Group is also careful to exclude indirect or consequential damages from its contracts, such as operating losses incurred by a customer as a result of the failure of a product or a service (see section 4.15.3.1. on the risks linked to those warranties, and section 5.1.3.8.8.).

## Transmission & Distribution

In contrast to the businesses of the Nuclear divisions, the customer base for the businesses of the T&D Division is very broad – T&D services about 30,000 customers – while the size of the contracts is usually a few million euros. The T&D Division's ten largest customers represent approximately 10% of its sales revenue.

Marketing and sales for the T&D Division are centralized through an international sales organization (ISO) in 100 countries, ensuring the continuity and coordination of commercial relations across the Division's entire offering. The sales force is organized into 13 regions and has a headcount of about 1,200. In addition, the product lines of AREVA T&D's Business Units have their own large sales forces, which coordinate with the ISO.

A program was adopted in 2004 to coordinate key account management, enabling the division to develop preferred, long-term relationships with world-class customers that are leaders in their markets, including EDF in France, National Grid Transco in the UK, Hydro Quebec in Canada and E-On in Germany. The new approach is consistent with the Group's overall business strategy and calls for the Division to work with customers to anticipate future developments in electric power supply systems.

The Division's main customers, by category, are:

- integrated electric utilities: Duke Energy in the U.S., E.On in Germany, Steg in Tunisia, Dewa in Dubai, Wapda in Pakistan, Egat in Thailand, Vattenfall in Sweden, CFE in Mexico, Eletrobras in Brazil and Gecol in Libya;
- transmission companies created in the wake of deregulation: NGT in the UK, Trans-Elect and ATC in the US, RTE in France and State Grid Corporation in China;
- large industries that are major consumers of electricity: Arcelor, Bao Steel, Chevron, Alcan, Alba, Volkswagen, and SNCF.

## 4.10. AREVA's customers and suppliers

## 4.10.2. AREVA'S SUPPLIERS

The Group's Senior Vice President of Purchasing is a member of AREVA's Executive Committee. The Purchasing Directors of the first-tier subsidiaries report to him functionally and are members of the Executive Committees of their subsidiaries. A No-Production Purchasing Department was created in 2004. It reports to the Group's Senior Vice President of Purchasing. This department coordinates and globalizes purchasing worldwide for all AREVA subsidiaries via framework agreements.

Purchasing programs are built on four key principles:

- Analyze markets and build a worldwide supplier list. This means systematically seeking out the best sources of supply worldwide, both in terms of quality and in terms of cost, while concentrating on a small number of suppliers.
- Encourage continuous improvement and stimulate supplier creativity via contracts specifying quality, cost and schedule objectives.
- Integrate the purchasing function as far in advance as possible of decision-making mechanisms involving the suppliers.
- Improve the efficiency of the Purchasing function by continually monitoring its performance.

AREVA has no particular dependence on any supplier, apart from EDF, which supplies electricity under contract for its export enrichment services (see section 4.4.3.5.). For certain special operations, the Group has a small number of suppliers. This subject is covered in the sections concerning the Business Units (sections 4.4.1. to 4.7.4.).

Several highlights of 2005 are worth noting here:

- Sustainable Development is central to the Group's strategy. The Purchasing function conveyed this message to its suppliers in 2005 by asking them to sign, in their name, the Declaration on Sustainable Development applicable to the AREVA group's suppliers.
- In tandem with the Group's global business development, Purchasing has expanded its lists of suppliers in many countries, including China, India, Russia, Brazil, South Africa, Turkey, Czech Republic, Mexico and Malaysia.
- It also worked with AREVA University to develop job training programs benefiting all of its employees.



## 4.11. Human resources

The Corporate Human Resources Department is headed by the Senior Vice President of Corporate Human Resources, who sits on AREVA's Executive Board. Human resources management is organized by region and by subsidiary.

Responsibilities are distributed among AREVA, its subsidiaries and the Group's Business Units.

The Group's key Human Resources challenges are:

- **Strengthening the Group's culture** by sharing fundamental values and practices and using them for employee development in a supportive and open environment based on respect for diversity and local cultures in every country in which the AREVA group operates.
- **Hiring new talent while encouraging career development and mobility** by giving the Group's line managers and human resources managers access to the resources necessary to plan for and support the Group's economic growth as well as employee expectations.
- **Helping to build the AREVA group**, in particular by making Human Resources programs a driver for organizational change. Restructuring must be planned and implemented humanely and responsibly using innovative approaches.

These objectives are consistent with the AREVA group's Sustainable Development values and the AREVA Way business model promoted throughout the Group by the Corporate Human Resources Department (see section 4.12).

To meet these challenges, the Group has defined the foundations of its "Talent Builder" brand: Attract, Retain, Develop and Recognize employee talent.

The Human Resources Department has three main activities:

- **Human Resources and Management Development:** this activity involves defining and leading programs to evaluate and develop the careers of Group managers across the globe. In close and constant liaison with the Corporate Communications and Sustainable Development Departments, this activity, led by the HR network, aims to develop the Group's corporate culture and explain HR goals and processes.
- **Employment practices:** this activity involves defining and coordinating the Group's employment practices, in liaison with the network of heads of employee relations in the subsidiaries.
- **Strategic HR studies and programs:** this activity involves performing analysis of any subject affecting the Group's human resources and taking appropriate action, particularly with regard to the Group's compensation policy, employee savings plans, demographics, professional training and overall HR strategy.

*NB: for information on the Group's human resources in 2005, refer to the Human Resources Report in Chapter 5 (section 5.2.3).*

## 4.12 Sustainable Development and Continuous Improvement

## 4.12. Sustainable Development and Continuous Improvement

Sustainable development means meeting the needs of the present without compromising the ability of future generations to meet their own needs. It is one of the keystones of AREVA's industrial strategy. It is implemented through a continuous improvement initiative aimed at achieving three key objectives: to sustain profitable growth, to be socially responsible and to respect the environment. Sustainable development is one of the Group's core values, as specified in the Values Charter inspired by the principles of the U.N. Global Compact and OECD guidelines.

These goals translate into ten commitments, implemented throughout the Group as part of the AREVA Way continuous improvement process:

- **financial performance:** ensure the Group's sustainability through long-term profitable growth,
- **innovation:** develop and harness best-in-breed technologies to anticipate our customers' needs and increase our cost-competitiveness while complying with nuclear safety, occupational safety and environmental protection requirements,
- **customer satisfaction:** listen to our customers, anticipate their needs, support their growth, and increase and measure their satisfaction,
- **commitment to employees:** promote our employees' professional development and provide good working conditions,
- **governance:** manage our operations responsibly in accordance with the Group's values, and assess and truthfully report on our performance to shareholders and all stakeholders,
- **dialogue and consensus building:** establish stakeholder relations based on trust,
- **community involvement:** participate in the economic and social development of the communities in which the Group operates,
- **environmental protection:** limit our environmental impacts by reducing our consumption of natural resources, controlling our releases and optimizing our waste management,

- **risk management and prevention:** establish and maintain the highest level of nuclear and occupational safety in all of the Group's operations to preserve public and worker health, and to protect the environment,

- **continuous improvement:** implement a continuous improvement initiative based on practices shared throughout the Group.

AREVA Way is an integral part of the Group's management processes. It is based on a model that serves as a basis for self-assessments of entity performance with respect to the Group's ten sustainable development commitments and is used to define the corresponding performance improvement plans. The results are reported to corporate management during strategy and budget meetings, at which time performance improvement objectives are set and resources allocated through the budget process.

The Sustainable Development and Continuous Improvement Department provides leadership for this process within the Group. It takes into account the Group's policies and actions in risk prevention (see section 4.15.2.3.), labor relations (see Human Resources Report, section 5.2.) and environmental protection (see Environmental Report, section 5.3.).

*N.B.: for information on sustainable development within the Group in 2005, refer to the Sustainable Development Report in section 5.2. A more complete description of sustainable development is provided in the supplement, "Sustainable Development Facts and Figures 2005" and in "AREVA in 2005". These documents are available from the Group upon request or on the website [www.aveva.com](http://www.aveva.com)*

## 4.13. Capital spending programs

The Group's strategy has always been to invest heavily and consistently to ensure long-term growth. Sustainable development requirements, shareholder value and profitability are integral to this strategy.

As the world leader in the nuclear industry, AREVA plans to develop, first through internal growth, but also through a selective approach to acquisitions. The purpose of this strategy is to strengthen its positions locally, especially in North America, accelerate its international growth, anticipate customer requirements, and ensure that it has the best available technology on the market.

### 4.13.1. YEAR 2005

Gross investment in tangible and intangible assets was €535 million in 2005, compared with €519 million in 2004.

Most of the increase was in gross operating capital expenditure (Capex). In nuclear operations, the year saw a sharp increase in capital spending, in line with the strategic objectives announced by the Group. Gross operating Capex was €488 million in 2005, compared with €366 million in 2004. The increase was primarily due to development of mining projects and, to a lesser extent, preparation of the Georges Besse II plant construction project in the Front End Division. Licensing of the EPR in the United States also contributed to these development expenses. In the Transmission & Distribution Division, gross operating Capex was stable.

Disposals of tangible and intangible assets went from €105 million in 2004 to €66 million in 2005.

Financial investments were down considerably. Investment in long-term financial assets, net of disposals, was €298 million in 2005, compared with €739 million in 2004. More than €530 million in cash was used in 2005 to acquire securities for the portfolio earmarked for end-of-life-cycle obligations to compensate for the transfer of Suez securities to "available-for-sale securities". The Group also subscribed to a Suez capital increase and acquired a 21.2% participating interest in REpower in the wind energy sector. The Group disposed of its participating interests in Brime Assystem and ERA, an Australian uranium company, and sold companies in its Transmission & Distribution Division. The main acquisition in 2004 was for the Transmission & Distribution Division, for €913 million <sup>(1)</sup>.

### 4.13.2. YEAR 2004

Gross investment in tangible and intangible assets was up significantly, going from €365 million in 2003 to €519 million in 2004. Disposals of tangible and intangible assets increased from €29 million in 2003 to €105 million in 2004, in particular due to the sale of an office building in Lyon, France, in 2004.

Net investment in tangible and intangible assets thus went from €336 million in 2003 to €486 million in 2004. This increase reflects the consolidation of the Transmission & Distribution business (T&D) at the beginning of 2004, which generated capital expenditures of €57 million for the year. In nuclear operations, Capex rose sharply in the Front End Division with the opening of new mines in Canada (Cigar Lake) and in Kazakhstan (Katco) and plant modernization projects in the fuel business. Net Capex was also up in the Connectors Division, going from €62 million in 2003 to €71 million in 2004.

Financial investments, net of disposals, were also up sharply, going from a resource, i.e. net divestment, of €7 million in 2003 to an investment flow of €739 million in 2004. This increase reflects for the most part the 2004 acquisition of Alstom's Transmission & Distribution business for €913 million, before net cash from the acquired operations. In addition, the Group disposed of certain mining assets, which contributed €66 million, and collected payments for assets sold in 2002.

*(1) Before net cash from acquired entities.*

#### 4.13. Capital spending programs

### 4.13.3. OUTLOOK

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After years of operations requiring mainly investment in maintenance, the Group has amassed the resources to keep pace with the nuclear power revival. It has begun investing again in recent years to prepare for this very situation.

In the Front End Division, €2.2 billion will be invested over the next five years. In the *Mining* Business Unit, the “Turbo” plan aims to double production capacity by 2010. In the *Enrichment* Business Unit, advance designs for the Georges Besse II plant, which will replace the existing Georges Besse I plant, were carried out in 2005. Construction will begin as soon as the Almelo agreement has been signed by all party countries.

In the Reactors and Services Division, some €200 million will be invested in licensing of the EPR with regulatory agencies, particularly in the United States.

Similarly, in Transmission & Distribution, more than €200 million will be invested in 2006 and 2007 to open new manufacturing centers in Brazil, Mexico, France, Turkey, India and China.

## 4.14. Research and development, intellectual property and brand name programs

### 4.14.1. RESEARCH AND DEVELOPMENT

#### 4.14.1.1. Key data

(in millions of euros, IFRS)	2005	2004*	2004
Research and Development expenses	328	327	402
- Nuclear Power share	65%	63%	51%
- T&D share	35%	37%	30%
- Connectors share	-	-	19%
Number of patent applications	99	116	214

\* Excluding FCI (Connectors Division), sold in 2005 and deconsolidated for the entire year of 2005.

The Group's Research and Development expenses were stable, at constant consolidation scope, and represented 3.2% of sales revenue in 2005. The relative decrease in R&D expenditures was due solely to the disposal of the Connectors business by AREVA, whose R&D budget was €75 million in 2005.

Total R&D spending, taking into account all committed costs, was €582 million in 2005, i.e. 5.7% of consolidated sales revenue. This compares with €484 million in 2004, excluding the Connectors business.

The increase in R&D spending is due in part to stepped-up mineral exploration activities and industrial expansion relating to the first EPR reactor in Finland and its licensing in the U.S.

#### 4.14.1.2. Overall organization of Research and Development

The AREVA group sets the pace for the global competition in terms of technology, with dynamic programs to harness advanced technologies and integrate them into our products and services. Ever since the first industrial applications of nuclear energy were developed, we have worked continuously to build up major intellectual assets, maintain our strong technological lead and

bolster our international positions. AREVA has pooled Research and Innovation functions as a group to tap into the synergies resulting from its establishment and to protect and multiply its technology assets. By functioning in integrated mode, AREVA is able to share best practices throughout the Group and thus boost R&D effectiveness in areas as wide-ranging as technology management, knowledge and know-how management, intellectual asset protection, innovation, and leadership for a portfolio of research and development projects.

AREVA's Research and Innovation Department establishes Group-level programs such as research and development action plans, project portfolio management, technical expertise and technological excellence management, and intellectual property management. The Research and Innovation Department also promotes and fuels innovation throughout the Group.

In 2005, a program to stimulate innovation in all of the Group's Business Units was launched, structured around three main thrusts:

- creation of a portfolio of innovations specific to each Business Unit, subject to annual review. The idea is to identify areas requiring innovation, such as a strategic objective or a technical issue that cannot be resolved using conventional methods...
- development of EFICA guidelines: E for Explore, F for Formalize, I for Ideas, C for Construct a solution and A for Action. The guidelines are supported by a variety of creativity methods and by an organizational process aimed at structuring initiatives to produce innovation,
- recognition of innovators. The AREVA Innovation Awards, in its fourth year, are one way to give recognition.

## 4.14. Research and development, intellectual property and brand name programs

The Research and Innovation Department has avoided the pitfalls of the overly centralized organization in carrying out its mission. The very diversity of the Group's operations calls instead for monitoring and incentivizing research and development initiatives in the field with an intentionally limited number of corporate decision-making units. These units are closely aligned with the strategic and technological orientations of AREVA's affiliates and divisions

## 4.14.1.3. Partnerships

Thirty years of technological achievement and commercial successes going beyond France's borders have positioned AREVA as global in the nuclear industry. Today, AREVA has a solid base of operations on three continents. Scientific and technical partnerships reflecting our international dimension will be a cornerstone of our continued growth.

AREVA already has a broad network of partnerships with the world's leading research laboratories:

- France: the CEA at Saclay, Cadarache and Marcoule, EDF's Research and Design Laboratories, the French National Scientific Research Center (CNRS), and the École de Chimie de Paris,
- Germany: the University of Zittau, the Karlsruhe research center and other,
- United States: MIT, the Universities of Florida, Texas and Idaho, etc.,
- China: Tsinghua-Beijing University and others,
- Russia: the Kurchatov research institute, etc.

AREVA's involvement in the Generation IV initiative is indicative of this commitment. The multilateral agreement pertaining to this international initiative was signed in 2005, providing a framework for collaboration on key technologies for fourth generation nuclear reactors. AREVA is keenly interested in this initiative, alongside its French, European and international partners, especially as concerns high temperature reactors and fast spectrum reactors, in which it sees even greater sustainable development opportunities.

The tripartite agreement of 2002 between AREVA, the CEA and EDF, one of the most important partnership agreements, is in the process of renegotiation. This agreement coordinates the three parties' R&D efforts and resources to improve the performance of existing reactors and fuels and for long-range development of key technologies for future generations of reactors.

With regard to mid-range industrial applications (2015), AREVA's efforts focus on the high temperature gas-cooled reactor (HTR) through the Antares project, with the CEA and EDF participating via the tripartite agreement. European support is being provided through the Raphael program (6th R&D Framework Program), launched in April 2005.

AREVA and the CEA also signed a 10-year cooperative agreement on the nuclear fuel cycle, with work beginning January 1, 2004. This agreement is for the same purpose and objectives as the tripartite agreement.

Partnerships in R&D are not confined solely to the nuclear businesses, but extend to the Group's other businesses as well. In 2005, AREVA T&D and the University of Tsinghua began cooperating via their joint research center. Several publications arising from this collaborative effort have already appeared internationally.

In each of these partnerships, the rights to research results are divided in proportion to the funding provided by the companies or the CEA. A partial payment by one of the parties may give that party the right to use the research for its own account.

## 4.14.1.4. Future directions in technology

**Nuclear**

The AREVA group's Research and Development programs are anchored in meeting customer requirements. They focus on increasing safety, reducing operating costs, minimizing final waste volumes, conserving natural resources and preparing future generations of nuclear systems.

**Development and modernization of production tools in the front end of the fuel cycle**

The long-term revival of nuclear programs in several countries around the world will generate increased demand for uranium, especially as HEU inventories near depletion. Mining exploration spending was increased significantly in 2005 for this reason. In particular, uranium mining projects are under development in Kazakhstan, one of the most promising countries in terms of uranium reserves. Studies are under way to modernize facilities to convert concentrates before enrichment and to increase production capacity in response to growing demand.

As part of the Comurhex-Pierrelatte modernization project, a new effluent treatment system was tested at the pilot level, with excellent results. This system will reduce environmental releases and recover uranium from effluent produced by rinsing of cylinders of uranium hexafluoride and fluorination residues. It will also process residues from the former effluent treatment process. The uranium recovered in this process can be reused for fuel after enrichment. The process should be ready for operation in 2010.

#### 4.14. Research and development, intellectual property and brand name programs

##### Optimizing the economic performance of reactors and fuel

###### • Boosting nuclear fuel performance

The Front End Division is looking beyond the successful performance of its current products by conducting far-reaching research and innovation programs to boost thermo-hydraulic, mechanical and burn-up performance while enhancing fuel reliability. These programs involve the development of new cladding materials (new quaternary alloys for better corrosion resistance and mechanical properties), new fuel (pellets containing chromium to eliminate pellet-cladding interaction and reduce fission gas releases) and new fuel rod, spacer grid and assembly designs. Two broad-based projects are currently in progress to develop the next generation of PWR and BWR fuel assemblies by optimizing existing solutions and introducing innovative concepts.

In this same area, but with a narrower focus on MOX fuel, the first test campaigns were conducted at the Applied Development Center following completion of installation. Located at the AREVA NC Cadarache site, this unit features full-scale replicas of the majority of MOX process equipment, operated in a UO<sub>2</sub> environment to:

- develop and validate technology improvements to the MOX fabrication process on an industrial scale,
- certify new suppliers of strategic items,
- test mechanical equipment before industrial service,
- help fabricators optimize operating costs and techniques.

###### • Enhancing design tools for fuel and reactors

AREVA puts considerable effort into its modeling tools and codes. Efforts focus on optimizing advanced physical models that take advantage of enhancements in computer-modeling capability, implementing modular application architectures, and developing ergonomic graphical interfaces. These developments are helping to improve code forecasting accuracy, reduce design schedules and improve design quality. With them, innovative fuel and reactor designs delivering even better performance are foreseeable.

###### • Understanding and anticipating aging phenomena

AREVA teams are conducting important research and development programs with the CEA and EDF. The goal is to gain a better understanding and control of materials aging in the reactor environment (radiation, pressure, temperature, system of loads), to improve our ability to predict and demonstrate structural and equipment life spans, and to offer solutions for extending the service life of reactors and their components. Every year gained in so doing translates into substantial savings for our utility customers.

###### • Supplying innovative digital control systems

Control system products and programs offering a high level of safety are being integrated into the Group's new reactors, such as the EPR, as well as into existing reactors to replace older systems. These advanced control systems are helping to improve reactor operations and availability while increasing their ability to meet variations in demand and lowering maintenance costs.

##### Developing enhanced solutions for the back end of the fuel cycle:

The 30 years of industrial research and development backing the La Hague plant site have made it the reference in used fuel treatment today. This "third generation" plant mirrors reactor development. The research and operating experience from this plant are helping to guide our main research programs.

###### • Production plant support

This involves optimizing current plant operations over the long term and adapting to market trends so as to be able to treat new fuels (high burn-up UOX fuel, MOX fuel, research reactor fuel, etc.). In addition, programs to minimize the La Hague plant's environmental impacts are in progress in anticipation of revised release permits, expected to be issued in early 2007.

###### • Optimizing fuel treatment and reducing final waste volumes

A far-reaching development program is under way to renovate the vitrification facility so as to increase productivity and capacity. The program involves installing the cold crucible technology developed jointly with the CEA, capable of processing a wider range of feed solutions, including effluent from the rinsing of facilities scheduled for dismantling. A special formulation was also developed to contain these solutions. In the near term, the main equipment to be installed in UP3 in 2007 and UP2 in 2009 – the calciner, dust extraction and cold crucible system – will be certified in a full-scale vitrification pilot plant at the CEA Marcoule site by the end of 2006. These programs will also expand AREVA's offering concerning the processing of new products.

###### • Improving used fuel transport and storage

The Back End Division is developing new materials – resins, radiation shielding and impact limiters – for the design of innovative shipping casks and even more efficient integrated storage solutions that accommodate the changing characteristics of used fuels. The latest such solution is the TN 106 shipping cask for RTR fuel. This first-of-a-kind licensed modular shipping cask can be manufactured so that the cask length matches the size of the different RTR fuels.



## 4.14. Research and development, intellectual property and brand name programs

## Supporting deployment of a new generation of reactors, the EPR

- **Licensing reactor models and methods for the OL3 and FL3 projects and validating the detailed design of the EPR**

The neutronic certification report for the heavy reflector has been issued, best estimate methods for a major breach LOCA are available for commercial use, and the design of internal core equipment has been validated.

- **Certifying the EPR design in the United States**

A dedicated project team has been formed and the certification process is moving forward quickly. An intensive program of report submittals and technical meetings with the U.S. Nuclear Regulatory Commission (NRC) is scheduled up until submission of the request for certification of the EPR design at the end of 2007.

## Planning for next-generation reactors and related fuel cycle facilities

This involves long-term research – the key to maintaining technological leadership – that looks at the total reactor-fuel cycle system to optimize sustainable development criteria, i.e. an economic system that conserves natural resources and minimizes environmental impacts while addressing societal issues, and in particular the need to supply energy to everyone on the planet.

A discussion of some of the key areas for research follows.

- **Developing new gas-cooled reactors**

Beyond the existing portfolio of advanced products – the N4 and EPR pressurized water reactors and the SWR1000 boiling water reactor – AREVA and its partners EDF and the CEA are studying a new family of reactors that generates electricity as well as industrial heat: high temperature helium-cooled reactors (HTR). As a continuation of R&D efforts and preliminary designs of recent years, a project aimed at developing a preconceptual design was launched in 2004. This design will be completed in 2006 and, if the results are favorable, will lead to applied research.

In the meantime, the R&D program continues: the laboratory-scale fuel fabrication line was recently finalized and the first tests of the pilot line were performed in 2005. Computational codes specific to the HTR are being developed in the framework of the tripartite agreement. AREVA NP is also coordinating a new European project, Raphael (ReActor for Process heat, Hydrogen And Electricity generation), launched in 2005 as part of the 6th R&D Framework Program.

- **Participating in the development of fourth-generation systems**

The Reactors and Services Division is also conducting assessments of advanced technologies for other reactor types. Most of these reactor concepts are based on fast neutron spectra, which ensure the availability of energy resources for several centuries and pave the way to even greater reduction of final radioactive waste volumes. These concepts constitute effective, long-term responses to the energy and environmental challenges of the future, and could be deployed in the 2040 time-frame.

- **Designing new generations of fuel cycle plants**

The fuels of the future, such as for the HTR, could be very different from those of today. The Front End Division is conducting research on large-scale, cost-competitive fabrication processes for these fuels. To optimize back end operations, AREVA is assessing the future handling of these fuels, made with non-metallic refractory material (graphite, silicon carbide).

AREVA is also conducting research with the CEA in connection with the “Bataille” Law of 1991, France's Waste Act. The goal is to design the fuel cycle facilities needed to support fourth-generation reactors. Operating experience from AREVA facilities is an essential foundation for the definition of these research programs.

## Emerging technologies

There are several significant examples of emerging technologies that contribute to crucial challenges, such as safety or energy.

AREVA TA, a subsidiary of AREVA, demonstrated that the safety technologies used in the control systems of on-board nuclear steam supply systems could have applications outside the nuclear field as part of the Ecorail project to optimize railroad crossings. Testing of the system was completed at the end of 2005. Several major rail transportation companies, including an Austrian operator, and the European Space Agency (ESA) were involved in the project, for which AREVA TA provided project management and supplied the on-board tracking system.

The objective of the project was to link satellite tracking, a map of the rail system, and on-board odometers to track the location of the train safely and with a minimum of rail equipment so as to trigger the closing of a rail crossing safely by radio. System tests in actual conditions on a commercially operated rail line were completed successfully.

In the energy field, Helion, a subsidiary of AREVA TA, developed the first fuel cell in France. Two years after the 5 kWe Helps back-up generator and barely one year after the start-up of its 20 kWe cell, Helion made a new technological breakthrough with its Syspac product line.

Based on proton exchange membrane (PEM) type fuel cells, the system is capable of delivering 20 kW of electrical power today, and 50 kWe is projected in the near future. It operates automatically in pure hydrogen-oxygen mode with a high level of reliability and availability.

SYSPAC is aimed at applications in which a continuous source of power for life support or safety reasons is vital.



#### 4.14. Research and development, intellectual property and brand name programs

##### **Transmission & Distribution**

Research in this Division is very important because of the short cycles compared to the nuclear businesses. R&D is a key factor for competitive positioning. The Division spent 3.6% of its sales revenue on R&D in 2005. The main areas of research are described below:

- **Power systems and equipment, including transformation and electrical current interruption (alternating current)**

Today, the market demands transformers that have increased load capacity and can deal with transitional operating conditions caused by short circuits and power surges. They must also provide reliable service and represent the best trade-off between technical performance and cost. In the field of current limitation, the key to success lies in using a single interruption technology platform to streamline products. Good progress has already been made on the development of products and solutions for new markets. Geographic expansion in the United States means meeting ANSI standards, while in China and other fast-growing markets, such as India and Russia, compliance with local technical and climatic specifications is required.

- **Direct-current power electronics**

This is certainly the most promising technology for the future of T&D's applications. It is evolving at a rapid rate, both in terms of the technology offered and in terms of its economics.

Optimizing existing power supply systems by increasing their capacity and then by improving sharing and allocation opportunities are both potential new applications for FACTS (Flexible Alternating Current Transmission Systems) in numerous already existing configurations. In addition, AREVA T&D is involved in several European research programs on materials that will be used in future power electronics applications.

- **Information systems and digital controls**

Data processing has become an essential function in the quest to optimize the management and growth of the fast-paced electricity market. SCADA software (Supervisory Control And Data Acquisition) as well as asset management and energy trading software can deal in real time with total and available generating and transmission capacities, as well as with the delivery and pricing of energy transactions on spot markets at times of peak demand. Integrated information and telecommunication systems must be able to manage these functions as well as new developments down the line.

The considerable changes in electronic technologies over the past ten years have led to the widespread use of digitalization for intelligent electronic devices (IED) and data exchange. A pilot facility incorporating a variety of IEDs already exists and is providing a full-scale demonstration of the complete integration of all of the automated equipment of a substation, and of communications between them via the IEC 61 850 standard.

##### **Significant developments in 2005 are highlighted below:**

- **The de-icing system developed for Hydro Quebec:** in January 1998, the Hydro Quebec grid came to a total standstill following a particularly long and severe period of icing. Power supply was interrupted as the grid shut down. This raised awareness of the distribution systems' vulnerability to this type of weather. Hydro Quebec and TransEnergy decided to ensure that at least one distribution line would be secure. Two solutions were considered. One involved mechanical strengthening of the power lines, which meant rebuilding the lines. The other was a power line de-icing system, along with strengthening of existing structures. T&D developed the latter system using high frequency current to supply the heat needed for de-icing. The first HVDC system was installed at the Lévis substation and generated enough current to de-ice 240 kilometers of power lines.
- **T&D also expanded its line of dead tanks.** Initially, the first dead tank for the U.S. market was supplied at the end of 2005 in a closed double-loop 60 Hz, 550 kV, 63 kA system. The new DT-550 dead tank features a closure resistor and a hydraulic mechanism. The new product also meets the requirements of the Chinese and Russian markets for use in very cold areas. A variation was developed for very cold areas using a heating bench, enabling operations at -50°C.
- **Distributed recording system:** AREVA T&D began developing this technology following publication of the IEC 61 850 standard. The first product developed was a system to record current failures and disruptions. The system offers a leading-edge solution that reduces costs while improving performance.

## 4.14. Research and development, intellectual property and brand name programs

## 4.14.2. INTELLECTUAL PROPERTY AND BRAND NAMES

Intellectual property, licenses, patents, trademarks and technical expertise in general play an important part in the Group's daily operations and thus in the production and protection of AREVA products, services and technology. Protecting our knowledge and unique know-how requires a comprehensive system for developing and managing AREVA's intellectual assets in each Business Unit. This is also the key to negotiating successful technology transfer and process license agreements, now standard practice for large-scale international projects.

Building a unified technology culture and asset base also means laying down principles that can be accepted by all Group entities. This involves defining, simply and transparently, a set of rules governing the transfer of innovative and mature technologies between Group entities, with the goal being to ensure optimum use and valuation while establishing equitable compensation mechanisms.

Aware that adequate protection of intellectual assets is a strategic issue, the AREVA group now has an organization to pool our combined resources and strengthen the intellectual property role of our entities. The AREVA group has a very large portfolio of patents. In 2005, 99 patent applications were filed, including 54 by AREVA NP, 25 by AREVA T&D, 17 by AREVA NC and 3 by AREVA TA.

The Group's intellectual property program covers every aspect of its intellectual assets, irrespective of their eligibility for patent protection. To meet the specific needs of each Business Unit, various methods are used to protect the Group's know-how and technology. For example, with regard to the design of major systems such as nuclear reactors, the design and fabrication field should be distinguished from the computational code field. It is important to constitute a substantial portfolio of patents for

design and fabrication, as this gives a competitive advantage and enables us to defend our rights if the occasion should arise. This is particularly true for new developments relating to the HTR, as well as for improvements concerning the EPR. Conversely, a significant body of knowledge is integral to the computational codes, which are fully usable only with the experimental databases that validate them. These aspects create barriers to entry for new competitors and minimize the value of protection through numerous patents that provide only a relatively modest increase in the level of protection. The secret nature of these codes is adequate protection in itself.

Engineering know-how is generally contained in process manuals delivered to customers at the same time as the facilities. Naturally, customers are not allowed to divulge the knowledge contained in these process manuals to third parties. However, some key elements of process and equipment may be patented. For example, more than 100 patents protect processes used at the La Hague plant, many of whose numerous technologies have been exported to Japan.

Measurement and monitoring equipment, such as nuclear detection equipment, non-destructive testing equipment and control systems, use innovative technologies that are generally patented. In nuclear technology, inventions to improve radiation protection or to reduce radiation exposure during maintenance and repair operations contribute to AREVA's competitive advantage, particularly in the cleanup, logistics and decommissioning businesses.

## 4.15. Risk and insurance

### 4.15.1. OVERALL ORGANIZATION OF RISK MANAGEMENT

#### 4.15.1.1. Organization of Risk and Insurance Department

AREVA's risk and insurance management policy, laid out by the Executive Board based on recommendations from the Risk and Insurance Department (DRA), aims to prevent and reduce the consequences of certain potential events on its earnings and the achievement of its strategic goals.

The policy is implemented by the Risk and Insurance Department in cooperation with the Business Units. The department establishes methodologies to ensure consistent treatment of risk among the subsidiaries and promotes the use and exchange of best practices. Financially speaking, it assesses the risk at the consolidated level and implements comprehensive, worldwide programs to transfer to the insurance and reinsurance markets the portion of the risk that the Group does not wish to retain.

#### 4.15.1.2. Risk mapping

The Group established a risk map when it was established in 2001. This map is updated annually.

The goals are:

- to formalize the risk identification process for all Group operations;
- to assess and classify various types of risk;
- to define and implement a comprehensive risk management program.

To implement this approach, the Risk and Insurance Department:

- establishes a common set of methodological tools and management criteria;
- coordinates a network of 120 contact persons trained by AREVA University and assigned to the operational units;
- monitors action plans.

The risk maps are presented every year to the management committees of the Business Units and to the Executive Committees of the first-tier subsidiaries. This process applies to all AREVA group companies.

The Group's multiyear audit plan builds on risk mapping results, which are updated annually. Ongoing follow-up is ensured by the Audit Department through regular audits of the Group's entities and the Risk and Insurance Department.

#### 4.15.1.3. Risk management

The notion of risk applies to the operations of each of the Group's entities (control of normal operating risks affecting performance, based on prior decisions, and affecting specific situations) and to achievement of their goals and business strategy implementation (taking a risk from which a profit is expected).

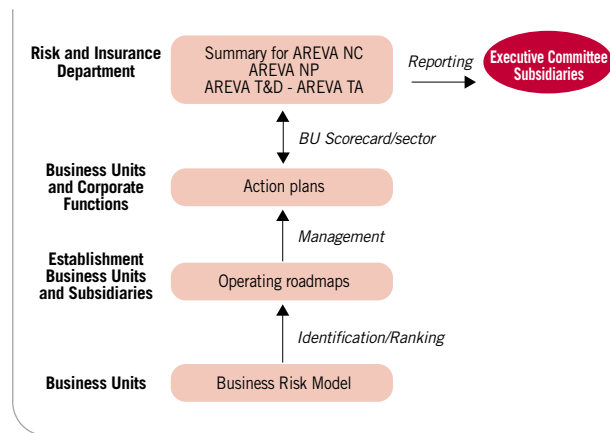
In both cases, risk management arises from a shared methodology, starting with risk analysis. The objective is to manage the risk from cradle to grave. Consequently, the Business Units establish "operating roadmaps" based on which they recommend and carry out "action plans".

Managing normal risk entails:

- an ongoing documented process of risk identification, analysis, ranking, optimization, financing and monitoring;
- a broad scope of action covering all of the Group's activities, both operational (manufacturing, sales, projects, services, etc.) and functional (finance, legal constraints, contractual commitments, organization, human resources, etc.);
- contributing to resource optimization and cost reduction; and
- developing business continuity and emergency management plans.

## 4.15. Risk and insurance

## Risk management process of the AREVA group



The first step in risk management is to identify and formulate the risk, as illustrated in the figure above. To this end, the Group has drawn up a business risk model (BRM) to be used by its Business Units. Working from a limited number of typical risks or families of risk (BRM risk), the model indexes all of the foreseeable or unexpected situations or events that could have an impact on employee safety, the financial performance of the Business Unit, those of the subsidiary or even of the Group, and its corporate image. Each BRM risk encompasses one set of issues.

The BRM can be enhanced based on best practices and lessons learned.

Using the BRM as a starting point, each Business Unit establishes an operating risk map that illustrates the level of each risk factor identified and its degree of management at any given moment. The Business Unit can then define criteria to put in place appropriate action plans to reduce each risk and render any residual risk acceptable to the Group. The Business Units are thus responsible for analyzing, ranking and managing their risks by implementing action plans using appropriate means.

Each subsidiary's risk management department, each in its area of expertise, provides its management with a Business Unit-wide picture of risks and how the Business Unit is managing them. Each subsidiary's Executive Committee is then informed of the status of action plans and decides which risks affect the Group's strategic objectives. This process is repeated throughout the Group.

The Group's risk management policy is based on principles of transparency and openness, including active participation in local information commissions established near all major sites handling hazardous materials, publication of environmental impact measurements and implementation of AREVA's nuclear safety charter and sustainable development policy.

## 4.15.2. MANAGING RISK RELATED TO THE GROUP'S NUCLEAR OPERATIONS

By regulation, industrial facilities operated by AREVA are classified into various categories by level of risk and quantity of nuclear materials.

In addition to preventing and countering malicious acts and implementing public safety measures in the event of an accident, ensuring facility safety means:

- protecting workers, members of the public and the environment from the harmful effects of radiation (radiation protection); and
- defining and implementing measures to prevent accidents or limit their impacts (nuclear safety).

### 4.15.2.1. Regulations applicable to the Group's nuclear facilities in France and abroad

#### General regulations

Group operations are subject to constantly changing national and international regulations that are becoming increasingly stringent in the areas of nuclear and environmental safety. The licensed nuclear facilities of the AREVA group (INB-see glossary) are presented in the table in section 4.15.2.2.

The International Atomic Energy Agency (IAEA) and the European Commission have each established their own international system for nuclear materials safeguards. Other international agreements, adopted under the umbrella of the IAEA, govern nuclear safety in the facilities. These agreements include the Convention on Nuclear Safety (CNS) and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

## 4.15. Risk and insurance

With respect to the European Union, the provisions of the Euratom Treaty and its implementing regulations have reinforced the aspects relating to nuclear materials safeguards and to the establishment of unified rules for radiation protection of the public and workers and for the transport of radioactive waste.

In France, the licensed nuclear facilities (INBs) operated by the Group are subject to the provisions of Decree 63-1228 of December 11, 1963, as amended, establishing a specific program for licensed nuclear facilities (INB); to those of Decree 95-540 of May 4, 1995 relating to liquid and gaseous effluents from and water usage by INBs; and to implementing regulations. This legal framework strictly regulates the construction, operation, shutdown and decommissioning of nuclear facilities through the issuance of specific licenses, and governs in particular nuclear safety and quality assurance, environmental protection, and the monitoring of radioactive and non-radioactive releases.

The draft bill on transparency and nuclear safety adopted by the French Senate on March 8, 2006, and by the National Assembly on March 29, 2006, incorporates into legislation the provisions regarding licensed nuclear facilities included in the Decree 63-1228 of December 11, 1963. In addition to providing new definitions and licensing rules applicable to licensed nuclear facilities, the draft bill would establish a Nuclear Safety Authority as an independent administrative authority in charge of controlling licensed nuclear facilities.

Similar provisions govern licensed nuclear defense facilities in France (INBS) operated by the Group (see Decree 2001-592 of July 5, 2001, regarding safety and radiation protection for defense facilities and operations). However, the laws and regulations governing those facilities have been adapted to protect classified national defense information.

Licensed nuclear facilities are subject to strict monitoring by the French Nuclear Safety Authority ASN (Autorité de Sécurité Nucléaire). This entity comprises, on the one hand, a Central Administrative Directorate in charge of nuclear safety and radiation protection (DGSNR), overseen by the ministers of Industry, the Environment and Sustainable Development and, on the other hand, by autonomous government departments (DRIRE, DRASS and DDASS). The ASN is in charge of technical and regulatory inspections relative to nuclear safety and radiation protection. Operations abroad are subject to the same type of stringent inspection procedures (for example, by the Nuclear Regulatory Commission in the United States). Licensed nuclear defense facilities (INBS) are monitored by the DSND, a nuclear safety and radiation protection office for defense-related operations and facilities, which reports to the ministers of Defense and Industry.

In addition, some of the Group's French operations are governed by regulations pertaining to environmentally regulated facilities, based on the materials used or activities undertaken. Under the provisions of Articles L. 511-1 et seq. of the French Environmental Code (Decree 77-1133 of September 21, 1977, as amended, implementing Law 76-663 of July 19, 1976, pertaining to environmentally regulated facilities), Group facilities that represent a risk or a nuisance in terms of public health, safety or the

protection of nature or the environment are subject to prior declaration to, or specific authorization by, the Prefect. In the latter case, the operating permit is issued by the Prefect after completion of a public inquiry and consultation of various organizations. The Prefect's order includes all necessary restrictions and specifications.

The Group is also subject to regulations pertaining to the radiation protection of employees, subcontractors and the public, which are enforced through a system of exposure limits set by the Labor Code and the Public Health Code. The maximum exposure allowed by the Public Health Code for members of the public is 1mSv per year. The maximum exposure allowed by the Labor Code for workers in nuclear facilities is 20 mSv per year.

Other international and national legislation and regulations govern nuclear materials safeguards and controls, in particular the October 28, 1979, Convention on the Physical Protection of Nuclear Material, Articles L. 1333-1 through L. 1333-14 of the French Defence Code, and Decree 81-512 of May 12, 1981, pertaining to the protection and monitoring of nuclear materials; regulations on the transportation of radioactive materials, including ADR, RID and ADN (see Glossary); and Council directive 92/3 Euratom of February 3, 1992, pertaining to the monitoring and control of radioactive waste transfers between member States and the waste's entry into and exit from the Community (see also the section on "Regulations governing radioactive waste" herewith in).

Similar regulations provide for strict oversight of the facilities and facility operations by the appropriate authorities in countries in which the Group operates nuclear facilities, including Belgium, Germany and the United States.

### ***Regulations governing end-of-life-cycle obligations***

In this annual report, end-of-life-cycle obligations include any obligations connected with the shutdown and dismantling of nuclear facilities and the management of the related nuclear waste (see Glossary).

The accounting treatment for end-of-life-cycle obligations is explained in Note 25 to the consolidated financial statements.

### ***Regulations governing dismantling***

In France, decommissioning operations are governed by a legal framework that largely stems from the above-mentioned decree of December 11, 1963, pertaining to nuclear facilities. A DGSNR memorandum dated February 3, 2003, specifies the terms of the Decree's Article 6 ter on facility shutdown and dismantling operations. Also, the September 5, 1997, Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, adopted under the auspices of the IAEA, contains provisions regarding the decommissioning of nuclear facilities.

As the operating license holder, the operator of a nuclear facility is the legal entity in charge of facility operations and, therefore, of decommissioning procedures.

#### 4.15. Risk and insurance

The operator must inform the DGSNR of its intention to shut down a licensed nuclear facility definitively, of the status chosen for the shutdown facility, and of the decommissioning operations to be implemented. The decision authorizing decommissioning and specifying related procedures is made by decree pursuant to conditions stipulated in the above-mentioned legislation. The operator is in charge of the decommissioning schedule and process for the facility it operates, subject to the inspection of the DGSNR. The DGSNR validates each stage of the decommissioning process.

The decommissioning process may take several decades, depending on the facility, and includes work stages as well as monitoring stages when there are practically no operations. Decommissioning involves a series of operations, from the shutdown of the nuclear facility to the administrative decision to release the site, at which time it can generally be put to new industrial use. The decommissioning of licensed nuclear facilities is based on three different technical levels, as defined by the IAEA in 1980:

- Stage 1 (storage with monitoring): radioactive materials required for or resulting from operations are removed and circuits are drained and rinsed. The first containment barrier is preserved intact, access to the interior of the buildings is monitored, and the facility is monitored continuously and tested periodically;
- Stage 2 (restricted site release): the facility is decontaminated more thoroughly; areas with significant residual radioactivity are sealed off; containment barriers are reinforced if necessary; most of the equipment is taken out of service, except for necessary monitoring equipment; and certain areas of the facility may become available for other uses;
- Stage 3 (unrestricted site release): the site is released totally and unconditionally.

The level of decommissioning depends, in particular, on how the site will be subsequently used.

In the United States, Germany and Belgium, where the Group operates four nuclear facilities, decommissioning regulations are based on principles that are largely similar to those of France.

##### **Regulations governing radioactive waste**

Waste generated by nuclear operations or by the decommissioning of licensed nuclear facilities is regulated in France by framework legislation on waste and, due to their radioactivity, by special provisions. At the international level, waste is primarily regulated by the September 5, 1997, Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

The producer or holder of waste generated by nuclear power operations or dismantling operations has an obligation to process and dispose of such waste (Articles L. 541-2 of the French Environmental Code). Radioactive waste from INBs is also subject to the provisions of the Order of December 31, 1999, establishing

technical regulations to prevent and limit hazards and impacts outside the INBs. In particular, the Order requires producers of such waste to prepare a “waste study” that is subject to approval by DGSNR, and to set up a zoning system to identify various waste disposition methods and to ensure waste traceability.

Long-lived high-level radioactive waste is subject to the provisions of Articles L. 542-1 to L. 542-14 of the French Environmental Code, which set forth principles applicable to research on processing and disposal solutions for this type of waste, in particular deep geologic disposal solutions. The French Government must present the French Parliament with a global assessment of the research before December 30, 2006, along with draft legislation authorizing the creation of a long-lived high-level waste disposal facility as appropriate.

To this end, the National Assembly adopted draft framework legislation pertaining to the long-term management of radioactive materials and waste at the first reading on April 12, 2006. This Senate must now review the proposed law.

In its current version, the draft legislation contains the following provisions in particular:

- continued research concerning the management of long-lived high-level waste;
- procedures for treating used fuel and radioactive waste from foreign sources in France;
- measures to be taken by nuclear operators to meet their end-of-life-cycle obligations and procedures for constituting and accounting for assets covering those obligations.

#### 4.15.2.2. Nuclear safety in the Group's nuclear facilities

##### **Definition**

Nuclear safety encompasses every phase including site selection, facility design, construction, operation, shutdown and decommissioning. It also applies to nuclear materials transportation. Nuclear safety is founded on technical design bases and on organizational procedures for operations implementing the principle of defense in depth.

Defense in depth is the systematic assessment of all potential technical, human or organizational failures and the definition and implementation of a series of independent lines of defense protecting against the consequences of these failures.



## 4.15. Risk and insurance

These lines of defense are designed to:

- prevent accidents and incidents, in particular by means of facility design and configuration;
- monitor facilities in order to detect and correct all malfunctions;
- assume that accidents may happen in spite of all precautions and design and implement measures to limit their consequences.

The first objective of any nuclear facility safety measure is to prevent the dissemination of radioactive substances under all circumstances and to minimize the impacts of radiation on the population and the environment.

### Policy

Nuclear safety is an absolute priority for AREVA. At the end of 2004, the Group adopted a Nuclear Safety Charter formalizing its commitment to nuclear safety and radiation protection (the charter may be downloaded on AREVA's Internet site). AREVA is committed to maintaining the highest level of nuclear safety for the entire life cycle of its facilities.

The charter is built on:

### Organizational principles

The executive management team of each corporate entity shall establish an organizational structure based on legal provisions of the relevant country and the principle of responsibility of the nuclear facility operator. Each site manager is responsible for nuclear safety and radiation protection at that site. He or she shall set up an appropriate organizational structure to ensure that all legal and regulatory requirements for every aspect of nuclear safety and radiation protection are applied at every affected unit and facility. Each plant director shall have resources available to verify implementation of delegated authority as regards nuclear safety, independently from operating teams. A corps of inspectors in the Safety, Health and Security Department implements the annual program of inspection of nuclear facilities established by the Executive Board (see below).

### Action principles

Nuclear safety applies to every stage in the plant life cycle, from design to decommissioning. It builds on a nuclear safety culture shared by all personnel and maintained by regular training. The Group is dedicated to complying with the ALARA principle (As Low As Reasonably Achievable), which holds that any reasonable technical or organizational action will be taken to reduce exposure of workers and the public to radiation. AREVA has started an initiative to reduce the maximum dose received by all workers in its facilities or by Group employees working at customers' sites to 20 mSv per year in countries where regulations are less strict. A similar continuous improvement initiative shall apply to the management of liquid and gaseous effluents (see section 5.3).

### Reporting system

AREVA endeavors to provide reliable and relevant information that enables an objective assessment of the status of nuclear safety in its facilities. Nuclear events are evaluated according to the INES international scale, including in countries where no such requirement exists. Level 1 or higher events are put on record. A report on the status of nuclear safety in the Group's facilities is published each year, including conclusions from the internal inspection program.

The Nuclear Safety charter adopted in 2004 was implemented in 2005 in all nuclear activities. All employees concerned were informed through an awareness campaign and actions plans were implemented to reconcile existing practices with the requirements of the charter. Some of these actions will continue in 2006.

### Organization

The Safety, Health and Security Department's missions encompass the fields of nuclear safety and radiation protection. It recommends and implements an annual nuclear facility inspection program. It also coordinates monitoring of regulations in the fields of nuclear safety and radiation protection and provides leadership for the network of related experts.

The inspection program is decided by the Executive Board based on the recommendation of the Director of nuclear safety and General Inspectorate. The program enables verification of the proper application of the Nuclear Safety charter, early detection of a potential deterioration in nuclear safety performance, and necessary improvement to ensure complete control thereof.

### General Inspectorate and Nuclear Safety department

In 2001, the Executive Board created a General Inspectorate and Nuclear Safety department headed by a General Inspector. Its mission is twofold:

- inspection: six inspectors with previous operating responsibilities monitor the facilities independently of the operator. They can ask that a facility be shut down. They report to the Executive Board;
- technical expertise: eight nuclear safety specialists coordinate a network of experts on specific site issues such as waste, fire hazards and radiation protection...

## 4.15. Risk and insurance

***Licensed nuclear facilities of the AREVA group***

AREVA's main licensed nuclear facilities (INB) are:

Location	Business Unit	Description
<b>Front End Division</b>		
Romans (France)	Fuel	Fuel fabrication
Dessel (Belgium)	Fuel	Natural uranium fuel and MOX
Lingen (Germany)	Fuel	Fuel fabrication
Richland (United States)	Fuel	Fuel fabrication
Lynchburg (United States)	Fuel	Fuel fabrication
Miramas (France)	Chemistry	Depleted uranium storage (storage emptied)
Pierrelatte (France)	Chemistry	Preparation of UF <sub>6</sub>
Pierrelatte (France)	Chemistry	Conversion of uranyl nitrate into uranium sesquioxide (U <sub>3</sub> O <sub>8</sub> )
Pierrelatte (France)	Enrichment	Georges Besse plant – Isotopic separation of uranium by gaseous diffusion
Pierrelatte (France)	Enrichment	Plant for uranium decontamination and recovery
Pierrelatte (France)	Chemistry	Conversion of enriched uranium-bearing materials
<b>Reactors &amp; Services Division</b>		
Maubeuge (France)	Equipment	Nuclear maintenance workshop
<b>Back End Division</b>		
Veurey (France)	Treatment	Fuel fabrication plant undergoing dismantling
La Hague (France)	Treatment	Used fuel treatment plant and liquid effluent/solid waste treatment facility
Marcoule (France)	Recycling	Melox – MOX fuel fabrication
Marcoule (France)	Treatment	Irradiated fuel treatment plant undergoing dismantling (CEA will become the operator in 2006)

AREVA does not operate any nuclear power plants. Its operations consist of supplying, converting and treating nuclear materials.



## 4.15. Risk and insurance

### 4.15.2.3. Nuclear risk management and prevention

Several types of nuclear safety-related risks are distinguished and their consequences are systematically analyzed and evaluated as part of the licensing procedure for facility operations, based in particular on the items presented below:

#### **Nuclear risk**

Nuclear risk corresponds to events that are characteristic of radioactive materials.

#### **Radioactive materials dispersion that can result in contamination**

Uncontained radioactive materials can disperse and lead to human and environmental contamination.

To control this risk, the first priority is to prevent the dispersion of radioactive materials in any form (solid, liquid, gaseous) and under all operating conditions (normal or accidental).

Facilities are designed with containment systems that prevent the dispersion of radioactive materials. For example, the radioactive materials are surrounded by a series of barriers at varying levels of negative pressure, which channel air from the outside towards the secondary containment system and then the primary containment system. The air is cleaned in each containment system. Contaminating elements are filtered from the air before it is released from the facilities.

The efficacy of these containment systems is verified before facility start-up and is periodically checked to keep them in working order.

Considerable effort went into the design so that maintenance operations could be performed while maintaining the integrity of the containment system. The facility design includes special systems to facilitate replacement operations.

#### **Ionizing radiation**

Any person in the path of ionizing radiation emitted by radioactive materials faces a risk of external exposure.

The effect of radiation on the human body is expressed in millisieverts (mSv). The maximum allowed doses are as follows: in the European Union, the maximum annual dose authorized by regulations is 1 mSv per year for the public and 20 mSv per year for nuclear workers; in the United States, the limit is 1 mSv per year for the public and 50 mSv per year for nuclear workers.

The Group's objective is to follow the European Union standard of 20 mSv per year for all workers, including subcontractors, at all its facilities including facilities outside the European Union.

The main protection measures are:

- for fixed radiation sources, standard workstations are defined with corresponding maximum exposures. The maximum acceptable exposure decreases in inverse proportion to the estimated duration of the work performed. Shielding is installed to limit radiation and to comply with authorized dose limits;
- for mobile radiation sources, the shielding for casks allowed on public roadways is defined in the transportation regulations. Workstations are designed to minimize the time spent by personnel on the presence of the source and include additional shielding.

In addition to the regulations that apply in this area, the Group follows the ALARA principle (As Low as Reasonably Achievable), which holds that any reasonable technical or organizational action will be taken to reduce exposure to radiation. The radiation protection departments continually verify compliance with this principle.

Every nuclear worker and operator is monitored closely, both medically and radiologically. Their knowledge is maintained at the requisite level through regular training programs.

The efficiency of AREVA's radiation protection procedures is confirmed by the levels of exposure of the Group's workers, i.e. 1.23 mSv in 2005 and 1.37mSv in 2004, much below maximum allowed doses in the European Union (20 mSv/year) and the United States (50 mSv/year).

#### **Criticality**

The criticality risk means the risk of an uncontrolled chain reaction with a brief and intense emission of neutrons. This risk, should it occur, would result in irradiation of workers or individuals located near the event, causing lesions proportional in seriousness to the intensity of the radiation received.

This risk is addressed in any facility likely to receive fissile materials.

Prevention of this risk is based on limiting the factors leading to uncontrolled chain reactions or "criticality control modes".

The control mode most suited to the process – limitation of mass, volume or geometry of equipment containing the materials – is used.

In the facility's most radioactive areas, shielding is installed for normal operations and drastically reduces the impacts of a potential criticality accident on workers. For other situations, preventive measures are sometimes supplemented with the installation of a network and alarm system for detection and measurement of criticality accidents.

For transportation, nuclear safety and criticality are monitored under both normal and accidental operating conditions. Regulations set forth rules for storage during transit, particularly in terms of the criticality risk.

## 4.15. Risk and insurance

**Radiolysis**

Radiolysis is the radiation-induced decomposition of a chemical compound into hydrogen. Measures are taken to prevent a potential explosion of the hydrogen that could result in the dispersion of radioactive materials.

In normal operating mode, facilities are designed to limit hydrogen concentrations to half of the lower limit of flammability by flushing the equipment with air. If there is a loss of normal flushing capacity, causing concentrations to rise to the limit value in a few hours or tens of hours, a backup system comes on line.

**Thermal releases**

Matter absorbs the energy corresponding to intense radiation, which can lead to temperature increase. The energy is removed to control the temperature rise and prevent the dispersion of radioactive materials. Cooling is provided by redundant cooling systems with heat exchangers and ventilation systems.

***Non-nuclear risks of internal origin***

Events associated with facility operations and the presence of personnel give rise to non-nuclear risk. These events are common to any industrial operation. Since such incidents could affect equipment important for managing nuclear risk, strong prevention measures are taken in the nuclear industry. The causes of these events can thus be controlled and their consequences minimized.

**Handling**

Handling equipment consists of lifting, transport and positioning equipment.

The main failures include the breakdown of lifting equipment, poorly secured loads, collision with an obstacle and derailment of a transfer mechanism. The consequences may be direct, such as the loss of load integrity, or indirect, and cause the destruction of equipment containing radioactive materials or a containment failure.

Risk management involves analyzing failure modes for process equipment used to transfer loads containing radioactive materials and for maintenance handling equipment. It also means establishing stringent rules to prevent risk (equipment design, preventive maintenance, inspections, operator certification, etc.).

Limiting the consequences of a handling failure involves limiting transport height, designing objects that withstand a fall, strengthening loads and dissipating energy.

**Fire**

Fire can cause the loss of certain process or shielding functions, with potential radiological consequences. The potential consequences include contamination due to failure of the containment barriers, irradiation due to destruction of radiation shielding, and a criticality accident.

Risk prevention consists of preventing the presence of flammable materials, fuel and a source of ignition in the same location. In the event of a fire, safety functions are protected by compartmentalizing work areas to limit fire propagation, using fire-retardant materials, insulating ventilation systems, and installing a remotely operable fire extinction system in each sector. In addition, firefighters must be able to intervene within a short interval of time to prevent radiological impacts outside the buildings.

**Internal explosion**

The risk of explosion is due either to the use of reagents or to the occurrence of chemical reactions. An explosion could result in the deterioration of the primary containment system, causing the dispersion of radioactive products. The secondary containment system is designed to collect any products that may have been released.

Prevention is based on measures to prevent conditions conducive to an explosive reaction, including: limiting the temperature of flammable products used in the process, limiting the concentration of products that may cause an explosive reaction through proper ventilation, eliminating traces of reagents before any new processing step is undertaken, and controlling the quantity of reagents present in each facility.

**Use of chemical reagents**

To take into account potential impacts on plant personnel and the environment, prevention and monitoring are based on principles already applied to other types of risk (e.g. explosion and fire), combined with principles relating to external explosion and radioactive materials dispersion.

The use of reagents in a process can create additional risk by bringing incompatible products into contact with each other. A chemical product can be hazardous, either through direct contact or by inhaling its fumes. These characteristics must be taken into account in the packaging, storage and use of reagents and in worker protection.

**Characteristics of UF<sub>6</sub>**

Uranium is sometimes handled in the chemical form of UF<sub>6</sub>, which is solid at normal temperatures and pressures, and gaseous when heated. UF<sub>6</sub> can react when it is exposed to water vapor in the air, forming uranium oxide and hydrofluoric acid, a highly toxic element for humans and animals.

In consideration of the quantities handled at the production sites, the risks inherent in UF<sub>6</sub> were factored into the design of the facilities (double containment barrier, automated monitoring of high-risk areas, etc.).

**Use of electricity**

Risk prevention related to the use of electricity is based on facility compliance with prescribed industry standards, compliance with maintenance instructions and procedures, and periodic facility inspections.

## 4.15. Risk and insurance

### Use of pressure vessels

The prevention of pressure spikes is based on compliance with industry regulations for accessible equipment and by imposing additional requirements for inaccessible equipment. The impacts are minimized through leak detection, feed interruption and personnel evacuation.

### Internal flooding

The internal flooding risk derives from the presence of fluids inside the facilities. Leak rates are limited by design. The deterioration of seals, corrosion and overflows are potential sources of leaks.

The main radiological risk following flooding is criticality. For areas in which it can occur, this risk is factored into the design and operation of the facilities.

### Non-nuclear risks of external origin

Non-nuclear risk of external origin derives from the facility's environment. Unlike risk of internal origin, it is not always possible to act on the causes of these events; safety is based primarily on controlling the consequences.

A non-nuclear event of external origin may have direct or indirect radiological consequences.

### Earthquake

Earthquakes can cause damage that could disable nuclear safety systems.

The risk of a non-nuclear earthquake affecting facilities that handle nuclear materials is incorporated into the design of the equipment, systems and facilities based on the "design basis earthquake". The analysis consists of demonstrating that damage affecting the nuclear safety of the facility is unlikely to occur. The design basis and analyses are included in the safety analysis report for the facility, which is approved by the competent safety authorities.

An assessment of the impacts of an earthquake has been performed for all of AREVA's nuclear facilities, in accordance with applicable standards and regulations.

### Airplane crash

This risk concerns the crash of an airplane, or part of an airplane, on a facility. It is in function of the type and number of aircraft that could reach the site without being detected and of the surface of sensitive areas in each facility.

The key features of the sites are as follows:

- they are located away from controlled airspace,
- they are located away from airspace used by military aircraft, and
- there is no nearby airport.

Safety studies factoring in airspace use, type of flights, known crash statistics, and even deliberate attack, are carried out to prevent this risk and limit its consequences.

Special measures are taken to protect the nuclear facilities from terrorism; these measures have been strengthened under the national security plan known as Vigipirate.

For security reasons, these measures may not be disclosed to the public.

### Adverse meteorological conditions

This risk is taken into consideration in the design of the facilities based on local weather conditions. The methodology is similar to that used for earthquake.

Advance warning is given for any threatening weather conditions, and there are instructions for each facility concerning added measures to be taken, such as increased monitoring or specific action.

### External flooding

The possible causes of external flooding, e.g. rain, breach of levies or floods, are taken into consideration in the design of the facilities. Sites are located in areas where the flood risk does not exceed the one-thousand-year flood level. The unusual flooding of the fall of 2002 in the Rhone Valley had a limited impact on the Group's French facilities. Nonetheless, an action plan was implemented in 2002 to reduce residual risk even further.

### Other aspects of nuclear safety

In addition to the various types of risk identified above, nuclear safety also applies to nuclear materials transportation and to the non-proliferation of these materials.

### Nuclear materials transportation

Radioactive materials are transported on public thoroughfares. Like other nuclear activities, these shipments are subject to the "defence-in-depth" concept to protect members of the public and the environment from radiation hazards during transportation. This concept consists of establishing a series of barriers between the radioactive materials and the environment, including physical safety systems, but also procedures, technical and administrative controls, and other measures. The transportation cask's design is the main feature of this safety system. As with any nuclear process, these operations are governed by stringent international regulations.

According to the regulations, the cask must ensure nuclear materials containment and provide radiation shielding under both normal and accidental operating conditions. When fissile materials are transported, the cask must also maintain sub-critical conditions. The regulatory requirements for casks cover design, manufacturing and inspections during operations and maintenance. The larger the amount of radioactivity it contains, the stronger the cask must be.

#### 4.15. Risk and insurance

AREVA's objective is to ensure the highest level of nuclear and industrial safety during transportation. We cover our civil liability through insurance, as described in section 4.15.6.1.

##### Non-proliferation and protection of nuclear materials

Proliferation is the diversion of nuclear materials by third parties for non-peaceful purposes.

Non-proliferation is a shared objective for all of the signatory countries of international agreements in this area, in particular the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968. Non-proliferation requirements relate to the physical protection of nuclear materials per the Convention on the Physical Protection of Nuclear Material; to safeguards controls per the Euratom treaty, which established a nuclear material accounting system; and to inspection by the IAEA and Euratom. Compliance with these requirements is regularly verified, primarily by inspectors from the IAEA and Euratom.

In this regard, AREVA has taken measures designed to know, at all times, the amount, quality, use and location of the materials held at any given time by the Group's entities.

AREVA prepares reports requested by the European Commission and/or the IAEA, whose purpose is to verify the origin and quantity of nuclear materials in the nuclear operator's possession. The record shows that these reports have always been approved by the competent national and international organizations with which they are filed.

#### 4.15.2.4. Safety in Group facilities subject to "Seveso" laws in France

The Group operates eight sites regulated under "Seveso" laws, which implement European directive 96/82/EC of December 9, 1996, pertaining to the management of risks related to major accidents involving dangerous substances, as modified (the so-called "Seveso II" directive). The regulations apply to facilities that may present a significant risk to public health and safety or to the environment. Four of these eight sites, treated as "upper-tier establishments" under the Seveso classification system, are subject to specific procedures. Those sites are operated by AREVA NC (Pierrelatte site), Comurhex (Pierrelatte and Malvézi sites) and Cezus (Jarrie site).

In accordance with regulatory requirements, these four sites have set up a plan to prevent major accidents of this type and limit their impacts on individuals and the environment. A safety management system governing the organization, procedures, products and other resources was set up to improve risk management.

Hazard studies have been performed. These studies are updated every five years and are the foundation of processes to minimize risk from the outset, control urban development, establish emergency management plans and inform the public, in particular through local information and dialogue Committees (CLIC) established by the Prefect for each site regulated under Seveso laws (Decree 2005-82 of February 1, 2005, regarding the creation of local information and dialogue committees as provided in Article L. 125-2 of the Code of the Environment). Hazard studies must include an analysis of the risks associated with the site in the event of deviation from operating parameters and demonstrate measures to reduce the potential occurrence and impacts of an accident to the lowest achievable level based on current technologies and practices, taking into account the vulnerability of the facility. These documents have been submitted to the regulatory authorities or are available for their review. The administration generally requests clarifications and additional information concerning these applications, and reputable independent experts can be asked to give an opinion on all or part of a document.

As required in the Decree 2005-1130 of September 7, 2005, technology risk prevention plans will be set up for areas located near facilities regulated under the Seveso laws. The purpose of these plans is to identify the areas exposed to risk and to establish restrictions limiting construction in their vicinity.

AREVA has launched a multiyear plan to strengthen risk prevention and manage the consequences of any major hypothetical accident. As part of the AREVA continuous improvement process, the relevance, reliability and "stand-alone" quality of safety barriers are reviewed on a regular basis. Performance improvement indicators are regularly monitored to prevent deviations. In addition, AREVA kicked off a program at the end of 2004 to harmonize procedures throughout the Group, capitalize on lessons learned and improve information on best practices.

With respect to insurance, AREVA NC and Comurhex are covered by the civil liability program taken out by the AREVA group (see section 4.15.6). The level of coverage is based on quantification of reasonably expected risk and guarantees available in the insurance market.

The consequences on the Group of the future program of Registration, Evaluation and Authorization of Chemicals (REACH) have been analyzed. Activities impacted are located on sites operated by AREVA NC, Comurhex (Pierrelatte) and Cezus. The volumes involved are limited and concern only a few materials. Most correspond to niche by-products. Nonetheless, future implementation of the REACH system could have a material impact on these activities.

### 4.15.3. RISK FACTORS

The Group may be exposed to risks other than those described below. Unidentified risks or risks that the Group considers immaterial may also affect its business. The advent of any of these risks may have a significant detrimental impact on the Group's business or financial position.

#### 4.15.3.1. Risk related to the Group's overall business

***The loss of one of the Group's main customers, or a reduction in their purchases, or an erosion of contract terms or conditions could have a significant negative impact on its financial position.***

The Group is dependent on a key customer, EDF, which represents approximately 20% of its consolidated sales revenue. The Group's ten largest customers, including EDF, represented approximately 41% of its consolidated sales revenue in 2005, while the five largest customers represented approximately 34%. The loss of any of these customers, and the corresponding decrease in sales, could have a negative impact on the Group's operations and financial position.

The contract concluded between the Back End Division and EDF expires in 2007. Though it has been established in principle that the contract will be renewed through 2015, commercial terms for the contract renewal are still being negotiated and could be less favorable than the current terms. Other contracts to be negotiated in the years to come could be less favorable than contracts currently in place. Since 2002, EDF has gradually opened its procurement program to other suppliers, with which contracts have already been signed, particularly in the nuclear fuel business. This trend could force the Group to adjust its production capacities, considering EDF's importance as a customer, and have a significant negative impact on the Group's financial position.

***Deregulation of the electricity market and competition from other energy sources could hinder the development of nuclear power and result in a concomitant decrease in demand for the Group's product and services.***

Ongoing deregulation of the electric power market could affect the Group's nuclear businesses. Deregulation may lead to lower prices for electricity and for products and services related to the generation, transmission and distribution of electricity and/or to lower investment in the nuclear power sector. Additionally, nuclear

power is competing with other energy sources, such as oil, natural gas, coal, hydropower and wind energy. These energy sources could become more attractive and cause demand for nuclear-generated electricity to drop. Such a risk, should it materialize, could have a significant negative impact on the Group's financial position.

***The Group supplies complex products and services that sometimes require special guarantees and additional work that could lead to unexpected costs.***

The Group provides services; designs, manufactures and markets a broad range of products with a high unit value used in major projects, including design and construction of nuclear reactors and heavy equipment; maintains reactors and extends their service life; and designs and manufactures electricity transmission and distribution equipment, particularly transformers. Occasionally, final adjustments may be required, products may need to be modified after manufacturing has begun or after customers have placed them in service, or services to be provided may have to be adapted. These adjustments, modifications and additional services could trigger unexpected costs for the Group. Though AREVA has set up a rigorous management control system and a system to control product and service quality and standards, these unanticipated expenses could have a significant negative impact on the Group's business or financial position. When the Group sells certain products, such as nuclear steam supply systems, or concludes service contracts, customers sometimes demand schedule or performance guarantees, or penalties for not meeting them. Pursuant to such commitments, the Group might have to repair products delivered or correct services provided in the event of faulty design or performance. The risk is increased if the repairs or services concern a standardized series of products.

In most instances, the guarantees provided in the Group's contracts are limited in duration and capped in value, and do not provide for consequential or indirect damages. However, the Group could occasionally give guarantees exceeding those limits, particularly in competitive markets. The Group's contracts sometimes include clauses allowing a customer to terminate a contract or reject the equipment if contract clauses concerning schedule or performance have not been met; difficulties concerning products or services delivered by the Group and covered under such clauses could thus trigger unanticipated expenses.

Contract performance difficulties, and the financial consequences outlined above, could also affect the Group's reputation with existing or potential customers, particularly in the nuclear business, resulting in a significant negative impact on the Group's operations.

## 4.15. Risk and insurance

***An industrial breakdown or a work stoppage in the Group's manufacturing units could delay or stop the flow of AREVA products or services.***

AREVA, as a plant operator, is thus exposed to the risk of an industrial breakdown that could cause a delay or interrupt the flow of supplies or services. In each business, the Group's plants are interdependent and interconnected. A breakdown or production stoppage in one plant could affect the entire nuclear fuel production cycle and stop the flow of supplies or services. Contracts between the Group and its customers include a certain number of guarantees that can trigger penalties for delays. These guarantees could enter into play because of an industrial breakdown or work stoppage. Although the Group has implemented measures to limit the impact of a potential breakdown and has covered its exposure through business interruption insurance, as described in section 4.15.6.1., it is nonetheless still possible that a major event could have a significant negative impact on the Group's financial position.

***The Group enters into long-term contracts that could limit its opportunity to take advantage of improving conditions in certain markets, or result in lower profitability than anticipated.***

The Group sometimes concludes long-term contracts, in which prices are adjusted based on general indices rather than current market prices for certain raw materials or services. This type of contract could prevent the Group from taking advantage of price increases for those products or services; this is the case for certain natural uranium sales contracts, in particular, or for conversion or enrichment services.

In addition, the profitability of certain long-term contracts in which the Group commits to providing deliverables at a fixed price, adjusted based only on general indices, could be affected by certain elements that cannot be charged to customers, including unanticipated increases for certain types of costs, technical difficulties, subcontractor default or systemic failures within the Group. The performance of this type of contract could, therefore, reduce the Group's anticipated earnings, or even cause an overall operating loss, with a significant negative impact on the Group's financial position.

***The Group is exposed to a payment collection risk for products and services.***

The Group is exposed to a risk of default by customers for the payment of its products and services. Except when customers deposit funds to cover the Group's expenses during the contract implementation phase, the Group is exposed to the risk of a customer's inability to accept delivery or to the risk of default on payments during delivery. In such instances, the Group may not be able to recover expenses incurred for the project or attain the operating margins contemplated when the contract was concluded.

The Group controls this risk by verifying customer solvency and requesting a prepayment or other forms of secured payments from customers presenting a certain level of credit risk. Though the Group endeavors to control credit risk, it is impossible to guarantee that all risk has been eliminated.

***The Group cannot ensure that it will be successful in integrating or achieving the expected synergies and cost reductions from its strategic alliances, restructuring, asset disposals and mergers and acquisitions.***

The Group is involved in a variety of acquisitions, strategic alliances and joint ventures. Although AREVA anticipates that its acquisitions, strategic alliances and joint ventures strengthen or will strengthen its position, a certain level of risk is inherent in these transactions, particularly the risk of overvalued acquisitions; insufficient guarantees of assets and liabilities; underestimated operating costs and other costs; disagreements with partners (particularly in joint ventures); potential integration difficulties with personnel, operations, technologies or products; lack of performance on initial objectives; or third-party challenges to these strategic alliances or mergers and acquisitions, based on their impact on those parties' competitive positions.

Such a risk, should it materialize, could have a significant negative impact on the Group's financial position.

On November 3, 2005, the Group sold its connectors subsidiary, FCI, to Bain Capital. In the FCI purchase agreement dated September 19, 2005, AREVA provided a guarantee to the buyer regarding certain risks originating before the date of sale. This guarantee is limited in terms of both amount and duration. It expires in May 2007, is subject to a €10 million deductible with a



## 4.15. Risk and insurance

threshold of €150,000 per claim and is capped at 20% of the sale price in total. The guarantee covers the financial consequences that might result from misrepresentation by AREVA, on a net basis after insurance, provisions and tax. Specific provisions apply in certain circumstances:

- the claim threshold is raised to €200,000 for sales of assets or shares; it is lowered to zero for dividends paid by FCI after June 30, 2005,
- the guarantee cap is raised to 25% of the transaction price for tax claims and 100% for claims regarding the sold companies' ownership and their ability to operate their business,
- the deductible does not apply to tax claims, dividend distributions after June 30, 2005, ownership of the companies and shares sold, or sales of assets or shares before November 3, 2005. However, the financial consequences from sales of assets or shares will be shared up to €5 million,
- the guarantee for tax liabilities expires 30 days after the end of the period during which tax administrations can adjust the returns; guarantees concerning sales of assets and shares before November 3, 2005, expire in 2008. Guarantees regarding ownership of FCI companies and their ability to operate their businesses expire in 2013.

Although no claim had been submitted against the Group as of the date of filing of this report, AREVA is cannot guarantee that Bain Capital will never submit any such claim.

In addition, minority shareholders in certain AREVA subsidiaries, such as AREVA NP, Eurodif or AREVA TA (see section 3.7.2.) could restrict the Group's ability to take decisions as it sees fit.

***The Group's businesses are active on international markets where intense competition could affect its financial position.***

The Group's products and services are sold on international markets characterized by intense competition on price, financial terms, product/service quality and the capacity for innovation. In some businesses, the Group is competing against powerful competitors that are larger than the Group or have access to more resources. Moreover, AREVA's competitors may sometimes take decisions that are influenced by extraneous, non market-driven considerations or may have access to financing at advantageous terms, all of which could have a negative impact on the Group's operations or financial position.

***The Group is exposed to a risk of complaints or investigations for anticompetitive practices based on its position on certain markets or its links with French government-owned entities.***

The Group is exposed to a risk of complaints or investigations for anticompetitive practices based on its position on certain markets or its links with French government-owned entities. Such complaints or investigations could have a negative impact on the Group's development capacity.

***A decrease in the supply of certain strategic components or an increase in the cost of electricity could have a negative impact on the Group's production costs.***

Some of the Group's nuclear operations, such as uranium conversion, enrichment and fuel fabrication, require large supplies of specific commodities and semi-finished products including base products and zircon ore. Some operations also use large quantities of electricity.

For instance, electricity represents 60% of the cost of enrichment. That electricity is supplied in large part by the Group's main customer, EDF. EDF provides electricity either for the Group's own requirements within the framework of a processing contract (see 4.4.3.3.), or within the framework of an electricity supply contract needed for its enrichment services. This supply contract expired at the end of 2005. The Group has taken measures to ensure the performance of enrichment services for export during negotiations of a new power supply contract.

AREVA T&D has a large requirement for certain types of supplies, particularly magnetic sheet metal. The number of potential suppliers is limited and the division could experience procurement difficulties. In addition, the T&D Division is sensitive to raw material price fluctuations. A significant increase in prices would have a significant negative impact on the division's financial position.

For all of these businesses, a shortage of raw materials or semi-finished products could translate into a production slowdown or even, in certain circumstances, in shutdown, which would have a significant negative impact on the Group's financial position.

## 4.15. Risk and insurance

***Political risk specific to certain countries in which the Group does business could affect its operations and financial position.***

AREVA is an international group with energy operations around the globe, including politically sensitive countries. The Group's mining operations, for example, are located in countries such as Niger and Kazakhstan (uranium) and in the Sudan and Côte d'Ivoire (gold), where political change could affect those operations. Political instability can lead to civil unrest, confiscation, nationalization, changes in legal or tax standards, monetary restrictions, and renegotiation or cancellation of agreements, leases, mining permits and other agreements.

***Natural disasters prevalent in certain regions where the Group does business could affect its operations and financial position.***

The location of certain of AREVA's sites in areas exposed to natural disasters including but not limited to earthquakes or flooding could weaken the Group's production capacity and have a significant negative impact on AREVA's operations and financial position.

For instance, some of the T&D Division's sites are located in areas of Turkey where earthquakes cannot be ruled out.

***Occupational disease, in particular from exposure to asbestos or radiation, cannot be ruled out.***

AREVA believes that it fundamentally complies with legal and regulatory provisions pertaining to health and safety in every country in which it operates, and it has taken measures to ensure the health and safety of its own personnel and subcontractor personnel (see Human Resources report in section 5.2. and information on nuclear risk management in section 4.15.2.3.). However, by definition, the risk of occupational disease cannot be eliminated. Such illnesses could cause legal proceedings against the Group and, when applicable, result in payments for direct and consecutive damages, which can prove to be significant in certain countries, such as the United States.

A limited number of claims for occupational diseases due to asbestos exposure have been filed against the Group in France to date. In addition, approximately 15 claims have been filed against the Group in France for gross negligence on the part of an employer in connection with such exposure. Three claims have also been filed against the Group in France for gross negligence on the part of an employer in connection with radiation exposure.

***Sales revenue may fluctuate significantly from one period to the next due to the nature of the group's businesses.***

The nature of the Group's operations, particularly in the energy business due to the irregularity of orders, can cause uneven distribution of sales revenue through the year and from one year to the next. While the Energy business has a backlog of several years of orders, the specificity of the Group's operations can complicate, or render moot, comparisons between periods.

***The French State holds the majority of AREVA's share capital and voting rights, directly or indirectly. Like any majority shareholder, it has the power to control AREVA's strategy and to make most of the decisions in General Meetings of the Shareholders.***

The French State holds, directly or indirectly, around 94% of AREVA's issued shares and 98% of its voting rights.

Like any majority shareholder, the French State has the power to make most of the decisions falling under the purview of the General Meetings of Shareholders, including decisions regarding elections of members of the Supervisory Board and decisions regarding dividend distributions (see section 3.1.2. on the Decree establishing AREVA).



### 4.15.3.2. Risks related to the nuclear divisions

***Due to its nuclear operations, the Group is exposed to substantial liability risk and to potentially significant cost overruns.***

The Group's nuclear operations cover every stage of the nuclear cycle, including (i) uranium supply and processing, (ii) uranium enrichment, (iii) fuel fabrication, (iv) reactor design, construction, maintenance and continuous performance improvement, (v) treatment and recycling of used fuel and reusable materials, (vi) waste packaging and storage, and (vii) logistics and transportation associated with these operations.

Although the Group has put in place strategies and procedures to control risk commensurate with the high standards for nuclear operations, the very nature of those operations involves risk. Accordingly, the Group may have substantial liability resulting, for instance, from incidents and accidents; security breaches; acts of malice or terrorism; airplane crashes; natural disasters, such as floods or earthquakes; equipment malfunctions; and malfunctions in the storage, handling, treatment or packaging of nuclear materials and substances (see section 4.15.2.3.). Such events could have serious consequences, particularly in case of radioactive contamination and/or irradiation of the environment, individuals working for the Group or the public, as well as a significant negative impact on the Group's operations and financial position.

The Group's operations also involve processes that use significant quantities of toxic chemical compounds and radioactive materials including but not limited to uranium in various forms, for instance UF<sub>6</sub>. Transportation of nuclear materials by sea, train, road and air, handled by the Group's *Logistics* Business Unit, also entails specific risks, including potential environmental contamination resulting from accidents. Moreover, some of the plants of the *Chemistry* and *Enrichment* Business Units are located in areas subject to flooding, particularly the Rhone Valley. The Group does not always have control over the factors influencing the severity of potential accidents that may affect a Group facility or the transportation of materials. These factors include the type of radioactive materials released in the environment, weather conditions and the speed of implementation of remedial actions.

More specifically, AREVA has identified as a risk the potential of breach of nitrate tailings pond dams at the Comurhex-Malvézi site (*Chemistry* Business Unit), particularly in case of exceptionally abundant rains. In addition to the cost of measures necessary to limit to the maximum extent possible its environmental

consequences, the occurrence of such an incident might result in a prolonged suspension of the plant's operating license, triggering a significant increase in the Group's uranium conversion cost. The following measures have been taken to prevent such an event:

- the structural strength of the dams was recalculated in 2005; reinforcement construction will begin in May 2006;
- a monitoring plan has been implemented to anticipate any potential incident and limit its consequences.

The occurrence of one or more of these events could have a significant negative impact on the Group's operations and financial position (see section 4.15.6. on risk management and insurance).

***Changes in existing or future regulations, particularly environmental, health or nuclear safety regulations, and modifications to the Group's permits and licenses, could result in new compliance obligations or operating conditions for the Group, with a potential increase in costs or expenses.***

The Group conducts its operations in accordance with local laws under operating permits and licenses, particularly those concerning release limits and production capacity. The Group must operate within the limits set in the operating permits and in applicable legislation and regulations, especially with respect to environmental protection, worker protection, health and nuclear safety. The Group can be subject to sanctions, mainly administrative sanctions, in the event of an incident requiring an investigation, or of excessive deviation in actual facility conditions in relation to regulatory requirements or operating permits and licenses. Such sanctions include but are not limited to temporary suspension of an operating permit or license, or orders to comply with regulations or to restore normal operating conditions. In addition, damage to the environment, to public health or to occupational safety, or nonconformities in operating conditions at Group facilities could result in liabilities with regard to third parties and government agencies.

Moreover, new national or international standards, or a strengthening of or change in legislation or regulations, particularly in areas such as environmental protection, health and industrial safety or nuclear safety, as described in section 4.15.2.1., could in particular require that Group facilities be brought into compliance, which could have a significant negative impact on the Group's operations or financial position.

In addition, the Group's current or future applications for permits or licenses to modify or expand industrial operations could be denied, thus limiting AREVA's development, particularly with respect to MOX fuel fabrication at the MELOX plant.

## 4.15. Risk and insurance

***The Group must bear the full or partial cost of nuclear facility decommissioning, mine site reclamation and remediation of plant sites at the end of operations. Provisions have been recorded to cover the estimated costs, but actual costs could be significantly different.***

As an operator of nuclear and industrial facilities covered by legislation on environmentally regulated sites, the Group is legally obligated to secure, dismantle or remediate its facilities after shutdown, in whole or in part, and to manage waste resulting from these operations (see section 4.15.2.1.). As a mine operator, it must also provide for closure, remediation or reclamation at the end of the operating period.

Future expenses relating to the decommissioning of nuclear facilities, regulated industrial facilities and mines have been identified, and special provisions representing €4,490 million have been recorded in the financial statements, including €2,444 million corresponding to AREVA's share of end-of-life-cycle obligations. The provisions and their accounting methods are explained in notes 12, 14 and 25 to the consolidated financial statements (see chapter 5).

As part of this program, the Group considers that it has recorded all of the provisions required to cover all expenses relating to the decommissioning of its nuclear facilities and to remediate its industrial sites, as could reasonably be estimated as of December 31, 2005. These provisions are based on estimates of future costs developed by the Group taking into account, by definition, a series of assumptions (see note 25 to the consolidated financial statements, section 5.5.). However, it is not possible to affirm with certainty that the provisions currently recorded will be sufficient to cover the Group's obligations, since these are estimates of future costs. The actual costs borne by the Group could be higher than initially estimated, especially considering changing legislation and regulations applicable to nuclear operations and environmental protection, their interpretation by the courts, and the growing body of scientific and technical knowledge. These costs also depend on regulatory decisions concerning, in particular, dismantling methods, and on the choice and cost of solutions for the final disposal of certain types of radioactive waste (see note 25 to the consolidated financial statements, section 5.5.). It is therefore possible that these future obligations and potential expenses or potential additional future liability of a nuclear or environmental nature could have a significant negative impact on the Group's financial position (see section 4.15.2.1. above on regulatory changes applicable to nuclear operations).

In addition, any reduction of the discount rate applicable to future expenses, i.e. 5% at year-end 2005, including 2% for inflation, or any acceleration of actual end-of-life-cycle operations, would require additional provisions, which would have a negative impact on the Group's net income and financial situation.

In addition, third parties are responsible for a portion of the decommissioning costs. AREVA NC and EDF are currently negotiating to define the legal and financial terms of transfer to the Group of EDF's share of end-of-life-cycle obligations concerning facilities already shut down, such as the UP2 400 plant at La Hague, or in operation at the UP2 800 and UP3 plants. Items concerning updates to the base estimate for decommissioning costs and the share of those costs to be borne by each party were documented in a joint position statement accepted by both parties at the end of July 2003. These negotiations could conclude with a lump sum payment settling all of EDF's obligations. Negotiations concerning the retrieval and packaging of waste at the La Hague and Saint-Laurent-des-Eaux sites also continued in 2005, but the parties had not reached a final agreement by the filing date of this report. It is difficult to predict the outcome of these negotiations. Although AREVA does not anticipate a significant impact on its financial statements or financial position, the cost ultimately to be borne by the Group may exceed the amount currently contemplated in the provisions.

Used fuel treatment contracts call for the final waste and residues from those operations to be allocated to and retrieved by the original waste generator. However, as the holder of the nuclear waste generated by its customers, AREVA could remain liable if a customer defaults or files for bankruptcy. For waste of foreign origin stored at La Hague, international agreements provide for all waste to be returned to the country of origin, while the provisions of Article L. 542-2 of the French Environmental Code, issued pursuant to the law of December 30, 1991, prohibit final disposal in France of imported radioactive waste. Despite these rules, the Group could be exposed to the risk of having to store this waste.

Such a risk, should it materialize, could have a significant negative impact on the Group's financial position.

# 4.15. Risk and insurance

## ***The Group is exposed to a risk of decrease in the value assets held to fund end-of-life-cycle obligations.***

At December 31, 2005, the Group's assets earmarked for end-of-life-cycle obligations represented €4,843 million, to be compared with obligations representing €4,490 million (see above). At December 31, 2005, these assets included:

- a financial portfolio representing €2,669 at market value;
- a receivable from CEA representing €123 million;
- future receivables from third parties, representing €2,045 million.

At December 31, 2005, 42% of the portfolio was comprised of mutual funds invested in bonds and money market instruments and 58% was invested in European equities through direct investment in publicly traded French companies or through mutual funds invested in European equities. Considering the intrinsic volatility of equity markets, the value of the portfolio could decrease and/or provide a return insufficient to fund the Group's end-of-life-cycle obligations. The Group would have to use other financial resources to fund these obligations, which would result in a significant negative impact on its net income and financial position.

The sensitivity of the value of the Group's portfolio to variations in the equity and/or interest rate markets is as follows:

### **Impact of equity and interest rate market variations on the value of the portfolio:**

(in millions of euros)

Unfavorable scenario	
– 10% on equities	(154)
+100 basis points on rates	(4)
<b>Total</b>	<b>(158)</b>
<b>Base case (31/12/05)</b>	<b>2,669</b>
Favorable scenario	
+ 10% on equities	+154
– 100 basis points on rates	+ 4
<b>Total</b>	<b>+ 158</b>

In addition, future implementing procedures for the draft framework legislation pertaining to the long-term management of radioactive waste and materials (see section 4.15.2.1.) could have an impact on management methods for assets earmarked for end-of-life-cycle obligations.

## ***Some of the Group's operations are sensitive to policy decisions in certain countries, especially as regards energy.***

The risk of energy policy changes cannot be ruled out in certain countries, influenced in particular by pressure groups or as an aftermath to events that give the nuclear industry a negative public image (incidents or accidents, violations of non-proliferation rules,

diplomatic tensions), and could have a significant negative impact on the Group's financial position. For example, laws to phase out nuclear power were adopted in Germany in 2003 and in Belgium in 2003. The Belgian law contemplates the end of nuclear power generation in the country by 2025. In Germany, nuclear power production would cease by 2020 based on an average reactor life of 32 years. Other countries are discussing the future of their nuclear power programs. Although recent developments have generally been positive, termination of nuclear power program in more countries could have a significant negative impact on the Group's operations over the long term.

The Group also operates in countries, such as France, where a political decision could delay or have a negative impact on certain projects, for instance military programs. Such a development could have a significant negative impact on the Group's financial position.

## ***The construction of a new first-of-a-kind reactor presents risks, as for any new project, relating to its technical implementation and to schedule compliance for start-up.***

The construction of a new first-of-a-kind reactor presents risks associated with the difficulties encountered in technical implementation of a new process and the fabrication of new components. Such risks are likely to have a negative impact on the development prospects for this type of reactor and could have a significant negative impact on the Group's business and financial position. In addition, it cannot be ruled out that the contractually binding schedule for start-up of a first-of-a-kind reactor might not be met and that a potential delay might cause negative financial consequences for the Group.

The Group signed its first contract for the construction of a first-of-a-kind Generation III EPR reactor with TVO in December 2003. This contract presents risks inherent in a new design, a tight schedule and the fabrication of large dimension components. It concerns a complex project involving numerous parties and, in particular, the Finnish nuclear safety authorities which are among the most demanding in the world. As indicated in section 4.5.1.8. of this annual report, an estimated six-month delay in the project schedule was announced in late December 2005. This delay was re-estimated on April 21, 2006, at 8-9 months. The Group will assess the possible consequences of a change in this delay on its business and financial position in 2006, in accordance with its procedures and based on the respective responsibilities of the parties involved in the project.

## ***The Group is exposed to the risk of non-renewal or termination of its mining concessions.***

AREVA's mining operations involve concessions received, or partnerships formed, under legal systems specific to each country. For instance, the average term of a concession is approximately 20 years in Niger and in Canada. Despite the relatively long terms of these concessions or contracts, the Group is exposed to a risk of non-renewal or termination, which could have a significant negative impact on its operations and financial position.

## 4.15. Risk and insurance

***Uranium reserves indicated by the Group are estimates and there is no guarantee that mining operations will produce the same results.***

The Group's uranium reserves and resources are just an estimate developed by the Group using geological and economic assumptions. The Group could modify these estimates to reflect a change in evaluation methods or geological assumptions, and/or a change in economic conditions (see section 4.4.1.5.).

It is impossible to guarantee that the projected quantities of uranium will be produced or that AREVA will receive the expected price for these minerals. There is no assurance that other resources will be available. Moreover, uranium price fluctuations, production cost increases, and declining mining rates and mill recovery rates can affect the profitability of reserves and require their adjustment.

***Ratification of a quadri-partite treaty modifying the Almelo treaty is required for AREVA to gain access to the centrifuge technology for uranium enrichment.***

On November 24, 2003, AREVA signed an agreement with Urenco and its shareholders to acquire joint control of ETC, a company that controls the centrifuge technology for uranium enrichment, and to gain access to that technology, which has been used by Urenco for several years. The technology should enable the Group to build a new uranium enrichment plant known as the Georges Besse II plant to replace its existing Georges Besse plant. That plant uses the diffusion enrichment process, which is a more expensive process for a new facility. The older plant was commissioned in 1979 and is now fully depreciated; it is slated to be shut down between 2010 and 2015, and will be dismantled.

The agreement was approved by European competition authorities on October 6, 2004. It remains subject to the signature, ratification and entry into force no later than July 5, 2006, of a quadri-partite treaty by the governments of France, Germany, the United Kingdom and the Netherlands modifying the Almelo treaty, enabling AREVA to take a participating interest in ETC as a supplier of sensitive equipment and technology. Signature and ratification procedures of this nature are always complex. If the condition precedent is not met, AREVA will have to find other means to replace the gaseous diffusion process currently in use. There is no assurance that AREVA could replace this technology under similar or satisfactory conditions.

***The Group made a significant investment to gain access to centrifuge enrichment technology to build its future enrichment plant, but the expected return on this investment cannot be guaranteed, especially if its implementation is delayed.***

The acquisition of the technology and the construction of the Georges Besse II plant are expected to cost approximately €3 billion. The plant will have a production capacity of 7.5 million SWU and is expected to be fully operational around 2017-2018. AREVA cannot be certain that revenue from the new plant's operations will be sufficient to cover operating expenses and

depreciation, or that the anticipated rate of return will be achieved, particularly if the competitive environment of the enrichment market changes, in particular because of changes in the implementation of the Corfu declaration by the Euratom Supply Agency (see section 4.4.3.4.).

While the Group would gain access to already operational technology, the investment contemplated is subject to contingencies and AREVA cannot guarantee that the Georges Besse II plant will be available on the scheduled date, which could have a significant negative impact on the Group's financial position. In addition, the anticipated return on investment might not be achieved if the technology turns out to be obsolete or if the Group overestimated its value.

***The volatility of uranium, uranium conversion and uranium enrichment prices could have a significant negative impact on the Group's financial position.***

Although AREVA operates mostly as a provider of processing services for uranium that is usually owned by its customers, it remains exposed to price risk for uranium in its mining operations and to price risk for uranium conversion and enrichment services. Natural uranium and conversion and enrichment prices have fluctuated in the past. Price levels depend on factors that are beyond the Group's control, including demand for nuclear power; economic and political conditions in countries that produce or purchase uranium, including Canada, the United States, Russia and other CIS republics as well as some African nations and Australia; nuclear materials and used fuel treatment, and sales of surplus civilian and defense inventories (including materials from surplus nuclear weapons).

A decrease in the price of various materials and services, including natural uranium and conversion and enrichment services, with price levels remaining below production costs on a long-term basis, could have a negative impact on AREVA's mining operations and uranium transformation operations, including conversion and enrichment.

***Legal restrictions specific to certain Group operations could have a significant negative impact on its financial position.***

Some of the Group's operations are subject to specific confidentiality restrictions or may be classified, such as defense programs involving the AREVA TA Business Unit or other defense research programs. Those restrictions could limit or prevent the transfer of information to persons not subject to the same restrictions. Furthermore, the restrictions could limit or even prevent the development of those operations. In addition, some operations, particularly those of Eurodif, are subject to special tax provisions whose modification could have a negative impact on the Group's financial position.

### 4.15.3.3. Risks in the Transmission & Distribution Division

***AREVA's integration of the Transmission & Distribution Division is a source of significant expenses. The guarantee received by AREVA on the pre-acquisition operations is limited.***

On January 9, 2004, the AREVA group sealed an agreement with the Alstom group finalizing the acquisition of the Transmission & Distribution business (T&D). This Division is fully consolidated; it contributed €3,212 million in sales in 2005, or approximately 31.7% of the Group's consolidated revenue. The Division's Indian and Pakistani operations were acquired in 2005, thus completing the acquisition process. In the years to come, optimization of the T&D Division will require significant funding and could involve significant difficulties. Potential difficulties in optimizing the T&D Division could have a major negative impact on AREVA's business or financial position.

The contract to acquire Alstom's power transmission and distribution operations includes guarantees for certain types of risk originating before AREVA's acquisition of the business. Some of these guarantees are limited in duration or are capped. In addition to guarantees given to AREVA for risks related to product defects or performance on certain contracts, Alstom has given the following guarantees: (i) a guarantee on liabilities, capped at

€175 million and subject to a €19 million deductible, for damages resulting from misrepresentation, as well as other damages or asset shortfalls; (ii) guarantees regarding disputes (see section 4.15.5.); (iii) a guarantee for environmental liabilities (for which AREVA is currently conducting an environmental audit of the T&D sites), expiring in 2014, capped at €250 million and subject to a €12 million deductible; and (iv) an unlimited guarantee expiring in 2024 for risks resulting from employee exposure to asbestos.

Since the end of March 2006, AREVA is precluded from submitting new claims under the guarantee of liabilities, except for specific areas where longer claim periods have been stipulated. It is conceivable that liabilities borne by AREVA could exceed the caps indicated above, or that AREVA might not receive compensation for its losses or might encounter difficulties when trying to enforce its rights under the guarantees of liabilities given to it by Alstom, all of which could result in a significant increase in expenses, with a significant negative impact on AREVA's financial condition.

## 4.15. Risk and insurance

## 4.15.4. MARKET RISKS

A single software application manages the entire chain of the Cash Management department, including the conclusion of transactions by the trading room, their recording, confirmation and accounting. This process applies to all types of transactions: foreign exchange, centralized cash management, inter-company loans and borrowings, bank financing and investments in financial assets.

***Currency risk: foreign exchange volatility, especially euro/dollar parity, could affect the Group's long-term financial performance.***

The euro is the principal currency used by the Group. Sales outside the euro zone represented around 47% of the Group's sales revenue in 2005. The main foreign exchange risk concerns fluctuations between the euro and the dollar. The Group generated 18% of its 2005 sales revenue in North America. As a uranium producer in Canada, the Group is also sensitive to fluctuations in the parity of the Canadian and U.S. dollar in which uranium prices are denominated. Exposure to other currencies (primarily the Swiss franc, pound sterling, yen and Southeast Asian and Middle Eastern currencies), mainly connected with T&D activities, is secondary in nature.

The Group's currency risk policy is to hedge foreign exchange risk on transactions, whether certain or potential, during the call for tender phase. Risk is hedged using derivative financial instruments and special insurance contracts (see note 33 to the consolidated financial statements). Balance sheet risk related to

loans and advances made to a company of the Group in a currency other than the lending company's accounting currency is also hedged to limit the impact on the Group's consolidated net income.

The value of the euro remained unchanged against the U.S. dollar on average in 2005, but had declined by 13% year-on-year at December 31. In 2005, the impact of foreign exchange variations on the Group's operating income was a €2 million loss, down from a €25 million gain in 2004, or 0.3% and +4% of operating income respectively for those two years. Over the medium to long term, a further decrease in the U.S. dollar's value could have a negative impact on the Group's operating income and consolidated net income.

Foreign exchange risk and exposure on traded commodities are usually managed by the parent company on behalf of the subsidiaries. The few subsidiaries that manage their foreign exchange exposure directly due to local regulation or special agreements implement their strategy in concurrence with the parent company. Group policy in this area, which is approved by the Executive Committee, includes procedures regarding transactions by the Group's currency traders and procedures to verify exposure with banking counterparties. Group management is informed of the positions and results on a weekly and monthly basis.

The table below summarizes the impact on main financial indicators of changes in the price of major currencies used in the AREVA group:

**Foreign exchange risk at 31 december, 2005**

(In millions of euros)	US Dollar	Canadian Dollar	Pound Sterling	Swiss Franc	Australian Dollar	Other currencies
Net positions	1 126	274	62	(54)	(22)	348
Hedging Instruments	(1 203)	(274)	(70)	67	21	(347)
<b>Net positions after hedging</b>	<b>(77)</b>	<b>0</b>	<b>(7)</b>	<b>13</b>	<b>(1)</b>	<b>1</b>

The net position consists of receivables, borrowings, firm off-balance sheet commitments (customer and supplier orders) and future cash movements (budgeted sales or purchases, estimated contract margins) of companies in the AREVA group conducting business in currencies other than their own reporting currencies.

Hedging instruments on this table include all currency derivatives subscribed by AREVA (forward currency sales and purchases, currency swaps).

Considering the currency risk hedging programs put in place by the Group, the residual risk on currency positions is low.

The risk mainly relates to the hedging position classified as "trading" under the IFRS (primarily hedges for proposals quoted in foreign currencies).

The main factors that may affect the Group's division are:

- Front End Division: for deliveries to be made in the next 12 to 18 months, this Division is essentially covered for exposure to the U.S. dollar, the world reference currency for natural uranium and for uranium conversion and enrichment services. The Division automatically reduces its exposure through its mining operations in the dollar zone (Canada), but it still has to cover U.S./Canadian dollar cross rates. At the end of 2005, the balance outstanding on these cross rate hedges was USD75 million.



## 4.15. Risk and insurance

- Reactors and Services Division: this Division is largely hedged against the U.S. dollar risk. In services and engineering, most billings in dollars also have a cost base in dollars. Normally, the resulting margins are not hedged individually. Specific insurance coverage is usually acquired to hedge the risk associated with sales of heavy components (steam generators, reactor vessel heads), for which production costs are incurred in euros while sales are denominated in U.S. dollars.
- Back End Division: this Division's exposure to foreign exchange risk is minimal. Most sales outside the euro zone are denominated in euros.
- Transmission & Distribution Division: the Division's exposure involves a number of currencies and positions are hedged on a case-by-case basis.

**Rate risk: the Group is potentially exposed to changes in interest rates on its debt and investments.**

The Group uses several types of financial instruments, as required by market conditions, to allocate its debt between fixed rate and floating rate commitments and to manage its investment portfolio. The Group primarily uses swaps for debt management and cash management purposes. Rate Futures are used to manage medium-term investments (see note 33 to the consolidated financial statements).

Rate risk management is entirely centralized in the parent company, which consolidates the subsidiaries' cash surpluses or requirements on a daily basis and arranges external or internal financing as appropriate. The Group's policy is subject to approval by the Executive Committee and includes procedures for transactions by the Group's financial market desk and procedures to control risk (instruments, counterparts, credit risk and positions). Off-balance sheet income is covered by framework agreements recommended by the French Bankers Association (FBF) or the International Swaps and Derivatives Association (ISDA) and is tracked separately. Group management is informed of positions and results on a monthly basis.

The following table summarizes the Group's rate risk exposure before and after off-balance sheet hedging transactions. The Group has little exposure to rate hikes overall. A 1% increase in long-term rates would cause a decrease in the market value of the portfolio by about €2 million. Inversely, if short-term rates were to increase by 1%, financial income would increase by about €7 million.

**Maturities of financial assets and borrowings at December 31, 2005 <sup>(1)</sup>**

(in millions of euros)	Maturity < 1 years	Maturity 1-2 years	Maturity 2-3 years	Maturity 3-4 years	Maturity 4-5 years	Maturity > 5 years
<b>Financial assets <sup>(2)</sup></b>	1,552	0	78	73	0	45
Incl. fixed rate assets	0	0	78	73	0	45
Incl. variable rate assets <sup>(3)</sup>	1,552	0	0	0	0	0
<b>(Borrowings)</b>	<b>(379)</b>	<b>(101)</b>	<b>(119)</b>	<b>(115)</b>	<b>(115)</b>	<b>(111)</b>
Incl. fixed rate borrowings	(72)	(10)	(7)	(3)	(3)	(29)
Incl. variable rate borrowings	(271)	(87)	(112)	(112)	(112)	(82)
Incl. non interest-bearing borrowings	(37)	(4)	0	0	0	0
<b>Net exposure before hedging</b>	<b>1,173</b>	<b>(101)</b>	<b>(41)</b>	<b>(43)</b>	<b>(115)</b>	<b>(65)</b>
Share exposed to fixed rates	(72)	(10)	71	70	(3)	17
Share exposed to variable rates	1,281	(87)	(112)	(112)	(112)	(82)
Interest free share	(37)	(4)	0	0	0	0
<b>Off-balance sheet hedging</b>						
On borrowings: fixed rate swaps	0	0	0	0	0	0
On borrowings: variable rate swaps	0	0	0	0	0	0
On borrowings: futures on fixed rate exp.	0	18	0	0	(13)	(39)
<b>Exposure after hedging</b>						
Fixed rate exposure	(72)	8	71	70	(16)	(23)
Variable rate exposure	1,281	(87)	(112)	(112)	(112)	(82)
Interest-free share	(37)	(4)	0	0	0	0
Sensitivity of fixed rate exposure (impact on income statement of 1% rate increase, (in millions of euros)						
Impact on financial income	immaterial	0	(1)	(2)	1	1

(1) Excluding put Siemens.

(2) Cash and marketable securities, excluding equities.

(3) maturities < 3 months are considered as variable rate.

## 4.15. Risk and insurance

***Risk on equities: the Group has substantial investments in publicly traded stocks and is exposed to financial market fluctuations.***

AREVA holds publicly traded shares that are exposed to the volatility inherent to equity markets.

These include:

- Investments consolidated under the equity method: these equities consist mainly of STMicroelectronics and Eramet shares (see note 15 to the consolidated financial statements).
- Equities held in the portfolio of financial assets earmarked to fund future cleanup and decommissioning expenses (see note 14 to the consolidated financial statements).
- Other long-term investments: this concerns AREVA's 7.4% participating interest in Safran, a 2% participating interest in Suez, reported in 2004 in the portfolio of assets earmarked to fund end-of-life-cycle operations, and participating interests in other publicly traded companies including Total, Société Générale and Alcatel (see note 16 to the consolidated financial statements).

(in millions of euros)	Market value December 31, 2005	Impact +/-10%
<b>Equity affiliates</b>		
STMicroelectronics	1,507	+/- 150
Eramet	547	+/- 54
REpower	40	+/- 4
<b>Long-term portfolio of securities earmarked for decomm. expenses</b>	1,543	+/- 154
<b>Other long-term investments</b>	1,942	+/- 194

The risk on shares of stock accounted for under the equity method or as other long-term investments is not hedged against price decrease.

The risk on shares of stock held in the portfolio of securities earmarked to fund decommissioning expenses is an integral component of AREVA's asset management program, which includes equities to increase long-term returns as part of a program to allocate assets among bonds and equities. Over 60% of this exposure is managed through dedicated mutual funds invested in European stocks, with management guidelines including limiting tracking errors compared with an index.

***The Group has no liquidity risk***

AREVA's cash position net of borrowings is positive (see notes 20 and 27 to the consolidated financial statements). Accordingly, AREVA had no liquidity risk as of the date of publication of this annual report.

***Certain financial agreements concluded by the Group include covenants that the Group would not be able to satisfy if its financial position were to deteriorate.***

The French State's majority shareholding in AREVA does not, in general, influence the loan terms and conditions granted to the Group. However, almost all of the Group's lines of credit include a provision requiring that the borrowing subsidiary, or the Group company that guarantees the loan in the case of syndicated lines of credit, remain a subsidiary of AREVA, which must itself remain 51% held by the French State.

The Group's capacity to maintain and obtain financing depends largely on its financial performance. As indicated in the table presented in note 27 to the consolidated financial statements, certain financial commitments undertaken by the Group include covenants requiring the Group to meet pre-established ratios.

In addition, early repayment clauses apply if the French State does not hold, directly or indirectly, 51% of the borrowing companies' capital and voting rights.

At December 31, 2005, AREVA NC Resources, Inc. was using a CAD228 million (€166 million) line of credit in effect until November 2006. This line of credit requires that the following ratios be met, based on corporate financial statements:

- total non-Group debt/(equity + shareholders' advances)  $\leq$  (less than or equal to) 100%;
- consolidated cash flow + interest due (Group and non-Group) + change in intra-Group debt/financial expense € (greater than or equal to) 1.5;
- adjusted working capital requirement € (greater than or equal to) CAD10 million.

These ratios were met with a sufficient margin of safety at December 31, 2005. However, any significant change in the Group's financial position could prevent it from meeting these ratios in the future.

***The Group is exposed to credit risk linked to its use of derivatives to manage certain types of exposure.***

The Group uses several types of financial derivatives to hedge its exposure to foreign exchange, commodity prices and certain traded securities, or to manage interest rate risk on its debt and protect its financial investments. The Group primarily uses forward purchase and sale contracts and derivative products such as futures or options to cover this risk. These transactions create exposure to the risk of default by the counterparty when the instruments are not traded on a financial market.

The risk is controlled by setting limits for each financial institution, based on their credit ratings.



## 4.15.5. DISPUTES AND LEGAL PROCEEDINGS

The Group is involved in a number of disputes, with a potentially significant negative impact on AREVA's business and financial position (see note 35 to the consolidated financial statements).

In the normal course of business, the Group is involved in a number of disputes that may be categorized as follows:

- challenges concerning administrative permits and licenses, generally filed by opponents to nuclear power, and claims alleging environmental damage;
- allegations of anti-competitive practices; and
- tort cases for alleged failures of certain products or equipment. The Group may be subject to the payment of direct and/or consequential damages and fines, or may reach settlements, with a potentially significant negative impact on AREVA's business or financial position. These disputes can result in significant litigation expenses for the Group. In addition, disputes initiated by opponents to nuclear power may be reported in the media, with an impact on the Group's image and consequences that extends beyond the financial effects, which are often limited.

Provisions are recorded to cover expenses that could result from these disputes, based on a case-by-case analysis. The provisions for litigation, excluding other provisions for contingencies, totaled €43 million at December 31, 2005, in view of the fact that certain items discussed in this section have not yet resulted in litigation, particularly the ISF2 case. In cases of that kind, the provisions are included in the provisions for contract performance (see note 26 to the consolidated financial statements).

In addition, certain disputes concerning damages or injury are covered under Group insurance policies or other forms of guarantee.

AREVA is not aware of any dispute, arbitration or exceptional event that had or may have a significant negative impact on its financial position and business, except as disclosed below.

### Usec (dispute involving AREVA NC)

Following complaints filed in December 2000 against Urenco and Eurodif by the United States Enrichment Corporation (USEC), a competitor of the Group in the uranium enrichment sector, the U.S. Department of Commerce (DOC) ordered that countervailing duties be temporarily levied for alleged dumping and illegal subsidie on enriched uranium exported to the United States from Europe, beginning in mid-2001. To guarantee payment of these counter-vailing duties, Eurodif had deposited more than \$187m with the U.S. customs administration as of December 31, 2005.

To defend the case, Eurodif filed an administrative appeal before the U.S. Department of Commerce and judicial proceedings in the U.S. Court of International Trade (CIT), with a subsequent appeal to the Court of Appeals for the Federal Circuit (CAFC).

In the administrative proceedings, Eurodif and USEC asked the DOC to revise the countervailing duties paid in 2001, 2002 and 2003. Administrative decisions revising these duties were notified in July and December 2004 for 2001 and 2002 duties, in July and September 2005 for 2003 duties and in February and March 2006 for 2004 duties. The decision regarding 2004 duties is provisional. The revision significantly reduced the level of the countervailing duties compared with the provisional amount. The new rates are applicable to duties to be paid on enriched uranium exports to the United States until the revision for 2004 become final or until the end of the proceedings.

In the judicial proceedings, the U.S. Court of Appeals for the Federal Circuit issued a decision on the merits on March 3, 2005, validating Eurodif's legal analysis, by which uranium enrichment is a service and was not, as such, subject to the anti-dumping law, which concerns only products. The Court also confirmed that services rendered by Eurodif to EDF are not subject to the law on "subsidies", since compensation paid by a foreign government entity for uranium enrichment services cannot be considered as a subsidy. On September 9, 2005, the panel of three CAFC judges who had issued the decision of March 3, 2005, denied requests for rehearing and bench hearing filed by USEC and the DOC. The full court then confirmed the three-judge panel decision. The court remanded the case to the CIT, which in turn ordered the DOC to comply with these decisions. Once these new decisions are confirmed and become final and definitive, which is not the case at this point, the anti-dumping and countervailing duties measures will lapse and the U.S. customs administration will have 180 days to reimburse the deposits made by the Group.

## 4.15. Risk and insurance

**ISF2 (case involving AREVA NP)**

The ISF2 contract covers the design and construction of an Interim Storage Facility n°2 (ISF2), a packaging and dry-storage facility for used fuel assemblies from the operation of reactors n°1, 2 and 3 of the Chernobyl nuclear power plant. Approximately 22,000 fuel assemblies are stored at the site today. The contract was concluded on July 7, 1999 between a “Provider”, comprised of a group of companies including AREVA NP, acting as lead manager, and the State Special Enterprise Chernobyl (Ukraine), as “Owner-Operator”, assisted by a Project Management Unit, or PMU. The contract is funded entirely by G8 donor countries through the European Bank for Reconstruction and Development (EBRD), in the framework of a treaty with Ukraine. The contract is not related to the serious accident that occurred at the site n°4 reactor in 1986.

The major issue is the delayed notification of the inaccurate and unreliable nature of the initial technical data provided by the Owner-Operator. As a result, substantial changes to the design of the facility contemplated in the ISF2 contract are required, at a time when civil works are almost completed. In July 2005, in view of the foregoing, AREVA NP submitted to the donor countries a claim for additional funding and requested a schedule extension. In addition to submitting this claim, the Group recorded significant provisions to cover its obligations under the contract.

In view of the magnitude of these cost overruns, the general meeting of donor countries asked the EBRD to undertake a technical and financial audit, which was not contemplated in the contract. Concurrently, the contract was suspended by mutual agreement among the parties for an initial three-month period and specific work was undertaken and compensated under a Letter of Intent to continue the most critical tasks during this interim period. It is anticipated that the Letter of Intent, which expired at the end of March 2006, will be replaced by a service contract.

The technical and financial report commissioned by the donor countries was issued in January 2006. Its conclusions were unfavorable to AREVA NP, which rejected them during the meeting of donor countries held on February 2006, while submitting new proposals to continue with the project. The contract will remain suspended until the parties reach an agreement.

Finalizing such an amendment is a complex process involving not only the parties to the contracts, but also the donor countries that are funding the project through the EBRD, the safety authorities in Ukraine and the PMU. No legal proceedings have been initiated at this stage, since technical and financial discussions on necessary facility and ISF2 contract modifications are still ongoing.

**AREVA NC vs Greenpeace (Chalon)**

On February 19, 2003, Greenpeace France used guerilla tactics to stop a truck of AREVA NC Logistics in the middle of the city of Chalon-sur-Saône. The truck, which transported nuclear materials from AREVA NC La Hague to the Cadarache plant was then covered with graffiti.

On January 9, 2006, the lower criminal court of Chalon-sur-Saône ordered Greenpeace France to pay a €7,500 in fines for vandalism and €1,760 in direct damages to AREVA NC Logistics. In addition, the former Chairman and the former President of the association were personally ordered to pay €5,000 and €2,000 in fines for complicity in the disruption of traffic. Other association members who had participated in the disturbance were ordered to pay fines ranging from €500 to €800.

**AREVA NC vs Greenpeace  
(Transportation – Netherlands)**

Greenpeace initiated emergency proceedings to interrupt the transportation of used fuel from the Borssele nuclear plant (Netherlands). On March 3, 2006, the Presiding judge of the Tribunal de Grande Instance (Civil Court) of Cherbourg ordered AREVA NC to provide Greenpeace France with certified copies of the fuel reprocessing agreements between AREVA NC and its customer, together with a detailed schedule for the return of the waste separated during from fuel treatment.

## Challenges to licenses and permits

A number of licenses and permits authorizing the Group to operate its businesses have been challenged by third parties. These challenges are routine and reflect the specific nature of the Group's businesses. AREVA considers that its rebuttal arguments are solid, though not all risk of cancellation of these licenses and permits can be ruled out.

### *Authorizations for operations at the La Hague site*

- AREVA NC vs Greenpeace France, Crilan and Réseau Sortir du nucléaire – Request for nullification of the Decrees of January 10, 2003 authorizing modifications to facilities at the La Hague site (STE3, UP2-800 and UP3-A). The request targeted the Decree authorizing modifications to the STE3 licensed nuclear facility; it was denied by the Conseil d'État (highest administrative court) in a final ruling issued on July 28, 2004. Two other requests against the Decrees of January 10, 2003 authorizing AREVA NC to modify the licensed nuclear facilities 116 (UP3-A) and 117 (UP2-800) are under review by Conseil d'État. On July 31, 2003, Crilan terminated its involvement in the request for nullification of the Decree 2003-31 of January 10, 2003 authorizing a modification of the size of the La Hague licensed nuclear facilities.
- AREVA NC vs Greenpeace France, Crilan and Réseau Sortir du nucléaire – Request for nullification of the interministerial order of January 10, 2003, authorizing water use, radioactive air releases and the discharge of liquid effluents at La Hague in connection with the site's operations. The case is still under review by the Administrative Court of Caen.
- AREVA NC vs Greenpeace – ANSTO case – Civil action on the merits by Greenpeace to prohibit treatment at La Hague of used Materials Test Reactor (MTR) fuel from Australia. The claim was denied in first instance by the Tribunal de Grande Instance of Cherbourg (Civil court) and Greenpeace appealed. On April 12, 2005, the Court of Appeals of Caen ordered the presentation of the MTR used fuel treatment authorization issued on March 29, 2005, which was published in the Official Journal only on April 14, 2005. MTR fuel processing began on June 9, 2009. This decision was reviewed on appeal by the Cour de Cassation (the highest degree of civil jurisdiction in France), which denied the request on December 7, 2005.

### *Other licenses and permits*

- McClean mine, Canada – On September 23, 2002, the Federal Court of Canada, ruling on a claim submitted by the Inter-Church Uranium Committee Educational Cooperative (ICUCEC), canceled the permit to operate the McClean uranium mine, issued by the Atomic Energy Control Board (AECB) in 1999. On appeal by Cogema Inc., the Federal Court of Appeal of Canada reversed the decision made by the Federal Court. On March 24, 2005, the Supreme Court of Canada rejected the appeal filed by ICUCEC against the decision of the Federal Court of Appeal, thus bringing to a conclusion all court proceedings regarding the validity of the site's operating permits.

## Environmental disputes

- AREVA NC vs Association Sources et Rivières du Limousin (ASRL), Fédération France nature environnement (FNE) and association ANPER-TOS. Two associations have filed a complaint based on alleged waste dumping and damage to fish life near the Bessines mine sites (Crouzille mining site). The lower criminal court of Limoges heard the case on June 24, 2005. On October 14, 2005, the court found in favor of AREVA NC on all criminal counts, thus terminating the criminal phase of the case definitively. The plaintiffs have appealed the decision for damages and the civil case will be reheard by the Court of Appeals of Limoges on May 24, 2006.
- Comurhex vs Prud'homie de Bages Port La Nouvelle and others – A fishermen's association is suing Comurhex for damages for economic losses resulting from the depletion of fishing resources in Bages pond due to the addition of nitrates. Comurhex filed its pleadings in 2004. The case is still pending at the Tribunal de Grande Instance (Civil court) of Narbonne. A hearing is scheduled on September 28, 2006.
- Horn Rapids vs Yakama Indian Nation – The Yakama Indian Nation has filed claims against two U.S. federal agencies for, among others, alleged pollution of the water table with trichloroethane in the state of Washington, where AREVA NP operates its Richland site. If the pollution did occur, it would have been isolated and without major risk for the environment. The concentration levels of the product have already decline to levels that comply with drinking water regulations.

## 4.15. Risk and insurance

**Disputes involving AREVA T&D**

A number of disputes and pre-litigation claims involving Alstom's T&D division at the time of its acquisition by AREVA are covered under a specific guarantee included in the contract to acquire the T&D Division (the "Acquisition Contract"). Alstom has agreed to indemnify AREVA, fully or partially, for any financial consequences that may result from disputes listed in the Acquisition Contract, taking into account provisions, insurance coverage and tax consequences (see section 4.15.3.3.).

In addition, as provided in the Acquisition Contract, AREVA has notified Alstom of other pre-litigation claims, potential fines or litigation risks that became known after the Acquisition Contract was executed. It is AREVA's position that any loss resulting from these events should be covered under the guarantee of liabilities included in the Acquisition Contract (see also section 4.15.3.3. regarding the risks associated with said guarantee), which includes provisions requiring Alstom to indemnify AREVA against losses not covered by insurance or a specific provision.

The main events that took place after execution of the Acquisition Contract are listed below:

- European Commission investigation into anti-competition practices in the Gas Insulated Switchgears (GIS) market. In May 2004, the European Commission launched an investigation into practices that may be subject to regulations prohibiting concerted action in the market for gas-insulated switchgear (electrical equipment that is a major component of substations). The Commission is likely to start formal proceedings.

If after these proceedings the Commission concludes that concerted anti-competitive actions were taken, the Commission could, in theory, levy a fine of up to 10% of the sales revenue recorded by the company involved in the year preceding the decision. The amount of the fine is based on complex legal considerations, which take into account, in particular, the sales revenue used as a basis for the fine and whether it is assessed against AREVA in full or in part. This investigation has triggered other investigations by anti-trust authorities in Hungary, Brazil, New Zealand, Australia, Mexico and Turkey. In Hungary, competition authorities have against the companies that participated in anti-competitive practices. It held AREVA and Alstom responsible for the facts involved, on a prorated basis corresponding to the period during which each group managed the entity involved.

AREVA cooperates fully with the Commission to ensure the best possible outcome for this case. It is AREVA's position that all direct financial consequences of the European Union investigation and other cases should be covered under the guarantee of liabilities provided by Alstom. Moreover, although AREVA has taken every measure to ensure compliance with competition laws, it cannot be ruled out that the European Commission or competition authorities in other jurisdictions will want to initiate additional investigations concerning other Transmission & distribution Division operations.

- Administrative sanctions against a Mexican subsidiary of AREVA T&D. AREVA T&D SA de CV, a Mexican subsidiary of AREVA T&D, has been barred from participating in government calls for tender in Mexico for a two-year period to sanction alleged anti-competitive practices originating in a contract signed with a consultant before AREVA's acquisition of the T&D Division. The courts of Mexico reversed this administrative decision under the principle of statute of limitations. AREVA T&D SA de CV subsequently received a second notification of sanction on the same grounds, which it appealed under the principle of *res judicata*. The court hearing this procedural claim found in favor of AREVA T&D SA. Accordingly, the court hearing the case on the merits is expected to find the sanction illegitimate and to order its reversal.
- Ling Ao. AREVA T&D delivered seven power transformers to DMNC, the utility that operates the Ling Ao nuclear plant. Provisional acceptance was granted in August and November 2002. Starting in April 2003, a series of malfunctions were noticed in the transformers. Assessment and repair campaigns – some at the Ling Ao site itself, others at the AREVA T&D plant in Shanghai – are under way and are scheduled to continue throughout 2005. The cost of the repairs is estimated at €4 million to €11 million, depending on the number of transformers found to be defective. AREVA T&D is in the process of assessing the insurance coverage that might be available if the defects are confirmed.

## 4.15.6. RISK COVERAGE AND INSURANCE

Coverage concerning ongoing disputes is described in section 4.15.5.

No provisions have been recorded to cover other risk factors. They are subject to thorough review as provided by Group risk management procedures and are examined during the “risk mapping” process carried out each year (see section 4.15.1.2.). Some of these risk factors, if they materialized, could be covered by one or several of the insurance policies subscribed by the Group as part of its insurance programs.

To mitigate the consequences of potential events on its operations and financial position, AREVA transfers risk to insurance and reinsurance companies worldwide. These insurers are world-class entities and are well regarded in international markets. For example, AREVA has acquired insurance coverage relating to operating risk, civil liability and other risks and liabilities concerning its nuclear and non-nuclear operations, with coverage limits varying according to the type of risk.

AREVA's Risk and Insurance Department is in charge of insurance for the entire Group. The department:

- submits solutions to the Executive Board, either to retain the risk and finance it internally or to transfer it to the insurance market;
- negotiates, sets up and manages global insurance programs for the Group worldwide and reports to the Executive Board on actions carried out and costs incurred;
- settles claims for the subsidiaries involved.

### 4.15.6.1. Special coverage relating to nuclear facility operations

#### *Nuclear liability insurance*

##### *Legal framework*

International nuclear liability law is based on a series of principles that override the mechanisms of general liability law. The operator of the nuclear facility that caused the damage is solely responsible. This is known as the liability channeling principle. Its liability is objective, i.e. no-fault, for which there are few exemptions. The operator of a nuclear facility is therefore required to compensate the victims for the bodily harm and property damage they have suffered. The operator is required to maintain a form of financial guarantee, generally insurance, for its total potential liability. This principle of channeling liability to the operator includes, as a counterpart, a certain limitation of liability. On the other hand, the liability channeling principle guarantees rapid compensation to the victims, who do not have to prove that the operator or his sub-contractors were at fault, since this rule overrides general law.

This system is established in international treaties, including the Paris Convention on Third Party Liability in the Field of Nuclear Energy of July 29, 1960, as amended, and the Brussels Supplementary Convention of January 31, 1963, as amended, which are transposed into national law (in France, Law n° 68-943 of October 30, 1968, as amended). In the United States, the Price Anderson Act established a similar legal construction.

Every country in which AREVA operates nuclear facilities is subject to one of these legal systems.

The principles of the conventions, which apply in every country in which AREVA operates nuclear facilities, are described below.

## 4.15. Risk and insurance

- **The Paris Convention and the Brussels Supplementary Convention**

Fundamental principles established by the Paris Convention can be summarized as follows:

- **Nature of liability:** strict and exclusive liability lies solely with the legal operator of the nuclear facility where the substances causing the damage are held or come from.
- **Responsible person:** the nuclear facility operator is the person designated or recognized as the facility's operator by the public authority with jurisdiction. If the accident occurs during transport, the person responsible is the shipping operator and not the shipper up to the point where the receiving operator assumes liability under the terms of a written contract or has taken delivery of the radioactive substances.
- **Exemptions:** the operator is not liable for damages caused by a nuclear accident if the accident is directly due to acts of armed conflict, hostilities, civil war, insurrection or a natural disaster of exceptional nature.
- **Limitations of liability:** the operator's liability is limited both as to the total amount and the duration. For purposes of information, France has set a maximum liability amount of €91.5 million per nuclear accident in a facility and €22.9 million per accident during transport. The statute of limitations to submit a claim is three years from the time the victim became aware of the damage; however, a claim may not be submitted more than ten years after the date of the accident.
- **Financial guarantee:** to insure that funds will be available to compensate the victims, the convention stipulates that the operator is bound to have and maintain an insurance policy or other financial guarantee approved by the government where the facility is located and representing the amount of its liability as set by the convention. Up until now, insurance is the most commonly used form of financial guarantee. For example, Article 7 of the French law of October 30, 1968 requires each operator to have and maintain insurance or another financial guarantee up to the limit of the amount of his liability per accident. This financial guarantee must be approved by the Minister of the Economy and Finance.
- **The oligopolistic position of insurers offering nuclear risk coverage** translates into the relative stability of the premiums.

- **The Brussels Supplementary Convention**

This convention sets the amount of liability assumed by the party countries to the convention when damages exceed the nuclear operator's liability limits. The additional compensation from public funds must first come from the country in which the facility is located, and then from the community of all the countries having ratified the Supplementary Convention.

For example, should an accident occur in a licensed nuclear facility in France, the French government would assume liability beyond €91.5 million and up to a limit of €228.6 million. Thereafter, the community of Signatory States to the Brussels Supplementary Convention would assume liability for the amount in excess of €228.6 million, up to a limit of €381.1 million.

- **Revisions to the Paris and Brussels Conventions**

The protocols to amend the Paris Convention and the Brussels Supplementary Convention were signed on February 12, 2004 by representatives of the Signatory States. Nonetheless, the amended conventions are not yet in force, as the protocols must first be ratified by the different contracting parties (France, Great Britain, Belgium, Germany, etc.) and then transposed into national law in each Signatory State. In France, the National Assembly adopted a draft law on April 4, 2006 authorizing the approval of the protocols of February 12, 2004 and sent it to the Senate for review. In addition, the draft law on transparency and safety in the nuclear industry contains provisions aimed at modifying the law no. 68-943 of October 30, 1968.

The main amendments increase all three tiers of indemnity. Thus, the nuclear operator's liability would increase from €91.5 million to €700 million per nuclear accident in any given facility (€70 million in a reduced-risk facility). The limit of liability during transport would increase from €22.9 million to €80 million per accident.

The state in which the nuclear facility responsible for the damage is located would cover the €700 million to €1.2 billion tier. The other Signatory States would cover the €1.2 billion to €1.5 billion tier. A mechanism to increase these limits would apply as new states ratify the conventions.

When these protocols enter into effect, the statute of limitations for claims will increase to 30 years as of the date of the accident for physical damages, and ten years for other damages. In all instances, the victim must submit a claim within three years of the date he or she became aware of the damage.



## 4.15. Risk and insurance

### • Price Anderson Act

In the United States, the Price Anderson Act (PAA) channels claims for indemnification towards the nuclear operators. Only facilities located in the United States regulated by the Nuclear Regulatory Commission (NRC) and facilities owned by the Department of Energy (DOE) are covered by the PAA. All other facilities are subject to ordinary law.

Under the PAA, the nuclear operator bears all of the financial consequences with regard to the victims, no matter who the responsible party might be. For accidents during the transport of materials belonging to the DOE, only the DOE will indemnify the victims, even if the carrier is at fault and could therefore be considered liable (economic channeling principle). Accordingly, two different types of situations may arise, depending on whether the party (1) operates a facility regulated by the NRC or (2) operates as a DOE contractor.

**1. Facilities regulated by the NRC.** Only nuclear power plants with a nominal capacity of 100 MWe or more and certain research and test reactors are required to have financial protection. The PAA indemnification process provides access to up to \$9.7 billion in protection under a two-tier system:

- The first tier corresponds to insurance (or similar financial protection) acquired by the nuclear power plant operator on the private nuclear insurance market for \$300 million in coverage.
- The second tier corresponds to an NRC-managed fund financed by premiums paid by the nuclear operators. This fund provides secondary coverage of \$95.8 million per nuclear reactor at the operator's site and is activated when the first line (\$300 million, as indicated above) is insufficient. The fund stands at \$9.4 billion today.

If the first two lines were to prove insufficient to cover third party damages, the U.S. Congress would have to provide for additional indemnification.

For example, the operator of a four-reactor nuclear plant must acquire \$300 million in primary insurance protection, which is supplemented by 4 times \$95.8 million in NRC secondary coverage. The total protection for the plant would thus represent \$683.2 million.

Fuel fabrication plants and used fuel treatment facilities are not subject to the PAA system and have no legal obligation to acquire insurance. However, these facilities procure insurance on the market for the maximum amount allowed by the market at the time of the subscription.

**2. DOE contractors.** When DOE contractors are responsible for a nuclear accident, DOE indemnifies the victims up to the maximum legal limit per civilian nuclear power plant accident in the United States, i.e. \$9.7 billion, without calling on the private insurance

market. If a nuclear accident occurs outside the United States, in particular during transportation, indemnification is limited to \$100 million and only covers accidents involving materials belonging to the U.S. government.

### Description of insurance acquired by the Group

The Group's potential liability for its licensed nuclear facilities in France and abroad and for its transportation operations is covered by special insurance policies defined by the laws of the countries in which the facilities are located and by international conventions (Paris Convention, Brussels Convention, etc.). Two policies are in effect in France, one in Germany, one in Belgium and two in the United States. These special insurance policies for nuclear operators comply with the conventions, including their liability limits. The insurance policies are reinsured by the nuclear insurance pools of various countries, including Assuratome in France, DKKV in Germany, Syban in Belgium and ANI in the United States.

### Property and business interruption insurance for the nuclear process

Due to the nature of the potential damage to the facilities, this type of insurance is available only through pools or specialized mutual insurance companies capable of providing the necessary coverage. The limits of coverage for this type of insurance are based on the estimated replacement value or on an estimate of the maximum possible loss (MPL). The coverage for some complex facilities can exceed €1 billion.

Mining operations and AREVA's U.S. and Belgian sites are not covered by property and business interruption guarantees for the nuclear process and are covered by specific programs set up locally in agreement with AREVA's Risk and Insurance Department.

## 4.15. Risk and insurance

### 4.15.6.2. Other AREVA insurance programs

#### ***Director and Officer Liability***

The purpose of D&O coverage is threefold: Firstly, it provides liability coverage for financial risk incurred by Group directors and officers due to damage suffered by third parties because of professional errors or misconduct in the course of business. Secondly, it reimburses Group companies that are legally allowed to indemnify directors and officers for claims submitted against these individuals. Thirdly, it covers civil or criminal defense expenses incurred by officers and directors because of claims based on professional errors or misconduct.

The policies usually exclude coverage of claims based on intentional misconduct by a director or an officer, or on personal gain (financial or otherwise) to which a director or officer was not entitled. Fines and penalties levied against directors and officers are also excluded, as well as claims for losses due to pollution, asbestos or toxic mold. Finally, directors and officers liability insurance policies exclude claims based on the purchase of securities or assets of a company at an inadequate price.

#### ***Civil liability***

The Group is covered by a “worldwide” civil liability plan with limits appropriate to its size and operations. The plan covers:

- operator liability, covering company operations and services performed at customer sites;
- product liability, covering the post-delivery period;
- professional liability (“Errors and Omissions”), covering financial consequences resulting from damages associated with intellectual services performed by the Group for its own account or on behalf of a third party.

Liability insurance is also procured for environmental damage, damage to property held on behalf of third parties and for product recall expenses.

This insurance covers the monetary consequences of any liability incurred by the operating entities for bodily harm, property damage and consequential damage suffered by third parties, excluding nuclear operator liability. Certain events not usually covered by insurance, such as landslides, damage from asbestos, or damage caused by computer viruses, are also excluded. Liability insurance limits vary based on a reasonable assessment of the risks to which the Group is exposed, as identified by the Business Units and the Risk and Insurance Department, in particular during the risk mapping process, and also based on capacities available of the insurance market.

#### ***AREVA Multiline***

Since January 2005, the Group has acquired a comprehensive policy (“AREVA Multiline”) combining “property and business interruption coverage” and “all-risk installation and testing” coverage. The policy covers all of the Group’s facilities worldwide, except for mines and nuclear sites. The policy covers damage to production assets and business interruption, as well as risk associated with equipment installation and testing activities at customers’ sites. The policy limits vary from €50 million to €300 million, based on replacement values and the maximum possible loss (MPL). Business interruption coverage is limited to 12 to 24 months.

Projects representing €50 million or less are covered without any declaration requirement, with a limit of liability capped at €50 million per event. Direct damages and business interruption are covered under a two-tier system allowing AREVA to raise the limits to €300 million per event.



### 4.15.6.3. Other insurance

The Group is eligible for Coface type coverage for some large export contracts from France, such as the construction of a nuclear power plant. In addition, the Group has insurance policies covering auto liability and work accidents that comply with the legal requirements in each of the countries where AREVA subsidiaries are located.

### 4.15.6.4. Outlook and trends in 2006

The premiums for policies renewed in 2006 were essentially unchanged. The total cost for nuclear and non-nuclear risk insurance in 2006 remains stable at approximately one percent of the Group's 2005 consolidated sales revenue.

To prepare for new nuclear liability insurance requirements included in revised international conventions, AREVA partnered with other European nuclear facility operators to establish Elini (European Liability Insurance for the Nuclear Industry), a mutual insurance company that provides the additional capacity required in the insurance market.

*(1) The cost of the "once-through" cycle takes into account the value of uranium and plutonium recovered after fuel treatment.*



# ASSET FINANCIAL POSITION FINANCIAL PERFORMANCE

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# 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.1. OVERVIEW

The following comments are based on financial information for fiscal years 2005 and 2004 and must be read in conjunction with AREVA's consolidated financial statements for the years ended December 31, 2005 and 2004. These comments have been drafted based on the Group consolidated financial statements prepared in accordance with International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS).

The figures for 2004 are presented first as published under IAS/IFRS ("2004 IFRS") and secondly as adjusted for disposal of the Connectors Division ("2004 IFRS adjusted"). The Group sold FCI to the investment fund Bain Capital on November 3, 2005. In accordance with IFRS 5, the Connectors Division was deconsolidated retroactively to January 1, 2005. The division's net income up to the date of the sale and the net income from the sale appear on a separate line of the income statement. The division's sales are no longer included in the AREVA group's sales, retroactive to January 1, 2005. As explained in section 5.1.3, the scope for data reported in 2004 is therefore not comparable to that of 2005. For purposes of comparison, a column called "2004 IFRS adjusted" includes the main indicators for 2004, not including the Connectors Division.

In general, this management report comments on changes between 2004 adjusted for the contribution of the Connectors Division and 2005.

The financial data for 2004 and prior years were reported per generally accepted accounting principles in France ("French GAAP") in chapter 5 of the 2004 annual report. In addition, the transition from French GAAP to IAS/IFRS in 2004 is addressed in section 5.1.9. of the 2004 annual report.

### 5.1.1.1. Business trends

The AREVA group is a global leader in solutions for CO<sub>2</sub>-free power generation solutions and electricity Transmission & Distribution. Energy is the AREVA group's primary business. The Group is the world leader in nuclear power generation solutions and number three worldwide for the supply of equipment and services for electricity Transmission & Distribution. It is the only group to be active in every stage of the nuclear cycle. The Group's customers include some of the world's largest utilities, with which AREVA does a large share of its business under medium- and long-term contracts. The Group employs 58,000 people and has industrial operations in 40 countries.

The Group reported 2005 sales of 10,125 million, compared with 9,821 million in 2004, adjusted for disposal of the Connectors Division, representing 3.1% growth in terms of reported data. Like-for-like growth was 3.7% in 2005. Energy operations accounted for 68% of sales in 2005, with 26% coming from the Front End Division, 23% from the Reactors and Services Division and 19% from the Back End Division. The Transmission & Distribution Division represented 32% of sales in 2005.

The Group is present in every region offering attractive growth prospects, for the development of nuclear power as well as electricity Transmission & Distribution. The Group earned 37% of its 2005 sales outside the euro zone, 18% of which came from North America, where the Group is present in every aspect of the energy business.

Group contracts, and particularly those covering the entire nuclear cycle, produced a significant backlog totaling more than €20 billion at the end of 2005. Of this backlog, 85% came from the nuclear businesses, with contracts averaging less than four years. The high level of the backlog demonstrates the repeat nature of business and the visibility which the Group enjoys across these businesses.

## 5.1. Analysis of and comments on the Group's financial position and performance

Operating income was slightly down in 2005 compared with 2004, adjusted for disposal of the Connectors Division, most notably with:

- stable operating income in the Front End and Reactors and Services divisions;
- a drop in operating income in the Back End Division, mainly due to the end of the contract with Japanese customer JNFL, which had been a significant contributor to operating income in 2004, for which an extension to 2006 and 2007 was signed in late 2005;
- significant improvement in income from the Transmission & Distribution Division, with the optimization plan launched in 2004 acting as a major contributor.

Net income attributable to equity holders of the parent for 2005 stood at €1,049 million, up sharply from €451 million in 2004 IFRS (€428 million reported for 2004 under French GAAP). The large increase is primarily the result of the divestment of the Connectors Division in November 2005. Net income from discontinued operations came to €598 million in 2005.

The Group had €783 million in pre-tax free operating cash flow, compared with €782 million<sup>(2)</sup> in 2004, adjusted for disposal of the Connectors Division. The positive difference is due to significant improvement in EBITDA in all divisions, despite the cash-consuming change in operating working capital requirement (WCR) and increased capital expenditure (Capex).

Net Capex in nuclear rose from €354 million in 2004 to €459 million in 2005 with continuing major investments, especially in the Front End Division (mining) and in the Reactors and Services Division (EPR development and licensing, chiefly in the United States). The Transmission & Distribution Division consumed €11 million in cash from operating activities in 2005 before income from the sale of operating assets, despite the significant improvement in EBITDA. The division's WCR was sharply up from a low point reached in December 2004 as work-in-progress increased in connection with the growth in the backlog recorded during the second half of 2005. Outgoing cash flow in respect of restructuring activities was €65 million in 2005, compared with €58 million in 2004.

The Group has a solid financial structure, with more than €6.3 billion in Equity and a net debt situation at end-2005 of €268 million, as compared with net debt of €566 million at January 1, 2005. The divestment of the Connectors Division in November 2005 generated €853 million in proceeds.

As an operator of nuclear facilities, the Group has a legal obligation to decommission its facilities when they are shut down permanently. These end-of-life-cycle obligations will generate expenditure over the 2005 to 2060 period, depending on facility shut-down dates, for which provisions are set up in AREVA's balance sheet. The Group has earmarked a financial portfolio to meet these obligations. The assets contained in this portfolio are sold as expenditures associated with the Group's end-of-life-cycle operations are incurred. The portfolio balance continues to produce a financial return. The hedging policy and changes in end-of-life-cycle obligations are presented in section 5.1.3.8.6.

### 5.1.1.2. Key characteristics of AREVA's business model

AREVA's business model is characterized by the specific features of the different business units making up each stage of the nuclear cycle as well as those relating to the electricity Transmission & Distribution business. The Group's nuclear operations are carried out by three divisions, Front End, Reactors and Services, and Back End. The electricity Transmission & Distribution businesses are consolidated in the Transmission & Distribution Division. Each of the four divisions consists of several Business Units.

The Front End Division operates under long-term contracts equivalent to an average backlog of three years to five years (for the *Mining* Business Unit) and which contain standard price escalation clauses. Consequently, the business is only now beginning to benefit from inflationary pressures on natural uranium prices, given the structure of uranium supplies and a backlog still dominated by firm prices set prior to the price increase that began in 2003. In addition, the Front End Division's businesses have large capital requirements that demand heavy investment, but which support operations over very long periods of time. Investment in uranium exploration and development and in production plant replacement or upgrades is scheduled for the 2005-2015 period.

The Reactors and Services Division typically has recurring business (services and engineering) carried out under long-term or regularly renewed contracts. In these businesses, the division conducts a significant portion of its operations in North America and, as such, is sensitive to fluctuations in the euro/US dollar exchange rate. This is particularly true for the *Equipment* Business Unit, as its manufacturing plants are located in France and its costs are denominated in European currencies. In addition, the division has attractive prospects with regard to non-recurring business, linked in particular to nuclear power plant upgrades and

<sup>(2)</sup> €772 million like-for-like in 2005. Beginning in 2005, investments will include acquisitions and disposals of consolidated securities.

## 5.1. Analysis of and comments on the Group's financial position and performance

construction, with independent organizations such as the International Atomic Energy Agency (IAEA) and the World Nuclear Association (WNA) forecasting increases in installed capacity by 2030. The Group gives significant guarantees due to the type of goods and services sold by the main business units of the Reactors and Services Division.

The Back End Division operates under long-term contracts with a limited number of customers. The backlog represents close to three years of sales. The Back End Division had negative working capital requirements (WCR) due to customer advances received under old contracts to fund non-current assets. The consumption of these advances impacts operating cash flows (in particular via changes in working capital requirements) as and when the corresponding sales are recognized.

The Transmission & Distribution Division operates under shorter contracts than the nuclear sector in a more cyclical market. Its business model is that of manufacturing operations with global geographic exposure and growth areas in developing countries (primarily China and India). In the coming years, the business optimization plan launched in mid-2004 should benefit the division, with the first positive impacts already evident in 2005 income.

### 5.1.1.3. Highlights of the period

Information provided in this section concerns the AREVA group as a whole. Highlights concerning specific operations are presented in the review of the business divisions in section 5.1.3.6.

- The final price for the acquisition of Alstom's Transmission & Distribution operations (T&D) was determined after completion of an appraisal by KPMG, as stipulated in the acquisition agreement. The enterprise value after adjustments was reduced from €950 million to €913 million, i.e. €37 million decrease. The division's net cash position at the end of 2003 was valued at €140 million, bringing the final price for the T&D operations to €1,053 million. On December 29, 2004, AREVA made a payment of €103 million to Alstom, supplementing its previous payment of €950 million. The Group announced this information on January 13, 2005.
- On March 8, 2005, Frédéric Lemoine replaced Philippe Pontet as Chairman of the AREVA Supervisory Board.
- On March 21, 2005, Gérald Arbola, member of the Executive board and Chief Financial Officer of AREVA, was named Chairman of the Supervisory Board of STMicroelectronics. AREVA holds a 10.94% indirect interest in STMicroelectronics as of December 31, 2005.

- The final phase of integration of the Transmission & Distribution operations into the Group was completed on April 6, 2005, with the signature of a share purchase agreement with Alstom for the latter's operations in India. Altogether, the integration of these operations gave AREVA 66.65% of the share capital of the Indian entity.
- In a May 4, 2005, letter to the U.S. Nuclear Regulatory Commission (NRC), U.S. utility Constellation Energy formally expressed interest in AREVA's EPR and requested that it be included in the NRC's licensing schedule. On March 24, 2005, AREVA had formally submitted a preliminary application to the NRC requesting an assessment of the EPR design, and hopes to submit a complete license application in 2007. To continue the EPR development program in the United States, AREVA and Constellation Energy announced on September 15, 2005, the establishment of a joint company, UniStar Nuclear, in Washington DC to begin marketing this next-generation reactor. AREVA and Constellation Energy joined forces to ensure the future of nuclear power in the United States by offering an innovative framework for developing EPR.

UniStar Nuclear's global offering combines the strengths of the world leader in the nuclear industry and a utility with extensive experience in reactor licensing and operation. UniStar Nuclear is a commercial entity that will facilitate the development of joint ventures between Constellation Energy, other utilities and all interested parties. These joint ventures, which will own the new reactors, will be in charge of reactor licensing, construction and operation.

- On May 13, 2005, AREVA sold its entire 28.4% equity interest in AssystemBrime, i.e. 5,672,620 shares. On May 26, 2005, AREVA sold its 1,020,000 AssystemBrime redeemable equity warrants maturing in 2012. The Group's total pre-tax gain in connection with this transaction was €72 million, including €47 million recorded in 2003 when Brime made a takeover bid for Assystem.
- Innovest, a non-financial rating agency, performed an environmental and social assessment of the Group at AREVA's request. AREVA received an "A" rating on a scale of CCC to AAA.
- On September 12, 2005, Finnish utility Teollisuuden Voima Oy (TVO) officially broke ground for the third-generation EPR at the Olkiluoto site in Finland. This event took place one and a half years after the AREVA-Siemens team won the contract to build the reactor.
- On September 19, 2005, AREVA signed an agreement with the investment firm Bain Capital setting forth the legal and financial terms and conditions for the sale of FCI, AREVA's Connectors subsidiary. The divestment will enable AREVA to focus its resources on its core business.

## 5.1. Analysis of and comments on the Group's financial position and performance

Bain Capital's offer was chosen based on the Group's selection criteria:

- the sales price for FCI shares sets an enterprise value of €1.067 billion;
- Bain Capital, with the support of FCI's management, plans to implement an ambitious development plan;
- Bain Capital offers significant social guarantees: continuity of labor policies, FCI headquarters in Versailles to remain open, *Communication Data Consumer* division plant sites to stay open in Europe as well as in France for at least three years.

The deal was finalized on November 3, 2005, following the consent of the anti-trust authorities and the decree approved by the French Holdings and Transfers Commission (Commission des Participations et Transferts). The FCI divestment should have a positive impact of €598 million on the AREVA group's consolidated net income for 2005, and represents a cash contribution of €853 million.

Additional financial information enabling an assessment of the impact of the FCI divestment is provided in Note 9 to the consolidated financial statements.

- On September 27, 2005, the AREVA group announced that it had purchased a 21.2% stake in REpower, a wind turbine manufacturer. Based in Hamburg (Germany), REpower is one of the leading players in the global wind energy sector specializing in high output turbine technology, which is particularly suitable for off-shore wind farms. The company employs 558 people and posted sales of 301 million in 2004. The deal bolsters AREVA's strategic position in CO2-free power generation equipment. Nuclear and wind energy complement each other in a balanced energy mix, with one supplying competitive energy in base load operations, and the other supplying backup energy based on climate conditions. Neither emits greenhouse gases. REpower also offers manufacturing and marketing/sales synergies with AREVA's Transmission & Distribution Division. The T&D business represents a considerable share of wind energy investment, given the technical difficulties raised by the intermittency of power generation for the electricity transmission system.
- On December 6, 2005, the AREVA group sold its minority share (7.76%) in the Australian company Energy Resources of Australia, Ltd. (ERA), which operates the Ranger uranium mine. AREVA sold its 14,804 million shares at 9.50 AUD per share, for a total of 140.6 million AUD. The proceeds of the sale will help fund AREVA's future investments in the mining sector.

## 5.1.2. TRANSITION TO INTERNATIONAL FINANCIAL REPORTING STANDARDS

### 5.1.2.1. The Group's adoption of IFRS

Pursuant to European Regulation 1606/2002 of July 19, 2002, the AREVA consolidated financial statements for the year ended December 31, 2005, and thereafter are prepared in accordance with International Financial Reporting Standards (IFRS), as approved by the European Union as of December 31, 2005. These standards incorporate the International Accounting Standards (IAS) and IFRS, as well as interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC) and by the former Standing Interpretation Committee (SIC).

All of the standards and interpretations applied in this report by the AREVA group are consistent with European directives and with standards and interpretations adopted by the European Union.

For the first-time adoption of the IFRS standards on January 1, 2004, and for the anticipated application of certain standards and interpretations and of certain IFRS amendments at December 31, 2004 and 2005, the Group selected the options described in Note 1 to the consolidated financial statements. The impact of first-time adoption of IFRS on the Group's balance sheet at January 1, 2004 and December 31, 2004, and on the Group's income statement for 2004, are presented in Note 38 to the consolidated financial statements.

The detailed impact of the transition to IFRS is described in section 5.1.9. of the Group's 2004 annual report.

## 5.1. Analysis of and comments on the Group's financial position and performance

### 5.1.2.2. Impact of IAS 32 and 39 adoption on the Group's financial statements

AREVA began applying IAS 32 and 39 on January 1, 2005. Note 39 to the consolidated financial statements describes the impact of IAS 32 and IAS 39 adjustments on the Group's balance sheet at January 1, 2005.

Adoption of these new standards had three major impacts:

- Financial assets are valued at their fair value (revaluation of approximately €443 million as of January 1, 2005). The offsetting entry for this revaluation is recorded in equity on an after-tax basis.

- Shares that were recorded as marketable securities are now classified as non-current financial assets in "Available-for-sale securities" and are no longer included in the net cash calculation.
- The fair value of put options that may be exercised by minority shareholders of the Group's consolidated companies (Siemens, which holds a 34% minority interest in AREVA NP, and, to a much lesser extent, Synatom (Suez Group), a minority shareholder of Eurodif) is recognized as a liability (€931 million). To offset this liability, the minority interests of Siemens and Synatom (€374 million as of January 1, 2005) are eliminated. The difference between the fair value of put options and the value of eliminated minority interests (€557 million as of January 1, 2005) was added to goodwill.

## 5.1.3. KEY DATA

The key data for 2005 and 2004 are presented in accordance with the IAS/IFRS. All financial data in this report are expressed in accordance with IFRS, excluding IAS 32 and 39 for 2004 and including them for 2005.

The Group sold its Connectors subsidiary, FCI, on November 3, 2005. In accordance with IFRS 5, the Connectors Division was deconsolidated retroactively to January 1, 2005. The division's net income up to the date of the sale and the net income from the sale appear on a separate line of the income statement: "Net income from discontinued operations". As a result, retroactively

to January 1, 2005, data from the Connectors Division is no longer included in the income statement on any line above the "Net income from discontinued operations" line. Therefore, data for 2004 does not reflect a comparable Group structure. To facilitate comparisons between key figures, the "2004 IFRS adjusted" column includes 2004 figures adjusted for disposal of the Connectors Division.

All amounts are expressed in millions of euros, unless otherwise indicated. Due to rounding adjustments, some totals may not be strictly accurate.



## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.1. Summary data

<i>(in millions of euros, except workforce)</i>	2005 IFRS	2004 IFRS* adjusted	2004 IFRS*	2005/2004 change** adjusted
<b>Net income</b>				
Contribution to consolidated sales <sup>(1)</sup>	10,125	9,821	11,109	+3.1%
Gross margin	2,280	2,349	2,699	(2.9%)
% of contribution to consolidated sales	22.5%	23.9%	24.3%	-1.4 point
Current operating income	746	735	822	+1.5%
% of contribution to consolidated sales	7.4%	7.5%	7.4%	-0.1 point
Operating income	551	558	640	(1.3%)
% of contribution to consolidated sales	5.4%	5.7%	5.8%	-0.3 point
Net financial expense	(13)	(3)	(18)	(333.3%)
Share in net income of equity associates	153	128	128	+19.5%
<b>Net income from discontinued operations</b>	598	31	-	n/a
<b>Net income attributable to equity holders of the parent</b>	<b>1,049</b>	<b>451</b>	<b>451</b>	<b>+132.6%</b>
% of contribution to consolidated sales	10.4%	4.6%	4.1%	+5.8 points
<b>EBITDA***</b>	1,217	991	1,105	+22.8%
<b>Cash flow</b>				
Net cash from operating activities	770	n.a.	912	n.a.
Net cash used in investing activities	(739)	n.a.	(1,127)	n.a.
Net cash used on financing activities	(392)	n.a.	(273)	n.a.
Net cash flow from discontinued operations	853	n.a.	-	n.a.
<b>Increase (decrease) in net cash</b>	<b>475</b>	<b>n/a</b>	<b>(339)</b>	<b>n/a</b>
<b>Other</b>				
Backlog	20,569	19,647	19,820	+4.7%
Dividends paid	(421)	(285)	(285)	+47.7%
Workforce at year-end	58,760	57,909	70,069	+1.5%
Capital employed	1,928	1,952	2,531	(1.2%)

(1) The contribution to the Group's consolidated sales is equal to gross sales net of inter-company sales.

	December 31, 2005 IFRS	January 1, 2005 IFRS	December 31, 2004 French GAAP	2005/2004 change** 05/04
Net cash / (debt)	(268)	(566)	689	+52.7%
Equity attributable to equity holders of the parent	6,362	4,928	4,241	+29.1%

\* Adjusted data per IFRS, excluding IAS 32 and 39.

\*\* Change between 2005 and 2004 adjusted for disposal of the Connectors Division.

\*\*\* EBITDA excluding impact of cash flow relating to end-of-life-cycle obligations, presented separately from operating cash flow.

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.2. Summary data by Division and region

## 2005 IFRS

<i>(in millions of euros, except workforce)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Connectors	Corporate and other + eliminations	Total
<b>Net income</b>							
Contribution to consolidated sales <sup>(1)</sup>	2,631	2,348	1,921	3,212	-	14	10,125
Current operating income	385	97	222	103	-	(60)	746
% of contribution to consolidated sales	14.6%	4.1%	11.6%	3.2%	-	n.a.	7.4%
<b>Operating income</b>	<b>374</b>	<b>87</b>	<b>208</b>	<b>(61)</b>	<b>-</b>	<b>(58)</b>	<b>551</b>
% of contribution to consolidated sales	14.2%	3.7%	10.8%	(1.9%)	-	n.a.	5.4%
<b>Cash flow<sup>(2)</sup></b>							
EBITDA*	508	173	483	106	-	(53)	1,217
% of contribution to consolidated sales	19.3%	7.4%	25.1%	3.3%	-	n.a.	12.0%
Change in operating WCR	(77)	226	(95)	(69)	-	(30)	(45)
Net Capex**	(236)	(170)	(53)	68	-	(4)	(395)
<b>Free operating cash flow before tax</b>	<b>197</b>	<b>228</b>	<b>332</b>	<b>116</b>	<b>-</b>	<b>(90)</b>	<b>783</b>
<b>Other</b>							
PP&E and intangible assets	1,554	606	2,079	950	-	1,210	6,399
Capital employed <sup>(3)</sup>	1,761	24	(818)	617	-	344	1,928
Workforce at year-end	11,047	14,323	10,864	22,094	-	432	58,760

## 2004 IFRS excluding IAS 32-39, adjusted for disposal of the Connectors Division

<i>(in millions of euros, except workforce)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Connectors	Corporate and other + eliminations	Total
<b>Net income</b>							
Contribution to consolidated sales <sup>(1)</sup>	2,524	2,146	1,946	3,186	-	19	9,821
Current operating income	397	124	244	39	-	(69)	735
% of contribution to consolidated sales	15.7%	5.8%	12.5%	1.2%	-	n.a.	7.5%
<b>Operating income</b>	<b>370</b>	<b>95</b>	<b>231</b>	<b>(103)</b>	<b>-</b>	<b>(35)</b>	<b>558</b>
% of contribution to consolidated sales	14.7%	4.4%	11.8%	(3.2%)	-	n.s.	5.7%
<b>Cash flow<sup>(2)</sup></b>							
EBITDA*	459	121	402	23	-	(14)	991
% of contribution to consolidated sales	18.2%	5.7%	20.7%	0.7%	-	n.a.	10.1%
Change in operating WCR	(157)	11	299	22	-	(4)	170
Net Capex**	(196)	(59)	(98)	(57)	-	66	(344)
<b>Free operating cash flow before tax***</b>	<b>106</b>	<b>82</b>	<b>603</b>	<b>(12)</b>	<b>-</b>	<b>2</b>	<b>782</b>
<b>Other</b>							
PP&E and intangible assets	1,308	456	2,203	1,028	-	487	5,481
Capital employed <sup>(3)</sup>	1,503	247	(672)	726	-	148	1,952
Workforce at year-end	10,952	14,066	10,697	21,816	-	378	57,909

(1) The contribution to the Group's consolidated sales is equal to gross sales net of inter-company sales.

(2) For the components of cash flow, see section 5.1.3.7.

(3) Capital employed is defined in section 5.1.3.8.9.

## 5.1. Analysis of and comments on the Group's financial position and performance

**2004 IFRS excluding IAS 32-39**

<i>(in millions of euros, except workforce)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Connectors	Corporate and other + eliminations	Total
<b>Net income</b>							
Contribution to consolidated sales <sup>(1)</sup>	2,524	2,146	1,946	3,186	1,289	18	11,109
Current operating income	397	124	244	39	87	(69)	822
% of contribution to consolidated sales	15.7%	5.8%	12.5%	1.2%	6.7%	n.a.	7.4%
<b>Operating income</b>	<b>370</b>	<b>95</b>	<b>231</b>	<b>(103)</b>	<b>81</b>	<b>(35)</b>	<b>640</b>
% of contribution to consolidated sales	14.7%	4.4%	11.8%	(3.2%)	6.3%	n.a.	5.8%
<b>Cash flow<sup>(2)</sup></b>							
EBITDA*	459	121	402	23	114	(14)	1,105
% of contribution to consolidated sales	18.2%	5.7%	20.7%	0.7%	8.8%	n.a.	9.9%
Change in operating WCR	(157)	11	299	22	12	(4)	183
Net Capex**	(196)	(59)	(98)	(57)	(71)	66	(416)
<b>Free operating cash flow before tax***</b>	<b>106</b>	<b>82</b>	<b>603</b>	<b>(12)</b>	<b>55</b>	<b>2</b>	<b>835</b>
<b>Other</b>							
PP&E and intangible assets	1,308	456	2,203	1,028	627	487	6,108
Capital employed <sup>(3)</sup>	1,503	247	(672)	726	579	148	2,531
Workforce at year-end	10,952	14,066	10,697	21,816	12,160	378	70,069

\* EBITDA excluding impact of cash flow relating to end-of-life-cycle obligations, presented separately from operating cash flow.

\*\* Like-for-like method in 2005: - €71 million for the Reactors and Services Division, - €97 million for the Back End Division, i.e. - €354 million for the Group. Beginning in 2005, Capex includes acquisitions and disposals of consolidated companies.

\*\*\* Like-for-like method in 2005: + €71 million for the Reactors and Services Division, + €604 million for the Back End Division, i.e. + €772 million for the Group. Beginning in 2005, Capex includes acquisitions and disposals of consolidated companies.

(1) The contribution to the Group's consolidated sales is equal to gross sales net of inter-company sales.

(2) Cash flow components are defined in section 5.1.3.7.

(3) Capital employed is defined in section 5.1.3.8.9.

See also section 5.4.6.

## 5.1. Analysis of and comments on the Group's financial position and performance

**Sales by region and business division**

<i>(in millions of euros)</i>	<b>2005 IFRS</b>	2004 IFRS* adjusted	2004 IFRS	2005/2004 change* in %
<b>France</b>	<b>3,371</b>	<b>3,137</b>	<b>3,231</b>	<b>+7.5%</b>
Front End Division	1,116	1,051	1,051	+6.2%
Reactors and Services Division	873	844	844	+3.5%
Back End Division	1,104	1,027	1,027	+7.5%
Transmission & Distribution Division	270	208	208	+29.8%
Connectors Division	-	-	95	n.a.
Corporate and Other Operations	8	7	6	+14.2%
<b>Europe (excluding France)</b>	<b>3,022</b>	<b>2,647</b>	<b>3,117</b>	<b>+14.2%</b>
Front End Division	603	557	557	+8.1%
Reactors and Services Division	702	530	530	+32.6%
Back End Division	511	403	403	+26.9%
Transmission & Distribution Division	1,204	1,156	1,156	+4.3%
Connectors Division	-	-	470	n.a.
Corporate and Other Operations	1	1	1	0%
<b>North &amp; South America</b>	<b>1,861</b>	<b>1,877</b>	<b>2,196</b>	<b>(0.8%)</b>
Front End Division	631	623	623	+1.3%
Reactors and Services Division	626	658	658	(5.0%)
Back End Division	118	138	138	(14.2%)
Transmission & Distribution Division	482	448	448	+7.6%
Connectors Division	-	-	319	n.a.
Corporate and Other Operations	4	10	10	(60.0%)
<b>Asia-Pacific</b>	<b>1,180</b>	<b>1,437</b>	<b>1,787</b>	<b>(17.9%)</b>
Front End Division	229	252	252	(9.0%)
Reactors and Services Division	115	91	91	+26.4%
Back End Division	187	377	377	(50.4%)
Transmission & Distribution Division	648	716	716	(9.5%)
Connectors Division	-	-	350	n.a.
Corporate and Other Operations	1	1	1	0%
<b>Africa and Middle East</b>	<b>678</b>	<b>714</b>	<b>763</b>	<b>(5.0%)</b>
Front End Division	51	41	41	+24.4%
Reactors and Services Division	31	23	23	+34.8%
Back End Division	0	1	1	(100.0%)
Transmission & Distribution Division	596	649	649	(8.3%)
Connectors Division	-	-	49	n.a.
Corporate and Other Operations	0	-	-	n.a.
<b>Other countries</b>	<b>12</b>	<b>9</b>	<b>15</b>	<b>+33.3%</b>
<b>Total</b>	<b>10,125</b>	<b>9,821</b>	<b>11,109</b>	<b>+3.1%</b>

\* Change between 2005 and 2004 adjusted for disposal of the Connectors Division.

A detailed description of the Group's workforce by region may be found in the 2005 Human Resources Report.

## 5.1. Analysis of and comments on the Group's financial position and performance

### 5.1.3.3. Comparability of financial statements

#### 5.1.3.3.1. Comparable accounting data

##### General principles

In addition to the discussion and analysis of results reported in the consolidated financial statements, the Group also presents sales information on a comparable basis over successive periods, excluding the impact of changes in:

- consolidation scope,
- exchange rates,
- accounting standards and methods.

The Group provides this additional information to assess changes in the organic growth of its operations. However, this information does not constitute a method of assessing operations per IAS/IFRS. Excluding exceptions (e.g. material inability to reconstitute figures), changes in comparable sales figures are calculated as follows:

the consolidation scope, exchange rates and accounting methods and standards of the prior year are adjusted to reflect the consolidation scope, exchange rates and accounting methods and standards of the current year.

For example:

- To compare 2005 and 2004 sales, the Group calculates what 2004 sales of the different businesses would have been when average exchange rates for 2005 are applied.
- The resulting sales are then adjusted for the consolidation effect. The Group calculates what 2004 sales of the different businesses would have been based on the applicable consolidation scope at fiscal year-end 2005.

##### Estimated impact of changes in consolidation scope, exchange rate and accounting methods and standards on sales for fiscal years 2005 and 2004.

The table below compares the estimated impact of changes in exchange rate, the Group's consolidated structure, and accounting methods and standards for 2005 with those of 2004.

The main impacts are discussed in section 5.1.3.3.2.

#### Comparison of the year ended December 31, 2005, with the year ended December 31, 2004

	2005 IFRS		2004 IFRS				
	Sales	Reported sales	Sales adjusted for disposal of the Connectors Division	Exchange rate impact	Consolidation scope impact	Harmonization of accounting methods / standards	Basis of calculation of the change in sales in comparable data
<i>(in millions of euros)</i>							
Front End Division	2,631	2,524	2,524	9	0	(33)	2,501
Reactors and Services Division	2,348	2,146	2,146	1	(27)	-	2,120
Back End Division	1,921	1,946	1,946	0	8	24	1,978
<b>Nuclear</b>	<b>6,900</b>	<b>6,616</b>	<b>6,616</b>	<b>10</b>	<b>(19)</b>	<b>(9)</b>	<b>6,598</b>
Transmission & Distribution Division	3,212	3,186	3,186	41	(79)	-	3,148
Connectors Division	-	1,289	-	-	-	-	-
Corporate and Other Operations	14	18	19	0	0	-	20
<b>Group total</b>	<b>10,125</b>	<b>11,109</b>	<b>9,821</b>	<b>51</b>	<b>(98)</b>	<b>(9)</b>	<b>9,765</b>

## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.3.2. Factors potentially impacting the comparability of the financial statements****Changes in the consolidation scope**

Group sales for the years ended December 31, 2005 and 2004 were significantly impacted by the acquisitions and divestments described below. Other minor changes in the scope of consolidation are described in Note 2 to the consolidated financial statements.

**• Nuclear****2005**

On January 14, 2005, AREVA finalized the acquisition of the Swedish company Uddcomb Engineering, specializing in engineering and services for nuclear power plants.

Also in 2005, the Group bought a business specializing in nuclear power plant control systems maintenance from Siemens.

Both acquisitions were integrated into the Reactors and Services Division.

**2004**

On April 30, 2004, AREVA increased its stake in Katco (a Kazakhstan mining company) from 45% to 51%. Katco, carried under the equity method through April 30, 2004, was fully consolidated beginning May 1, 2004. The goodwill generated by the acquisition of this additional stake is not significant.

As of January 1, 2004, Cominak (a mining company in Niger) and AMC (a mining company in Sudan) are consolidated using the proportionate method to reflect AREVA's joint control over these companies. These companies were previously equity-accounted.

**• Transmission & Distribution****2005***India and Pakistan*

The acquisition of Alstom's Transmission & Distribution operations was finalized on April 6, 2005, with the signature of an agreement with Alstom concerning its Transmission & Distribution operations in India. Altogether, the integration of these operations gave AREVA 66.65% of the share capital of the Indian entity. The balance corresponds to the company's float, listed on the Bombay stock exchange in India. The annual contribution to sales of this unit is approximately €180 million.

These acquisitions have no impact on the Group's cash position. The Transmission & Distribution Division's operations in India and Pakistan were fully consolidated as of August 1, 2005.

*Australia and New Zealand*

Pursuant to an agreement signed on December 22, 2004, AREVA T&D and Transfield Services signed a purchase agreement for AREVA T&D's electrical services and telecommunications operations in Australia and New Zealand. The sales price was set at €95 million. The transaction, subject to normal regulatory authorizations and conditions precedent, came into effect in April 2005. The AREVA group consolidated these operations up to the date of the sale. The proceeds from the sale did not have a significant impact on consolidated net income for 2005.

These operations relate to outsourced engineering and maintenance services provided to owners of major infrastructures and manufacturing companies operating in the electricity, heavy industry, telecommunications and related infrastructure sectors. They are not part of AREVA T&D's core business.

**2004**

On January 9, 2004, the Group finalized the acquisition of Alstom's Transmission & Distribution operations for an initial consideration of €950 million (enterprise value), subject to price adjustments concerning certain operating and balance sheet items relating to fiscal year 2003. The final price for the acquisition of the Alstom group's Transmission & Distribution operations (T&D) was determined after completion of an appraisal by KPMG, as stipulated in the acquisition agreement. The enterprise value after adjustments was reduced from €950 million to €913 million, i.e. a price decrease of €37 million. The division's net cash position at the end of 2003 was valued at €140 million, bringing the final price for the T&D operations to €1,053 million. AREVA made a payment of €103 million to Alstom on December 29, 2004, supplementing its previous payment of €950 million.

All payments were settled by the Group in 2004.

AREVA has consolidated T&D operations since January 1, 2004.

**• Connectors****2005**

On November 3, 2005, AREVA announced that it had finalized the sale of its connectors subsidiary, FCI, to Bain Capital. The sale was made following consent by the anti-trust authorities and the decree approved by the Holdings and Transfers Commission (Commission des Participations et Transferts). The sales price for FCI shares puts the enterprise value of the company at €1.067 billion. The FCI divestment had a positive impact of €598 million on the AREVA group's consolidated net income for 2005, and represented a cash contribution of €853 million. The Connectors Division reported €1,289 million in sales and €82 million in operating income in 2004.

## 5.1. Analysis of and comments on the Group's financial position and performance

*2004*

There were no major changes in consolidation scope in fiscal year 2004.

- **Corporate and Other Operations**

*2005**REpower*

On September 27, 2005, the AREVA group acquired a 21.2% equity interest in REpower, a manufacturer of wind turbines specializing in high capacity turbines particularly suited to off-shore wind farms and one of the key players in the worldwide wind power sector. The company employs 558 people and posted sales of €301 million in 2004. This interest is equity accounted.

*STMicroelectronics*

In August 2005, following the buy-back of its own shares by FT1CI, the holding company of STMicroelectronics with a controlling interest, AREVA's equity interest in FT1CI went from 79% to 100%. AREVA's controlling interest in STMicroelectronics thus went from 13.9% to 10.94%.

*2004**EMA and Comilog*

On July 1, 2004, AREVA sold its equity interests in EMA and Comilog, mining companies of the Eramet group, which were equity-accounted up to June 30, 2004.

*Group-controlled mutual funds*

Mutual funds controlled by the Group, consisting of dedicated equity funds and rate funds, recorded as "Long-term investments" under French GAAP, are recorded as "Assets earmarked for end-of-life-cycle obligations" under IFRS. As explained in Note 1 to the consolidated financial statements, AREVA complies with the conditions cited in the progress report of the French National Accounting Board (CNC) on recording special investment funds, published in August 2005. This frame of reference was selected at December 31, 2005, pending a pronouncement by the IFRIC on the conclusions of the CNC report.

**Movements in foreign exchange rates**

The Group's foreign exchange policy is presented in chapter 4 of the 2005 annual report.

The Group made 37% of its consolidated sales outside the euro zone in 2005, compared with around 43% in 2004. Variations in the euro/U.S. dollar exchange rate constituted the main exposure. In 2005, 18% of sales were made in North and South America, compared with 17% in 2004. As a uranium producer in Canada, the Group is also sensitive to fluctuations in the parity of the Canadian and U.S. dollar in which uranium prices are denominated. Exposure to other currencies (primarily the Swiss franc, pound sterling, yen and Southeast Asian and Middle Eastern currencies), mainly connected with Transmission & Distribution activities, is secondary in nature.

The euro depreciated by an average of 0.2% against the U.S. dollar in 2005 on 2004, or close to 13% year-on-year for year-end rates. Exchange rate movements had a positive impact on the Group's sales of €51 million in 2005, compared with a negative impact of €173 million in 2004 (excluding the Connectors Division).

**Changes in financial statement presentation**

The following changes in financial statement presentation affected some of the Group's key figures for 2004 IFRS and 2005 IFRS.

*2005*

AREVA has applied IAS 31 and 39 since January 1, 2005, affecting some of the Group's key figures. Note 39 to the consolidated financial statements and section 5.1.2.2. of this management report describe the effects of adoption of these two additional standards.

*2004*

To improve the clarity of the financial statements, charges to and reversals of provisions for losses to completion, previously recorded in "Other operating income and expenses", are recorded in "Cost of sales in 2004".

Effective January 1, 2004, Lilly Financial Corporation Limited, the investment fund holding the perpetual subordinated debt and the security deposit, is consolidated in the Group's financial statements. This has the effect of eliminating the amounts of the perpetual subordinated debt and of the security deposit from the Group's consolidated balance sheet. The net balance is transferred to borrowings.

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.4. Backlog

<i>(in millions of euros)</i>	2005 IFRS	2004 IFRS adjusted	2004 IFRS	2005/2004 change* in %
<b>Backlog</b>	<b>20,569</b>	<b>19,647</b>	<b>19,820</b>	<b>+4.7%</b>
Front End Division	8,086	7,158	7,158	+13.0%
Reactors and Services Division	3,804	3,506	3,506	+8.5%
Back End Division	5,665	6,661	6,661	(15.0%)
<b>Sub-total Nuclear</b>	<b>17,555</b>	<b>17,325</b>	<b>17,325</b>	<b>+1.3%</b>
Transmission & Distribution Division	3,015	2,322	2,322	+29.8%
Connectors Division	-	-	173	n.a.
Corporate and Other Operations	0	0	0	n.a.

\* Change between 2005 and 2004 adjusted for disposal of the Connectors Division.

The backlog is valued based on economic conditions at the end of the period. It includes firm orders and excludes unconfirmed options. Orders in hedged foreign currencies are valued at the rate hedged. Non-hedged orders are valued at the rate in effect on the last day of the period.

The backlog reported for long-term contracts recorded under the percentage of completion method and partially performed as of the reporting date is equal to the difference between (a) the projected sales revenue from the contract upon completion and (b) the sales revenue already recognized for this particular contract. Accordingly, the backlog takes into account escalation and price revision assumptions used by the Group to determine the projected revenue upon completion.

The Group's backlog as of December 31, 2005, was €20,569 million, or slightly more than two years of sales, up 4.7% compared with the backlog of €19,647 million as of December 31, 2004, adjusted for disposal of the Connectors Division.

In Nuclear operations, the backlog as of December 31, 2005, was €17,555 million, compared with €17,325 million as of December 31, 2004, representing an increase of 1.3%. This is more than two and a half years of sales at 2005 levels. New Nuclear orders during the year represented more than €6 billion.

The year was marked by the signature of contracts valued at close to €400 million in China to expand the Ling Ao nuclear power plant in Guangdong Province, by a more than €300 million contract awarded by EDF to a team headed up by AREVA concerning the replacement of 18 steam generators at six 900 MW reactors, by the signature of an extension to the assistance contract with Japanese customer JNFL to provide support through commercial start-up of the Rokkasho Mura plant, scheduled for mid-2007, by the renewal through 2007 of the fuel supply contract with EDF, by natural uranium sales contracts with Japanese, American and French utilities, and by major steam generator replacement contracts in the United States.

In the Transmission & Distribution Division, the backlog as of December 31, 2005, was €3,015 million, compared with €2,322 million as of December 31, 2004, representing an increase of 29.8% and more than 11 months of 2005 sales. Orders booked for the year were up by 13.1% like-for-like over 2004 to more than €3.7 billion, with the increase driven by exceptional growth of 53.2% like-for-like in the fourth quarter of 2005. The year was marked by two contracts for a combined value of €200 million for the first phase of a project to link the power grids of member countries of the Gulf Cooperation Council, by a contract for €148 million in Qatar to design and install six substations, by contracts in Tunisia for a combined value of €61 million to build five high voltage substations and power grid management systems, by a €25 million contract in Canada to build the world's first power line de-icing system using HVDC technology, and by a turnkey contract valued at €16.6 million to build two biomass power plants in southern Brazil.

## 5.1.3.5. Income statement

## 5.1.3.5.1. Sales revenue

The AREVA group's sales for the year rose to €10,125 million from €9,821 million in 2004, adjusted for disposal of the Connectors Division, representing growth of 3.1% in terms of reported data. Organic growth was 3.7% in 2005. Exchange rate movements

had a positive impact of €51 million for the Group. The consolidation effect had a negative impact of €97.6 million between the two accounting periods. Only the Front End Division was impacted by IFRS adoption, in the amount of negative €32.9 million between 2004 (reported) and 2005 (reported).



## 5.1. Analysis of and comments on the Group's financial position and performance

(in millions of euros)	2005 IFRS	2004 IFRS adjusted	2004 IFRS	2005/2004 change in %	2005/2004R change in % LFL*
<b>Sales revenue</b>	<b>10,125</b>	<b>9,821</b>	<b>11,109</b>	<b>+3.1%</b>	<b>+3.7%</b>
Front End Division	2,631	2,524	2,524	+4.2%	+5.2%
Reactors and Services Division	2,348	2,146	2,146	+9.4%	+10.8%
Back End Division	1,921	1,946	1,946	(1.3%)	(2.9%)
<b>Sub-total Nuclear</b>	<b>6,900</b>	<b>6,616</b>	<b>6,616</b>	<b>+4.3%</b>	<b>+4.6%</b>
Transmission & Distribution Division	3,212	3,186	3,186	+0.8%	+2.0%
Connectors Division	-	-	1,289	-	-
Corporate and Other Operations	14	19	18	(30.3%)	(30.3%)

\* LFL: like-for-like, i.e. constant exchange rate and consolidation scope.

The Nuclear divisions posted organic growth of 4.6%, marked by:

- 5.2% growth in the Front End Division linked to the favorable price effect for uranium sales and to climbing volumes in all of the division's businesses;
- new projects in Finland, France and China and strong performance in Services, pushing growth in the Reactors and Services Division to 10.8%;

- the 2.9% drop in sales for the Back End Division following the 2004 completion of the assistance contract with Japanese customer JNFL; a contract extension for 2006 and 2007 was signed in late 2005.

The Transmission & Distribution Division recorded organic growth of 2.0%. The 5.1% increase in the second half of 2005 over 2004 offsets the downturn in the first half of 2005 compared with the same period in 2004, when a one-time peak was observed.

## 5.1.3.5.2. Gross margin

(in millions of euros)	2005 IFRS	2004 IFRS adjusted	2004 IFRS reported	2005/2004R change in %
<b>Gross margin</b>	<b>2,280</b>	<b>2,349</b>	<b>2,699</b>	<b>(2.9%)</b>
% contribution to consolidated sales	22.5%	23.9%	24.3%	-1.4 pt

The Group's gross margin for 2005 was €2,280 million (i.e. 22.5% of sales), compared with €2,349 million in 2004, adjusted for disposal of the Connectors Division (i.e. 23.9% of sales), giving a total decrease in absolute value of 2.9%, compared with a 3.1% increase in sales for the period.

In the Nuclear businesses, gross margin was €1,555 million in 2005 (22.5% of sales), against €1,670 million in 2004 (25.2% of sales), i.e. a decrease of 6.9% or 2.7 points. This decrease was due to:

- The stalling of the gross margin level in:
  - the Front End Division's operations, where the increase in recorded margin is absorbed, in particular, by the increase in mining production costs and by the increase in electric rates in the *Enrichment* field;
  - recurring operations in the Reactors and Services Division, with the diluting effect on the Division's margin of the start-up of construction projects in *Plants*.

- The significant impact of the end of the knowledge transfer contract with JNFL in the Back End Division, partially offset by the strong performance of the *Recycling* Business Unit (MOX), with the MELOX plant achieving maximum licensed production capacity.

Gross margin for the Transmission & Distribution Division rose from €656 million in 2004 (20.6% of sales) to €722 million in 2005 (22.5% of sales), i.e. growth of 10.1% or 1.9 points. The increase is mainly due to strong performance in *Products* and *Automation*, where volume and business targets rolled out as part of the optimization plan were met, generating considerably improved income.

## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.5.3. Research and development**

Research and development expenses are recorded in the balance sheet if the expenses meet capitalization criteria established by IAS 38 and in research and development expenses if they do not. Research and development expenses not eligible for capitalization are recorded in the income statement as part of the gross margin if solely funded by the Group; expenses for programs that are

partially or fully funded by customers or for joint projects in which AREVA has the commercial rights to the results are recorded in the cost of sales. All research and development costs, whether capitalized or expensed during the period, are combined to determine the Group's R&D expenditure.

	2005 IFRS		2004 IFRS adjusted		2004 IFRS	
	In millions of euros	In % of sales	In millions euros	In % of sales	In millions of euros	In % of sales
Nuclear	209	3.0%	204	3.1%	204	3.1%
Transmission & Distribution	116	3.6%	122	3.8%	122	3.8%
Connectors	-	-	-	-	75	5.8%
Corporate and Other Operations	3	19.3%	2	10.5%	2	11.1%
<b>Total research and development expenses</b>	<b>328</b>	<b>3.2%</b>	<b>327</b>	<b>3.3%</b>	<b>402</b>	<b>3.6%</b>
Total R&D expenditure	582	5.7%	484	4.9%	559	5.0%
Including costs capitalized in the balance sheet <sup>(7)</sup>	143	1.4%	n.a.	n.a.	n.a.	n.a.
<b>Number of patent applications</b>	<b>99</b>	<b>-</b>	<b>116</b>	<b>-</b>	<b>214</b>	<b>-</b>

<sup>(7)</sup> Unlike French accounting standards, under which capitalization is an optional when the costs meet the capitalization criteria, IAS 38 requires capitalization of research and development costs as soon as the criteria are met. In 2005, more than €140 million in R&D expenses were capitalized for the Mining and Plants businesses alone.

The Group's R&D expenses represented €328 million in 2005, i.e. 3.2% of sales for the period. This figure indicates relative stability in R&D expenses compared with 2004, adjusted for disposal of the Connectors Division, when spending was €327 million and the ratio to sales was 3.3%.

Taking into account all costs incurred for research and development, the Group's total R&D spending was €582 million in 2005, i.e. 5.7% of sales for the period, up sharply from the €484 million incurred in 2004, representing 4.9% of sales for the period. Over three-quarters of this spending concerns costs related to the development of the EPR and to its licensing in the United States, as well as mineral exploration costs. These costs are expected to increase over the coming periods and will be capitalized when the criteria are met.

R&D expenses for the nuclear operations totaled €209 million in 2005, i.e. 3.0% of sales, and €204 million in 2004, i.e. 3.1% of sales. The total R&D expenditure in nuclear was €469 million in 2005, i.e. 6.8% of sales. The change in R&D expenditure between the two periods reflects the beginning of a long-term increase in mineral exploration expenses in the nuclear business, the sustained effort for EPR development and licensing in the United States, and the continuation of several projects, including:

- preliminary work to develop a new generation of electrolyzers for the production of fluorine as part of the project to renovate uranium conversion capabilities in the front end of the cycle;
- fuel performance improvement;
- analysis of high temperature reactor (HTR) technologies;
- ongoing development of fuel cells.

In the Transmission & Distribution Division, R&D expenses represented €108 million in 2005, i.e. 3.4% of sales, and €122 million in 2004, i.e. 3.8% of sales. The total R&D spending for the division was also €108 million in 2005, i.e. 3.4% of sales. As in 2004, spending was directed at improving the performance of electric power systems and equipment, and the development of digital controls and information systems for power grid monitoring.

## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.5.4. General and administrative, sales and marketing expenses**

Group sales, marketing, general and administrative expenses totaled €1,202 million in 2005, compared with €1,184 million in 2004, adjusted for disposal of the Connectors Division, representing an increase of 1.5% over the period. These expenses are down in relation to sales for the year, from 12.1% in 2004 to 11.9% in 2005. This trend is indicative of efforts to control costs while boosting marketing and sales activities, leading to a significant increase in the backlog.

Sales and marketing expenses totaled €478 million in 2005, compared with €500 million in 2004, adjusted for disposal of the Connectors Division, representing a 4.4% decrease over the period. These expenses represented 4.7% of 2005 sales and 5.1% of 2004 sales, adjusted for disposal of the Connectors Division. The amount of the Group's sales and marketing expenses is stable for all businesses, despite the EPR proposal in China submitted in February 2005, for which commercial discussions continued throughout the year.

General and administrative expenses totaled €723 million in 2005, compared with €684 million in 2004, adjusted for disposal of the Connectors Division, representing an increase of 5.8% over the period. They came to 7.1% of 2005 sales, i.e. relatively stable compared with the 7.0% for 2004, adjusted for disposal of the Connectors Division.

**5.1.3.5.5. Current operating income**

Taking the above items into account, the Group's current operating income for 2005 was €746 million, up 1.5% in relation to the €735 million for 2004, adjusted for disposal of the Connectors Division. The current operating margin remained stable in 2005 at 7.4%, compared with 7.5% in 2004, adjusted for disposal of the Connectors Division.

**5.1.3.5.6. Non-current operating items**

Non-current operating items totaled €195 million in 2005, compared with €177 million in 2004, adjusted for disposal of the Connectors Division, representing a 10.2% increase over the period.

The majority of the non-current operating items represent restructuring expenses. The Transmission & Distribution Division accounted for most of these expenses as part of the three-year restructuring plan. Non-current expenses for the Transmission & Distribution Division totaled €164 million in 2005, of which €102 million for restructuring. Restructuring costs were thus down, from €142 million in 2004 to €102 million in 2005. A total of €244 million was recorded at year-end 2005 for restructuring expenses under the "2004-2007 plan".

**5.1.3.5.7. Operating income**

Operating income totaled €551 million in 2005, or 5.4% of sales, compared with €558 million in 2004, or 5.7% of sales, after adjustment for disposal of the Connectors Division, representing a decrease of 1.3% or 0.3 point.

- *Nuclear* contributed some €670 million, compared with €696 million in 2004, for a decrease of 3.7%. Operating margin for nuclear was thus 9.7% in 2005, compared with 10.5% in 2004. The drop is attributable primarily to the end of the JNFL contract, which had contributed significantly to gross margin for the Back End Division, and to the diluting effect of new reactor projects.
- The Transmission & Distribution Division reported an operating loss of €61 million in 2005, improved from the loss of €103 million recorded in 2004. Operating margin thus went from a negative 3.2% of sales in 2004 to a negative 1.9% of sales in 2005. The Division's profitability still had to bear major restructuring expenses under the three-year plan launched in 2004 representing €102 million in 2005, down from the €142 million of 2004. The *Products* Business Unit, which represents almost half of the division's sales, recorded the biggest improvement, with cost-reductions in purchasing and the redefinition of the industrial footprint producing the expected results.
- *Corporate* reported as operating loss of €58 million in 2005, compared with €35 million in 2004, adjusted for disposal of the Connectors Division, and €67 million in 2003. A gain on the disposal of real property assets was recorded in 2004, mainly due to the sale of the office building in Lyon, France. Expenses were moderate in 2005, particularly with regard to advertising.

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.5.8. Net financial expense

<i>(in millions of euros)</i>	2005 IFRS*	2004 IFRS** adjusted	2004 IFRS**
<b>Net borrowing costs [(expenses)/income]</b>	<b>17</b>	<b>27</b>	<b>18</b>
<b>Other financial income and expenses</b>	<b>(30)</b>	<b>(30)</b>	<b>(36)</b>
<b>End-of-life-cycle obligations:</b>	<b>(32)</b>	<b>(2)</b>	<b>(2)</b>
Income from the financial portfolio earmarked for end-of-life-cycle obligations	64	92	92
Discounting reversals of provisions for end-of-life-cycle operations	(96)	(94)	(94)
<b>Other financial income</b>	<b>2</b>	<b>(28)</b>	<b>(34)</b>
Foreign exchange gain (loss)	(5)	(0)	(2)
Income from disposals of securities and change in value of securities held for trading	92	38	38
Dividends received	29	30	30
Impairment of financial assets	5	7	7
Interest on prepayments	(42)	(39)	(39)
Financial income from pensions and other employee benefits	(59)	(56)	(57)
Other	(18)	(8)	(11)
<b>Net financial expense</b>	<b>(13)</b>	<b>(3)</b>	<b>(18)</b>

\* Including IAS 32-39

\*\* Excluding IAS 32-39

The net financial expense was €13 million in 2005, compared with €3 million in 2004, adjusted for disposal of the Connectors Division.

- Net borrowing costs dropped 37% from €27 million in 2004, adjusted for disposal of the Connectors Division, to €17 million in 2005. This is primarily the result of the adoption of IAS 32-39 in 2005 and the drop in interest rates, which had an unfavorable impact on the Group's short-term investments.
- The net financial expense in respect of end-of-life-cycle obligations was €32 million in 2005, upon €2 million in 2004, adjusted for disposal of the Connectors Division:
  - As anticipated, expenses for reverse discounting of provisions for end-of-life-cycle operations were stable in 2005.
  - Income from the financial portfolio earmarked for end-of-life-cycle obligations stood at €64 million in 2005, compared with €92 million in 2004. Large amounts were reversed from provisions in 2004 due to the recovery of financial markets.
- Financial income not linked to end-of-life-cycle obligations was up sharply, at €2 million in 2005, compared to a net expense of €28 million in 2004, adjusted for disposal of the Connectors Division. In particular, 2005 saw gains on disposals of the AssystemBrime and Energy Resources of Australia Ltd (ERA) securities.

## 5.1.3.5.9. Income tax

The income tax expense totaled €146 million in 2005, up 17.7% on €124 million in 2004, adjusted for disposal of the Connectors Division. The Group's effective tax rate in 2005 is 27.1%, up 4.8 points from the effective rate of 22.3% in 2004, adjusted for disposal of the Connectors Division. The change in the Group's effective tax rate results mainly from the smaller contribution of income taxable at lower rates in 2005, particularly due to the drop in Eurodif's net income.

## 5.1.3.5.10. Share in net income of equity associates

<i>(in millions of euros)</i>	2005 IFRS	2004 IFRS
STMicroelectronics	38	74
Eramet group	104	48
Other	11	6
<b>Total</b>	<b>153</b>	<b>128</b>

STMicroelectronics and Eramet are the two main equity-accounted interests in the consolidated financial statements. The other equity-accounted interests are described in Note 15 to the consolidated financial statements.

## 5.1. Analysis of and comments on the Group's financial position and performance

The share in net income of equity associates increased by almost 20% to €153 million in 2005, compared with €128 million in 2004, mainly due to a significant increase in Eramet's net income and, notwithstanding the decrease in STMicroelectronics' net income.

The Group may record net income from STMicroelectronics and Eramet that differs from the income reported by those companies:

- STMicroelectronics' figures are prepared according to US GAAP and are in US dollars. The Group converts them into euros and adjusts them,
- with regard to Eramet, income is calculated based on preliminary results. Any differences between Eramet's preliminary and final financial statements are recorded in the following period.

**5.1.3.5.11. Net income from discontinued operations**

Net income from discontinued operations totaled €598 million as of December 31, 2005, compared with €31 million in 2004, after adjustment of net income from discontinued operations for disposal of the Connectors Division.

In 2004, this figure related only to the net income of FCI. In 2005, net income from discontinued operations includes:

- net income from the sale of the Division in the amount of €528 million\* and
- net income from discontinued operation, representing €70 million, for the period from January 1 to October 31, 2005, when FCI was sold to Bain Capital.

The items constituting net income from discontinued operations are described in Note 9 to the consolidated financial statements.

**5.1.3.5.12. Minority interests**

Minority interests in the Group's net income for 2005 are €95 million, compared with €139 million in 2004, adjusted for disposal of the Connectors Division. The change is due primarily to:

- the drop in net income from STMicroelectronics over the period, and the sale by France Télécom of its remaining interest in FT1CI (co-controlling holding company of STMicroelectronics) on September 28, 2005, increasing AREVA's interest in this company to 100%.

Minority interests are as follows:

<i>(in millions of euros)</i>	<b>2005 IFRS</b>	2004 IFRS	2004 IFRS adjusted
Siemens' 34% interest in AREVA NP	47	61	61
France Télécom's 2.9% interest in STMicroelectronics	5	26*	26*
Minority shareholders' 40% interest in Eurodif	36	43	43
Other	7	9	9
<b>Total</b>	<b>95</b>	<b>139</b>	<b>139</b>

\* 6.25% held by France Télécom from January 1, 2004 to December 21, 2004, then 2.92% through September 28, 2005 and 0% thereafter.

**5.1.3.5.13. Net income attributable to equity holders of the parent**

Net income attributable to equity holders of the parent for 2005 totaled €1,049 million, up sharply from €451 million in 2004, taking into consideration net income from the divestment of the Connectors Division.

Net earnings per share was €29.60, compared with €12.71 in 2004. Net earnings per share of continuing operations was €12.72 per share, compared with €11.83 in 2004.

\* These €528 million of capital gain include the disposal gain for the mother company AREVA SA (see section 5.7.5.3.) for €208 million and the deferred tax assets generated by the sale.

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.6. Review by division

## 5.1.3.6.1. Front End Division

(in millions of euros)	2005 IFRS	2004 IFRS adjusted	2004 IFRS reported	2005/2004R change in %	2005/2004R change LFL* in %
<b>Backlog</b>	<b>8,086</b>	<b>7,158</b>	<b>7,158</b>	<b>+13.0%</b>	-
<b>Contribution to consolidated sales</b>	2,631	2,524	2,524	+4.2%	+5.2%
Mining	508	475	475	+6.9%	+13.7%
Chemistry	283	232	232	+22.0%	+20.4%
Enrichment	727	681	681	+6.7%	+6.5%
Fuel	1,113	1,136	1,136	(2.0%)	(2.0%)
<b>Operating income</b>	<b>374</b>	<b>370</b>	<b>370</b>	<b>+1.1%</b>	-
<i>In % of contribution to sales</i>	<i>14.2%</i>	<i>14.7%</i>	<i>14.7%</i>	<i>-0.5 point</i>	-

\* Like-for-like, i.e. constant exchange rate and consolidation scope.

## Highlights of the year

In the *Mining* business, the uranium spot price continued to climb, reaching \$36/lb at the end of December 2005, compared with \$20.70/lb at year-end 2004, i.e. a 74% hike. The market remains buoyant worldwide, with strong demand for the 2008-2012 time-frame. This trend will have a significant impact on the Group's financial statements when contracts negotiated at these prices come into effect, mostly after 2008.

The *Mining* Business Unit produced a little more than 6,000 metric tons of uranium in 2005, slightly down on the 6,125 metric tons produced in 2004. Commercially, contracts signed in 2005 were for longer terms. In particular, the supply contracts with EDF were extended beyond 2008 and up to 2018. The business unit also strengthened its commercial position in Asia.

Consistent with the goals for the uranium sector and pursuant to announcements, the operating Capex program accelerated in 2005. Capex more than doubled in relation to 2004, particularly with regard to Katco (Kazakhstan) and Cigar Lake (Canada) development projects. Similarly, spending on exploration rose by 14% from 2004 to 2005.

In *Conversion* and related technologies, the AREVA group and Tenex, a Russian company, signed a €50 million technology transfer agreement on May 2, 2005, for the construction of a uranium defluorination plant in Siberia. The transfer covers facility design, equipment supply, supervision of construction and start-up testing, and training for maintenance and operations. The project is scheduled for completion in 2009. AREVA owns the only plant of this type in the world. That plant, located in Pierrelatte in France's Rhône valley, has been converting depleted uranium hexafluoride from enrichment plants into completely stable uranium oxide U308 since 1984.

In the *Enrichment* field, 2005 marked the end of EDF's contract to supply electricity to AREVA, most of which is used to enrich uranium for export. Negotiations to renew the contract, under new financial terms, are in progress. To prepare for the possibility of a power supply interruption, the Group has stockpiled large quantities of SWUs in recent years. It has also secured supplies for deliveries to be made during the 2006-2012 period.

Concerning the Georges Besse II project, the future enrichment plant using centrifuge technology, the start of heavy construction is contingent on the closing of the deal to acquire a 50% equity interest in Enrichment Technology Corporation, owner of the centrifuge technology, alongside Urenco. The closing must be ratified by a multilateral treaty among the governments of Germany, Great Britain, France and the Netherlands, in addition to permission by European authorities. The European Community has authorized the project, and three of the four countries have ratified the treaty. The government of the Netherlands, the only country not to have ratified the treaty, has elected to present it to Parliament. At this stage, the Group considers that the delay introduced by this procedure will not delay the overall project schedule.

The *Fuel* business saw a large increase in orders in 2005. Marketing and sales is seeing a tendency, especially among US utilities, to sign supply contracts for their entire fleet of reactors. On the manufacturing side, and as part of its program to optimize its manufacturing capabilities worldwide, the Business Unit reports that its license application to increase the capacity of the Lingen plant in Germany was approved in 2005.

## 5.1. Analysis of and comments on the Group's financial position and performance

**Backlog**

In the Front End Division, the backlog as of December 31, 2005, was €8,086 million, compared with €7,158 million as of December 31, 2004, representing an increase of 13.0%. The backlog is the equivalent of a little more than three years of 2005 sales.

The upturn reflects strong marketing activity, particularly with regard to natural uranium, with two years of sales placed under contract in 2005, and in fuel, where a string of commercial successes was reported:

- extension of the contract to supply uranium to EDF through 2018;
- extension of a fuel supply contract with EDF for the 2003-2006 period through 2007;
- signature of a contract worth more than €100 million with the Gösgen power plant in Switzerland to supply six reprocessed uranium fuel reloads over the 2008-2013 period;
- signature of a contract valued at more than €100 million with Vattenfall to supply fuel to six of the utility's seven nuclear reactors in Sweden from 2007 to 2010;
- reload orders for all of the reactors of Duke Power and Progress Energy in the United States.

**Sales revenue**

Sales for the Front End Division totaled €2,631 million in 2005, compared with €2,524 million in 2004, for a 4.2% increase in reported data and 5.2% like-for-like. Exchange rate movements had a positive impact on 2005 sales for the Front End Division in the amount of €9 million. IFRS adoption, on the other hand, had a negative impact on reported sales for the period, in the amount of €33 million; henceforth, in the trading business, only the margin may be recognized as sales revenue.

In the *Mining* field, two-thirds of the sales revenue growth (+13.7% organic growth) was the result of favorable prices for uranium sales, with the average price up 12.9% in US dollars, while one-third was from the increase in volumes sold, which totaled 13,227 metric tons, up by 6.1% over 2004.

The *Conversion* business was up over the period (+20.4% organic growth) due to the favorable price effect combined with an increase in volumes sold. UF6 production remained stable at historically high levels of more than 14,000 metric tons, close to the current production capacity limit.

Despite a slight cyclical drop in export sales, the volume of *Enrichment* services for the domestic market rose, resulting in increased sales for the period (+6.5% in organic growth).

*Fuel* posted a 3.5% increase in volumes sold, especially in the United States, but a slight decrease in sales value (-2.0% like-for-like). This is attributable to an unfavorable price mix effect in 2005 reflecting a change in product mix (natural uranium fuel (UO2), reprocessed uranium fuel (RepU) and MOX).

Geographically, the increase in 2005 sales was mainly located in Europe, which represents close to 65% of the division's sales.

**Operating income**

The Front End Division reported operating income for 2005 of €374 million, or 14.2% of sales, compared with €370 million in 2004, representing 14.7% of sales. This stable performance reflects:

- the strong performance of the *Mining* Business Unit (up €36 million), due to a favorable trend in uranium prices and the one-time effect of the revaluation of inventories held for trading (IAS 32-39). However, the average cost of resources used during the year was up;
- an increase in *Enrichment* production costs due to the hike in electricity rates. The enrichment process requires a lot of electricity, and this energy is a major contributor to cost. Export sales to the United States and Asia also declined cyclically in 2005, partially impacting the business unit's operating profitability. This decline, linked to the timing of delivery requests under contracts with utilities, is not expected to recur in 2006;
- slightly lower profitability in *Fuel*, despite favorable deliveries in terms of volume and, to a lesser extent, a slightly favorable price impact. Favorable non-recurring items had boosted financial performance in 2004.



## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.6.2. Reactors and Services Division

<i>(in millions of euros)</i>	2005 IFRS	2004 IFRS adjusted	2004 IFRS reported	2005/2004R change in %	2005/2004R change LFL* in %
<b>Backlog</b>	<b>3,804</b>	<b>3,506</b>	<b>3,506</b>	<b>+8.6%</b>	-
<b>Contribution to consolidated sales</b>	<b>2,348</b>	<b>2,146</b>	<b>2,146</b>	<b>+9.4%</b>	<b>+10.8%</b>
Plants	769	582	582	+32.0%	+31.6%
Nuclear Services	727	696	696	+4.4%	+3.4%
Equipment	227	242	242	(6.2%)	(6.2%)
Technicatome	316	316	316	(0.2%)	+5.4%
Nuclear Measurements	166	157	157	+5.8%	+5.6%
Consulting and Information Systems	143	133	133	+7.4%	+7.4%
Mechanical Systems	-	18	18	(100.0%)	-
<b>Operating income</b>	<b>87</b>	<b>95</b>	<b>95</b>	<b>(8.4%)</b>	-
<i>In % of contribution to sales</i>	<i>3.7%</i>	<i>4.4%</i>	<i>4.4%</i>	<i>-0.7 point</i>	-

\* Like-for-like, i.e. constant exchange rate and consolidation scope.

## Highlights of the year

In the *Plants* business, 2005 saw significant marketing activity in China:

- on February 28, 2005, a proposal was submitted for the construction of four third-generation nuclear reactors in response to a call for tenders issued on September 28, 2004, by the Chinese authorities to build the nuclear islands for four reactors in Yangjiang and Sanmen. AREVA's proposal, which was revised several times over the course of 2005, centered on the EPR, which is currently the only third-generation reactor to have been ordered by utility companies;
- in April 2005, a technical support contract was signed with China Guangdong Nuclear Power Corp./Nuclear Power Institute of China (CGNPC/NPIC) for the construction of the nuclear islands for two new reactors to expand the Ling Ao nuclear power station in Guangdong province. Under this contract, the Group will supply the primary loop package and instrumentation and control equipment.

In the United States, the Group entered into a strategic alliance with the utility Constellation Energy with the creation of UniStar Nuclear, a 50-50 joint venture. This joint company will market the first new-generation reactors in the United States.

UniStar Nuclear combines the forces of AREVA and a utility with substantial power plant licensing and operating experience into a single global offering. UniStar Nuclear is a commercial entity that will facilitate the development of joint ventures between Constellation Energy, other utilities and all interested parties. These joint ventures will be responsible for licensing, construction and operation of the reactors as owners, thus constituting a fleet of standardized US EPRs.

To support the development of reactor construction projects as well as reactor life extensions, the Group has launched a €30 million capital spending program to increase production capacity at its Chalon Saint-Marcel plant, which manufactures heavy components for nuclear power plants, including reactor vessels, steam generators and pressurizers.

This program mainly involves a 2,900 m<sup>2</sup> extension of the plant's heavy component assembly building. A recruitment plan was launched in connection with this project, with 200 new hires made in 2004 and 2005. The plant should continue to ramp up capacity in 2006.

The concrete slab for the fuel building of the Olkiluoto 3 EPR in Finland was poured in mid-August. The manufacturing of heavy equipment, including the reactor vessel and the steam generators, is under way. For the Flamanville EPR project in France, the Group has received an order from EDF for preliminary engineering studies.

On June 14, 2005, AREVA finalized the acquisition of the Swedish company Uddcomb Engineering, specializing in engineering and services for nuclear power plants. Also in 2005, the Group bought a business specializing in nuclear power plant control systems maintenance from Siemens.



## 5.1. Analysis of and comments on the Group's financial position and performance

**Backlog**

In the Reactors and Services Division, the backlog as of December 31, 2005, was €3,804 million, compared with €3,506 million as of December 31, 2004, representing an increase of 8.6%. This corresponds to more than 19 months of 2005 sales.

The key event of the year was the recording of orders for primary coolant systems and control systems for units 3 and 4 of the Ling Ao reactor in China and related technical support services for a total value of €400 million. In *Equipment*, EDF awarded a contract valued at more than €300 million to an AREVA-led team on April 5, 2005. The contract is for replacement of 18 steam generators at six 900 MW reactors, including one optional reactor, and related operations. The Group and its partners will begin replacement operations during outages scheduled for the 2006-2012 period. In *Services*, strong marketing activities, particularly in the United States, resulted in a sharp increase in orders.

**Sales revenue**

Sales for the Reactors and Services Division totaled €2,348 million in 2005, compared with €2,146 million in 2004, up 9.4% in reported data and 10.8% like-for-like. Exchange rate movements had a positive impact of €1 million. The first-time adoption of IFRS did not have an impact on the division's sales revenue.

The increase in sales revenue is due mainly to the following factors:

- the Finnish EPR contract contributed €90 million in additional revenue in 2005 compared with 2004. The preliminary design of France's first EPR, contracts to duplicate Chinese power plants (Ling Ao 2) and recurring engineering business also boosted sales in the *Plants* Business Unit (+31.6% in organic growth over the period);
- with 120 reactor outages managed across the globe in 2005 and an increase in heavy component replacements, business was good for *Nuclear Services* (+3.4% organic growth over the period), especially in France (integrated maintenance services) and in the United States, where a first-time pressurizer replacement was performed;
- *Equipment* recorded an upturn in production levels, with equipment fabrication for new reactors in Finland and China accounting for an increasing share. Orders rose sharply as numerous contracts were won, especially in France and the United States. However, since sales for major projects are recorded by the *Plants* Business Unit, sales revenue fell 6.2% in *Equipment*, like-for-like, over the period;

- in the Reactors and Services Division's other activities, business was stable for AREVA TA, consistent with projections; it was up for *Nuclear Measurements*, where a new marketing strategy and commercial sales organization is in place, and up for the *Consulting and Information Systems* Business Unit (Euriware group), with growth in line with that of the market.

Geographically, the increase in sales came from the Europe region, representing two-thirds of the divisions' sales, and mainly from the EPR project in Finland.

**Operating income**

The Reactors and Services Division's operating income for 2005 was €87 million, or 3.7% of sales, compared with €95 million in 2004, or 4.4% of sales.

This change reflects:

- the income diluting effect of the start-up of construction projects in *Plants*. This particularly takes into account the OL3 Finnish project and the extremely stringent construction conditions governing this first contract of the EPR series (see sections 4.5.1.8. and 4.15.4.)
- brisk business in the *Nuclear Services* business in 2005, especially in France and the United States, where the rising number of planned reactor outages and heavy component replacements had a favorable effect on margins;
- high volumes had a positive impact on operating margin in *Equipment* in 2005;
- the new commercial sales organization in *Nuclear Measurements* and the optimization plan that took effect in early 2005 resulted in strong improvement in business profitability.

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.6.3. Back End division

(in millions of euros)	2005 IFRS	2004 IFRS adjusted	2004 IFRS reported	2005/2004R change in %	2005/2004R change LFL* in %
<b>Backlog</b>	<b>5,665</b>	<b>6,661</b>	<b>6,661</b>	<b>(14.9%)</b>	<b>-</b>
<b>Contribution to consolidated sales</b>	<b>1,921</b>	<b>1,946</b>	<b>1,946</b>	<b>(1.3%)</b>	<b>(2.9%)</b>
Treatment and Recycling	1,553	1,541	1,541	(0.8%)	(1.6%)
Logistics	181	222	222	(18.6%)	(13.5%)
Engineering	69	73	73	(5.4%)	(15.3%)
Cleanup	119	110	110	+8.2%	+7.6%
<b>Operating income</b>	<b>208</b>	<b>231</b>	<b>231</b>	<b>(10.0%)</b>	<b>-</b>
<i>In % of contribution to sales</i>	<i>10.8%</i>	<i>11.8%</i>	<i>11.8%</i>	<i>-1.0 point</i>	<i>-</i>

\* Like-for-like, i.e. constant exchange rate and consolidation scope.

## Highlights of the year

The Eurofab operation, begun in 2004, was completed in 2005. This operation to fabricate four MOX fuel assemblies in France using 140 kg of US defense plutonium is part of the "MOX for Peace" program implemented by the United States and the Federation of Russia to promote nuclear non-proliferation.

The technology and know-how developed by AREVA in plutonium recycling and MOX fuel fabrication were selected by the United States and Russia, as part of their mutual disarmament agreements, to recycle 34 metric tons of surplus defense plutonium in the form of MOX fuel and to use the fuel in civilian nuclear reactors. The construction of a MOX fuel fabrication facility in each of these two countries is planned. In the United States, the Nuclear Regulatory Commission (NRC) delivered a permit in May 2005 for the construction of a MOX fuel fabrication facility at the Savannah River site in South Carolina. AREVA will participate in this project as a member of the Duke-COGENA-Stone & Webster team (DCS), which will operate the facility.

The four MOX fuel assemblies were delivered to the United States on May 25, 2005. The four assemblies will be used to demonstrate the performance of MOX fuel in a US reactor. The Catawba nuclear power plant operated by US utility Duke Power was chosen for this demonstration.

In April 2005, the *Logistics* Business Unit delivered the last casks of used German fuel to La Hague. It also shipped MOX fuel assemblies to the United States, thus contributing to the Eurofab project. In other MOX fuel developments, large-scale transportation equipment for fresh MOX fuel assemblies was put into commercial service in 2005.

On April 25, 2005, James Tulenko, Chairman of American Nuclear Society (ANS), a US scientific organization for the development of nuclear power, presented AREVA with the Nuclear Historic Landmark Award for the La Hague plant. The award is given to sites recognized for their innovative technologies and their contribution to the development of nuclear power worldwide. This award is important for AREVA's image and business development in the United States, where the Group already has significant operations.

## Backlog

In the Back End Division, the backlog as of December 31, 2005, was €5,665 million, compared with €6,661 million as of December 31, 2004, representing a decrease of 14.9%. This is the equivalent of almost three years of 2005 sales.

The decrease is considered normal in a business dominated by services to EDF, whose contract, which runs through 2007, is performed in a relatively straight-line manner.

Several commercial successes were scored in 2005:

- the CEA and AREVA signed a memorandum of agreement for annual cleanup services at the Marcoule site, valued at €244 million;
- in the *Treatment* and *Engineering* businesses, the Group was awarded a contract in March 2005 to provide vitrification support to BNFL at the Sellafield plant. The contract is valued at around €50 million;
- on December 20, 2005, Japan Nuclear Fuels Limited (JNFL) and AREVA signed an amendment to the contract for technical support for the start-up of the Rokkasho-Mura used nuclear fuel treatment plant in Aomori Province. The amendment extends the initial cooperation agreement between AREVA and JNFL, signed in July 2001, for another two years for a more limited scope of services. As a result, AREVA will provide support to JNFL through commercial start-up of the plant, scheduled for mid-2007;
- the *Logistics* Business Unit had a 100% success rate in the United States on requests for proposals to supply storage casks. This gives the business unit close to 60% of the US market for this product in terms of number of sites supplied.

## 5.1. Analysis of and comments on the Group's financial position and performance

**Sales revenue**

Sales revenue for the Back End Division totaled €1,921 million in 2005, compared with €1,946 million in 2004, fell a 1.3% decrease in reported data and 2.9% like-for-like. The first-time adoption of IFRS did not have an impact on the division's sales revenue.

*Treatment-Recycling* operations, which represented more than three-quarters of the division's sales, were down 1.6% like-for-like in 2005 due to the completion of the support contract for Japanese customer JNFL in 2004. As mentioned above, a contract amendment was signed in late 2005 to provide support to JNFL through the start of commercial operations of the Rokkasho Mura plant, scheduled for mid-2007.

The drop in business in 2005 was partially offset by a favorable product mix in *Treatment* and by a very strong level of production at the MELOX plant (*Recycling*), which is operating at its maximum licensed capacity.

*Logistics* posted a 13.5% decline for the year like-for-like. This is primarily the result of the scheduled shutdown of used fuel transportation operations with Germany and a cyclical downturn in deliveries of used fuel storage casks in the United States.

Business in the *Engineering* and *Cleanup* operations was stable overall.

Geographically, France continued to account for the majority of the Back End Division's sales, with 57% in 2005 and 53% in 2004. The most important change from 2004 to 2005 was recorded in the Asia region, mainly for the reasons mentioned above, i.e. the end of the JNFL contract in 2004. Sales in this region were only 10% of the division's sales for 2005, compared with 19% in 2004.

**Operating income**

Operating income for the Back End Division was €208 million in 2005, compared with €231 million in 2004. The difference reflects the end of the JNFL support contract in April 2004, to train the future operators of the customer's used fuel treatment plant in Rokkasho Mura, Japan. This was partially offset by:

- an increase in the volume of final waste containers produced in *Treatment* for return to the electric utility owners;
- an increase in production at the MELOX plant (*Recycling*). The effect on operating income of *Recycling* operations thus represents growth of approximately €30 million. The license request to increase plant capacity from 145 metric tons per year to 195 metric tons per year was submitted in 2005. If the request is approved, the facility's fixed costs would be spread over a larger production base, especially with the reintegration of production operations currently carried out by Belgonucléaire in Belgium, improving overall profitability;
- a 10-year increase in depreciation periods for La Hague and MELOX facilities. The positive recurring impact of this item on operating income is around €20 million per year. A one-time catch-up gain was recorded in 2005;
- in the *Logistics* Business Unit, the negative impact of the end of used fuel transportation from Germany was offset by:
  - performance on contracts with higher margins, and,
  - the positive effects of a cost reduction plan that has been in effect for several years.

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.6.4. Transmission &amp; Distribution Division

(in millions of euros)	2005 after eliminations	2005 IFRS	2004 IFRS adjusted	2004 IFRS reported	2005/2004R change in %	2005/2004R change LFL* in %
<b>Backlog at December 31</b>	<b>3,015</b>	<b>3,015</b>	<b>2,322</b>	<b>2,322</b>	<b>+29.8%</b>	<b>-</b>
<b>Sales</b>	3,212	3,212	3,186	3,186	+0.8%	+2.0%
Products	1,368	1,784	1,613	1,613	+10.6%	+7.6%
Systems	1,020	1,024	1,058	1,058	(3.2%)	(6.3%)
Automation	420	475	444	444	+6.9%	+3.0%
Services	421	492	603	603	(18.4%)	+5.2%
Eliminations of inter-BU sales	-	(563)	(532)	532	-	-
<b>Current operating income</b>	<b>103</b>	<b>103</b>	<b>39</b>	<b>39</b>	<b>+164.1%</b>	<b>-</b>
<i>In % of contribution to sales</i>	3.2%	3.2%	1.2%	1.2%	+2.0 points	-
<b>Operating loss</b>	<b>(61)</b>	<b>(61)</b>	<b>(103)</b>	<b>(103)</b>	<b>+40.8%</b>	<b>-</b>
<i>In % of contribution to sales</i>	(1.9%)	(1.9%)	(3.2%)	(3.2%)	-1.3 point	-

\* Like-for-like, i.e. constant exchange rate and consolidation scope.

## Highlights of the year

The final phase of integration of Transmission & Distribution operations into the Group was completed on April 6, 2005 with the signature of a share purchase agreement with Alstom for the latter's Transmission & Distribution operations in India.

Acquisition of the Indian subsidiary had been contemplated in the Transmission & Distribution acquisition agreement in early 2004, but was subject to regulatory approvals which delayed the transfer. The transfer was completed in early August 2005 pursuant to the Group's take-over bid for AREVA Ltd. (India), a publicly traded company, and the purchase of Alstom's shares, all in accordance with Indian regulations. The acquisition price was €14.5 million. AREVA now holds 66.65% of the company's share capital. The balance corresponds to the company's float, listed on the Bombay stock exchange. The unit has approximately €180 million in annual sales revenue and 2500 employees. This acquisition had no impact on the Group's cash position. The business was fully consolidated beginning August 3, 2005.

On the industrial level, the optimization plan developed and implemented in 2004 continued in 2005. The program on non-strategic assets resulted in the divestment of:

- the low voltage operations in France in October 2005, which had 2004 sales of approximately €29 million;
- the high voltage lines in Germany in April 2005, which had 2004 sales of €8 million.

With regard to the plant sites, for which the Group had set the goal of adapting its capacity based on demand in each of the world's major regions, agreements were signed to shut down

operations at Saint-Ouen, France, and Dresden, Germany. Capacity and/or specializations were adjusted at the Petit Quevilly (high voltage transformers), Villeurbanne (medium voltage) and Macon sites in France, and at the Kassel site in Germany and the Stafford and Manchester sites in the United Kingdom. As a result, the Western European workforce was reduced from close to 12,600 employees to 11,500 employees during the year.

The Group's industrial deployment in China saw the following milestones:

- the creation of a joint venture with Hudian-Xiamen to build a manufacturing plant for medium voltage switches;
- the construction of an AREVA manufacturing plant for medium voltage circuit breakers at Xiamen; and
- in collaboration with the University of Tsinghua, the creation of a research center that will focus on the development of innovative processes for power grid automation, communications and insulation technologies.

## Backlog

Orders booked for the year were up by 13.1% like-for-like over 2004 to more than €3.7 billion, with the increase driven by exceptional growth of 53.2% like-for-like in the fourth quarter of 2005.

In the Transmission & Distribution Division, the backlog as of December 31, 2005, was €3,015 million, compared with €2,322 million as of December 31, 2004, representing an increase of 29.8%. This corresponds to more than 11 months of 2005 sales.

## 5.1. Analysis of and comments on the Group's financial position and performance

From a marketing perspective, 2005 saw major new contracts in North Africa, Canada, the Middle East, Brazil and China:

- under a program to revamp the Tunisian electric grid, the Tunisian utility STEG (Société Tunisienne de l'Électricité et du Gaz) awarded two turnkey contracts to the Group totaling €61 million for the construction of five high voltage substations and two grid management systems;
- a €25 million turnkey contract with Hydro Québec, the national power generation, transmission & distribution company for the Province of Quebec, for the construction of the world's first de-icer for power lines, also used to regulate electricity quality. This power line de-icing system uses high voltage direct current technology (HVDCIce™). It will allow Hydro Québec to optimize power grid safety;
- a turnkey contract for the construction of two biomass power plants and their connection to the grid in Paraná, in southern Brazil. The plants will be connected to the grid in February and June 2006 and will each have 12.3 MW of capacity. They will be fueled with sawdust, woodchips and wood waste from nearby furniture factories. This project, valued at €16.6 million, is part of a national program to promote renewable energies;
- two turnkey contracts in Brazil totaling €40 million to strengthen the country's electric power supply system and satisfy a significant increase in demand fueled by strong economic and population growth;
- on October 19, 2005, AREVA Transmission & Distribution announced the signature of a contract in China with Guangdong Pumped Storage Co. Ltd. (GPSC) for the construction of a gas-insulated substation in Huizhou, in southern China;
- on December 12, 2005, AREVA Transmission & Distribution announced the signature of three contracts in the Middle East totaling €348 million:
  - two contracts valued at €200 million were signed with the Gulf Cooperation Council Interconnection Authority. These contracts are part of the first phase of a project worth several billion dollars to link the power grids of Gulf Cooperation Council member nations, i.e. Saudi Arabia, Bahrain, the United Arab Emirates, Kuwait, Qatar and the Sultanate of Oman. The future power grid will enable these countries to share their electricity resources, improve distribution and ensure uninterrupted supply at all times,
  - one contract totaling €148 million with the national public service company, Qatar General Electricity & Water Corporation (Kahramaa) to extend the electricity transmission network in the Qatari capital. AREVA Transmission & Distribution will design and install six new electric substations.

The Transmission & Distribution Division thus signed some 20 contracts valued at €15 million or more each throughout the year.

### Sales revenue

Sales revenue for the Transmission & Distribution Division totaled €3,212 million in 2005, compared with €3,186 million in 2004, for an increase of 0.8% in reported data and 2.0% like-for-like. The organic growth observed over the last three quarters of 2005 offsets the downturn recorded in the first quarter of the year (-6.5% like-for-like).

Exchange rate movements had a positive impact of €41 million over the period. The first-time adoption of IFRS did not have an impact on the division's sales revenue. The net consolidation effect of the sale of businesses in Australia and New Zealand on April 1, 2005, and of non-strategic low voltage operations in November, along with the integration of the Indian and Pakistani operations in August 2005, was close to negative €78 million.

The upward sales trend is attributable in particular to:

- the marked buoyancy of *Products* (+7.2%<sup>(5)</sup>), representing almost half of the division's sales, in high and medium voltage through its Transformers product line. The business saw a sharp increase in sales volume, especially in China (+17%), where industrial deployment is continuing with the establishment of new joint ventures to operate manufacturing plants for high voltage products;
- eroding sales prices and the downturn in volumes in Germany, Australia and Singapore caused the *Systems* Business Unit's sales to drop (-6.3%<sup>(5)</sup>) during the year, with second half growth arising from greater selectiveness in orders limiting the decline;
- *services* performed well through the period (+5.2%<sup>(5)</sup>) with the marketing of its two integrated service offerings, Asset Care and Proximity Business;
- *automation* business was up (+3.0%<sup>(5)</sup>) in all product lines, particularly substations, despite the erosion in sales prices. The business unit was able to maintain market share and increase sales, especially in Asia and Africa-Middle East, signaling second half 2005 growth.

The rise in sales revenue is set against a backdrop of the cyclical rise in raw materials prices. The division shifted part of the increase to its sales prices, especially in *Products*.

(5) Before elimination of inter-business unit sales, like-for-like.

## 5.1. Analysis of and comments on the Group's financial position and performance

Division-wide, sales were up in Europe (+6.6%) and South America (+1.9%) and stable in North America (+0.1%). Asia posted a slight drop (-1.8%), despite the strong growth in China (+11.8%). The Africa/Middle East region was slightly down, by 3.8%.

Geographically speaking, European sales represent some 45% of the Transmission & Distribution Division's sales, while each of the other three major regions – North and South America, Asia-Pacific and Africa-Middle East – represent around 15 to 20% of the Division's sales.

#### Current operating income, Restructuring expenses and Operating income

The Transmission & Distribution Division's current operating income rose sharply in 2005, to €103 million, or 3.2% of sales, compared with €39 million in 2004, or 1.2% of sales.

- The *Products*, *Automation* and *Services* businesses recorded positive current operating income, up sharply from 2004, despite the rise in the price of raw materials, which had a negative impact of €57 million over the period, some of which was passed on to customers. The price drops characteristic of this highly competitive market continued. These items were more than offset by increased volume and the first effects of the optimization plan (adjustment of production capacities, productivity gains, cost reductions and streamlining of purchasing), although these benefits are still modest.
  - in *Products*, current operating income benefited from highly favorable volumes, though limited by the negative price effect. About two-thirds of the increase in raw materials prices, representing a large proportion of the pricing structure, was passed on to customers;
  - the *Automation* business improved significantly in 2005, reporting a double-digit current operating margin. Increasing volumes were offset by the continuing decline in prices on markets where product life cycles are a matter of a few years;
  - *services* also posted growth over 2004, adjusted for the significant change in consolidation scope for this business unit, whose services businesses in Australia and New Zealand were sold in early 2005. Noteworthy activities include the development and implementation of a database enabling the Transmission & Distribution Division to track the installed equipment base and recommend customer-oriented operations and maintenance solutions.

- Profitability was low for *Systems* in 2005. In addition to the drop in sales described above, 2005 suffered from performance of low-margin contracts in the backlog and saw a downturn in margins on some contracts. The margin forecast from new business booked after the middle of the year picked up as the Group's sales strategy became more selective.

Restructuring costs fell from €142 million in 2004 to €102 million in 2005. A total of €244 million was recorded by year-end 2005 for restructuring expenses under the optimization plan initiated in 2004.

The level of restructuring expenses recorded for 2005 was lower than anticipated up to the middle of 2005. Firstly, the initial plan was continuously optimized. Secondly, some of the restructuring expenses initially planned were replaced by disposals of operating assets.

In addition to these restructuring expenses, an additional charge was recorded in 2005 for Transmission & Distribution Division "purchase accounting" adjustments. The expenses actually recognized were higher than those recorded in 2004. The difference was charged to operating income for fiscal year 2005.

Including restructuring expenses and other non-current operating expenses, the Transmission & Distribution Division reported an operating loss of €61 million in 2005, or -1.9% of sales, compared with a loss of €103 million in 2004 (-3.2% of sales).

## 5.1. Analysis of and comments on the Group's financial position and performance

## 5.1.3.6.5. Corporate and Other Operations

(in millions of euros)	2005 IFRS	2004 IFRS adjusted	2004 IFRS reported	2005/2004R change in %	2005/2004R change LFL* in %
<b>Contribution to consolidated sales</b>	14	19	18	(26.3%)	(30.3%)
<b>Operating loss</b>	<b>(58)</b>	<b>(35)</b>	<b>(35)</b>	<b>(65.7%)</b>	-
<i>In % of contribution to sales</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	-

\* Like-for-like, i.e. constant exchange rate and consolidation scope.

The change in sales for **Corporate and Other Operations** is part of a process to ultimately decrease that figure to zero. No particular comment is needed in this regard.

Operating loss increased from €35 million in 2004 to €58 million in 2005. In 2004, real property assets were sold, most notably the office building in Lyon, France. The capital gain was recorded in operating income. There were no positive non-recurring items in 2005.

## 5.1.3.7. Cash flow

## 5.1.3.7.1. Comparative table of operating cash flows and consolidated cash flows

## Introduction and definitions

The Group analyzes cash flows from operating activities separately from flows relating to end-of-life-cycle operations and other cash flows. This analysis of operating flows is based on a number of definitions which seek to distinguish between these flows.

These indicators are defined below:

- **Operating working capital requirements (OWCR)**

Operating working capital requirements represent all current assets and liabilities directly relating to operations, i.e.:

- inventories and work-in-process,
- trade accounts receivable and related accounts,
- advances paid,
- other accounts receivable, accrued income and prepaid expenses,
- less: trade accounts payable and related accounts, trade advances and prepayments received (excluding interest-bearing advances), other operating liabilities, accrued expenses, and deferred income.

(6) This indicator represents the cash flow generated by operating activities, and is therefore before income tax.

OWCR does not include non-operating receivables and payables such as income tax liabilities, amounts receivable on the sale of non-current assets, and liabilities in respect of the purchase of non-current assets.

The table on the following page presents the movement in operating WCR.

- **Earnings before income tax, depreciation and amortization (EBITDA)**

EBITDA is equal to operating income before deduction of the net charge to depreciation, amortization and provisions (excluding provisions for the write-down of current assets) included in operating income.

Beginning in fiscal year 2004, EBITDA is adjusted to exclude costs associated with nuclear facility end-of-life-cycle obligations (decommissioning, waste retrieval and packaging) performed during the year, including, in 2004, amounts paid or to be paid to third parties in this regard.

- **Free operating cash flow <sup>(6)</sup>**

Free operating cash flow is the cash flow generated by operating activities. It is equal to the sum of the following items:

- EBITDA, excluding end-of-life-cycle obligations,
- plus losses or minus gains on sales of PP&E and intangible assets included in operating income;



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- plus the decrease or minus the increase in operating working capital requirement between the beginning and the end of the year (excluding account transfers, currency translation adjustments and changes in consolidation scope);
- minus acquisitions of PP&E and intangible assets, net of changes in accounts payable related to non-current assets;
- plus sales of PP&E and intangible assets included in operating income, net of changes in receivables on the sale of non-current assets;
- plus customer prepayments on non-current assets received during the year.

#### • Cash flows from end-of-life-cycle obligations

Cash flows from end-of-life-cycle obligations include all cash flows relating to end-of-life-cycle obligations and assets earmarked to fund such obligations. It is equal to the sum of the following items:

- income from the portfolio of earmarked assets,
- cash from the sale of earmarked assets,
- minus acquisitions of earmarked assets,
- minus cash spent during the year on end-of-life-cycle obligations,
- full and final payments received for facility decommissioning,
- less full and final payments paid for facility decommissioning.

#### Reconciliation of operating cash flows and other cash flows

The following table distinguishes operating cash flows from the other cash flows presented in the consolidated cash flow statement.

As cash flows dedicated to end-of-life-cycle obligations were adjusted in 2003 and 2004, the Group has chosen to present them separately.

#### 2005

(in millions of euros)

	Operating	End-of-life-cycle obligation <sup>(1)</sup>	Other <sup>(2)</sup>	Total
<b>EBITDA (I)</b>	1,217			
Net gain on the sale of non-current operating assets (II)	6			
<b>Cash flow from operations after interest and taxes (I+II)</b>	<b>1,223</b>	<b>(0)</b>	<b>(168)</b>	<b>1,056**</b>
Change in working capital requirement (III)	(45)	(220)	(19)	(285)
<b>Net cash flow from operating activities (I+II+III)</b>	<b>1,178</b>	<b>(220)</b>	<b>(187)</b>	<b>770</b>
Cash used in investing activities, net of disposals (IV)	(395)	114	(458)	(739)
<b>Cash flow (I+II+III+IV)</b>	<b>783*</b>	<b>(106)</b>	<b>(647)</b>	<b>30</b>

\* This indicator is linked to the operating cash flow table presented in the following section.

\*\* This indicator is linked to the consolidated cash flow table discussed in section 5.1.3.7.4.

(1) Includes expenses for end-of-life-cycle operations incurred on-site and for final waste disposal, flows relating to the financial asset portfolio earmarked for end-of-life-cycle operations, and flows resulting from the signature of agreements with third parties, notably the CEA, for the funding by such parties of a portion of end-of-life-cycle operations.

(2) That is, non-operating flows not relating to end-of-life-cycle obligations and primarily corresponding to financing flows (including flows relating to external growth operations), and tax flows.



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## 5.1.3.7.2. Operating cash flow

Note: In accordance with the reporting system set up for 2004 annual results, the cash flows linked to end-of-life-cycle operations are presented separately, given the significant movements that took place in 2004.

	EBITDA		Operating WCR		Net operating CAPEX		Free operating cash flow before tax	
(in millions of euros)	2004 IFRS*	2005 IFRS	2004 IFRS*	2005 IFRS	2004 IFRS*	2005 IFRS	2004 IFRS*	2005 IFRS
Front End	459	508	(157)	(77)	(196)	(236)	106	197
Reactors and Services	121	173	11	226	(59)**	(170)	82***	228
Back End	402	483	299	(95)	(98)**	(53)	603***	332
<b>Nuclear</b>	<b>983</b>	<b>1,165</b>	<b>153</b>	<b>54</b>	<b>(354)**</b>	<b>(459)</b>	<b>791***</b>	<b>757</b>
Transmission & Distribution	23	106	22	(69)	(57)	68	(12)	116
Other	(14)	(53)	(4)	(30)	66	(4)	2	(90)
<b>Group total</b>	<b>991</b>	<b>1,217</b>	<b>170</b>	<b>(45)</b>	<b>(344)**</b>	<b>(395)</b>	<b>782***</b>	<b>783</b>

\* Adjusted for disposal of the Connectors Division – FCI.

\*\* Like-for-like method in 2005: - €71 million for the Reactors and Services Division, - €97 million for the Back End Division, i.e. - €354 million for the Group. Beginning in 2005, Capex includes acquisitions and disposals of consolidated companies.

\*\*\* Like-for-like method in 2005: + €71 million for the Reactors and Services Division, + €604 million for the Back End Division, i.e. + €772 million for the Group. Beginning in 2005, Capex includes acquisitions and disposals of consolidated companies.

#### Earnings before income tax, depreciation and amortization (EBITDA)

EBITDA<sup>(7)</sup> for the Group totaled €1,217 million for 2005, up sharply compared with the total of €991 million for 2004, adjusted for disposal of the Connectors Division and on a comparable accounting basis.

EBITDA was up in all divisions:

- in the Front End Division, EBITDA rose from €459 million in 2004 to €508 million in 2005. The improvement is primarily the result of the favorable impact of the *Mining* Business Unit (uranium),
- the Reactors and Services Division recorded growth of more than €50 million, with EBITDA of €173 million in 2005 up from €121 million in 2004, with all businesses reporting relatively uniform improvements,
- EBITDA for the Back End Division was €483 million in 2005, up from €402 million in 2004. The increase is chiefly due to *Recycling* operations, where MOX fuel production volumes were up sharply.
- the Transmission & Distribution Division's EBITDA totaled €106 million in 2005, compared with €23 million in 2004. This change reflects improved operations, as described above in the review of divisional performance.

(7) EBITDA is understood as operating income before depreciation, depletion, amortization and provisions (including recaptures).

#### Change in Operating Working Capital Requirement (Operating WCR)

Unlike the preceding two years, the change in operating WCR corresponds to cash consumption in 2005 (€45 million group-wide), compared with cash generation of €170 million in 2004, adjusted for disposal of the Connectors Division.

This change was due to:

- the Front End Division's consumption of €77 million in cash from operating activities in 2005, although this was an improvement compared with the €157 million consumed in 2004. Most of the used cash was the *Enrichment* Business Unit, which constituted large SWU stockpiles in light of ongoing electricity supply negotiations.
- the positive change in operating WCR of €226 million in resources in the Reactors and Services Division due to the receipt of one-time advances on major contracts in Finland and China, whereas the change in operating WCR was only €11 million in 2004.
- the Back End Division's consumption of €95 million in 2005, compared with a resource of €299 million in 2004, reflecting the receipt of large customer advances.
- the increase in operating WCR in the Transmission & Distribution Division due to a strong level of business, resulting in the consumption of €69 million in 2005, compared with a resource of €22 million in 2004. Action is being taken to correct this trend, which is mainly due to a swelling of work-in-process at the end of the period and to delays in customer payments in some businesses.

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**Operating Capex**

Operating Capex totaled €395 million in 2005 for the Group as a whole, compared with €344 million in 2004, adjusted for disposal of the Connectors Division, i.e. a 14.8% increase in 2005. Beginning in 2005, Capex includes acquisitions and disposals of consolidated companies. On a comparable accounting basis, the Group's operating Capex totaled €354 million in 2004.

This trend is primarily the result of:

- the announced increase in Capex net of disposals in the Front End Division, which went from €196 million in 2004 to €236 million in 2005. The increase is due mainly to :
  - mining operations, where large projects are entering the production stage, including Cigar Lake in Canada and Katco in Kazakhstan, in line with the Group's objective of bringing new production to more than 10,000 metric tons of uranium by 2010; and
  - to a lesser extent, the *Enrichment* Business Unit, which is preparing the construction of the Georges Besse II plant.
- the sharp increase in capital expenditure, net of disposals, in the Reactors and Services Division, which totaled €170 million in 2005 against €59 million in 2004 (€71 million on a comparable accounting basis in 2004). The growth reflects in particular;
  - the change in Capex in the *Plants* Business Unit linked in particular to the development and licensing of the EPR in the United States. Consistent with IAS 38, the Group capitalized a large proportion of these costs,
  - to a lesser extent, the expansion of the heavy component manufacturing plant in Chalon Saint-Marcel, France.
- the planned decrease in Back End Division Capex. Net of disposals, the division's Capex totaled €53 million in 2005, compared with €98 million in 2004 (€97 million on a comparable accounting basis in 2004),
- stable Capex in the Transmission & Distribution Division, which rose to €59 million in 2005 from €57 million in 2004. However, 2005 saw large flows from the disposal of operating assets, including the services businesses in Australia and New Zealand, high voltage operations in Germany and low voltage operations in France, representing €127 million. Capex net of disposals therefore represents a net cash outflow in 2005 of €68 million.

**Free operating cash flow before tax**

Including these items, the Group's free operating cash flow<sup>(8)</sup> in 2005 was €783 million, compared with €782 million in 2004, adjusted for disposal of the Connectors Division. Beginning in 2005, Capex includes acquisitions and disposals of consolidated companies. On a comparable accounting basis, the Group produced free operating cash flow in 2004 of €772 million.

- The nuclear businesses produced €757 million in free operating cash flow in 2005, compared with €791 million in 2004 (€781 million on a comparable accounting basis), when it had been particularly high.
  - despite an increase in capital expenditure, the Front End Division produced €197 million in free operating cash flow in 2005, compared with €106 million in 2004, due to the significant increase in EBITDA and a favorable change in WCR,
  - the Reactors and Services Division generated free operating cash flow of €228 million in 2005, compared with €82 million in 2004 (€71 million on a comparable accounting basis), despite a notably higher level of capital expenditure,
  - free operating cash flow retreated in the Back End Division, going from €603 million in 2004 (€604 million on a comparable accounting basis) to €332 million in 2005 due to increased WCR, whereas large customer advances were received in 2004.
- The Transmission & Distribution Division produced €116 million in free operating cash flow in 2005, compared with negative €12 million in 2004. However, 2005 saw large proceeds from disposals. Adjusted for these proceeds, free operating cash flow was negative €11 million in 2005 despite significantly improved EBITDA, due to the deterioration in WCR, now being corrected. Outgoing cash flow in respect of restructuring activities was €65 million in 2005, compared with €58 million in 2004.

<sup>(8)</sup> Free operating cash flow before income tax = EBITDA (excluding decommissioning) plus change in operating WCR minus Operating Capex.

## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.7.3. Cash flows for end-of-life-cycle obligations**

Cash flows for end-of-life-cycle obligations totaled negative €106 million in 2005. Expenses related to end-of-life-cycle obligations were stable, rising slightly to €254 million in 2005 from €228 million in 2004. In early 2005, the Group paid the

second half of the final payment of €427 million as provided in the agreements with the CEA on Marcoule in December 2004 (see below), i.e. €215 million. This account has a debit balance, pending the payment of amounts due by the CEA for commitments concerning the Cadarache and La Hague sites.

**5.1.3.7.4. Consolidated cash flow statement**

The simplified consolidated cash flow statement is presented below:

	2005	2004	2005/2004 change in %
Cash flow from operations	1,173	707	+65.9%
Interest expense and taxes paid	(117)	(98)	+19.4%
<b>Cash flow from operations after interest and taxes</b>	<b>1,056</b>	<b>609</b>	<b>+73.4%</b>
Change in working capital requirement	(285)	303	n.a.
<b>Cash from operating activities</b>	<b>770</b>	<b>912</b>	<b>(15.6%)</b>
<b>Cash used in investing activities</b>	<b>(739)</b>	<b>(1 127)</b>	<b>(34.4%)</b>
<b>Cash used in financing activities</b>	<b>(392)</b>	<b>(273)</b>	<b>+43.6%</b>
Decrease (increase) in marketable securities	(9)	133	n.a.
Change in consolidated group, foreign exchange adjustments, etc.	(7)	16	n.a.
Cash from discontinued operations	853	0	n.a.
<b>Increase (decrease) in net cash</b>	<b>475</b>	<b>(339)</b>	<b>n.a.</b>
Cash at the beginning of the year	944	1 284	(26.5%)
<b>Cash at the end of the year</b>	<b>1,419</b>	<b>944</b>	<b>+50.3%</b>

**Cash flow from operating activities**

Cash flow from operating activities totaled €770 million in 2005, compared with €912 million in 2004. Though cash flow from operations rose to €1,173 million in 2005 from €707 million in 2004, the net decrease is a result of:

- the deconsolidation of the Connectors Division, retroactive to January 1, 2005, which reported EBITDA of €113 million in 2004;
- the deterioration in working capital requirement in 2005 (see explanation of operating WCR, above), whereas this account provided a resource of more than €300 million in 2004.

**Cash used in investing activities**

Cash used in investing activities, net of divestments, totaled negative €739 million in 2005, compared with negative €1,127 million in 2004, representing a decrease in net investment of €388 million in 2005. The decrease primarily reflects:

- relatively stable acquisitions of PP&E and intangible assets, net of disposals, which rose to €469 million in 2005 from €414 million in 2004. Capital expenditure is discussed in the section on "Free operating cash flow",

- a very large decrease in net financial investments, to negative €298 million in 2005 from negative €739 million in 2004:

- in 2005, €727 million was invested in long-term investments. €533 million was used to acquire dedicated securities in the portfolio earmarked for end-of-life-cycle obligations, from which the Suez securities were removed and transferred to "Available-for-sale securities". The other long-term investments acquired relate mainly to :
  - AREVA's subscription to a capital increase implemented by Suez;
  - the acquisition of a 21.2% equity interest in REpower, a German designer and manufacturer of wind turbines; and
  - the acquisition of Uddcomb Engineering in Sweden.

In addition, €429 million in long-term investments were sold, most notably the Group's equity interests in Brime Assystem and related equity warrants, and in ERA, a uranium company in Australia.

- 2004 saw the acquisition of the *Transmission & Distribution* operations for €913 million, excluding net cash of acquired entities. In addition, the Group received €135 million in income from disposals of equity affiliates in the mining sector, of the Sovaklé company, a real estate subsidiary sold in 2002, and of assets in the portfolio earmarked for end-of-life-cycle obligations.

## 5.1. Analysis of and comments on the Group's financial position and performance

**Cash used in financing activities**

Cash used in financing activities represented a cash outflow of €392 million in 2005, compared with a cash outflow of €273 million in 2004, representing an increase in outflow of €119 million.

This change is primarily due to the increase in dividends paid to the shareholders, which totaled €340 million in 2005, compared with €220 million in 2004, and secondarily to the increase in dividends paid to minority interests, i.e. €81 million in 2005, compared with €65 million in 2004.

**Increase (decrease) in net cash**

Based on the foregoing, Group decreased net cash €378 million in 2005, compared with a decrease of €339 million in 2004.

Offsetting this decrease in net cash, the divestment of the Connectors Division (FCI) produced €853 million in cash in November 2005.

This resulted in a net increase in cash of €475 million, as reported in the consolidated cash flow statement.

Considering the opening cash position of €945 million, the Group had a closing cash position of €1,419 million.

Net debt is presented in the following section on "Balance sheet data".

**5.1.3.8. Balance sheet data****Summary consolidated balance sheet**

	December 31 2004 French GAAP*	December 31 2004 IFRS**	January 1 2005 IFRS***	December 31 2005 IFRS
<i>(in millions of euros)</i>				
<b>ASSETS</b>				
Net goodwill	1,656	1,649	2,206	2,095
PP&E and intangible assets	5,357	4,462	4,462	4,303
End-of-life-cycle asset (third party share)	4,309	2,015	2,015	2,045
Financial assets earmarked for end-of-life-cycle obligations	2,281	2,391	2,508	2,798
Equity associates	1,314	1,334	1,313	1,288
Other non-current financial assets	855	809	1,500	2,365
Deferred taxes (assets-liabilities)	157	(78)	(172)	27
Working capital requirement (WCR)	(1,126)	(1,240)	(1,233)	(1,061)
Cash and cash equivalents	1,054	1,054	1,055	1,484
Other current financial assets	585	609	263	264
Net assets of operations held for sale	-	-	-	6
<b>LIABILITIES AND EQUITY</b>				
Equity	4,241	4,564	4,928	6,362
Minority interests	776	746	369	228
Provisions for end-of-life-cycle operations – third party share	4,309	2,015	2,015	2,045
Provisions for end-of-life-cycle operations – AREVA share	3,948	2,317	2,317	2,444
Other current and non-current provisions	2,225	2,420	2,402	2,518
Borrowings	943	943	1,884	2,016
<b>Summary balance sheet total</b>	<b>16,442</b>	<b>13,005</b>	<b>13,916</b>	<b>15,613</b>
<b>Adjusted net cash per IFRS</b>			<b>(566)</b>	<b>(268)</b>

\* Data reported according to French GAAP, reclassified under IFRS.

\*\* Adjusted data per IFRS, excluding IAS 32 and 39.

\*\*\* Adjusted data per IFRS, including IAS 32 and 39.

Working capital assets and liabilities reported on a net basis in the summary balance sheet. Deferred taxes assets are also offset against deferred tax liabilities. Assets and liabilities are not offset in the detailed balance sheet presented in section 5.2.3.

## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.8.1. Non-current assets****Net goodwill**

Net goodwill went from €2,206 million at January 1, 2005, to €2,095 million at December 31, 2005, for a net decrease of €111 million.

The change in goodwill is primarily due to the following:

- divestment of the Connectors Division in November 2005, which led to the reversal of the corresponding goodwill net of currency translation adjustments, i.e. more than €264 million,
- revaluation of Siemens' put option on AREVA NP (formerly Framatome ANP), resulting in a €170 million increase in goodwill,
- the acquisition of the Swedish company Uddcomb, specialized in services and engineering for nuclear power plants, and of a maintenance company specialized in nuclear power plant control systems maintenance from Siemens, increased goodwill by close to €40 million,
- the sale of the Transmission & Distribution Division's operations in Australia and New Zealand led to a €45 million reduction in goodwill.

**Property, plant and equipment (PP&E) and intangible assets**

PP&E and intangible assets went from €4,462 million at January 1, 2005, to €4,303 million at December 31, 2005, for a net decrease of €159 million.

Key aspects of this change are as follows:

- the €199 million increase in gross investment in intangible assets, due mainly to capitalized mineral exploration expenses (€58 million) and to development expenses for various projects, including the development and licensing of the EPR in the United States, which were close to €80 million,
- the deconsolidation of the Connectors Division, representing a net decrease in intangible assets of €350 million.

The components of PP&E and intangible assets are described in Notes 11 and 13 to the consolidated financial statements, respectively.

**Equity associates**

Equity associates represented €1,288 million at December 31, 2005, compared with €1,313 million at January 1, 2005, i.e. a decrease of €25 million.

STMicroelectronics and Eramet represent the bulk of the shares accounted for under the equity method. The change for the period is the result of:

- the share in net income for 2005 of equity associates in the amount of €153 million;
- the acquisition of 21.2% of REpower;
- the divestment of its interest in FT1CI by France Télécom, generating a drop in the value of STMicroelectronics securities.

**Other non-current financial assets**

Other non-current financial assets totaled €2,365 million at December 31, 2005, up by €874 million compared with the €1,490 million at January 1, 2005.

Other non-current financial assets primarily consist of available-for-sale securities, mainly those of Total, Safran, Suez, Alcatel and Société Générale, for a total value of €855 million.

The change since January 1, 2005, representing €874 million, is mainly due to:

- reclassification of €533 million in Suez securities previously included in the portfolio earmarked for end-of-life-cycle obligations,
- acquisition of €113 million in new Suez securities in connection with a capital increase implemented in 2005,
- a €188 million increase in the value of the Société Générale and Safran securities,
- divestment of the Group's equity interest in AssystemBrime in the first half, for €94 million.

Other non-current financial assets are explained in Note 16 to the consolidated financial statements.

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**5.1.3.8.2. Assets earmarked for end-of-life-cycle obligations**

Assets earmarked for end-of-life-cycle obligations are discussed with the corresponding liabilities in section 5.1.3.8.6. pertaining to end-of-life-cycle provisions.

**5.1.3.8.3. Working capital requirement**

AREVA's working capital requirement is structurally negative, reflecting significant customer prepayments, primarily relating to long-term operations in the Back End Division.

WCR totaled negative €1,061 million at December 31, 2005, compared with negative €1,233 million at January 1, 2005. The consumption of €172 million in cash is chiefly due to:

- the payment of the second half of a final payment to the CEA under agreements concerning end-of-life-cycle obligations at the Marcoule site, in the amount of €215 million,
- the change in operating WCR discussed in the section on "Operating cash flow", corresponding to the use of €45 million,
- in balance sheet terms, customer advances and prepayments were up from €4,326 million at January 1, 2005, to €4,671 million at December 31, 2005, for an increase of €345 million. This was partially offset by the almost €500 million increase in trade accounts receivables, which went from €3,291 million at January 1, 2005 to €3,793 million at December 31, 2005.

**5.1.3.8.4. Net cash (debt)**

At December 31, 2005, the Group had net debt<sup>(12)</sup> of €268 million, compared with a positive cash position of €689 million at December 31, 2004, reported under French GAAP.

The first-time adoption of IFRS led to a change in AREVA's net cash (debt) definition:

Henceforth, it is defined as the sum of "Cash and cash equivalents" plus "Other current financial assets" less "Long and short-term borrowings", under the meaning of the IFRS. "Long and short-term borrowings" include the current value of minority put options.

The key impacts of this change are as follows:

- exclusion from net cash (debt) of securities previously classified as marketable securities. These are now classified as non-current assets in "Available-for-sale securities" (€353 million reduction in reported cash at January 1, 2005);
- integration of the valuation of the minority put option in borrowings (€931 million reduction in reported cash at January 1, 2005), thus increasing the net debt shown.

These changes in definition bring the net cash of €689 million reported on December 31, 2004, to a net debt of €566 million in the operating balance sheet for 2005.

In 2005, net debt was reduced by almost €300 million:

- free operating cash flow totaled €783 million, as discussed above;
- net cash flow related to end-of-life-cycle obligations constitutes the use of €106 million in cash;
- dividends paid totaled €421 million;
- the divestment of the Connectors Division generated €853 million in proceeds;
- €530 million was transferred to the portfolio earmarked for end-of-life-cycle obligations, offsetting securities removed from the portfolio and now classified as "Available-for-sale securities";
- a total of €119 million was paid for income taxes;
- with regard to debt, Siemens' put option pertaining to its equity interest in AREVA NP was revalued at €180 million; Long and short-term borrowings totaled €2,016 million at December 31, 2005, including the current value of minority put options.

(12) Net cash / (debt) per IFRS = Cash and cash equivalents plus Other current financial assets minus Long and short-term borrowings. Shares classified as "Available-for-sale securities" (Alcatel, SG, Total, etc.) are now excluded from the adjusted net cash position calculation.

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**5.1.3.8.5. Equity**

Equity totaled €6,362 million at December 31, 2005, compared with €4,928 million at January 1, 2005, reflecting growth of €1,434 million.

The increase primarily reflects:

- the effect of net income for fiscal year 2005 in the amount of €1,049 million;
- the payment of dividends for fiscal year 2004 in the amount of €340 million;
- increased deferred unrealized gains and losses (+€576 million) and currency translation reserves (+€153 million). The impact of IAS 32 and 39 adoption on Equity corresponds mostly to deferred unrealized gains and losses on cash flow hedge instruments and on pre-tax available-for-sale securities. The change in the value of available-for-sale financial assets had a significant effect on the change in Equity in 2005 and may lead to substantial volatility.

**5.1.3.8.6. Assets and provisions for end-of-life-cycle obligations**

The impacts of first-time IFRS adoption on assets and provisions related to end-of-life cycle obligations were presented in Chapter 5.1.9. of the Group's annual report for 2004. These impacts were also discussed in a special presentation made by AREVA on March 22, 2005, in connection with the adoption of IFRS. This presentation is available on the Group's website at [www.areva.com](http://www.areva.com). As a matter of interest, this involved the discounting of provisions for end-of-life-cycle obligations and the corresponding assets.

The change in the balance sheet from January 1, 2005, to December 31, 2005, with regard to assets and provisions for end-of-life cycle obligations is summarized in the table below.

	January 1, 2005 IFRS*	December 31, 2005 IFRS
<i>(in millions of euros)</i>		
<b>ASSETS</b>		
<b>End-of-life-cycle asset</b>	<b>2,177</b>	<b>2,208</b>
<i>AREVA share</i>		
<i>(to be amortized in future years)</i>	162	163
<i>Third party share</i>	2,015	2,045
<b>Assets earmarked for end-of-life-cycle obligations ("Earmarked portfolio")</b>	<b>2,514</b>	<b>2,798</b>
<b>LIABILITIES AND EQUITY</b>		
<b>Provisions for end-of-life-cycle operations</b>	<b>4,332</b>	<b>4,490</b>
<i>Provisions to be funded by AREVA</i>	2,317	2,444
<i>Provisions to be funded by third parties</i>	2,015	2,045

\* Adjusted data per IFRS, including IAS 32 and 39.

The net end-of-life-cycle asset totaled €2,208 million at December 31, 2005, compared with €2,177 million at January 1, 2005. This increase relates mostly to the reversal of discounting on the asset's third party share, recorded at the same time as the reversal of discounting on the provision. The third party share of the end-of-life-cycle asset mainly corresponds to the funding expected from EDF for the La Hague site and from the defense applications department of the CEA for the Pierrelatte site.

The IFRS balance sheet now allows the provisions tied to end-of-life-cycle operations (€4,490 million at December 31, 2005, of which €2,045 million are to be funded by third parties and €2,444 million are to be funded by AREVA) to be easily reconciled with the assets relating to these provisions: "End-of-life-cycle asset, third party share" (€2,045 million) and "Financial portfolio covering end-of-life-cycle obligations", at its at market value (€2,798 million).



## 5.1. Analysis of and comments on the Group's financial position and performance

At December 31, 2005, 58% of this portfolio consisted of shares and 42% consisted of bonds (75% shares and 25% bonds at January 1, 2005). The portfolio's composition is regularly analyzed by the Cleanup and Decommissioning Fund Monitoring Committee, which issues opinions and makes recommendations to the Supervisory Board. As a result, the Executive Board proposed a target strategic asset allocation of 40% to 50% diversified assets, mainly consisting of shares.

By design, the third party share of end-of-life-cycle assets is always equal to the provision to be funded by third parties, but the value of the portfolio of financial assets earmarked to finance end-of-life-cycle obligations borne by the Group varies according to the change in value of the securities in the portfolio. At December 31, 2005, this ratio showed a slight surplus of €354 million, due to the good performance of the dedicated financial portfolio over the period.

The nature of the obligations and the calculation of the provision are presented in Note 25 to the consolidated financial statements.

In December 2004, CEA, EDF and AREVA NC signed an agreement regarding the Marcoule plant. Effective December 1, 2004, CEA will assume the responsibilities of owner-operator of the site and will be responsible for funding the site cleanup effort. This agreement does not cover final waste disposal costs. It contemplates the payment of a final consideration to the CEA decommissioning fund by EDF and AREVA NC, corresponding to their respective financial obligations. AREVA NC paid half of its €427 million commitment at the end of 2004, and half in the beginning of 2005. Since December 31, 2004, AREVA's only provision concerning the Marcoule site corresponds to the Group's share of final waste removal and disposal costs.

**5.1.3.8.7. Other provisions**

Other provisions consist mainly of provisions for employee benefits, non-current provisions other than those related to end-of-life-cycle operations, and current provisions.

These provisions rose by €130 million in 2005, from €2,402 million at January 1, 2005, to €2,518 million at December 31, 2005. The increase is primarily due to:

- the increase in provisions for employee benefits, which totaled €1,096 million at December 31, 2005, compared with €1,031 million at January 1, 2005. This change is mainly due to the use of a lower discount rate to calculate the actuarial obligation (4.25% compared with 4.5% previously in the euro zone);
- a net increase in current operating provisions, described in Note 26 to the consolidated financial statements.



## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.8.8. Off balance-sheet commitments**

The Group's off-balance sheet commitments, given or received, are presented by economic purpose: operating commitments, commitments on financing, and other types of commitments.

Reciprocal commitments are also indicated. This last type of commitment corresponds to commitments given by the Group in consideration for a warranty from the third party.

<i>(in millions of euros)</i>	<b>December 31, 2004</b>	<b>December 31, 2005</b>	Maturity <1 yr	Maturity 1– 5 yrs	Maturity >5 yrs
<b>Commitments given</b>	<b>2,430</b>	<b>3,076</b>	<b>966</b>	<b>1,836</b>	<b>273</b>
Operating commitments given	2,131	2,689	876	1 547	267
Commitments given on financing	51	49	29	18	3
Other commitments given	247	337	61	272	4
<b>Commitments received</b>	<b>701</b>	<b>900</b>	<b>306</b>	<b>281</b>	<b>313</b>
Operating commitments received	250	427	96	278	52
Commitments given on financing	15	36	25	1	10
Other commitments received	436	437	185	2	251
<b>Reciprocal commitments</b>	<b>1,254</b>	<b>907</b>	<b>594</b>	<b>189</b>	<b>123</b>
Authorised lines of credit not drawn	557	122	64	41	18
Call or put options	388	396	396	0	0
Operating leases*	250	266	58	147	61
Other reciprocal commitments	58	123	77	2	44

\* This indicator was not collected at the December 31, 2004 closing.

A detailed table of off-balance sheet commitments is presented in Note 34 to the consolidated financial statements.

**Commitments given**

Commitments given totaled €3,076 million at December 31, 2005, up 26.6% from €2,430 million at the end of 2004. This change reflects an increase in operating commitments given, which represented 87% of all commitments given.

Almost 92% of all operating commitments given are related to sales contracts, and specifically to the term of the contracts. Business was brisk for the Group in 2005, translating into the almost €500 million increase in contract guarantees given. Most of these were for performance guarantees, representing more than two-thirds of the operating commitments given.

In addition, the Group gave a parent-company guarantee to TVO for the EPR project in Finland for the full value of the contract. The Group received a counter-guarantee from Siemens corresponding to this supplier's share of the TVO contract. The net commitment given by the Group is in the €1.5 billion to €2 billion range. This amount is not included in the summary table.

Moreover, AREVA has granted a specific guarantee on the property of the FCI's Stocks which were sold to Bain Capital. Such guarantee is capped to the purchase price, and is not included in the Summary table.

**Commitments received**

Commitments received totaled €900 million at December 31, 2005, up 28.3% from €701 million at the end of 2004. As is the case for commitments given, this change reflects an increase in operating commitments.

**Reciprocal commitments**

Reciprocal commitments totaled €907 million at December 31, 2005, compared with €1,254 million at the end of 2004. They include €250 million for commitments associated with operating leases, uncollected in 2004. The decrease of almost €350 million, or 27.7%, results for the most part from the expiry of an undrawn line of credit negotiated by AREVA SA for its subsidiaries.

## 5.1. Analysis of and comments on the Group's financial position and performance

**5.1.3.8.9. Capital employed and ROACE (Return on Average Capital Employed)**

Return on average capital employed (ROACE) is an internal and external indicator used to measure profitability and assess Group performance. In the Group's opinion, this performance indicator measures the long-term productivity of the Group's capital.

ROACE is not an IAS/IFRS indicator. This should be taken into account when using ROACE to make comparisons with other companies.

The Group defines ROACE as the return on average capital employed.

ROACE represents the after-tax operating profitability of capital employed by the company for its operating requirements.

ROACE is equal to the ratio of: net operating income/average capital employed.

- Net operating income is equal to operating income less the corresponding pro forma income tax, derived by multiplying operating income by the tax rate applicable to the Group under the global consolidated tax regime, or the specific tax rates applicable to certain subsidiaries subject to specific tax rates.
- Capital employed comprises the following:
  - net non-current assets;
  - initial goodwill, other than goodwill related to equity associates, to the “Siemens put” and to goodwill allocated to Total shares;

- inventories, trade receivables and other operating receivables;
- less customer advances, trade payables and other operating liabilities;
- less provisions for contingencies and losses, excluding provisions for end-of-life-cycle operations and provisions for tax risk.

The methodology chosen for fiscal year 2005 takes into consideration the transition to IFRS, the divestment of the Connectors Division, and the change in the definition of capital employed.

Upon first-time adoption of IFRS, the Group reconsidered the definition of capital employed after benchmarking major French industrial companies close to its business sector and belonging to the CAC40 Paris stock market index. Unlike AREVA through 2004, most of the industrial companies using a ROACE type indicator define capital employed as net of all provisions for contingencies and losses.

The Group therefore opted to align its definition with that of its peers in 2005, and to provide information on changes since 2002, based on that new definition.

Average capital employed is equal to: (capital employed at the end of the period + capital employed at the beginning of the period)/2.

A reconciliation of these indicators with the closest comparable financial indicators is presented below:

<i>(in millions of euros)</i>	<b>December 31, 2005*</b>	December 31, 2004 comparable*	December 31, 2004 reported French GAAP
Net intangible assets	762	584	608
Original goodwill as per the notes to the consolidated financial statements	2,095	2,206	4,012
Goodwill used in ROACE calculation	1,338	1,349	2,770
Net PP&E	3,542	3,514	3,697
Prepayments invested in non-current assets	(1,040)	(1,092)	(1,092)
Operating working capital requirements, excluding advances to fund non-current assets	(193)	(177)	(86)
Provisions for contingencies and losses	(2,481)	(2,202)	-
<b>Total capital employed</b>	<b>1,928</b>	<b>1,976</b>	<b>5,897</b>
<b>Average capital employed over the period</b>	<b>1,952</b>	<b>2,164</b>	<b>6,151</b>

\* 2004 IFRS, including IAS 32-39.

## 5.1. Analysis of and comments on the Group's financial position and performance

## ROACE

The following table presents changes in the Group's ROACE by fiscal year:

<b>December 31</b> <i>(in millions of euros)</i>	Average capital employed	Net operating income	ROACE
2005	1,952	396	20.3%
2004, 2005 comparable and adjusted for disposal of the Connectors Division	2,164	396	18.3%
2004 at 2005 method, French GAAP, including Connectors Division	3,980	419	10.5%
2003 at 2005 method, French GAAP, including Connectors Division	3,545	248	7.0%
2002 at 2005 method, French GAAP, including Connectors Division	4,284	138	3.2%
Reminder			
2004 reported, French GAAP, including Connectors Division	6,151	419	6.8%
2003 reported, French GAAP, including Connectors Division	5,220	248	4.7%
2002 reported, French GAAP, including Connectors Division	6,028	138	2.3%

For the 2002-2004 period, under French GAAP, the increase in ROACE is tied to the growth in operating income and the relative stability of capital employed, despite the acquisition of Transmission & Distribution in 2004.

In 2004, ROACE was 10.5% under French GAAP and including the Connectors Division.

- The transition to IFRS resulted in an increase in operating income and a decrease in capital employed. In particular, goodwill was expressed at its net value and not at its initial value. The cumulative impact on ROACE was +5.8 points.
- The change in consolidation scope, with the deconsolidation of FCI, resulted in a decrease in capital employed, with a +2 point impact on ROACE.

Given these two elements, ROACE totaled 18.3% in comparable data to 2005.

In 2005, ROACE rose by 2 points to 20.3%. Operating income is stable compared with that of 2004, whereas capital employed dropped by more than €200 million.

In the coming years, ROACE should start to decline beginning in 2006, as the group enters a new industrial cycle, with capital expenditure rising faster than operating income.

## 5.2. Human Resources report 2005

### 5.2.1. KEY DATA

	2003	2004	2005
<b>1. WORKFORCE AT YEAR-END, CONSISTENT WITH CONSOLIDATION SCOPE</b>			
<b>By Division</b>			
Front End	9,719	10,952	11,047
Reactors and Services	13,251	14,066	14,323
Back End	10,542	10,697	10,864
Connectors <sup>(1)</sup>	12,211	12,160	-
Transmission & Distribution <sup>(1)</sup>	-	21,816	22,094
Corporate and other operations	2,288	378	432
<b>Total</b>	<b>48,011</b>	<b>70,069</b>	<b>58,760</b>
<b>By region</b>			
France	29,198	34,128	31,194
Europe (excluding France)	5,873	14,094	12,085
North and South America	8,498	11,763	7,912
Africa and Middle East	867	1,726	1,745
Asia-Pacific	3,575	8,358	5,824
<b>Total</b>	<b>48,011</b>	<b>70,069</b>	<b>58,760</b>
<b>By category</b>			
Engineers and management staff	27%	31%	34%
Technical and administrative personnel	44%	39%	40%
Skilled workers	29%	30%	26%
<b>2. LABOR DATA</b>			
Women executives	4.5%	5.4%	6.2%
Women managers	17.6%	16.1%	15.7%
Women in non-management positions	22.3%	22.8%	17.5%
Numbers of hours of training per employee per year <sup>(2)</sup>	-	-	24.5
Disabled personnel (excluding USA) <sup>(3)</sup>	1.68%	1.75%	1.94%
Absenteeism rate	0.04	0.04	0.05
<b>3. OCCUPATIONAL SAFETY AND RADIATION PROTECTION DATA</b>			
Average employee dose from radiation exposure (mSv)	1.41	1.37	1.23
Total individual external dose to AREVA group employees over 12 consecutive months (man-millisievert)	n.c.	20,441.71	20,137.01
Total individual internal dose to AREVA group employees over 12 consecutive months (man-millisievert)	n.c.	5,460.88	4,138.85
Average subcontractor dose from radiation exposure (mSv)	0.45	0.37	0.48
Accident frequency rate with lost time (excluding commuting accidents)	8.01	7.6	5.4
Accident severity rate (excluding commuting accidents)	0.28	0.23	0.20
Number of fatal accidents (including commuting accidents)	n.c.	5	6

(1) Reporting for 2003 does not include Transmission & Distribution operations, consolidated as of 2004. Reporting for 2005 does not include Connectors operations, sold in 2005 and deconsolidated retroactively to January 1, 2005.

(2) The employee training indicator was modified in 2005 to benchmark it to other major European industrial groups.

(3) Reporting of the % of disabled personnel was modified in 2005; 2004 data was restated accordingly.

## 5.2.2. CHANGES IN NUMBER OF EMPLOYEES AND HUMAN RESOURCES DATA

### 5.2.2.1. Change in number of employees

The AREVA group had 58,760 employees at year-end 2005, compared with 70,069 at year-end 2004.

The change in number of employees reflects, for the most part, the sale of FCI (Connectors Division) to Bain Capital in November 2005, resulting in the transfer of 12,000 employees.

Other changes in the scope of consolidation tend to offset each other: AREVA T&D's services operations in Australia and New Zealand, representing approximately 2,000 employees, were sold in 2005. The integration of T&D's Indian and Pakistani operations added approximately 2,500 employees to the AREVA group.

In all, the Group's workforce remained stable in 2005 compared with 2004, at constant consolidation scope.

#### *Changes by socio-professional category*

The share of unskilled labor decreased from 30% to 26% with the sale of FCI operations, which are primarily in manufacturing.

#### *Changes by region*

The number of countries with AREVA operations remained unchanged.

The sale of FCI had no material impact on the distribution of employees by region. Europe remains the principal employment area for the Group.

Employees by region are as follows: 74% in Europe, 13% in North and South America, 10% in Asia-Pacific, and 3% in Africa-Middle East.

### 5.2.2.2. Changes in demographic profiles and health data

#### *Changes in demographic profiles*

The number of women executives progressed favorably. The percentage of women in executive positions rose from 5.4% in 2004 to 6.2% in 2005, representing a gain of 0.8 points.

The percentage of women in non-management positions decreased, reflecting the sale of FCI. In this manufacturing business, women employees represented 43% of the workforce in 2004.

The Group also encouraged the integration of disabled personnel, who represented 1.94% of the consolidated workforce in 2005, compared with 1.75% in 2004.

The absenteeism rate increased slightly in 2005 to 0.05, nonetheless remaining comparable to the average in the iron and steel industry.

#### *Changes in occupational safety and radiation protection data*

##### **AREVA's radiation protection management is effective**

Average employee exposure to radiation continued to decrease, confirming the effectiveness of the Group's radiation protection programs. Average exposure dropped from 1.37 mSv in 2004 to 1.23 mSv in 2005. This favorable trend is confirmed by the improvement in average individual external and internal doses from 2004 to 2005. After decreasing to 0.37 mSv in 2004, average subcontractor employee exposure increased to 0.48 mSv in 2005. However, these levels remain much lower than employee exposure. The *Mining* and *Recycling* Business Units have the most significant impact on subcontractor employee exposure. Corrective measures will be taken. It should be noted that radiation exposure in the AREVA group is well below regulatory limits for employees in the European Union (20 mSv/year) and in the United States (50 mSv/year).

Employees still subject to doses exceeding 20 mSv/year are found in significant numbers only in nuclear services in the United States. There, the number of employees subject to doses exceeding 20 mSv/year is declining and the maximum doses received are much lower than the allowable dose of 50 mSv/year.

##### **Industrial accidents**

The accident frequency rate for the AREVA group decreased from 7.6 in 2004 to 5.4 in 2005, while the accident severity rate decreased from 0.23 to 0.20. The Group's accident frequency rate dropped 30% in one year and remains well below the average rate for French industry, which is 26.9 (source: French Social Security Administration, CNAMTS). At the end of 2005, the Group had already reduced the accident severity rate to the level targeted for 2006.

Unfortunately, six employees or subcontractor employees had fatal accidents in 2005: three were electrocuted, two died in traffic accidents, and one died from a fall. AREVA T&D has implemented drastic measures to prevent any recurrence of electrocutions.

## 5.2. Human Resources report 2005

## 5.2.3. SUPPORTING THE GROUP'S DEVELOPMENT THROUGH HUMAN RESOURCES PROGRAMS

### 5.2.3.1. Meeting a series of major challenges

- **Strengthening the Group's culture** by sharing fundamental values and practices. Our goal is to become a reference for employee development in a supportive and open environment based on respect for diversity and local cultures in every country in which the AREVA group operates.
- **Hiring new talent while encouraging career development and mobility.** The Group's line managers and human resources managers have access to the resources necessary to plan for and support the Group's economic growth as well as employee expectations.
- **Helping to build the AREVA group.** Human resources programs are a driver for supporting organizational change. Necessary restructuring must be planned and implemented humanely and responsibly using innovative approaches.

These objectives are consistent with the AREVA group's sustainable development values and the AREVA Way business model promoted throughout the Group by the Corporate Human Resources Department.

To meet these challenges, the Group has defined the main principles of its "Talent Builder" approach: Attract, Retain, Promote and Recognize employee talent.

### 5.2.3.2. The Corporate HR Department is organized to achieve the Group's strategic objectives

#### Organization

The Corporate Human Resources Department is headed by the Director of Corporate Human Resources, who sits on AREVA's Executive Board. Human resources management is organized by region and by subsidiary.

Responsibilities are distributed among AREVA, its subsidiaries, the regions and the Group's business units.

#### *Human resources management has three main missions*

##### Human Resources and Management Development

This activity involves defining and leading programs to evaluate and develop the careers of Group managers on a worldwide basis.

In close and constant liaison with the Corporate Communications and Sustainable Development Departments, this department leads the HR network in developing the Group's corporate culture and explaining HR goals and processes.

##### Labor Policy

This activity involves defining and coordinating the Group's employment practices, in liaison with the network of heads of employee relations in the subsidiaries.

##### Strategic studies and human resources policy

This activity involves analyses of any subject affecting the Group's human resources and taking appropriate action, particularly with regard to the Group's compensation policy, employee savings plans, demographics, professional training and overall HR strategy.

#### *Human Resources Directors of AREVA subsidiaries*

The Corporate Director of Human Resources is assisted by the Human Resources Directors of AREVA's first-tier subsidiaries, i.e. AREVA T&D, AREVA NC and AREVA NP, who are fully accountable for human resources management in their respective subsidiaries and ensure implementation of the Group's HR policy.

#### *Regional Human Resources Directors*

To support the Group's international business development objectives, regional Human Resources departments have been established for the North and South America and Asia-Pacific regions.

#### *Shared Human Resources Director – France*

An HR center of expertise was created in France in 2005. It offers shared services to the subsidiaries in areas such as junior manager recruitment, employment management and mobility in France and abroad.

## 5.2.4. 2005 REVIEW

### 5.2.4.1. Supporting the Group's growth by strengthening its corporate culture

#### *Promoting shared values and a common management style*

##### AREVA Way

AREVA's management model, based on sustainable development, is completely integrated into all HR policies. HR management is responsible for implementing the fourth AREVA Way commitment: "Commitment to employees".

##### The Values Charter

The Values Charter is a shared benchmark for all of the Group's employees, who agree to be answerable for its principles. The Charter allows employees to perform their duties with full knowledge of their rights and responsibilities to the company and its stakeholders. It is based on seven values: customer satisfaction, profitability, responsibility, integrity, excellence, sincerity and partnership.

In 2005, AREVA continued to distribute the Values Charter throughout the Group. New versions in Chinese, Japanese, Spanish, Portuguese and Turkish were developed to raise awareness of ethical issues in all of the Group's subsidiaries.

##### AREVA University

AREVA University's mission is to train the Group's managers to facilitate and support growth and change. Its training programs are structured to address the strong growth in the energy market, AREVA's international development and new customer requirements.

AREVA University helps develop a sense of belonging to the Group and its values and culture. The University supports implementation of the Group's strategy, develops talent and prepares the Group's future managers while encouraging continuous improvement, innovation and performance.

#### *Establishing HR performance indicators and measures throughout the Group*

##### Integrating AREVA Way into HR policies and practices

Sustainable development is integrated operationally into the company's production and management processes through AREVA Way.

Employee relations, employment management, training and employee involvement are the main aspects covered in this process, under the general theme of social responsibility.

In 2005, HR responsibilities, action plans and budgets were developed according to AREVA Way assessment criteria. Common benchmarks were developed for all HR operations throughout the Group to facilitate self-assessment at each site.

##### Social rating

In 2005, AREVA's human resources practices were rated independently for the first time by Innovest. This independent research firm gave the Group an A rating (on a scale of CCC to AAA), placing AREVA among the top performing groups in the energy sector.

### 5.2.4.2. Facilitating recruitment, mobility and talent development to increase the Group's international leadership

#### *Hiring and promoting mobility to meet AREVA's international development challenges*

New hires and an active knowledge-transfer program are key to sustaining the Group's strong international growth.

To operate efficiently, new needs must be anticipated, new talent acquired and mobility promoted.

##### Structuring and optimizing hiring and mobility processes

An HR center of expertise was established to pool recruitment activities relating to young engineers and managers in France and to promote mobility in France worldwide. Fully operational since the second half of 2005, it focuses on three main goals:

- International mobility: a center of expertise was established to manage mobility and gradually develop a common policy applicable throughout the Group. A total of 49 destination countries and 22 originating countries are involved in this process. The harmonization process and the Group's expatriation package should nonetheless take into account characteristics specific to each destination site.
- Employment/Expertise/Mobility: a network was developed in each of the six French employment regions targeted by the agreement on job management planning signed on January 28, 2005.
- Recruiting young managers: a dedicated team was formed in 2005 to optimize the recruitment of young talent and to identify and pre-select candidates for the Group's different operations. The team is organized to process 300 new hires on a full-year basis.



## 5.2. Human Resources report 2005

A shared international e-recruiting system called e-talent was implemented in France, Germany and the United States. This recruiting and internal mobility tool lists available jobs on-line. Internal and external candidates can apply directly or submit their résumés on-line. This system will be expanded to include other AREVA regions in 2006.

### Fostering professional mobility

Mobility is one of the keys to a successful career and one of the main focuses of AREVA's HR "Talent Builder" brand. Mobility offers satisfying career solutions to employees threatened by layoffs or changing technologies. It also helps the Group meet the needs of expansion projects, especially for the Finnish EPR, construction of the MOX plant in the United States, and mineral exploration operations.

An internal communication program was deployed in 2005 to promote mobility throughout the Group. The goal: to increase awareness of opportunities and facilitate personnel mobility inside the Group. In addition to postings, a quarterly publication distributed throughout the Group reviews all mobility opportunities. Employees are also encouraged to use AREVA's e-talent site.

In 2005, **more than 1,500** transfers were completed within the Group using these tools, one third of which were in France. To achieve its restructuring goals, AREVA T&D transferred 130 employees in 2005, while FCI transferred 360 employees over the past three years.

AREVA employs 500 expatriates in 49 countries, representing more than 330 job transfers in 2005.

### A recruitment program to achieve AREVA's international development goals

#### • Establishment of a new recruitment communication program

In 2005, AREVA established a unified communication strategy for all recruitment activities in France. The goal: to explain the diversity of job opportunities offered by the Group in France and abroad. A network of "campus managers" was formed to carry out this strategy on a global level, select preferred schools, and participate in recruitment events organized in targeted schools.

#### • Meeting the specific needs of our business lines

AREVA T&D is focusing on hiring local talent, particularly in China, India and the United States. The division signed an agreement with Tsinghua University, one of the top schools in China, to develop research partnerships and hire students. Similar approaches were developed in India.

AREVA NC has large recruitment needs in France and abroad. In Kazakhstan, for example, a program to recruit 300 new employees is in progress. The development of uranium exploration activities creates additional needs as well. A special plan was set up to recruit and train young managers and engineers with one previous job experience or looking for a first job opportunity. Approximately 50 candidates have already been hired and assigned to AREVA NC. They will eventually be transferred to other operating units. The quality of integration is the watchword for the program, which relies on integration seminars, mentoring, etc.

AREVA NP recruited 400 engineers and managers in 2005, who were assigned in equal numbers to France, Germany and the United States. The new hires are related to new licensing programs in the United States and the construction of power plants such as the EPR in Finland. In this sector, the search for experienced engineers is much more pressing than in other businesses. AREVA has also taken special steps in the United States to encourage women to take part in the development of the nuclear sector, such as membership in the "Women in Nuclear" group.

**In all, the AREVA group hired almost 6,000 new recruits (including 2,300 in France),** all professional categories combined. In France, full-time positions represented 62% of the new hires in 2005. Of the 789 fixed-term jobs on the rolls at December 31, 2005, more than 400 consist of apprenticeship and internship positions. Outside temporary employment accounted for 2,901 jobs in 2005, in line with the previous year (excluding Connectors units).

### *Managing the Group's performance, one person at a time*

#### Talent development

In 2004, AREVA laid the foundation of its performance management program and established its own HR brand, "Talent Builder". In 2005, the Group implemented a "People Review" system to harmonize processes to identify and optimize talent management in the subsidiaries. The People Review process relies on management interviews in each subsidiary, by department and at the Group level. The conclusions of the process are consolidated to develop action plans.

At AREVA NC, all managers are already evaluated under the People Review process. To optimize this approach, 150 managers were trained in 2005 to conduct annual reviews.

AREVA NP harmonized the People Review process in all its operations worldwide and laid the foundation for a performance-based compensation system in 2005.



## 5.2. Human Resources report 2005

**Manager compensation policy**

The Group refined its manager compensation practices after benchmarking its compensation practices with those of comparable industrial groups.

Manager responsibilities, expertise, results and long-term performance are the determining factors of their compensation, which takes into consideration local conditions and employment terms offered by AREVA's competitors.

**Management and HR communications**

Two documents were distributed throughout the worldwide Group in 2005: an HR Handbook presenting the goals and resources of AREVA's Human Resources function and a People Review leaflet explaining the unified process implemented by the Group. This leaflet allows HR managers and other managers to understand their respective roles in the process.

The main outlines of AREVA's HR policy were presented during conventions organized in each global region. These conventions provided an opportunity to formalize the network of HR professionals and to share experiences and practices. To strengthen the participants' expertise, specific training sessions were organized on training, mobility support and HR management.

**Effective measures to support skills development****• AREVA University**

AREVA University's goal is to facilitate and support development and change within the Group. It is organized into two main functions: Management and Continuous Improvement programs.

The Management programs include the following:

- five management series lasting from six to nine months for different levels of management: new hires, young managers, experienced managers, senior managers and executives;
- initiation and advanced seminars.

The Continuous Improvement program covers four main themes:

- Professional development: the purpose is to homogenize practices and develop knowledge in each major area of expertise.
- Expertise: this module focuses on strengthening management skills for experts.
- Best practices: to develop best practices within the Group and thus promote knowledge-sharing.
- Continuous improvement: the University provides support for implementation of continuous improvement programs.

In 2005, **2,650 managers** took part in AREVA University training and programs.

**• Management of technical and scientific knowledge**

As provided in the Group policy established in 2003 and modified in 2004, experts are designated for a two-year period.

In 2003, 600 experts were identified in the Group at three different levels based on expertise recognized by a subsidiary (level 1), by the Group (level 2), or by the international scientific community (level 3).

An international People Review of level-3 experts was conducted for the first time in 2005. As a result of this process, the status of 30% of the Group's experts was renewed.

A first International Experts Convention was held in January 2005. It was decided to ask experts to participate in the management series offered by AREVA University and to create a program dedicated to expertise and R&D management. In addition, a database of experts, including their publications and scientific contributions and partnerships, was developed and made available on-line. Knowledge-sharing was also promoted during Scientific and Technical Days organized by the experts themselves. They also participated widely in in-house technical training programs. These programs were particularly helpful in training the large number of young engineers recruited by AREVA NP.

The Research and Innovation Department also encourages the creation of expert networks oriented towards operating objectives: their mission is to offer scientific and technical recommendations in time-sensitive situations, based on a scope of work defined by a business unit.

***Professionalizing the Group***

AREVA has decided to optimize employee training management throughout the Group to implement the professional training reform initiated in France at the end of 2004, so that each employee takes control of his or her own professional development.

Two main aspects were developed in 2005:

- An agreement regarding professional training is being negotiated with representatives of the Group's personnel;
- A Cooperation agreement was concluded with government approved employee/employer training networks to optimize co-financing of training programs in France.

## 5.2. Human Resources report 2005

### 5.2.4.3. Developing innovative and responsible employment practices

#### ***Strengthening dialogue with labor throughout the Group***

- The European Work Council

AREVA's European Work Council was established for dialogue and information aimed at developing Group-wide employment practices reflecting labor concerns that are not country specific. AREVA decided to go beyond the requirement of the European directive by including employees from Switzerland and Turkey to sit on the council as observers. In 2005, the European Work Council comprised 35 members representing 15 countries. It focused on the following topics:

- Ongoing restructuring of AREVA T&D in Europe;
- Disposal of the Connectors Division (FCI);
- Dialogue between management and employee representatives sitting on the European Work Council on topics such as equality in the workplace and diversity. A review of best Group practices regarding integration of people with disabilities and equality between men and women was carried out in 2005. The conclusions of this review will serve as a foundation for a realistic and effective policy in 2006.

AREVA is committed to hiring people with disabilities. Along with other major French companies, the Group signed the "Manifest for the successful employment of people with disabilities". AREVA also participated in the Job Dating event organized by the ADAPT, an association promoting the integration of people with disabilities into society and the workplace.

At the local level, some AREVA NC employees testified during the week dedicated to the integration of people with disabilities.

- Continuing our HR approach based on negotiated agreements

In accordance with our HR approach based on negotiated agreements, a major agreement aimed at establishing a Group savings plan was signed. At AREVA NC, negotiations were carried out simultaneously in 25 subsidiaries, first at the level of the local work councils and then at the central work council level. A total of 25 savings plans and 70 mutual funds were modified.

The agreement on employment management planning was also implemented for the first time in 2005. Coordinators in charge of implementing the policy were designated in the five employment regions covered by the agreement.

- Other agreements with labor in the subsidiaries

AREVA NC renegotiated the AREVA SA incentive remuneration agreement and the MELOX company-wide agreement.

AREVA NP concluded incentive remuneration agreements based on economic performance criteria.

#### ***Planning for and supporting restructuring***

The Group favors solidarity principles when implementing restructuring plans, with a view to minimizing their social impact. This approach entails negotiating with labor on job preservation solutions to plan for and put into practice.

AREVA T&D began implementing the three-year reorganization plan presented at the end of 2004 to restore the company's competitiveness. It is heavily based on implementing agreements signed with labor and is oriented towards innovative solutions, particularly retraining programs enabling employees to acquire new skills. T&D was able to transfer 130 employees to other divisions, half of them to AREVA NP, which is seeing strong growth in the nuclear power sector.

AREVA NC initiated a series of negotiations in 2005. These discussions will continue in 2006. The terms for the transfer of 307 employees are being negotiated at Marcoule, following the transfer cleanup and dismantling operations at the UP1 plant to the CEA.

## 5.2. Human Resources report 2005

***Ensuring the health and safety of Group and subcontractor personnel*****Occupational safety**

For AREVA, protecting employees and subcontractor personnel who work at the sites is a top priority.

In 2004, the Group formalized its policy and commitments with regard to occupational safety. AREVA's objective is to reduce accidents to zero.

An external audit was started in 2004 to determine areas for improvement in 155 facilities, including all of the Group's major office buildings. This project was completed in August 2005 and in early 2006 the audit results were used to reassess AREVA's safety objectives, originally set in 2004 for completion by the end of 2006.

The new target for year-end 2010 is an accident frequency rate of less than 3, compared with 5.4 in 2005, and an accident severity rate of less than 0.15, compared with 0.20 in 2005.

To achieve these goals, AREVA has committed to:

- defining a clear and specific safety organization;
- making safety an integral part of its business;
- establishing an accident prevention program and a continuous improvement initiative;
- formalizing its occupational safety management system.

Because occupational safety is integral to AREVA's businesses, it is factored into the design of facilities and ensured throughout their operating life. Safety is also a criterion in subcontractor selection. All personnel receive special training.

Each production and manufacturing plant conducts safety inspections in which the operators involved take part.

For the program revised in 2006, AREVA strengthened safety requirements in areas including monitoring of its own operations at third party and customer sites, monitoring third party entities performing work at AREVA sites, establishment of integrated management systems meeting OHSAS 18001 standards at sites with significant environmental aspects, and training of site and business managers.

**Maintaining a high level of radiation protection**

AREVA continued to pursue its implementation of new French regulations on radiation protection. Numerous planning meetings were held in 2005 with site safety protection departments to meet the new regulatory requirements.

The Group's radiation protection specialists for the French sites met twice on this subject in 2005. These meetings provided an opportunity to share best practices and coordinate cross-cutting actions: licensing of the dosimetry laboratories, certification of radiation protection personnel for performing technical inspections, employee dosimetry, etc.

In the fuel fabrication sector, the Romans site in France and the Richland and Lynchburg sites in the United States shared lessons learned in the field of internal dose assessment.

The Group's General Inspectorate also carried out radiation protection inspections at the sites. As in 2004, no major issues were recorded in 2005.

In compliance with the recommendations of the International Commission on Radiological Protection (ICRP), the Group has set an objective of reducing the potential dose to employees in its facilities to less than 20 mSv/year. The Group also plans to comply with this limit in the course of its activities for other nuclear operators, even in countries where regulations are less strict, such as Niger and the United States. The number of employees who received doses in excess of 20 mSv started to decrease in 2005.

**Health**

At AREVA, a thorough knowledge of the working conditions at each site is used to ensure the best possible medical monitoring of employees, with particular emphasis on analysis, research and coordination among the different medical services.

## 5.2. Human Resources report 2005

#### 5.2.4.4. Employee shareholding, profit-sharing plans and incentive remuneration

##### *Establishing the AREVA Group Savings Plan (PEG)*

In early 2005, AREVA established a Group Savings Plan for all AREVA group companies to harmonize and unify the various savings plans in the French subsidiaries. This new plan gives employees a single statement for all their assets and a much wider choice of new services.

This process does not apply to corporate mutual funds invested in shares of Group companies, such as the Framépargne fund. These instruments are only available to employees and former employees who were eligible to invest in them in previous years. Nevertheless, these plans have been placed under the general umbrella of the new Group Savings Plan.

The centralized reporting of all assets held by French employees has been subcontracted to Creelia, a subsidiary of Crédit Agricole Asset Management. The centralization of account reporting and custodian services for almost 41,000 active and retired employee accounts allows each employee to receive complete information on all of his or her assets in the various funds. This information can be accessed on-line and exchanges among funds are possible at all times and without fee. Employees can also redeem shares held in any fund.

The AREVA Group Savings Plan offers a complete range of funds covering all asset categories. It includes:

- **AREVA Monétaire**, a treasury fund managed by Société Générale Asset Management (SGAM) fully invested in money market instruments;
- **AREVA Obligataire**, a bond fund managed by Crédit Agricole Asset Management (CAAM) and fully invested in bonds from issuers in the euro zone;
- **AREVA Actions Zone Euro**, a fund managed by **CIC** Asset Management and fully invested in equity instruments from issuers in the euro zone;
- Three balanced funds: **AREVA Diversifié Obligataire**, managed by Natexis Interépargne Asset Management (25% equities/75% bonds); **AREVA Diversifié Equilibré**, managed by HSBC Asset Management (50% equities/50% bonds); **AREVA Diversifié Dynamique**, managed by Société Générale Asset Management (75% equities/25% bonds);
- **AREVA ISR**, a fund managed by Fongepar Gestion Financière. This Socially Responsible Fund is fully invested in equities of companies implementing principles of social responsibility in employment practices.

A diversified pool of fund managers was selected with a view to optimizing investor returns. The performance of the managers will be measured regularly and the management contracts will be reassessed as needed.

The first fund supervision committees met six months after the AREVA Group Savings Plan funds were established. These meetings brought together some 100 employee and management representatives.

In addition, the February 9, 2005, agreement on AREVA group savings plans also provides for the establishment of a savings plan monitoring committee. This committee will meet each year to discuss key issues relating to the management of the Group Savings Plan.

##### *Incentive remuneration and profit-sharing plans*

Various incentive remuneration and profit-sharing agreements are in effect in companies throughout the Group. The aim is to allow each individual employee to benefit from collective performance while allowing them to take advantage of the plans' favorable income tax and payroll tax treatment.

In 2005, the Group paid out a total of €65 million in respect of performance objectives for 2004.

Under these agreements, employees receive incentive remuneration when specific objectives have been reached and/or profit-sharing bonuses based on the group's overall financial performance.

In incentive remuneration agreements, the chosen performance criteria are usually linked to:

- quantitative performance, such as operating income, sales revenue, or current operating income;
- productivity gains;
- cost reductions; and/or
- qualitative results based on performance improvement objectives specific to each company.

## 5.3. Environmental report

Nuclear risk management is a major goal in the actions AREVA deploys at the Group level. Its importance as an issue and its specific features warrant a specific program, procedures, and resources, as described in paragraph 4.15.2.

AREVA's diverse businesses and the wide range of cultures and regulations in countries in which the Group operates cover a number of environmental issues. Through the Group's environ-

mental policy and relations with stakeholders, supplemented by specific measures for nuclear risk prevention and management, AREVA is able to take all of these issues into account.

### 5.3.1. ENVIRONMENTAL POLICY

AREVA's environmental policy applies to every entity of the Group, in France as well as abroad. It is implemented depending on specific local characteristics. The policy is based on six commitments:

- Managing

Ensuring compliance with regulatory requirements in every country in which the Group operates and deploying Environmental Management Systems (EMS) for all operations.

- Preventing Risk

Developing monitoring and assessment procedures to prevent chemical and biological risks in the environment, and standardizing methods of assessing radiological impacts.

- Innovating

Deploying an eco-design initiative that integrates environmental impact minimization into product, service, process and infrastructure design.

- Improving environmental performance

Improving environmental performance on a like-for-like basis (constant consolidation scope and operations) by reducing:

- materials and energy consumption and uses of other resources found in natural environments;
- atmospheric releases and releases in aquatic environments, and
- final waste.

- Preserving the land

Managing land use by planning for the future reuse of the site and the preservation of ecosystems.

- Measuring and reporting

Harmonizing and expanding environmental reporting to include stakeholders at all sites with significant environmental aspects (SEA sites)<sup>(1)</sup>.

This program is implemented through the AREVA Way process by quantifying objectives and updating them annually based on risk mapping efforts (see chapter 4.15.1.), stakeholder expectations, good internal and external practices, environmental reporting, and dialogue with the operating entities within the context of AREVA way (see chapter 4.12.).

To focus activities, the corresponding action plans are specific to the significance of the site's risk. The list of sites with significant environmental aspects was updated in 2005 to take into account FCI's deconsolidation and the start of Katco's uranium mining operations in Kazakhstan. The Group had a total of 79 SEA sites in 2005, including 15 licensed nuclear facilities (INB), 4 high-threshold Seveso sites, 4 low-threshold Seveso sites, and 4 uranium mining complexes.

The action plans are organized around three key tasks:

- environmental management:
  - of the sites: ISO 14001 certification of SEA sites;
  - of the products and services, through eco-design.

*(1) In AREVA's frame of reference, sites with significant environmental aspects include our nuclear sites, sites with facilities representing major man-made risk per Seveso regulations, mining sites, plants with facilities subject to public inquiry, and industrial or service sites which make a significant contribution to the Group's environmental accounting.*

### 5.3. Environmental report

- risk reduction:
  - chronic risks: polluted soils and environmental health risks;
  - man-made chemical hazards.
- performance improvement:
  - minimizing water use;
  - conserving energy;
  - reducing emissions and releases, in particular direct emissions of greenhouse gases;
  - reducing final waste volumes.

Progress is tracked by the AREVA Environment Committee, which meets monthly. Monitoring tools include:

- the scorecard for deploying AREVA's environmental policy;
- analysis of entity performance objectives charts and action plans on topic 6, "Environmental Protection", as part of the AREVA Way continuous improvement process; and
- environmental data and indicators from the sustainable development reporting system, for which the memorandum of agreement was revised and the data validation process improved in 2005 to improve data reliability;
- topical environmental reviews (17 in 2005) conducted at SEA sites.

In 2005, the program and related objectives were rolled out in the Transmission & Distribution Division.

#### 5.3.1.1. Environmental management at the sites

##### *Environmental Management Systems*

AREVA's goal is to implement environmental management systems (EMS) at all sites and to secure ISO 14001 or equivalent certification for sites with significant environmental aspects before the end of 2006.

In 2005, all of the sites maintained their certification and 14 new sites were certified:

- Front End Division: AREVA NC Miramas, Lynchburg Mount Athos, Richland, Socatri
- Reactors and Services Division: Technicatome Cadarache, Intercontrôle Cadarache
- Transmission & Distribution Division: Bangalore, Canoas, Chennai (Perungudi), Kolkata Taratella, Kolkata Salt Lake City, Naini/Allahabad, Sao Paulo (Interlagos), Shanghai (Chentai)

As of the end of 2005, 75% of the sites with significant environmental aspects had been certified under ISO 14001. Of these sites, all of the AREVA group's nuclear and Seveso sites were ISO 14001-certified.

In the Front End Division, the current situation in the gold mines of Sudan and Côte d'Ivoire has prevented, and still prevents, certification. Katco became an SEA site in 2005. In the Reactors and Services Division and in the Back End Division, the three sites yet to be certified have begun the process, which should be completed in 2006. Since the Transmission & Distribution Division joined the Group recently, in 2004, it has postponed SEA site certification until the end of 2006. However, 65% of this division's SEA sites have now been certified.

##### 2005 Report

	Front End Division	Reactors and Services Division	Back End Division	Transmission & Distribution Division	Total
Number of SEA sites	26	8	5	40	79
Number of certified SEA sites	23	6	4	26	59
% of certified SEA sites	88	75	80	65	75
Of which number of nuclear sites	9	2	4	-	15
Of which number of certified nuclear sites	9	2	4	-	15
% certified nuclear sites	100	100	100	-	100

Another 26 sites have received ISO 14001 certification, and an environmental management handbook for sites in the services sector provides guidance for their environmental programs. Some

sites, including AREVA NP Lyon and the AREVA Tower at La Défense, have opted for ISO 14001 certification of their Environmental Management System (EMS).

***Raising awareness and training***

AREVA seeks to strengthen personnel training and to raise awareness within its entities concerning environmental responsibilities, particularly as regards energy conservation and the reduction of greenhouse gas (GHG) emissions. This goes beyond activities conducted in connection with the EMS.

In 2005, technical days were organized on the topics of waste and energy conservation (reviews of energy efficiency, compressed air, lighting).

Tools in French and English to raise eco-efficiency awareness continued to be distributed. The emphasis is on behavior, based on a collective eco-attitude concept consisting of promoting environmentally responsible behavior among employees.

The “Green Way” manual, containing the AREVA group’s basic standards for environmental protection in various fields, was developed in French and English.

***Monitoring of regulations***

The Group’s Corporate Legal Department sends a monthly electronic newsletter on nuclear and environmental law to all users. Software to manage regulatory monitoring at all of the French sites was developed in 2005 and will be available in 2006.

***Environmental spending***

This indicator was added to the sustainable development and continuous improvement reporting protocol in 2004. The indicator is based on the definition of environmental spending appearing in the annual statistical survey put out by SESSI, the Ministry of Economy, Finance and Industry’s department of industrial studies and statistics. The consolidated Group invested €71 million in the environment in France in 2005.

***Provisions and guarantees related to the Group’s end-of-life-cycle obligations and environmental hazards***

A provision totaling €4,648 million was set up as of December 31, 2005, for environmental hazards, including mine reclamation and dismantling, nuclear facility decommissioning, radioactive waste retrieval and packaging, final waste disposal, routine and final cleanup, and restoration of mines and plant sites. Nuclear facility dismantling and waste retrieval and packaging accounted for €4,490 million of this amount, €2,603 million of which is borne by AREVA (see note 25 to the consolidated financial statements).

***Environmental penalties***

This indicator was added to the sustainable development and continuous improvement reporting protocol in 2004. The Group paid a total of €7,926 euros in penalties in 2005.

**5.3.1.2. Using eco-design for the environmental management of products**

By understanding the environmental impacts generated by a product at each stage in its life cycle, its design can be optimized to reduce those impacts at the source: this is what eco-design approaches aim to achieve.

More than 90 associates from the engineering, R&D departments, environmental and purchasing departments participated in the Group’s eco-design seminar in 2005. The framework of the Group’s program to document and standardize eco-design practices beginning in 2006 was presented. The foundation of the program is the appointment of an eco-design leader in each of the entities involved, the introduction of environmental criteria in construction projects, the development of Group eco-profiles, and the establishment of eco-design plans. Three workshops were held to prepare for implementation of this program in:

- nuclear processes,
- nuclear facilities and equipment, and
- electrical and electronic equipment.

Two new AREVA Way criteria related to the eco-design organization and to practices to be adopted were created and will be used in self-assessments performed by the Group’s entities beginning in 2006.

In the nuclear process field, the *Engineering* Business Unit designated an Eco-design Leader in 2005 and began testing tools in two projects relating to natural uranium conversion and nitrous fume generation. The Fuel Sector’s Design and Sales Department continued to deploy Green Code, training new hires and gaining recognition of the system’s maturity during an ISO 14001 follow-up audit.

In the nuclear facilities field, Framatome NP’s *Plants* Division instituted an environmental management system incorporating the design, supply and construction of nuclear power plants, control systems and electrical systems, as well as research and development. This EMS was certified in December 2005.

The Transmission & Distribution Division’s program in this field is already well advanced. Two new training sessions were held, bringing the total number of Transmission & Distribution personnel trained in eco-design to 110. Its Eco-Design intranet site is also regularly updated for all users. Speeches on the subject were made at 8 conferences in 2005, and 15 Eco-Declarations were drafted for key products. R&D is focusing on limiting the use of hazardous substances, on defining and documenting end-of-life-cycle and recycling procedures, and on reducing SF<sub>6</sub> emissions.



## 5.3. Environmental report

## 5.3.2. ENVIRONMENTAL RISK MANAGEMENT AND PREVENTION

## 5.3.2.1. Monitoring releases and the environment

In advance of monitoring performed by government agencies, AREVA devotes considerable resources to monitoring releases and environmental monitoring.

The resources AREVA deploys to monitor releases should be viewed in the context of the upheavals in regulatory requirements, most notably with the establishment of the European Pollutant Emission Register (EPER), the greenhouse gas emissions trading directive, and the renewal of release permits at the nuclear facilities. The three Group sites affected by the National Quota Allocation Plan, AREVA NC La Hague, AREVA NC Marcoule and Comurhex Malvézi, due to the presence of combustion plants with more than 20 MW of power, drafted the monitoring plans required by the governmental order of July 28, 2005. The purpose of these plans is to facilitate effective CO<sub>2</sub> compliance monitoring by registered organizations and the administration, not only at the subject facility, but for the entire site. The registered organizations have certified the compliance of the emissions reported for 2005.

With respect to the Group's environmental monitoring at the nuclear sites, specialized personnel regularly sample and analyze various receptor environments, i.e. air, water, soil, fauna and flora. With regard to the monitoring of radioactivity in the environment, the Group's environmental laboratories are seeking registration in the national environmental radioactivity measurement network under the governmental order of June 25, 2005 (revoking the order of October 17, 2003). As part of its environmental monitoring program, the AREVA group performs more than 100,000 measurements on samples taken at more than 1,000 sample locations.

## 5.3.2.2. Radiological impact of the sites

The radiological impacts of nuclear sites on the most exposed members of adjacent populations (reference groups) are measured by an exposure indicator, the "additional effective dose", expressed in millisieverts per year (mSv/yr). Radiological impacts are calculated for each nuclear site based on radioactive liquids and gases released from the site and an analysis of potential exposure pathways to the affected public.

For example, the radiological impact assessment model for La Hague was the focus of collaborative efforts by French and international experts and associations under the umbrella of the Nord-Cotentin radio-ecological group. This highly complex assessment model factors in various types of radiation (alpha, beta-gamma, neutrons), the three potential pathways (external exposure, ingestion and inhalation), and the specific behavior of each radionuclide in the human body. Independent experts conducted epidemiological studies to supplement the model and directly assess the health effects of radioactive releases on exposed members of the public. All of the studies conducted over the past 20 years have concluded that the site has a very low impact, with the total annual impact being equivalent to one day of exposure to naturally occurring radiation in the Nord-Cotentin region of France.

Through monthly publications and websites, AREVA provides regular and completely transparent data on the results of environmental sampling and analysis, which are overseen by the nuclear safety authorities. In France, the Local Information Commissions (Commissions locales d'information, CLI) set up by the government in the vicinity of major energy facilities, including nuclear sites, facilitate direct interaction with the local community. AREVA provides them with all necessary information.

Through concerted effort, radioactive releases have dropped sharply in the last 30 years. For example, the radiological impact from La Hague has been divided by five, going from a reference group impact of around 70 µSv in 1985 to a little more than 10 µSv in 2005. This impact remains relatively constant from one year to the next. This has paved the way for compliance with the more stringent regulatory standards in the European Union, which were transposed into French law, and which set the limit for impacts on members of the public at 1 mSv/yr. That level is less than the average exposure to naturally occurring radiation in France of 2.4 mSv/yr, as well as in other countries around the world, which range from 1 to 10 mSv/yr, according to the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR).

Nevertheless, the Group continued its research into the feasibility of further reductions in radioactive releases from the La Hague plant, in particular in connection with the new order concerning that plant, and research and development continued in 2005.



## 5.3. Environmental report

As part of its continuous improvement initiative, the Group had also set a goal of standardizing its radiological impact assessment models at all of its major nuclear sites by the end of 2005. The method used at La Hague was extended to the Group's other major nuclear sites, adapted for local conditions, such as life styles and consumption habits. The impacts there are also very low, at less than 0.01 mSv.

The Group had also set a goal of implementing measures to limit the impacts of external radiation at the site boundary to 1 mSv/yr by the end of 2005. This corresponds to an extreme theoretical scenario in which an individual stays at the site boundary for an entire year without interruption, i.e. 8,760 hours. If acceptable solutions in the spirit of the ALARA principle are not found, compliance with the 1 mSv/yr limit must be demonstrated using more realistic exposure scenarios.

In this regard, storage areas and site fences were reconfigured as necessary in 2005 to meet this objective. To refine the assessment as necessary and verify the continuity of the system, the sites have implemented heightened monitoring measures based on dosimetry, following the example set by Comurhex Malvési.

### 5.3.2.3. Maintaining a high level of nuclear safety and risk management

(see chapter 4.15.2.)

In the field of nuclear safety, the General Inspectorate expanded the scope of its inspection activities and experience-sharing begun in 2004 to all of the AREVA group's nuclear facilities in 2005. The General Inspectorate provides management control for nuclear safety and helps ensure that the Group remains above reproach in this field.

Above and beyond a mere review of facility compliance with applicable requirements, the General Inspectorate analyzes the work processes of operating units, existing safety systems and their mode of operation. The analysis identifies potential deficiencies and recognizes best practices that should be broadly implemented. These lessons learned help build a shared culture among the Group's industrial operators and facilitate assessment of the safety culture of its operating teams.

Since 2001, the General Inspectorate has carried out 141 inspections, including 31 in 2005. The inspections focused mainly on the following topics:

- management of nuclear risks in the laboratories,
- management of nuclear safety during handling and lifting operations,
- management of internal and external dosimetry in the hot maintenance centers,
- management of nuclear safety during major facility upgrades and CDE/DEM.

In each case, the inspections performed in 2005 demonstrated that the entities involved had organizations and practices in place to ensure that safety requirements are correctly recognized and applied, which is a strength.

Several areas for improvement were identified, including the need for better supervision of service suppliers, better integration of decommissioning operation requirements as compared with normal maintenance operations, and the development of internal control activities.

Of the 83 events reported in 2005 and ranked on the International Nuclear Event Scale (INES), 65 were level 0 events, 17 were level 1, and 1 was level 2. The latter involved the ill-timed transfer of a 5%-enriched uranyl nitrate solution containing 20 grams of uranium to a buffer tank that was not geometrically safe.

Aside from the relatively stable number of events reported (81 in 2004), a preliminary analysis of these events indicates the need for improvement, particularly in human factors analysis, to facilitate the follow-up of action plans as well as the sharing of lessons learned within the Group.

To highlight the priority given to maintaining very high safety levels and standardizing practices in this field in all units, the Group issued a Nuclear Safety Charter specifying its commitments in each field in terms of organization, implementing procedures and transparency (see chapter 4.15.2.2.).

### 5.3.2.4. Preventing eco-health risks

The Group has gone beyond its regulatory obligations to improve recognition of the health effects of its non-radioactive industrial operations by implementing a global and proportionate approach to health hazards assessment. In 2005, implementation of a simplified health hazards assessment of sites with significant environmental aspects, most of which are located overseas, has helped to prioritize HHA deployment.

AREVA NC has performed such assessments for 60% of its sites. A similar approach was also taken for the Cominak and Somair mine sites in Niger. The Transmission & Distribution Division will deploy the initiative at the 17 sites it has identified.

AREVA developed an Asbestos directive in 2005. The directive is intended for all AREVA sites and lays out the 10 ground rules that must be applied, regardless of local law, which in some cases is less stringent. In particular, the directive stipulates that production equipment components containing asbestos must be replaced before December 2007. Substitution products must also be exempt of carcinogens, especially certain artificial mineral fibers such as refractory ceramic fibers meeting the classification criteria of the International Agency for Research on Cancer and the European Community.

Legionnaire's disease remains a major risk demanding particular care at sites with facilities subject to this risk. A handbook for our foreign sites presents five best practices to be followed concerning cooling towers. Best practices will be reviewed in 2006.

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**5.3.2.5. Managing risks linked to the use of hazardous chemicals** (see chapter 4.15.2.4.)

The Group operates eight Seveso-regulated sites (European Directive 96/82/EC of December 9, 1996) that could present important drawbacks for public health and safety.

Four of these sites are high-threshold Seveso sites requiring the establishment of Technology Risk Prevention Plans and public easements.

Site	Number of listed facilities on site	Description of facility on national list	National list heading/threshold
AREVA NC Pierrelatte	122*	Storage of 320 MT of HF	1111.2.a/20 t
Comurhex Malvési	23	Storage of 180 MT of HF	1111.2.a/20 t
Comurhex Pierrelatte	34	Storage of 310 MT of potassium bifluoride	1111.2.a/20 t
		Storage of 101 MT of HF	1111.2.a/20 t
Cezus Jarrie	21	Storage of 2,950 MT of environmentally hazardous materials	1173-1/2,000 t

\* Including 59 Pyralene-filled transformers.

In accordance with regulatory requirements, technical documentation for these facilities – major accident prevention programs, occupational safety management systems, hazards analysis – is submitted to the competent administration, which may call for revisions, additional studies or independent appraisals.

A working group was created to harmonize risk assessments for high-threshold Seveso sites and to define a consistent approach to the management of potential uncertainties and more generally to the management of Seveso technology risks for the Group.

Four Group standards were developed in 2005. These standards take into account the implementing regulations of the law of July 30, 2003, on the prevention of technology risks and natural hazards and compensation for damages in the following areas:

- development of a hazards assessment,
- risk analysis,
- definition and evaluation of scenarios and domino effects,
- identification and follow-up of safety-related items.

Safety audits are being conducted at the acid storage and surface treatment facilities of the four low-threshold Seveso sites to identify potential areas for improvement.

### 5.3.2.6. Soil management

In the area of soil management, one of the goals of AREVA's environmental policy is to carry out a simplified risk assessment (SRA) or its equivalent before year-end 2006 on all of its plant sites with significant environmental aspects, excluding licensed nuclear facilities (INB) and mine sites that already have the necessary statistics due to regulations or their own operating requirements. This was accomplished throughout the Reactors and Services Division in 2000 and the Transmission & Distribution Division in 2004. When the Connectors Division was sold in 2005, the Mechelen site in Belgium remained a part of the AREVA group. A cleanup program was proposed to and approved by the administration.

After site closure, AREVA reduces the residual environmental impacts of former operations through rehabilitation and reclamation programs, as it did in the Limousin region of France. The *Mining* Business Unit set up a specific body to monitor former mine sites in France and abroad, called the CESAAM (Centre d'études et de surveillance des anciens sites miniers).

In 2005, a procedure was established to examine the handling of financial information relating to environmental liabilities based on information provided by entity Environment Departments.

### 5.3.2.7. Protecting and restoring ecosystems

Monitoring and preserving biodiversity is a special concern for AREVA. Our study of plant and animal life at the site begins with the design phase and continues throughout facility operations and into site rehabilitation. Special care is devoted to how species introduced or reintroduced during reclamation adapt to the local biotope. At the Lodève mine site in France, for example, AREVA did a detailed analysis of local flora and studied various options for landscape rehabilitation. The resulting data were put on a CD-ROM that was made available to all local representatives, including elected officials and schools.

The impacts of releases on aquatic plant and animal life were assessed in 2005 to gain a better understanding of impacts on biodiversity from AREVA's operations at the Tricastin platform.

For reclamation of the Cluff Lake mine in Canada, a very detailed survey was conducted of existing conditions, particularly in the aquatic medium, followed by the establishment of a program to monitor plant and animal life.

## 5.3. Environmental report

## 5.3.3. ENVIRONMENTAL PERFORMANCE IMPROVEMENT

### Key data

	2005	2004*	2003*
<b>Consumption</b>			
Quantity of energy consumed (MWh), excluding Eurodif	2,895,338	2,904,055	2,882,233
Total quantity of water consumed (m <sup>3</sup> )	160,360,641	160,298,477	160,067,365
Quantity of water consumed (m <sup>3</sup> ), excluding Eurodif and Marcoule cooling water	23,912,910	25,718,653	27,038,439
Consumption of hazardous chemicals:			
Nitric acid (MT)	17,218	17,277	17,664
Sulfuric acid (MT)	81,975	87,237	77,125
Hydrofluoric acid (MT)	8,342	7,663	7,407
Ammonia (MT)	6,228	6,440	6,170
Chlorine (MT)	7,717	8,179	7,532
Chlorinated solvents (MT)	162	147	62
<b>Waste</b>			
Quantity of hazardous industrial waste (HIW) (MT)	14,098	19,270	14,698
Quantity of common industrial waste (CIW) (MT)	40,962	63,472	37,262
Quantity of inert waste (MT)	5,272	9,244	-
HIW: % recycled	36%	-	-
CIW: % recycled	61%	-	-
Process sludge	74,566	70,347	-
Sludge from cooling water treatment (MT)	13,240	10,621	-
<b>Releases</b>			
Total nitrogen releases into aquatic environments (MT)	838	921	1,102
Aqueous releases of copper (kg)	10	29	499
Aqueous releases of chromium (kg)	93	86	139
Aqueous releases of lead (kg)	27	31	24
Aqueous releases of uranium (kg)	1,425	2,011	2,311
Direct greenhouse gases (MT CO <sub>2</sub> e)	1,277,455	977,697	821,056
CO <sub>2</sub> emissions from facilities subject to national quota allocation plan	137,336	-	-
Toxic gas releases: volatile organic contaminants (Kg VOC)	994,654	850,588	486,853
Releases of acidifying gases (MT SO <sub>2</sub> e)	1,877	1,893	2,137
Releases of gases that deplete the ozone layer (Kg CFC 11e)	1,342	3,244	13,262
<b>Nuclear Risks</b>			
Dose impact from the La Hague site (mSv)	0.011	0.0082	0.0082
Number of INES events	Level 0 : 65 Level 1 : 17 Level 2 : 1	Level 0 : 66 Level 1 : 15 Level 2 : 1	Level 0 : 51 Level 1 : 17 Level 2 : 1

\* Adjusted data including the T&D Division and excluding the Connectors Division (FCI).

Source: AREVA

### 5.3.3.1. Energy conservation

Eurodif's George Besse plant, where uranium is enriched using the gaseous diffusion process, accounts for about 90% of the Group's total electricity purchases. The Group is preparing to phase in the centrifuge process to replace plant capacity in the medium term, as this technology consumes 50 times less electric power than gaseous diffusion (see chapter 4.4.3.6.). The license request was completed in 2005, and the public inquiry is scheduled to take place in 2006.

The following total energy consumption figures do not include the Eurodif process. In 2004, a total of 3,181 GWh of energy was consumed. Excluding the Connectors business, that figure was 2,904 GWh. In 2005, a total of 2,895 GWh of energy was consumed, indicating a slight decrease of 0.3%. The raw data are unadjusted and given by business.

The Group's largest consumers – Comurhex Pierrelatte, Comurhex Malvési, Eurodif for the auxiliary units, Cézus Paimbœuf and Montreuil Juigné, Somanu Maubeuge and T&D Villeurbanne – undertook a preliminary energy efficiency study with the goal of stabilizing and ultimately reducing energy consumption.

To help the sites prepare action plans, several methodological tools were made available to them:

- an eco-efficiency awareness kit for employees, including transparencies, posters, memento and quiz;
- guidelines for developing an energy conservation plan;
- surveys of the best available technologies in terms of energy in the area of high-performance engines, compressed air plants and lighting systems.

Topical days were organized throughout the year to exchange best practices, such as a program to search for compressed air leaks, a preliminary energy efficiency audit and optimization of a lighting system.

#### Example

After Eurodif, the La Hague plant is the biggest energy consumer, at 25% of the Group's total consumption. Today it is a pilot for the energy consumption reduction program. The performance improvement plan consists of 11 activities, all of which are in progress. Building ventilation and heating are expected to yield the largest savings, along with eco-efficiency improvements to plant operations. From 2003 to 2004, AREVA saw a nearly 7% decrease in energy consumption. In 2005, an additional net reduction of 1.4% was recorded, with electricity consumption reportedly down by 3%.

Consumption was down substantially at two sites:

- T&D Villeurbanne, where natural gas consumption was down 7% and domestic fuel was down by 12% as a result of awareness programs, energy conservation patrols, and optimization of the heating and compressed air system.
- Jeumont, where total energy consumption was down 13% following the renovation of the heating system.

Another increasingly widespread practice is the building energy efficiency assessment using a method developed by the Corporate Environment Department. To date, the assessment has been performed at more than 50% of the Group's office buildings with a surface area of more than 1,000 m<sup>2</sup> (about 11,000 ft<sup>2</sup>). The AREVA Tower in La Défense, for example, performed the assessment in late 2004. Since then, Technical Services have taken steps to reduce electricity consumption by 14% through better management and thermal energy consumption by 18% by improving air conditioning system performance.

#### Renewable energies

The *Decentralized Energy* business of AREVA T&D's *Systems Business Unit* offers customers turnkey power production solutions with very low CO<sub>2</sub> emissions, including biomass, biogas and mine gas, energy recovery, co-generation and tri-generation. The business has five industrial and commercial locations in Europe, South America and Asia.

AREVA T&D System's electrical connection station business offers solutions to connect and integrate wind farms to power grids in Europe, South America, Asia and Australia.

Key recent contracts for AREVA T&D include:

- three 12-MW biomass power plants in the State of Parana in southern Brazil;
- two 10-MW biomass power plants in the States of Tamil Nadu and Chattisgarh in India;
- a 10-MW power plant that recovers heat from an iron ore reduction furnace in Tamil Nadu, India;
- two co-generation power plants using biogas and mine gas in Germany;
- wind farm connections in France, Australia, Brazil and Germany.

AREVA acquired a 21.1% equity interest in REpower, a wind turbine manufacturer specializing in high-powered turbine technology, which is particularly well suited to off-shore wind farms. REpower also offers manufacturing and marketing/sales synergies with AREVA's Transmission & Distribution Division.

## 5.3. Environmental report

## 5.3.3.2. Water usage

Of the 160 cubic meters of water tapped by the AREVA group, roughly 136 million m<sup>3</sup> are taken from the Rhône River to cool facilities at the Marcoule and Tricastin sites.

The total quantity of water consumed, excluding cooling water for the Marcoule and Tricastin sites (the Célestin reactors and the Eurodif site), was 23.9 million m<sup>3</sup> in 2005. In comparing these figures with those of previous years, the change in consolidation scope should be noted. In 2004, the 26.6 million m<sup>3</sup> total consumption included 909,900 m<sup>3</sup> consumed by FCI.

Comparing consumption “like-for-like”, the 23.9 million m<sup>3</sup> consumed in 2005 should be compared to 25.7 million m<sup>3</sup> in 2004. This amounts to a 1.8 million m<sup>3</sup> decrease.

AREVA is taking steps to improve its management of the water cycle, particularly at the production sites, so that less water is tapped from the natural environment. This requires detailed knowledge of water consumption patterns and actual costs associated with managing the water cycle, as well as a substantial effort by site personnel and subcontractors.

These efforts have focused on the following:

- Improved management of networks and processes: searches for leaks were conducted at both the plant sites and the office buildings.
- Equipment modifications, sometimes resulting in the elimination of wasteful processes.
- Changes in technology are also under consideration.
- Raising awareness among personnel and subcontractors alike – the “eco-attitude” – to promote the recycling and reuse of water and prevent unnecessarily excessive consumption. This has been particularly effective at the office buildings.
- Action is already being taken in other areas at the AREVA NC Marcoule and AREVA NC Pierrelatte sites.

**Illustration**

The leak reduction program produced results at several sites in France:

- Aix-les-Bains: 27% reduction
- Jeumont: 31% reduction
- Châlon: 41% reduction

In the area of equipment modifications and changes in technology, the Cezus Jarrie and Cezus UGINE sites continued to optimize water recycling, resulting in an additional 17% savings in water consumption at Jarrie and 5% at UGINE.

Employee awareness raising continued throughout the year, supported by the eco-efficiency awareness kit. The T&D Bagnères site at Bigorre saw its consumption drop by 9%.

AREVA NC Marcoule and AREVA NC Pierrelatte's efforts, launched in previous years, paid off with a 14% reduction in water consumption from 2004 to 2005, i.e. 800,000 m<sup>3</sup> for AREVA NC Marcoule and 380,000 m<sup>3</sup> for AREVA NC Pierrelatte. In all, AREVA NC Marcoule has reduced water consumption by more than 38% since 2002 (3 million m<sup>3</sup>), while AREVA NC Pierrelatte has seen consumption drop by 25% since 2003 (760,000 m<sup>3</sup>).

## 5.3.3.3. Consumption of materials

The Group is continuing to reduce its consumption of chemicals with major direct or indirect impacts, identified using environmental analysis tools (life cycle analysis, health hazards assessment), primarily by recycling internally, particularly acid recycling at the Cezus Paimbœuf and Montreuil Juigné sites.

AREVA has been tracking paper consumption throughout the Group since 2004 and has distributed a list of 20 best practices to all entities. Paper reduction programs are being implemented at the site level. For example, at AREVA's headquarters, young managers from several different corporate departments set up a plan to control paper consumption and employ the disabled in the photocopying department. Dubbed “Orphea”, the project won an AREVA Sustainable Development Award and has since been implemented.

Group-wide, paper consumption per employee dropped from 35.5 kg in 2004 to 31 kg in 2005.

## 5.3.3.4. Waste

The sustainable development reporting protocol was broadened in 2005 with the introduction of the concept of internally processed waste so as to highlight sites that have invested in systems to process their own waste. Examples include reduction of transportation and producer ownership of waste with concomitant responsibility for processing.

## 5.3. Environmental report

**Conventional waste**

A total of 60,332 metric tons of conventional waste was produced in 2005, as follows:

- 14,098 MT of hazardous industrial waste (HIW), 82% of which came from normal operations;
- 40,962 MT of common industrial waste (CIW), 89% of which came from normal operations;
- 5,272 MT of inert waste (IW).

For the scope corresponding to this data, the percentages of recycled material are:

- 36% for HIW; and
- 61% for CIW.

Programs for improving final waste reduction are ongoing in all of the Group's facilities, as listed below.

- Minimization and control of waste generation at the source:
  - Several programs for packaging waste were initiated with the collaboration of the purchasing departments (T&D Villeurbanne site) and suppliers (T&D Fabrègues), including packaging modifications to improve waste cleanliness and thus recycling capability.
  - Several Cezus sites reduced waste consumption by replacing disposable paper towels with washable cloth towels.
- Waste sorting: The MELOX and Tricastin sites set up bins to sort waste, while AREVA NC La Hague and AREVA NC Marcoule created in-house waste sorting plants.
- Waste recycling and reuse: by selecting the most suitable processing methods, with AREVA NP European sites leading a study to identify best practices.
- Improve the processing and packaging of non-reusable waste.

A waste management day was held to encourage interaction among the sites on this issue and to share best practices.

**PCBs and PCTs**

PCBs (polychlorinated biphenyls) and PCTs (polychlorinated terphenyls) are toxic chemicals that were formerly used to manufacture and operate electrical distribution equipment. AREVA's subsidiaries began to eradicate them several years before the European directive 96/59 of September 16, 1996, set a 2010 date for their elimination, and AREVA has made a commitment to phasing out the remaining machines under a plan approved by the Ministry of Ecology and Sustainable Development and included in the national plan approved by decree on February 26, 2003.

In 2005, 129 transformers containing these substances were eradicated in France giving a total of 511 at the end of 2005.

**Radioactive waste**

Waste generated by nuclear operations is classified according to two criteria:

- the intensity of the radioactivity it contains (very low-, low-, medium- and high-level waste); and
- its half-life, i.e. the time it takes for the initial radioactivity of the waste to be reduced by half. Short-lived waste has a half-life of less than 30 years; long-lived waste has a half-life of more than 30 years.

Each type of waste requires a specific disposal management method.

In France, very low-level waste (VLLW) is stored at the disposal center operated by ANDRA in Morvilliers.

Low- and medium-level, short-lived waste (LLW/MLW-SL) is disposed of in a near-surface disposal facility, also operated by ANDRA, the Centre de l'Aube in Soullaines.

For medium-level, long-lived waste (MLW-LL) and high-level waste (HLW), research is being carried out pursuant to the "Bataille" Law of 1991 (articles L. 542-1 and seq. of the French Environmental Code), which defined three areas for research concerning the management of this waste: (1) separation and transmutation of long-lived radioactive elements; (2) disposal in deep geologic formations, in particular based on research in underground research laboratories; and (3) packaging and long-term surface storage.

The French Government will send an overall assessment report on this research to the French Parliament before December 30, 2006, accompanied, as appropriate, by draft legislation authorizing the construction of a disposal center for high-level, long-lived waste.

The Group's operations generate waste such as technological (dry active) waste, ion exchange resins and sludge, and sometimes waste from facility decommissioning operations. This waste represents no more than a few percentage points in terms of radioactive content and is only a slight fraction of the total radioactive waste generated by nuclear power.

Every year, we endeavor to reduce these waste volumes. The Group established indicators in late 2005 to report on progress in this field in a consolidated and global manner. The first report will be issued at the end of 2006. Note 25 to the consolidated financial statements explains the conditions for setting up provisions for final radioactive waste disposal.



### 5.3. Environmental report

AREVA has also continued to refine its initiative for the comprehensive management of legacy waste and stored materials at Group sites by systematically using inventory management software, conducting programs for legacy waste retrieval and packaging, and planning for the management of waste from facility decommissioning.

Andra, the French national waste management agency (Agence nationale pour la gestion des déchets radioactifs) is preparing an exhaustive inventory of radioactive waste in France. The inventory may be consulted on its website, [www.areva.com](http://www.areva.com). It provides all available information on radioactive waste in inventory in France, including waste held at the Group's sites.

The Group also contributes to the responsible management of radioactive waste from nuclear power generation by offering solutions for its safe storage, processing, packaging and transport. "Group-held" waste, as opposed to "Group-generated" waste, as defined in Article L. 541-2 of the French Environmental Code, consists mainly of long-lived high-level waste (HLW) belonging to AREVA's electric utility customers. This waste is returned to the customer at the end of the used fuel treatment process.

For French utility EDF, the Group offers a service which also includes the interim storage of radioactive waste in suitable and safe facilities until the conditions for their long-term management have been defined by law. EDF remains the owner of the waste. AREVA assumes responsibility for holding it, within the limits of the provisions relating to nuclear liability stipulated in Law n° 68-943 of October 30, 1968, as amended, on liability in the nuclear energy field.

The other waste, which can be sent directly to disposal, consists of low- and very low-level waste that is sent to the disposal site routinely. It does not represent significant inventories at the Group's sites. Waste from used fuel belonging to foreign customers is returned to the customer as soon as this is technically feasible, in compliance with Article L. 542-2 of the French Environmental Code.

Several sites have invested in improvements to radioactive waste storage and packaging:

- The Cezus Jarrie site in France built a storage facility for radiferous waste to address specific identified risks, such as radon ventilation during normal operations and flood control.
- The MELOX site at Marcoule, France, modified waste storage conditions to increase capacity by 25%.
- The Pierrelatte site in France started up a volume reduction facility, where diffusers and aluminum conduits from the dismantling of enrichment plants are size-reduced.

Andra's very low-level waste disposal facility granted waste acceptance certificates to many of the Group's sites for a variety of waste from site operations, cleanup and dismantling.

#### 5.3.3.5. Releases in water

The nuclear fuel cycle typically processes small quantities of materials. Relatively small quantities of reagents are used for uranium mining and chemistry and for used fuel treatment. However, the *Chemistry* and *Treatment* Business Units released significant quantities of certain chemicals, particularly nitrogen, with 838 MT of total nitrogen released in 2005, 930 MT released in 2004 and 1,102 MT released in 2003. Reduction programs targeting these chemicals are under way as part of the Group's overall continuous improvement initiative.

The Group's combined French plants released about 1.4 MT of uranium into aquatic environments in 2005, versus 2 MT in 2004 and 2.4 MT in 2003. By way of comparison, the Rhône River alone carries along around 70 MT of natural uranium each year (Source: Eurodif and AREVA NC Pierrelatte environmental report).

Some sites have embarked on capital spending projects to improve the treatment of aqueous releases:

- the Cezus Jarrie site in France invested €2 million in the construction of two treatment plants, reducing liquid releases to one-tenth their initial volumes in three years;
- the Cezus Rugles site built a spent fluoronitric acid recycling station in 2005.

#### 5.3.3.6. Releases in the air

The AREVA group's operations release certain gases which, though limited, contribute to global warming, depletion of the ozone layer and atmospheric pollution. These are primarily:

- direct emissions of greenhouse gases (GHG) associated with the burning of fossil fuels and certain fluorinated emissions (SF<sub>6</sub>) from chemical operations and from the manufacturing of electrical and nitrogenous equipment (N<sub>2</sub>O) from operations that use nitric acid;
- indirect emissions associated with electricity consumption and gas emissions such as volatile organic compounds (VOCs), acid-forming gases, and ozone-depleting gases.

#### Greenhouse gases

Three of the Group's sites – La Hague, Marcoule and Comurhex Malvézi – are listed in the National Quota Allocation Plan because they have combustion plants with more than 20 MW of power. The creation of the allocation system in 2005 did not cause any particular problem. The allocations are higher than the emissions overall. The Group had a surplus of 36,123 CO<sub>2</sub> quotas for 2005.

The AREVA group's direct greenhouse gas emissions were about 1,277,000 metric tons in 2005, of which 27% are linked to fossil fuels, 21% to sulfur hexafluoride (SF<sub>6</sub>), and 48% to nitrous oxide (N<sub>2</sub>O).



The increase compared with 2004 was due to improved reporting, in particular for N<sub>2</sub>O. Nitrous oxide (N<sub>2</sub>O), one of the gases covered by the Kyoto Protocol, has a high overall heating coefficient (296). The Chemistry Business Unit improved its measurement of N<sub>2</sub>O emissions for conversion operations, raising them from 899 to 2,087 metric tons.

There are two sources of SF<sub>6</sub> emissions:

- The treatment used to eliminate traces of fluorine in the fluorination process off-gas, which contributes some 100,000 metric tons of CO<sub>2</sub> equivalent per year. Various solutions for eliminating these SF<sub>6</sub> emissions were considered. The solution selected consists of directing vented fluorine to the secondary fluorination stage of the UF<sub>6</sub> production building. The vented fluorine to be neutralized will be recovered to produce UF<sub>6</sub> rather than destroyed in a special facility. This change will be operational at the end of 2006.
- The use of SF<sub>6</sub> to manufacture electrical equipment for insulation and to interrupt electrical arcing, which contributes about 170,000 metric tons of CO<sub>2</sub> equivalent per year. An eco-design approach for products was used to minimize SF<sub>6</sub> releases steadily, whether during equipment manufacturing or during their use, through the end of their useful life. The Transmission & Distribution Division set up an action plan to reduce SF<sub>6</sub> emissions by 30% by the end of 2005 for key contributors, i.e. awareness programs, audits, inventory improvements, performance improvement of equipment that uses SF<sub>6</sub>, training, etc. The action plan reduced SF<sub>6</sub> emissions by 19% in the T&D Division.

### ***Volatile organic compounds***

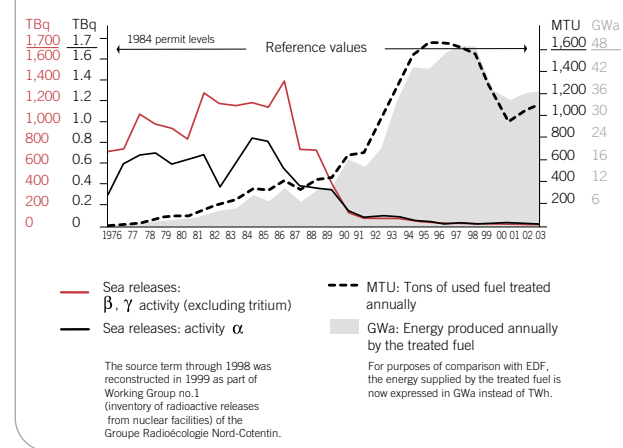
VOC emissions rose by about 15% from 2004 to 2005, for two reasons: better reporting practices and a significant increase in CRI Canada's mining-related emissions.

### ***Ozone-depleting gases***

The Group's emissions of ozone-depleting gases are decreasing significantly each year. In 2005, emissions totaled 1,343 kg of CFC11 equivalent, a 59% decrease compared with 2004. The continuing decrease is the result of stringent regulations calling for the gradual eradication of these substances as equipment is renovated or replaced.

## **5.3.3.7. Radioactive releases**

### **Liquid radioactive releases: 1976-2004**



In connection with the new license for the La Hague plant, AREVA, working closely with the safety authorities, continued to conduct research and development to validate the feasibility of further reductions in radioactive and chemical releases from La Hague. A report is to be presented to the nuclear safety authorities in 2006.

Since 1997, the French nuclear sites have published and publicly distributed annual environmental reports in which radioactive releases and trends are described in detail.

## **5.3.3.8. Odor and noise pollution**

Having taken the necessary action in 2003, this is no longer identified as a critical item within the Group.

## 5.3. Environmental report

## 5.3.4. STRENGTHENING RELATIONS WITH EXTERNAL STAKEHOLDERS

The Group's commitment to the sustainable development initiative is giving a new dimension to its relations with stakeholders by making dialogue and consensus-building a key building block of the Group's social responsibility.

"Dialogue and consensus-building" is both a commitment and one of the ten principles of the AREVA Way self-assessment model.

What is meant by this commitment goes beyond communication or simply providing information. It means listening to stakeholders, i.e. the individuals or groups of individuals who are concerned by the Group's operations, to gain a better understanding of their expectations and to take them into account as part of a continuous improvement process.

With this in mind, the Group initiated two processes, one at the Group level, and the other at the site level.

### 5.3.4.1. Consensus-building at the corporate level

The Stakeholders' Session was a high point in the Group's dialogue and consensus-building program for 2005, along with the social rating developed by Innovest.

This initiative to consult external stakeholders was divided into two phases. An initial session was held on September 14, 2004, during which AREVA listened to the stakeholders. A second session was held on February 9, 2005, to answer the questions they raised.

The Stakeholders' Session provided an opportunity to listen to the analyses and expectations of a diverse panel of stakeholders and to expand AREVA's review of its sustainable development strategy.

Comité 21, a leading authority on sustainable development in France, organized the process and served as an independent intermediary.

On the external stakeholders' side, Comité 21 chose 15 different organizations, including NGOs active in environmental protection, North-South development, solidarity and human rights, as well as economic and labor organizations and national and international institutions.

On the AREVA side, the Group's main corporate departments were asked to participate, including the Sustainable Development and Continuous Improvement, Strategy, Communications, Financial Communications, Research and Innovation, Human Resources, and Safety, Health and Security Departments.

The consensus-building process followed a formal procedure structured around a certain number of rules designed to ensure, among other things, that the debate remained calm and confidential. Comité 21 developed an executive summary of the Stakeholders Session, which includes a summary of the commitments AREVA made during the discussions. This summary is available on AREVA's website.

### 5.3.4.2. Mapping local stakeholders

The local stakeholder mapping initiative begun in 2003 at the AREVA NC La Hague site in France, the former Limousin mines in France and the Lingen site in Germany was completed at the end of 2004 at each of these sites and at the Richland site in the United States.

The Group used the lessons learned at these pilot sites to finalize its methodology for the other sites, which have been phasing it in since early 2005, with priority given to the major nuclear sites and Seveso sites.

This method prompts the sites to compare their own perceptions of local stakeholder expectations with their real expectations. In doing so, they pinpoint their true economic, social, societal and environmental goals and the opportunities for dialogue to ensure greater mutual understanding.

More than 150 stakeholders were interviewed by an independent party at 10 of our sites in 2005.

The local stakeholder maps are a first step towards the establishment of action plans to expand relationships and partnerships between the Group's plant sites and key players in their surroundings.

### 5.3.4.3. AREVA's patronage and sponsorship program

The AREVA group's patronage and sponsorship program aims to translate the company's policy of dialogue with stakeholders into concrete achievements in France and overseas. The projects are a natural extension of AREVA's businesses and support the company's development in countries in which it operates.

The Group's commitment only has meaning if its associates support it, which is why they are regularly involved in these activities.

An in-house survey oriented our choices towards initiatives in the following fields:

- energy and climate change,
- transmission and popularization of knowledge,
- North/South development.

To formalize these commitments and give them greater clarity, AREVA plans to create a corporate foundation in 2006.

## 5.4. Consolidated financial statements

### 5.4.1. STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

*This is a free translation into English of the Statutory Auditors' reports issued in the French language and is provided solely for the convenience of English speaking readers. The Statutory Auditors' report includes for the information of the reader, as required under French law in any auditor's report, whether qualified or not, explanatory paragraphs separate from and presented below the audit opinion discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account caption or on information taken outside of the consolidated financial statements. Such report, together with the Statutory Auditors' report addressing financial reporting in the Chairman of the Supervisory Board's report on internal control, should be read in conjunction and construed in accordance with French law and auditing professional standards applicable in France.*

To the shareholders

In accordance with our appointment as auditors by your Annual General Meeting, we have audited the accompanying consolidated financial statements of AREVA (*Société des Participations du Commissariat à l'Énergie Atomique*) for the year ended December 31, 2005.

The consolidated financial statements have been approved by the Executive Board. Our role is to express an opinion on these financial statements, based on our audit. These financial statements have been prepared for the first time in accordance with IFRS as adopted in the European Union. They include, for comparison purposes, information relating to fiscal year 2004 restated under such standards, except for IAS 32 and IAS 39 which, in accordance with the option offered by IFRS 1, have only been applied by the Company as of January 1, 2005.

#### I - Opinion on the consolidated financial statements

We conducted our audit in accordance with professional standards applicable in France. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements give a true and fair view of the financial position and the assets and liabilities of the Group as of December 31, 2005, and the results of its operations for the year then ended in accordance with IFRS as adopted in the European Union.

## 5.4. Consolidated financial statements

Without qualifying our opinion, we draw your attention to the procedures for measuring the end-of-life-cycle assets and liabilities described in Notes 1.18 and 25 to the consolidated financial statements. This measurement which is based on Management's best estimates, as mentioned in Note 1.1 to the consolidated financial statements, is sensitive to the assumptions adopted with regard to estimates, disbursement schedules, discount rates and the outcome of current negotiations with EDF.

## II - Justification of assessments

Pursuant to the provisions of Article L. 823-9 of the French Commercial Code governing the justification of our assessments, we draw your attention to the following:

- We reviewed the accounting treatment adopted by the Company for the put options held by minority shareholders of certain Group subsidiaries. While pending a position to be taken by the standards-setting bodies with respect to the offsetting entry of the liability recognized, we have reviewed the option adopted by the Group and we verified that Note 1.19.1 to the consolidated financial statements contains appropriate disclosures in this respect.
- As indicated above, provisions for the decommissioning of nuclear facilities and waste retrieval, recorded on the balance sheet in the amount of €4,490 million, were measured in accordance with the accounting policies and methods and valuation terms and conditions described in Notes 1.18 and 25 to the consolidated financial statements. As a balancing entry to these provisions, the Group recognized a decommissioning asset in the net amount of €2,208 million. As indicated in Note 1.18 to the consolidated financial statements, this asset corresponds to the share to be financed partly by third parties and partly by the Group, which is depreciated over the useful life of the relevant facilities. As part of our procedures, we reviewed the estimates of the decommissioning liabilities and the share to be financed by third parties by assessing the reasonableness of the assumptions adopted by taking into account, in particular, changes in the estimates and the negotiations currently underway with EDF and the translation in the consolidated financial statements of the new deep-storage cost estimate resulting from the conclusions rendered during the second half of 2005 by a working group set up under the auspices of Ministry of Industry's Department of Energy and Raw Materials (DGEMP).
- Non-current assets include the financial assets earmarked for facility decommissioning for a net amount of €2,798 million, for which the management objectives are set forth in Note 14 to the consolidated financial statements. These financial assets, which are mainly comprised of directly-held securities and shares in mutual investment funds, are subject to regular valuation, for which the principles are described in Note 1.13.1 to the consolidated financial statements according to their classification. As part of our procedures, we assessed the correct and constant application of the valuation methods and the determination of long-lasting impairment.
- Your Group recognizes income from long-term contracts in accordance with the policies and terms and conditions described in Note 1.8 to the consolidated financial statements. Based on the accounting information available, our procedures mainly consisted in assessing the data and assumptions made by management, in particular, the level of risk arising from these contracts used as a basis to estimate the profits or losses on contract completion and their changes, reviewing the calculations performed and analyzing Management's procedures for approving these estimates. We assessed the reasonableness of these estimates.
- Goodwill, recorded on the balance sheet for a net amount of €2,095 million as of December 31, 2005, was subject to impairment tests performed in accordance with the conditions described in Note 1.10 and Note 10 to the consolidated financial statements. We reviewed the conditions under which these tests were performed based on the discounting of future cash flows of the relevant activities, assessed the consistency of the assumptions adopted with the forecast data resulting from the strategic plans prepared by the Group and verified that Notes 1.10 and 10 contain appropriate disclosures.
- The acquisition agreement of Alstom's T&D division includes general and specific warranty clauses. The terms and conditions for triggering these warranties, which could have an impact on the acquisition price and the coverage of certain risks mentioned in the Notes to the financial statements, are described in Note 2.1.1 and Note 35 to the consolidated financial statements. Our procedures consisted in understanding the risks likely to be covered by these warranties and to assess the terms and conditions of their implementation.

## 5.4. Consolidated financial statements

- With respect to risks and litigation, we assessed the procedures currently used by your Group to identify, assess and reflect the accounting impact of such risks and litigation under satisfactory conditions. We also ensured ourselves that any possible uncertainties, identified at the time we performed our procedures, were described appropriately in the Notes to the financial statements, specifically Note 35.
- The report of the Chairman of the Supervisory Board on the internal control procedures relating to the preparation and treatment of financial and accounting information mentions, for AREVA T&D, the continued transition to IFRS standards by the AREVA group and the future developments in certain subsidiaries. In this context, our audit approach was adapted and consisted, notably, as in 2004, in increasing the scope of T&D entities which we reviewed.

As indicated in Note 1.1 to the consolidated financial statements, these estimates may vary according to changes in the underlying assumptions or various conditions. Hence, actual figures may differ from current estimates.

These assessments were performed as part of our audit approach for the consolidated financial statements taken as a whole and contributed to the expression of the opinion in the first part of this report.

### III – Specific procedures

We have also verified, in accordance with professional standards applicable in France, the financial information contained in the Group Management report. We have no comment to make as to the fair presentation of this information or its consistency with the consolidated financial statements.

Paris, March 9, 2006

The Statutory Auditors

Deloitte & Associés

Mazars & Guérard

Salustro Reydel  
Member of KPMG International

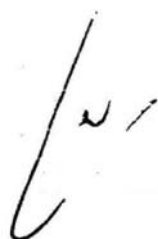
Pascal Colin

Jean-Paul Picard

Thierry Blanchetier

Michel Rosse

Denis Marangé







## 5.4.2. CONSOLIDATED INCOME STATEMENT

<i>(in millions of euros)</i>	Notes	2005	2004*
<b>Sales revenue</b>	3	<b>10,125</b>	<b>9,821</b>
Other income from operations		7	7
Cost of sales		(7,852)	(7,478)
<b>Gross margin</b>		<b>2,280</b>	<b>2,350</b>
Research and development expenses		(328)	(327)
Sales and marketing expenses		(478)	(500)
General and administrative expenses		(724)	(684)
Other operating income and expenses		(4)	(103)
<b>Current operating income</b>		<b>746</b>	<b>735</b>
Restructuring and early retirement costs	6	(138)	(205)
Other non-current income and expenses	6	(56)	29
<b>Operating income</b>		<b>551</b>	<b>558</b>
Income from cash and cash equivalents		59	54
Gross borrowing costs		(42)	(27)
<b>Net borrowing costs</b>		<b>17</b>	<b>27</b>
Other financial income and expenses	7	(30)	(30)
<b>Net financial expense</b>	7	<b>(13)</b>	<b>(3)</b>
<b>Income tax</b>	8	<b>(146)</b>	<b>(124)</b>
<b>Net income of consolidated businesses</b>		<b>393</b>	<b>431</b>
Share in net income of equity associates		153	128
Minority interests		(95)	(139)
<b>Net income from continuing operations</b>		<b>451</b>	<b>420</b>
Net income from discontinued operations	9	598	31
<b>Net income attributable to equity holders of the parent</b>		<b>1,049</b>	<b>451</b>
Average number of shares outstanding		35,442,701	35,442,701
Earnings per share from continuing operations		12.72	11.83
Basic earnings per share		29.60	12.71
Diluted earnings per share <sup>(1)</sup>		29.60	12.71

\* Excluding IAS 32/39.

(1) AREVA has not issued any instruments with a dilutive impact on share capital.

The French GAAP consolidated financial statements for 2004 and 2003 were published in Section 5.4.2, page 242 of the 2004 Annual report filed with the French market authority (AMF) on April 18, 2005, and page 172 of the 2003 Annual report filed with AMF on April 29, 2004.

## 5.4. Consolidated financial statements

## 5.4.3. CONSOLIDATED BALANCE SHEET

## ASSETS

(in millions of euros)

	Notes	December 31, 2005	January 1, 2005*	December 31, 2004**	January 1, 2004**
<b>Non-current assets</b>		<b>15,786</b>	<b>14,441</b>	<b>13,131</b>	<b>11,829</b>
Goodwill on consolidated companies	10	2,095	2,206	1,649	1,152
Other intangible assets	11	761	597	597	469
Property, plant and equipment	13	3,542	3,865	3,865	3,619
<i>Including: End-of-life-cycle asset (AREVA share)</i>	<i>12</i>	<i>163</i>	<i>162</i>	<i>162</i>	<i>171</i>
End-of-life-cycle asset (third party share)	12	2,045	2,015	2,015	2,115
Assets earmarked for end-of-life-cycle obligations	14	2,798	2,508	2,391	2,234
Equity associates	15	1,288	1,313	1,334	1,597
Other non-current financial assets	16	2,365	1,490	799	421
Pension fund assets		-	10	10	17
Deferred tax assets		892	439	471	205
<b>Current assets</b>		<b>9,060</b>	<b>8,096</b>	<b>8,296</b>	<b>10,732</b>
Marcoule end-of-life-cycle asset		-	-	-	3,500
Inventories and work-in-process	17	2,272	2,125	2,097	1,627
Trade accounts receivable and related accounts	18	3,793	3,291	3,290	2,234
Other operating receivables	19	914	977	860	735
Current tax assets		172	116	116	133
Other non-operating receivables		142	269	270	45
Cash and cash equivalents	20	1,484	1,055	1,054	1,367
Other current financial assets	21	264	263	609	1,091
<b>Assets of operations held for sale</b>		<b>19</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total assets</b>		<b>24,846</b>	<b>22,537</b>	<b>21,427</b>	<b>22,561</b>

\* Including IAS 32/39.

\*\* Excluding IAS 32/39.



## 5.4. Consolidated financial statements

## LIABILITIES AND EQUITY

*(in millions of euros)*

	Notes	December 31, 2005	January 1, 2005*	December 31, 2004**	January 1, 2004**
<b>Equity and minority interests</b>		<b>6,590</b>	<b>5,297</b>	<b>5,310</b>	<b>5,316</b>
Share capital		1,347	1,347	1,347	1,347
Consolidated premiums and reserves		2,891	2,780	2,836	3,061
Deferred unrealized gains and losses		992	420	-	-
Currency translation reserves		83	(70)	(70)	-
Net income attributable to equity holders of the parent		1,049	451	451	-
Minority interests		228	369	746	908
<b>Non-current liabilities</b>		<b>8,179</b>	<b>7,721</b>	<b>6,722</b>	<b>6,291</b>
Employee benefits	24	1,096	1,031	1,031	799
Provisions for end-of-life-cycle operations	25	4,490	4,332	4,332	4,330
Other non-current provisions	26	91	66	66	73
Long-term borrowings	27	1,637	1,681	744	671
Deferred tax liabilities		865	611	549	418
<b>Current liabilities</b>		<b>10,077</b>	<b>9,519</b>	<b>9,395</b>	<b>10,954</b>
Provisions for end-of-life-cycle operations (Marcoule)	25	-	-	-	3,945
Current provisions	26	1,331	1,305	1,323	990
Short-term borrowings	27	379	203	199	164
Advances and prepayments received	28	4,671	4,326	4,326	3,615
Trade accounts payable and related accounts		1,939	1,695	1,691	1,009
Other operating liabilities	29	1,644	1,545	1,412	1,160
Current tax liabilities		99	91	91	71
Other non-operating liabilities	29	1	354	353	-
<b>Liabilities of operations held for sale</b>		<b>13</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total liabilities and equity</b>		<b>24,846</b>	<b>22,537</b>	<b>21,427</b>	<b>22,561</b>

\* Including IAS 32/39.

\*\* Excluding IAS 32/39.

The balance sheets as of December 31, 2004 and December 31, 2003 prepared in accordance with French GAAP were published in Section 5.4.3, page 243 of the 2004 Annual report filed with the French market authority (AMF) on April 18, 2005, and page 173 of the 2003 Annual report filed with AMF on April 29, 2004.

## 5.4. Consolidated financial statements

## 5.4.4. CONSOLIDATED CASH FLOW STATEMENT

(in millions of euros)

	Notes	2005	2004
<b>Net income attributable to equity holders of the parent</b>		<b>1,049</b>	<b>451</b>
Minority interests		95	139
<b>Net income before minority interests</b>		<b>1,144</b>	<b>590</b>
Less: income from discontinued operations		(598)	-
<b>Net income from continuing operations</b>		<b>544</b>	<b>590</b>
Loss (income) of equity associates		(153)	(128)
Net amortization, depreciation and impairment of PP&E and intangible assets and marketable securities maturing in more than 3 months		507	516
Goodwill impairment losses		-	9
Net provision for contingencies and losses		109	(500)
Net effect of reverse discounting of assets and provisions		169	151
Income tax expense (current and deferred)		146	160
Net interest included in borrowing cost		(13)	(12)
Loss (gain) on disposals of fixed assets and marketable securities maturing in more than 3 months; change in fair value		(123)	(99)
Other non-cash items		(14)	20
<b>Cash flow from operations before interest and taxes</b>		<b>1,173</b>	<b>707</b>
Net interest received or (paid)		2	19
Income tax paid		(119)	(117)
<b>Cash flow from operations after interest and tax</b>		<b>1,056</b>	<b>609</b>
Change in working capital requirement	30	(286)	303
<b>Net cash from operating activities</b>		<b>770</b>	<b>912</b>
Investment in PP&E and intangible assets		(535)	(519)
Investment in long-term notes and investments		(727)	(1,431)
Disposals of PP&E and intangible assets		66	105
Disposals of long-term notes and investments		429	692
Dividends from equity associates		29	27
<b>Net cash used in investing activities</b>		<b>(739)</b>	<b>(1,127)</b>
Share issues subscribed by minority shareholders in consolidated subsidiaries		9	-
Dividends paid to shareholders of the parent company		(340)	(220)
Dividends paid to minority shareholders of consolidated companies		(81)	(65)
Increase (decrease) in borrowings		19	12
<b>Net cash used in financing activities</b>		<b>(392)</b>	<b>(273)</b>
Decrease/(increase) in marketable securities maturing in less than 3 months		(9)	133
Impact of foreign exchange movements		(7)	16
<b>Net cash flow from discontinued operations</b>	30	<b>853</b>	<b>-</b>
<b>Increase/(decrease) in net cash</b>		<b>475</b>	<b>(339)</b>
Net cash at the beginning of the year		945	1,284
<b>Cash at the end of the year</b>	20	<b>1,484</b>	<b>1,054</b>
Less: Short-term bank facilities and non-trade current accounts (credit balances)		(65)	(109)
<b>Net cash at the end of the year</b>		<b>1,419</b>	<b>945</b>

"Net cash" taken into account in establishing the cash flow statement consists of:

- "Cash and cash equivalents" (see Note 20), which includes:
  - cash balances and non-trade current accounts, and
  - risk-free marketable securities initially maturing in less than three months and money market funds;
- after deduction of short-term bank facilities and non-trade current accounts included in short-term borrowings (see Note 27).

The consolidated cash flow statements for 2004 and 2003 prepared in accordance with French GAAP were published in Section 5.4.4, page 244 of the 2004 Annual report filed with the French market authority (AMF) on April 18, 2005, and page 174 of the 2003 Annual report filed with AMF on April 29, 2004.

## 5.4. Consolidated financial statements

## 5.4.5. STATEMENT OF CHANGES IN EQUITY

<i>(in millions of euros)</i>	Number of shares and investment certificates	Share capital	Premiums and consolidated reserves	Currency translation reserves	Deferred unrealized gains and losses on financial instruments	Equity attributable to equity holders of the parent	Minority interests	Total equity
<b>January 1, 2004 (excluding IAS 32 and 39)</b>	<b>35,442,701</b>	<b>1,347</b>	<b>3,061</b>	<b>-</b>	<b>-</b>	<b>4,408</b>	<b>908</b>	<b>5,316</b>
Net income for 2004	-	-	451	-	-	451	139	590
Dividends paid*	-	-	(220)	-	-	(220)	(65)	(285)
Change in consolidated group	-	-	-	-	-	-	(240)	(240)
Change in accounting method and other adjustments	-	-	-	-	-	-	-	-
Currency translation adjustments	-	-	(5)	(70)	-	(75)	5	(70)
<b>December 31, 2004 (excluding IAS 32 and 39)</b>	<b>35,442,701</b>	<b>1,347</b>	<b>3,287</b>	<b>(70)</b>	<b>-</b>	<b>4,564</b>	<b>746</b>	<b>5,310</b>
<b>IMPACT OF FIRST-TIME ADOPTION OF IAS 32 and 39</b>								
Effect on reserves	-	-	(56)	-	-	(56)	(394)	(450)
Deferred unrealized gains and losses (after tax)								
– On cash flow hedging instruments	-	-	-	-	12	12	7	19
– Change in value of available for-sale securities	-	-	-	-	408	408	10	418
<b>December 31, 2004 (including IAS 32 and 39)</b>	<b>35,442,701</b>	<b>1,347</b>	<b>3,231</b>	<b>(70)</b>	<b>420</b>	<b>4,928</b>	<b>369</b>	<b>5,297</b>
Net income for 2005	-	-	1,049	-	-	1,049	95	1,144
Dividends paid*	-	-	(340)	-	-	(340)	(81)	(421)
Change in consolidated group	-	-	-	-	-	-	(189)	(189)
Change in accounting method and other adjustments	-	-	-	-	-	-	-	-
Change in deferred unrealized gains and losses (after tax)								
– On cash flow hedging instruments	-	-	-	-	(4)	(4)	(5)	(9)
– Change in value of available-for-sale securities	-	-	-	-	576	576	16	592
Currency translation adjustments	-	-	-	153	-	153	23	176
<b>December 31, 2005</b>	<b>35,442,701</b>	<b>1,347</b>	<b>3,940</b>	<b>83</b>	<b>992</b>	<b>6,362</b>	<b>228</b>	<b>6,590</b>
* Dividend paid out per share <i>(in euros):</i>								
– In 2004 on 2003 net income			6.20					
– In 2005 on 2004 net income			9.59					

The Statements of changes in equity for 2004 and 2003 prepared in accordance with French GAAP were published in Section 5.4.5, page 245 of the 2004 Annual report filed with the French market authority (AMF) on April 18, 2005, and page 175 of the 2003 Annual report filed with AMF on April 29, 2004.

## 5.4. Consolidated financial statements

## 5.4.6. SEGMENT REPORTING

## DATA BY DIVISION

## 2005

**Results**

<i>(in millions of euros)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Eliminations	Total Group
<b>Gross sales revenue</b>	<b>2,712</b>	<b>2,469</b>	<b>2,147</b>	<b>3,212</b>	<b>233</b>	<b>(647)</b>	<b>10,125</b>
Inter-company sales *	(81)	(121)	(226)	-	(219)	647	0
Contribution to consolidated sales revenue	2,631	2,348	1,921	3,212	14	-	10,125
Current operating income	385	97	222	102	(61)	1	746
% of gross sales revenue	14.2%	3.9%	10.3%	3.2%	n.a.	-	7.4%
<b>Operating income</b>	<b>374</b>	<b>87</b>	<b>208</b>	<b>(61)</b>	<b>(58)</b>	<b>1</b>	<b>551</b>
% of gross sales revenue	13.8%	3.5%	9.7%	(1.9%)	n.a.	-	5.4%
Depreciation and amortization of PP&E and intangible assets	(153)	(61)	(200)	(78)	(2)	-	(493)
Impairment of PP&E and intangible assets	(1)	-	-	-	-	-	(1)
Additions to provisions	26	(26)	(45)	(96)	(2)	-	(132)

\* Transfer prices used in inter-company transactions are determined at arms' length.

**Balance sheet**

<i>(in millions of euros, except personnel data)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Eliminations	Total Group
PP&E and intangible assets (including goodwill)	1,554	606	2,079	950	1,205	5	6,399
Assets earmarked for end-of-life-cycle obligations	443	48	4,352	-	-	-	4,843
Other non-current assets	-	-	-	-	4,545	-	4,545
<b>Sub-total: Non-current assets</b>	<b>1,998</b>	<b>654</b>	<b>6,431</b>	<b>950</b>	<b>5,750</b>	<b>5</b>	<b>15,787</b>
Inventories and receivables (excluding tax receivables)	1,891	1,614	1,372	2,268	304	(328)	7,121
Other current assets	-	-	-	-	1,939	-	1,939
<b>Sub-total: Current assets</b>	<b>1,891</b>	<b>1,614</b>	<b>1,372</b>	<b>2,268</b>	<b>2,242</b>	<b>(328)</b>	<b>9,060</b>
<b>Total assets</b>	<b>3,888</b>	<b>2,268</b>	<b>7,803</b>	<b>3,218</b>	<b>7,992</b>	<b>(323)</b>	<b>24,847</b>
Employee benefits and non-current provisions	1,106	260	4,025	245	41	-	5,676
Other non-current liabilities	-	-	-	-	2,502	-	2,502
<b>Sub-total: Non-current liabilities</b>	<b>1,106</b>	<b>260</b>	<b>4,025</b>	<b>244</b>	<b>2,543</b>	<b>-</b>	<b>8,179</b>
Current provisions	188	249	389	429	76	-	1,331
Advances, down payments and other debt, excluding tax liabilities	1,106	1,807	3,562	1,929	194	(342)	8,255
Other current liabilities	-	-	-	-	492	-	492
<b>Sub-total: Current liabilities</b>	<b>1,294</b>	<b>2,056</b>	<b>3,951</b>	<b>2,358</b>	<b>762</b>	<b>(342)</b>	<b>10,078</b>
<b>Total liabilities</b>	<b>2,401</b>	<b>2,316</b>	<b>7,975</b>	<b>2,602</b>	<b>3,305</b>	<b>(342)</b>	<b>18,257</b>
Workforce	11,047	14,323	10,864	22,094	432	-	58,760

## 5.4. Consolidated financial statements

## 2004

(income data excludes operations discontinued in 2005; balance sheet data includes operations discontinued in 2005)

**Results**

	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Eliminations	Total Group	
(in millions of euros)				FCI				
Gross sales revenue	2,599	2,308	2,124	n.a.	3,186	182	(578)	9,821
Inter-company sales *	(75)	(162)	(178)	-	(0)	(163)	578	0
Contribution to consolidated sales revenue	2,524	2,146	1,946	n.a.	3,186	19	-	9,821
Current operating income	397	124	242	n.a.	39	(68)	3	735
% of gross sales revenue	15.3%	5.4%	11.4%	-	1.2%	n.a.		7.4%
Operating income	370	95	228	n.a.	(103)	(34)	2	558
% of gross sales revenue	14.2%	4.1%	10.8%	-	(3.2%)	n.a.	-	5.8%
Depreciation and amortization of PP&E and intangible assets	(125)	(56)	(223)	n.a.	(76)	(9)	-	(489)
Impairment of PP&E and intangible assets	-	-	-	-	-	(9)	-	(9)
Additions to provisions	36	35	398	n.a.	(50)	(10)	-	409

\* Transfer prices used in inter-company transactions are determined at arms' length.

**Balance sheet**

<i>(in millions of euros, except personnel data)</i>	Front End	Reactors and Services	Back End	FCI	Transmission & Distribution	Corporate	Eliminations	Total Group
PP&E and intangible assets (including goodwill)	1,308	456	2,203	627	1,028	485	4	6,111
Assets earmarked for end-of-life-cycle obligations	406	48	3,952	-	-	-	-	4,406
Other non-current assets	-	-	-	-	-	2,614		2,614
<b>Sub-total: Non-current assets</b>	<b>1,714</b>	<b>504</b>	<b>6,045</b>	<b>627</b>	<b>1,028</b>	<b>3,099</b>	<b>4</b>	<b>13,131</b>
Inventories and receivables (excluding tax receivables)	1,600	1,496	1,162	382	1,859	266	(248)	6,519
Other current assets	-	-	-	-	-	1,778	-	1,778
<b>Sub-total: Current assets</b>	<b>1,600</b>	<b>1,496</b>	<b>1,162</b>	<b>382</b>	<b>1,859</b>	<b>2,044</b>	<b>(248)</b>	<b>8,296</b>
<b>Total assets</b>	<b>3,314</b>	<b>2,001</b>	<b>7,317</b>	<b>1,009</b>	<b>2,886</b>	<b>5,143</b>	<b>(243)</b>	<b>21,427</b>
Employee benefits and non-current provisions	1,004	268	3,852	84	182	40	-	5,430
Other non-current liabilities	-	-	-	-	-	1,292	-	1,292
<b>Sub-total: Non-current liabilities</b>	<b>1,004</b>	<b>268</b>	<b>3,852</b>	<b>84</b>	<b>182</b>	<b>1,332</b>		<b>6,722</b>
Current provisions	217	210	369	90	352	81	3	1,323
Advances, down payments and other debt, excluding tax liabilities	874	1,465	3,615	266	1,618	207	(264)	7,782
Other current liabilities	-	-	-	-	-	290	-	290
<b>Sub-total: Current liabilities</b>	<b>874</b>	<b>1,465</b>	<b>3,615</b>	<b>266</b>	<b>1,618</b>	<b>578</b>	<b>2</b>	<b>9,395</b>
<b>Total liabilities</b>	<b>2,095</b>	<b>1,943</b>	<b>7,836</b>	<b>441</b>	<b>2,152</b>	<b>1,910</b>	<b>(261)</b>	<b>16,117</b>
Workforce	10,952	14,066	10,697	12,160	21,816	378	-	70,069

See also section 5.1.3.2.

## 5.4. Consolidated financial statements

## DATA BY GEOGRAPHICAL AREA

## 2005

**Sales by customer location**

<i>(in millions of euros)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Total Group
France	1,116	873	1,104	270	8	3,371
Europe (excluding France)	604	702	511	1,204	1	3,022
North & South America	631	626	118	482	4	1,861
Asia-Pacific	229	115	187	648	1	1,180
Africa/Middle East	51	31	0	596	0	678
Other countries	0	1,00	0	12	0	13
<b>Total</b>	<b>2,631</b>	<b>2,348</b>	<b>1,920</b>	<b>3,212</b>	<b>14</b>	<b>10,125</b>

**Closing balances of property, plant and equipment and intangible net assets (excluding goodwill) as of December 31, 2005 by geographical area and by division**

<i>(in millions of euros)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Total Group
France	367	157	1,970	133	51	2,679
Europe (excluding France)	152	80	0	169	9	410
North & South America	730	81	10	61	31	913
Asia-Pacific	4	0	0	87	1	93
Africa/Middle East	47	0	0	1	0	48
<b>Total</b>	<b>1,300</b>	<b>318</b>	<b>1,981</b>	<b>451</b>	<b>92</b>	<b>4,141</b>

**Acquisitions of property, plant and equipment and intangible net assets (excluding goodwill) as of December 31, 2005 by geographical area and by division**

<i>(in millions of euros)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Total Group
France	114	74	67	19	12	286
Europe (excluding France)	46	53	0	16	0	115
North & South America	81	26	3	10	1	120
Asia-Pacific	4	0	0	14	0	18
Africa/Middle East	12	0	0	0	0	12
<b>Total</b>	<b>256</b>	<b>153</b>	<b>70</b>	<b>60</b>	<b>13</b>	<b>552</b>

**2004***(excluding discontinued operations)***Sales by customer location**

<i>(in millions of euros)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Corporate	Total Group
France	1,051	844	1,027	208	7	3,137
Europe (excluding France)	558	530	403	1,155	1	2,647
North & South America	623	658	138	448	10	1,877
Asia-Pacific	252	91	377	716	1	1,437
Africa/Middle East	41	23	1	649	0	714
Other countries	0	0	0	9	0	9
<b>Total</b>	<b>2,525</b>	<b>2,146</b>	<b>1,946</b>	<b>3,185</b>	<b>19</b>	<b>9,821</b>

**Property, plant and equipment and intangible assets (excluding goodwill) as of December 31, 2004**

<i>(in millions of euros)</i>	Front End	Reactors and Services	Back End	Transmission & Distribution	Total Energie business	Connectors	Corporate	Total Group
France	352	110	2,199	151	2,813	53	57	2,922
Europe (excluding France)	137	45	0	190	372	109	7	489
North & South America	587	58	8	47	700	13	26	739
Asia-Pacific	5	1	0	74	80	188	0	268
Africa/Middle East	42	0	0	0	43	0	0	43
<b>Total</b>	<b>1,123</b>	<b>213</b>	<b>2,207</b>	<b>463</b>	<b>4,007</b>	<b>363</b>	<b>91</b>	<b>4,461</b>

## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

# 5.5. Notes to the consolidated financial statements

*All amounts are presented in millions of euros unless otherwise indicated. Certain totals may include rounding differences.*

## INTRODUCTION

AREVA's consolidated financial statements for the period January 1, 2005 through December 31, 2005 were approved by the Executive Board and reviewed by the Supervisory Board on March 8, 2006. The financial statements will be presented to the Annual General Meeting of Shareholders for approval in May 2006.

## NOTE 1. ACCOUNTING PRINCIPLES

Pursuant to European Regulation 1606/2002 of July 19, 2002, AREVA's consolidated financial statements for the year ended December 31, 2005 were prepared in accordance with International Financial Reporting Standards (IFRS), as approved by the European Union. They reflect IAS and IFRS standards and interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC) and the former Standing Interpretation Committee (SIC).

All accounting standards and interpretations applied by the AREVA group in these financial statements are consistent with European Directives and the standards and interpretations adopted by the European Union.

AREVA's consolidated financial statements for years ending before January 1, 2005 have been prepared in accordance with accounting rules and methods applicable to the consolidated financial statements as approved by the Decision of June 22, 1999, approving Regulation No. 99-02, as amended by Regulation No. 2004-03, issued by the French Accounting Regulation Committee (Comité de Règlementation Comptable, CRC). For years ending before January 1, 2005, the Group applied the preferred methods recommended by CRC Regulation No. 99-02.

### Methods selected for first adoption of IFRS on January 1, 2004

IFRS methods adopted by the European Union effective December 31, 2005 were applied retroactively from January 1, 2004, as provided in IFRS 1 "First-time adoption of IFRS", except for certain exemptions provided in the standard:

- Business combinations

AREVA applies the provisions of IFRS 3 from January 1, 2004 and has not adjusted business combinations that took place before that date.

- Valuation of property, plant and equipment and intangible assets:

AREVA has not elected to restate certain property, plant and equipment and intangible assets at fair value in the opening balance sheet; as such, property, plant and equipment and intangible assets remain recognized at amortized cost.

- Employee benefits

AREVA has elected to recognize in Equity as of January 1, 2004, all actuarial gains and losses not recognized in the balance sheet as of December 31, 2003. The quantified impact of application of this method is presented in Note 38 below. AREVA has also elected to continue to apply the current corridor method to gains and losses resulting from changes in assumptions and experience differences after January 1, 2004 concerning pension obligations and related benefits.

- End-of-life-cycle obligations from nuclear operations

In accordance with IAS 37, AREVA sets up a provision for end-of-life-cycle obligations from nuclear operations and recognizes an end-of-life-cycle asset consisting of two components: the component funded by AREVA ("End-of-life-cycle asset – AREVA share") and the component funded by customers ("End-of-life-cycle asset – third party share"). AREVA has elected to apply the exemption offered by the amendments to IFRS 1 following publication of IFRIC Interpretation 1: "Changes in Existing Decommissioning, Restoration and Similar Liabilities". This interpretation provides that end-of-life-cycle assets are recalculated at the initial discounted present value and amortized on a straight-line basis from the facility start-up date to its estimated shut-down date. In this respect, the Group's share of the end-of-life-cycle asset has been valued as of January 1, 2004 by discounting estimated future cash flows back to the start-up date of the facilities concerned. This value was then



## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

amortized from the start-up date to January 1, 2004, pro rata to the estimated period of use at that date. The quantified impact of application of this method is presented in Note 38 below.

- Currency translation reserves

AREVA has elected to transfer to consolidated reserves its cumulated currency translation reserves at January 1, 2004. This transaction had no impact on the Group's equity.

- International Accounting Standards IAS 32 and 39 on financial instruments:

AREVA has elected to adopt IFRS 32 and IFRS 39 on financial instruments from, effective January 1, 2005, without restating the financial statements for 2004. The quantified impact of application of these standards on the balance sheet as of January 1, 2005 is presented in Note 39 below.

Other optional methods available under IFRS 1 do not apply to the AREVA group or have not been adopted.

#### Early adoption of certain interpretations and amendments to IFRS as of December 31, 2004 and December 31, 2005

- Subsequent to June 2005, the European Union adopted several new IFRS and amendments to existing standards. These new accounting standards and amendments are mandatory for years beginning after December 31, 2005, with a possibility of early adoption on a voluntary basis.

AREVA has not elected to adopt these standards and amendments in the financial statements for the years ended December 31, 2004 and December 31, 2005.

Therefore, AREVA's financial statements for the year ended December 31, 2005 do not reflect the potential impact of accounting standards and interpretations published at December 31, 2005, which are mandatory only for years beginning on or after January 1, 2006 or January 1, 2007.

The quantified impact of application of these standards and interpretations on AREVA's financial statements for years beginning on or after January 1, 2006 is being evaluated.

By the deadline set to close its accounts, AREVA had not received a detailed assessment of IFRS adoption on the financial statements of STMicroelectronics. Accordingly, the valuation of AREVA's investment in this equity associate, and AREVA's share of its net income are not included in the IFRS restatements presented. The Group will include these restatements in the first consolidated financial statements prepared after STMicroelectronics publishes the impact of IFRS transition on its financial statements.

The quantified impact of transition to IFRS on the 2004 financial statements is presented in Note 38 below.

Certain IFRS adjustments to AREVA's financial statements for 2004 were completed in 2005. Accordingly, the opening balance sheet as of January 1, 2004, the IFRS income statement for 2004 and the balance sheets as of January 1, 2004 and December 31, 2004, as presented below, were modified in 2005.

Changes to the preliminary IFRS 2004 financial statements published in Section 5.1.9 of the 2004 Annual report are explained in Note 38.

### 1.1. Estimates and assumptions

To prepare its financial statements, AREVA must make estimates and assumptions impacting the net carrying amount of certain assets and liabilities, income and expense items, or information provided in the notes to the financial statements. AREVA updates its estimates and assumptions on a regular basis to take into account past experience and other factors deemed relevant, based on business circumstances. Depending on changes in these assumptions or in circumstances, the Group's future financial statements may or may not be consistent with current estimates.

The main estimates and assumptions include:

- anticipated margins on long-term contracts (see Note 1.8.);
- anticipated cash flows, discount rates and growth assumptions used in goodwill impairment tests (see Note 1.10.);
- anticipated cash flows, discount rates and growth assumptions used to assess the value of put options held by minority shareholders of certain AREVA subsidiaries (see Note 1.19.);
- all assumptions used to assess the value of pension obligations and other employee benefits, including future payroll escalation, discount rates, retirement age and employee turnover (see Note 1.16.);
- all assumptions used to calculate provisions for end-of-life-cycle obligations and the corresponding asset, including:
  - estimated cost of future end-of-life-cycle obligations,
  - inflation and discount rates,
  - the schedule of future disbursements,
  - the estimated operating life of the facilities, and
  - the share of costs to be funded by third parties (see Note 1.18.);
- estimates regarding the outcome of ongoing litigation and, more generally, estimates regarding all provisions and contingent liabilities of the AREVA group (see Note 1.17.).

## 5.5. Notes to the consolidated financial statements

## Note 1. Accounting principles

## 1.2. Presentation of the financial statements

AREVA's financial statements are presented in accordance with IAS 1.

### 1.2.1. Presentation of the balance sheet

The balance sheet makes a distinction between current and non-current assets, and current and non-current liabilities, in accordance with IAS 1.

Current assets and liabilities include assets held for sale or for use in connection with the operating cycle or expected to be sold or settled within 12 months of the balance sheet date.

To simplify the presentation of the balance sheet, AREVA presents all headings relating to end-of-life-cycle operations on separate lines under non-current assets or liabilities, for their full amount. Thus, provisions for end-of-life-cycle operations are presented as non-current liabilities; the end-of-life-cycle asset corresponding to the share of third parties in the financing of these obligations is presented under non-current assets. Financial assets earmarked to cover these obligations are presented in a separate heading under non-current assets, including all equities and shares in equity and bond funds held in the portfolio, together with cash held on a short-term basis.

Provisions for employee benefits are also presented under non-current liabilities for their full amount.

Non-current assets or disposal groups held for sale, and liabilities and assets of discontinuing operations are presented under separate headings of the balance sheet, as required under IFRS 5

### 1.2.2. Presentation of the income statement

In the absence of guidance in IAS 1, the income statement is presented in accordance with recommendation 2004-R.02 of the Conseil National de la Comptabilité [French National Accounting Board].

- Operating income is split between current operating income and non-current operating items.

- Operating expenses are presented by function.

Non-current operating items include:

- the costs of restructuring and early employee retirement plans;
- goodwill impairment losses;
- Impairment of and income from disposals of property, plant and equipment and intangible assets;
- Income from the deconsolidation of subsidiaries (except if classified as discontinued operations in accordance with IFRS 5, in which instance they are presented on a separate line in the income statement).

- The Net financial expense comprises:

- gross borrowing costs;
- income from cash and cash equivalents;
- other financial income and expenses, and notably:
  - dividends received;
  - lasting impairment and gains or losses on sales of available-for-sale securities;
  - changes in value and income from disposals of securities held for trading;
  - reverse discounting of provisions for end-of-life-cycle obligations and employee benefits.

- Net income after tax from discontinued operations, as defined in IFRS 5, is presented under a separate heading in the income statement.

This item includes net income from these operations during the year up to the date of their disposal, and net income from the disposal itself.

### 1.2.3. Cash flow data

The Cash flow statement is presented in accordance with recommendation 2004-R.02 of the French national accounting board. AREVA has adopted the indirect method of presentation, which starts with consolidated net income for the period.

Cash flows from operating activities include income taxes paid, interest paid or received, and dividends received, except for dividends from equity associates, which are reported in cash flows from investing activities.

Cash flow from operations is presented before income tax, dividends and interest.

In accordance with IFRS 5, net cash flow from discontinued operations is presented under a separate heading in the cash flow statement.

This heading includes net cash flows from such operations during the year up to the date of their disposal, and net after tax income from the disposal itself.

## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

**1.3. Consolidation methods**

The consolidated statements combine the financial statements as of December 31, 2005 of AREVA and the subsidiaries which it controls or in which it exercises either joint control or significant influence over financial policy and management.

- The companies controlled by AREVA are consolidated using the full consolidation method (including special purpose entities). Control is defined as the direct or indirect power to govern a company's financial and operating policies in order to benefit from its activities.
- The companies in which AREVA exercises joint control are consolidated using the proportionate consolidation method.
- The companies in which AREVA exercises a significant influence over financial policy and management ("associates") are accounted for using the equity method. Significant influence is deemed to exist if the Group's investment is 20% or higher.

Minority interests in consolidated subsidiaries with negative equity are borne in full by the Group for accounting purposes, unless there is an explicit agreement for such minority shareholders to bear their share of the deficit, or when funding by the latter is not in question.

All material inter-company transactions are eliminated during consolidation.

**1.4. Translation of financial statements of foreign companies**

The AREVA group's financial statements are presented in euros.

The functional currency of foreign subsidiaries and associates is generally the local currency. However, another currency may be designated for this purpose when most of a company's transactions are in another currency.

The financial statements of foreign companies belonging to the AREVA group are prepared in the local functional currency and translated into euros for consolidation purposes in accordance with the following principles:

- balance sheet items (including goodwill) are translated at the rates applicable at the end of the period, with the exception of equity components, which are kept at their historic rates;
- income statement transactions and cash flow statements are translated at average annual rates;
- the Group's share of currency translation differences impacting the income statement and equity is recognized directly in equity under the heading "Currency translation reserves". When a foreign company is sold, currency translation differences in respect of the company, recorded in equity, are recognized in income.

**1.5. Segment reporting**

Segment reporting is presented at two levels:

- Level one: information by business sector, corresponding to the Group's four operating divisions: Front End, Reactors and Services, Back End, and Transmission & Distribution, in addition to a Corporate division.

Information by division includes only personnel data and operating data included in the balance sheet and the income statement: sales revenue, operating income, goodwill, non-current property, plant and equipment and intangible assets, other operating assets and liabilities. Financial assets and liabilities and the Group's tax position are managed at central level. The corresponding balance sheet and income statement items are not allocated to the Group's operating divisions, but rather presented on a consolidated basis under "Corporate Division".

- Level two: information by geographical area

AREVA's consolidated sales are broken down by geographical area, depending on the destination of the goods and services, as follows:

- France,
- Europe (excluding France),
- North and South America,
- Asia-Pacific,
- Africa/Middle East.

**1.6. Business combinations – Goodwill**

Acquisitions of companies and operations are recognized at cost, as provided in IFRS 3 for business combinations subsequent to January 1, 2004.

The acquired company's assets, liabilities and contingent liabilities meeting the definition of identifiable assets and liabilities are recognized at fair value on the date of acquisition. However, the acquired company's operations and non-current assets held for sale, as provided in IFRS 5, are recognized at the lower of fair value less costs to sell and the net carrying amount of the corresponding assets. For consolidation purposes, the date of consolidation of the acquired company is the date at which AREVA acquires effective control.

Restructuring and other costs incurred by the acquired company as a result of the business combination are included in the liabilities acquired, as long as IAS 37 criteria for provisions are met at the date of acquisition. Costs incurred after the date of acquisition are recognized in operating income during the year in which such costs are incurred or when meeting IAS 37 criteria.

The acquired company's contingent liabilities are recognized as liabilities and recorded at fair value on the date of acquisition.

## 5.5. Notes to the consolidated financial statements

### Note 1. Accounting principles

The difference, on the acquisition date, between the acquisition cost of a company's shares and the fair value of corresponding assets, liabilities and contingent liabilities is recognized in goodwill when positive and in the income statement of the year of acquisition when negative.

Minority interests are recognized initially based on the fair value of assets, liabilities and contingent liabilities on the date of acquisition, prorated for the percentage interest held by minority shareholders.

The valuation of the acquired company's assets, liabilities and contingent liabilities may be adjusted within twelve months of the date of acquisition. After expiration of this period, the goodwill may only be adjusted under very specific circumstances: price adjustment, correction of errors or subsequent recognition of a deferred tax asset that did not meet the criteria for recognition at the date of acquisition.

Goodwill is not amortized. However, impairment may be recognized when necessary, based on impairment tests.

To perform impairment tests, all goodwill is allocated to cash-generating units (CGUs) reflecting the Group's structure. CGUs and the methodology used for impairment tests are described in Note 1.10.

Cash-generating units to which goodwill has been allocated are subject to an impairment test at least once a year, or more frequently if there is an indication of impairment.

When the recoverable value of the cash-generating unit is less than the net carrying amount of its assets, the impairment is allocated first to goodwill and then to other non-current assets (property, plant and equipment and intangible assets), prorated based on their net carrying amount.

Impairment of goodwill cannot be reversed.

Upon sale of a consolidated unit, goodwill allocated to the unit is included in its net carrying amount and taken into consideration to determine the gain or loss on disposal.

## 1.7. Revenue recognition

Sales revenue is recognized at the fair value of the consideration received or to be received.

It is recognized net of rebates and sales taxes.

Sales are recognized upon transfer to the buyer of the risks and rewards of ownership, which generally coincides with the transfer of title or the performance of the service.

Sales revenue includes:

- sales revenue recognized according to the percentage of completion method for long-term contracts (see Note 1.8. below);
- sales revenue other than from long-term contracts, including:
  - sales of goods (products and merchandise), and
  - services performed.

No revenue is recognized in respect of transactions where the unit only acts as broker, without bearing the risks and rewards attached to the goods, or for commodity trading activities. This primarily concerns uranium trading.

In such instances, sales revenue is recognized in the amount of the margin obtained by the unit.

## 1.8. Sales recognized according to the percentage of completion method

Sales revenue and margins on long-term contracts are recognized according to the percentage of completion method (PCM), as provided in IAS 11 for construction contracts and in IAS 18 for services.

As required by this method, sales revenue and income from long-term contracts are recognized over the period of performance of the contract. Depending on the contract terms, the percentage of completion may be based on costs incurred or the stage of physical completion.

- Under the cost-based PCM formula, the stage of completion is equal to the ratio of costs incurred (i.e. costs of work or services performed and confirmed as of the end of the accounting period) to the total anticipated cost of the contract. This ratio may not exceed the percentage of physical or technical completion as of the end of the accounting period.
- Under the physical completion PCM formula, a predetermined percentage of completion is assigned to each stage of completion of the contract. The sales revenue and costs recognized at the end of the period are equal to the percentage of sales revenue and anticipated costs for the stage of completion achieved at that date.

## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

When contract terms generate significant cash surpluses during all or part of the contract's performance, the resulting financial income is included in contract revenue and recognized in sales revenue based on the percentage of completion.

When the gain or loss at the end of the contract cannot be estimated reliably, the costs are recognized as expenses when incurred and the revenue recognized may not exceed the costs incurred and recoverable. The net margin recognized is therefore nil.

When a contract is expected to generate a loss at completion, the total projected loss is recognized immediately, after deduction of any already recognized partial loss, and a provision is set up accordingly.

## 1.9. Valuation of property, plant and equipment and intangible assets

### 1.9.1. Initial recognition

AREVA has not elected to restate certain property, plant and equipment and intangible assets at fair value; as such, property, plant and equipment and intangible assets remain recognized at depreciated or amortized cost.

### 1.9.2. Borrowing costs

AREVA has not made an IAS 23 election to include borrowing costs in the valuation of property, plant and equipment and intangible assets.

### 1.9.3. Intangible assets

#### Research and development expenses

Research and development expenses incurred by AREVA for its own account are expensed.

Research and development expenses funded by customers as provided by contract are included in the production cost of these contracts and recorded under cost of sales when the corresponding sales revenue is recognized in income.

As provided in IAS 38, expenses relating to development projects are recognized as intangible assets if the project meets the following six criteria:

- it is technically feasible;
- the company intends to complete the asset, to use it or to sell it;
- the company is able to use or sell the asset;

- future economic benefits are likely (existence of a market or internal use);
- adequate resources are available to complete the project, and
- costs attributable to the asset can be measured reliably.

Capitalized development costs are amortized over the expected life of the intangible asset, from the commissioning date.

Costs expensed before the date of capitalization may not be capitalized later.

#### Mineral exploration

Exploration costs, including geological work, are determined in accordance with the following rules: exploration costs for which no commercially viable deposit has been discovered are expensed during the year in which they are incurred. Mining pre-development expenses relating to reserves presenting technical and economic characteristics that indicate a strong probability of profitable mining development may be capitalized at year-end. Indirect costs, excluding overhead expenses, are included in the valuation of these costs. Capitalized pre-mining expenses are amortized in proportion to the number of tons mined from the reserves they helped identify.

#### Greenhouse gas emission allowances

The IFRIC 3 interpretation having been withdrawn, and pending a decision by regulators on accounting rules regarding greenhouse gas emission allowances AREVA does not recognize an asset or provision as long as the Group's emissions are lower than the allowances, it has received.

AREVA does not trade speculatively in the emission allowance markets. The Group's only transactions in 2005 were sales of rights corresponding to allowances allocated to it in excess of actual CO<sub>2</sub> emissions. Proceeds from these sales were recognized in the income statement under the heading "Other operating income".

#### Other intangible assets

An intangible asset is recognized when it is likely that future economic benefits will accrue to the company and if the cost of this asset can be estimated reliably, based on reasonable and documented assumptions.

Intangible assets are recognized at acquisition or production cost.

Goodwill and trademarks produced internally are not capitalized.

Amortization of intangible assets is calculated using the most appropriate method for the asset category, starting on the date of commissioning and over the shorter of their probable period of use and, if applicable, the length of their legal protection.

Intangible assets with indefinite useful lives, such as brands, are not amortized, but are subject to impairment tests (see Note 1.10.).

## 5.5. Notes to the consolidated financial statements

## Note 1. Accounting principles

**1.9.4. Property, plant and equipment**

Property, plant and equipment are recognized at acquisition or production cost, including startup expenses.

Depreciation of property, plant and equipment is calculated using the most appropriate method for the asset category.

Mining land is depreciated over the life of the deposit; site layout and preparation expenses are depreciated over 10 years; buildings over 10 to 45 years; production facilities, equipment and tooling other than nuclear facilities over 5 to 10 years; general facilities and miscellaneous fixtures over 10 to 20 years; and transportation equipment, office equipment, computer equipment and furniture over 3 to 10 years.

Assets financed under leasing arrangements, which transfer, in substance, nearly all the risks and rewards inherent to ownership of the asset to AREVA, are recognized in the balance sheet as property, plant and equipment and depreciated as indicated above. Assets financed by customers are depreciated over the term of the corresponding contracts.

The Group's nuclear facilities are depreciated on a straight line over their useful lives on the basis of firm contracts to be performed by these facilities, including reasonable expectations for contract renewals. Depreciation periods were determined accordingly, without exceeding the technical lifespan of each plant under normal economic conditions; the main facilities' useful lives end in:

- 2010 for the Tricastin enrichment plant at Pierrelatte (Eurodif),
- 2025 for the used fuel treatment plant at La Hague (AREVA NC),
- 2027 for the recycling and MOX fuel fabrication plant at Marcoule (MELOX).

Depreciation periods may be revised if the Group's backlog changes significantly.

In 2005, the Group completed a study of the service life of the La Hague and MELOX plants. Veritas performed an independent review validating the study. The study confirmed that the facilities will be able to operate over the periods contemplated, taking into account their designs, operating modes, lessons learned from similar facilities, and subject to a regular maintenance and upgrades program. In addition, the facilities' economic life is consistent with EDF's public commitment regarding its used fuel treatment and recycling policy and the timeframe of the contract currently under discussion with this customer. Consequently, effective January 1, 2005, the Group decided to extend the depreciation period through 2025 instead of 2017 at La Hague and through 2027 instead of 2025 at MELOX.

**1.10. Impairment of property, plant and equipment and intangible assets**

At each year end, the Group evaluates potential indications of asset impairment.

Impairment tests are performed systematically at least once a year for intangible assets with indefinite useful lives or more often if there is an indication of impairment.

Impairment tests are performed as soon as there is an indication that property, plant and equipment or intangible assets with finite useful lives may be impaired.

When no estimate of an individual asset's recoverable amount may be established, the Group determines the recoverable amount of the cash-generating unit to which the asset belongs.

A cash-generating unit is the smallest identifiable group of assets generating cash inflows which are largely independent of the cash inflows from other assets or groups of assets.

An impairment is recognized when the recoverable amount of a cash-generating unit is less than the net carrying amount of all assets belonging to it. The recoverable amount of a CGU is the higher of:

- its fair value net of disposal expenses;
- the net present value of estimated future cash flows it produces plus, if applicable, its residual value at the end of its projected service life.

To determine an asset's useful value, cash flows are discounted based on a discount rate consistent with a current assessment of the time value of money and the specific risk of the asset.

For goodwill impairment tests, AREVA's CGUs generally represent business units. However, a CGU may include several interdependent business units.

**1.11. Inventories and work-in-process**

Inventories and work-in-process are valued at production cost in the case of goods produced by the Group and at acquisition cost in the case of goods acquired for consideration. Items are valued according to the first-in first-out method (FIFO) or at weighted average cost, depending on the type of inventory or work-in-process.

An impairment is recognized when the likely recoverable amount of inventory or work-in-process is less than its net carrying amount.

Financial expenses and research and development costs funded by AREVA are not taken into account in the valuation of inventories and work-in-process. However, the cost of research and development programs funded by customers is recognized in inventories and work-in-process.

Uranium inventories belonging to the Group's trading business are recognized at market price.



## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

**1.12. Accounts receivable**

Accounts receivable, generally due in less than one year, are recognized at face value.

An impairment charge is recognized to reflect the likely recovery value when collection is not assured.

**1.13. Financial assets**

Financial assets consist of:

- Assets earmarked to finance end-of-life-cycle obligations;
- Other available-for-sale securities;
- Loans, advances and deposits;
- Securities held for trading;
- Cash and cash equivalents.

They are valued in accordance with IAS 39.

Regular purchases and sales of financial assets are recognized as of the date of transaction.

**1.13.1. Assets earmarked to finance end-of-life-cycle obligations**

This heading includes all investments dedicated by AREVA to the funding of its obligations for future end-of-life-cycle operations in the nuclear business, including facility dismantling and waste retrieval and packaging. The portfolio includes directly-held publicly traded shares, dedicated equity mutual funds, dedicated bond and money market funds, and cash.

- Publicly traded shares are recognized as "Available-for-sale securities", as provided in IAS 39. They are recognized at fair value corresponding to the last traded price of the year. Changes in value are recognized directly in equity under the heading "Deferred unrealized gains and losses" on an after-tax basis, except for lasting impairment, which is recognized under financial expenses for the year.

A charge for lasting impairment is recognized when the sliding average of the stock market price of a share over twelve months is less than 70% of its initial fair value. The impairment is calculated as the difference between the price traded on the stock market on the last day of the period and the initial fair value of the shares.

Impairment of available-for-sale securities is irreversible and may only be released to the income statement on sale of the securities. Market price increases subsequent to recognition of impairment are recorded as a change in fair value recognized directly in equity under the heading "Deferred unrealized gains and losses".

- AREVA does not consolidate its dedicated mutual funds on an individual basis, since the company is not involved in their management, which is under the responsibility of first-rate management firms that are independent from the Group. These mutual funds are benchmarked to the MSCI index of large European capitalizations, with strict limits on risk. The funds are regulated by the French stock market authority and therefore subject to regulations governing investment and concentration of risk. Moreover, AREVA complies with the conditions established in the August 2005 interim report of the French National Accounting Board regarding accounting for dedicated mutual fund investments. This method, adopted effective December 31, 2005, shall remain in effect until IFRIC issues an opinion on the French National Accounting Board's interim report. In addition:

- AREVA does not have control over the mutual funds' management firms;
- AREVA does not hold voting rights in the mutual funds;
- the funds do not trade directly or indirectly in financial instruments issued by AREVA;
- none of the financial investments made by the funds are strategic to AREVA;
- AREVA receives no benefit and bears no risk, directly or indirectly, other than those normally associated with investments in mutual funds and in proportion to its holding;
- the funds have no debt or liabilities other than those resulting from normal trading.

Accordingly, the dedicated mutual funds are recognized on the balance sheet under a single heading corresponding to AREVA's share of their net asset value as of the end of the year.

Irrespective of their long-term investment objective, the funds dedicated to financing end-of-life-cycle operations are recognized as available-for-sale securities. Accordingly, the accounting treatment of changes in fair value and lasting impairment measurement and recognition methods are identical to those applicable to directly-held shares.

**1.13.2. Other available-for-sale securities**

This heading includes all shares held by AREVA in publicly traded companies, except shares in equity associates and shares held for trading.

These shares are valued in the same manner as shares held in the dedicated portfolio:

- Fair value equal to the last traded price of the year.
- Changes in fair value recognized directly in equity.
- Lasting impairment recognized in financial income when the 12-month sliding average of the market price of the share is less than 70% of its initial fair value. Impairment is equal to the difference between the stock market price of the share at the end of the year and the initial fair value.

## 5.5. Notes to the consolidated financial statements

## Note 1. Accounting principles

This heading also includes the Group's investments in the share capital of unconsolidated companies, either because AREVA does not have control and has no significant influence over them or because of immateriality. These shares are valued at cost when the fair value cannot be estimated reliably. This relates only to privately held companies.

Impairment due to a long-term decrease in value is recognized as a financial expense, based on financial criteria relevant to each individual company, such as AREVA's share of the company's equity or its profitability outlook.

**1.13.3. Loans, advances and deposits**

This heading mainly includes loans to unconsolidated equity interests, advances for acquisitions of equity interests, and security deposits.

These assets are valued at amortized cost. Impairment is recognized when the recoverable amount is less than the net carrying amount.

**1.13.4. Securities held for trading**

This heading includes investments in bonds – other than those earmarked for end-of-life-cycle operations – and balanced mutual funds comprised of equities and bonds.

These assets are recognized at fair value based on their stock market price or their net asset value at the end of the period. Changes in fair value are recognized under financial income for the period.

**1.13.5. Cash and cash equivalents**

Cash includes bank balances and non-trade current accounts with unconsolidated entities.

Cash and cash equivalents include risk-free marketable securities with an initial maturity of three months or less, or which may be converted into cash almost immediately. These assets include:

- negotiable debt instruments recognized at face value, deemed equivalent to fair value;
- mutual fund shares in euros valued at net asset value at year-end.

**1.14. Treasury shares**

Treasury shares are not recognized on the balance sheet but deducted from Equity, at cost.

Accordingly, treasury shares held by associates are deducted from the Equity taken into account by AREVA when recognizing these companies under the equity method.

**1.15. Non-current assets held for sale and discontinued operations**

As provided in IFRS 5, non-current property, plant and equipment and intangible assets are considered held for sale if they are available for immediate sale in their current condition and their disposal is highly probable during the 12-month period following the end of the accounting year.

Discontinued operations include specific business lines where management has initiated a disposal program and an active search for buyers, when disposal is highly probable during the 12-month period following the end of the accounting year.

Non-current assets held for sale and assets from discontinued operations are recognized at the lower of net carrying amount and fair value, less costs to sell. They are presented under a specific heading of the balance sheet and depreciation is discontinued upon transfer to this category.

Net income from discontinued operations or operations in the process of being sold, which includes net income from these operations until the date of disposal and the net after-tax gain on the disposal, is reported on a separate line in the income statement.

Net cash flows from discontinued operations, which include cash flows from these operations until the date of disposal and the net cash flow after tax on disposal, are reported on a separate line in the cash flow statement.

**1.16. Employee benefits**

The Group recognizes a provision for all of its commitments for retirement, early retirement, severance pay, medical insurance, job-related awards, accident and disability insurance, and other related commitments, whether for active personnel or for retired personnel, net of assets in the plans and unrecognized gains.

In the case of defined contribution plans, the Group's payments are recognized as expenses of the period to which they relate.

In the case of defined benefit plans, benefit costs are estimated using the projected unit credit method. Under this method, accrued pension benefits are allocated among service periods based on the plan vesting formula. If service in subsequent years results in accrued benefit levels that are substantially higher than those of previous years, the company must allocate the accrued benefits on a straight-line basis.

The amount of future benefit payments to employees is determined based on salary trend assumptions, retirement age and mortality, discounted to present value based on interest rates for long-term bonds from AAA issuers.



## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

Actuarial gains and losses (change in the valuation of the commitment due to changes in assumptions and experience) are spread out over the average expected remaining working life of personnel taking part in these plans for the portion exceeding the largest of the following values by more than 10%:

- the present value of the defined benefit obligation at the balance sheet date,
- the fair value of plan assets at the balance sheet date.

The cost of plan changes are spread over the vesting period.

AREVA has elected to recognize in Equity as of January 1, 2004, all actuarial gains and losses not recognized in the balance sheet as of December 31, 2003.

The costs relating to employee benefits (pensions and other similar benefits) are split into three categories:

- the provision discount reversal, net of the return on plan assets, is recognized in Net financial expenses;
- the current service cost and the amortization of past services costs are split between the different operating expense items by destination: Cost of sales, Research and development expenses, Sales and marketing expenses and General and administrative expenses;
- the amortization of actuarial gains and losses is recognized in operating income under Other operating income and expenses.

## 1.17. Provisions

As provided in IAS 37, a provision is recognized when the Group has an obligation towards a third party at the end of the period, whether legally, contractually or implicitly, and it is probable that a net outflow of resources will be required after the end of the period to settle this obligation, without receiving consideration at least equal to the outflow. A reasonably reliable estimate of this net outflow must be determined in order to recognize a provision.

Provisions for restructuring are recognized when the restructuring has been announced and a detailed plan has been presented or the restructuring has begun.

When the outflow of resources is expected to occur in more than two years, provisions are discounted to net present value if the impact of discounting is material.

## 1.18. Provisions for end-of-life-cycle operations

### 1.18.1. Valuation of the provision on first adoption of IAS/IFRS

Provisions for end-of-life-cycle obligations were discounted at January 1, 2004, by applying an inflation rate and a discount rate, determined based on the economic situation of the country in which the particular facility is located, to estimated future cash flows, by maturity.

For facilities in France, AREVA adopted an inflation rate of 2% and a discount rate of 5%.

A risk premium of 3% was allocated at January 1 and December 31, 2004, to the fraction of the provision covering the retrieval, packaging and disposal of long-lived waste, reducing the effective discount rate to 0% to take into account cost estimating uncertainties. The provision recognized in the financial statements was sufficient to cover the discounted value of the top end of the most probable cost scenario for deep disposal applicable in France.

The share of end-of-life-cycle assets corresponding to funding expected from third parties has been discounted in exactly the same way as the related provisions.

The Group's share of end-of-life-cycle assets as of January 1, 2004 has been valued by applying the exemption authorized by IFRIC Interpretation 1: estimated future cash flows required to satisfy the obligation have been adjusted for an inflation rate of 2% and discounted back to the start-up date of the facilities in question at a rate of 5%. This value was then amortized from that date to January 1, 2004, prorated to the estimated period of use.

### 1.18.2. Subsequent valuation

#### Long-lived waste

The working group organized by the French Department of Energy and Raw Materials issued its report during the second half of 2005. Based on its conclusions, AREVA significantly increased its estimated costs compared with the previous estimate and included risks and contingencies therein. Consequently, the 3% risk premium covering these uncertainties included in the financial statements as of December 31, 2005, was removed.

## 5.5. Notes to the consolidated financial statements

## Note 1. Accounting principles

**Treatment of income and expenses from discounting reversals**

The discounting of the provision is partially reversed at the end of each period. The discounting reversal corresponds to the increase in provision due to the passage of time. It is based on the discount rate used when the provision was established.

This increase is recognized as a financial expense.

Similarly, the discounting of the provision corresponding to the third party share is partially reversed rather than amortized.

The resulting increase in the third party share is recognized as financial income.

The share financed by third parties is reduced for the value of work done on their behalf, with recognition of a receivable from these third parties in the same amount.

**Treatment of amortization**

AREVA's share of each end-of-life-cycle asset is amortized over the same period as the facilities to which it relates. The corresponding amortization expense is not eligible for recognition in the cost of inventories or the performance cost of contracts, and is not taken into account in the calculation of their percentage of completion. However, it is included in the income statement under the heading "Cost of sales" and is therefore deducted from the gross margin.

**Inflation and discount rates used in the discounting of the cost of end-of-life-cycle operations**

Inflation and discount rates used to discount the cost of end-of-life-cycle operations are determined as follows:

The inflation rate reflects long-term objectives of the European Central Bank.

The discount rate is determined taking into account:

- anticipated inflation as defined above;
- the sliding three-year average rate of French Treasury bonds (OATs), escalated for inflation and adjusted based on the average duration of end-of-life-cycle expenses;
- a spread between AAA bonds and OATs for this same time-frame.

**Treatment of changes in assumptions**

Changes in assumptions relate to changes in cost estimates, discount rates and disbursement schedules.

As provided in IFRS, the Group uses the prospective method:

- The end-of-life-cycle asset/AREVA share is adjusted for the same amount as the provision.
- It is amortized over the residual useful life of the facilities.
- If operation of the facility is discontinued, the impact is recognized during the year of the change. Impacts from changes in cost estimates are recognized under operating income. Impacts from changes in discount rates and disbursement schedules are recognized under financial income.

Provisions for waste retrieval and packaging have no corresponding end-of-life-cycle asset. Consequently, changes in assumptions are recognized immediately in the income statement. Impacts from changes in cost estimates are recognized under operating income. Impacts from changes in discount rates and disbursement schedules are recognized under financial income.

**1.19. Borrowings**

Borrowings include:

- Put options held by minority shareholders of AREVA group subsidiaries.
- Obligations under finance leases
- Other interest-bearing debt.

**1.19.1. Put options held by minority shareholders of Group subsidiaries**

As provided in IAS 32, unconditional put options held by minority shareholders of AREVA group subsidiaries are recognized as borrowings.

Agreements establishing these options stipulate a strike price corresponding to the fair value of the minority interests at the date of exercise. Consequently, the amount recognized on AREVA's balance sheet is equal to the fair value of the minority interests at the balance sheet date, calculated according to the discounted cash flow method. This value is revised annually.

## 5.5. Notes to the consolidated financial statements

Note 1. Accounting principles

The difference between the amount recognized in Borrowings and the minority interests corresponds to the difference between the fair value of these interests and their net carrying amount. Accordingly, considering the lack of guidance from regulators regarding accounting for options of this kind, AREVA has decided to report these options as borrowings through the following offsetting entries:

- first, the corresponding minority interests are canceled;
- secondly, the excess above the value of the minority interests is treated as an increase in the goodwill of the companies involved.

Subsequent changes in the fair value of these options are also recognized through goodwill.

**1.19.2. Obligations under finance leases**

As provided in IAS 17, leasing arrangements are considered finance leases when all the risks and rewards inherent to ownership are, in substance, transferred to the lessee. At inception, finance leases are recognized as a debt offsetting an asset in the identical amount, corresponding to the lower of the fair value of the property and the discounted net present value (NPV) of future minimum payments due under the contract. Lease payments made subsequently are considered as debt service and allocated to:

- repayment of the principal, and
- interest, based on the rate provided in the contract or the discount rate used to value the debt.

**1.19.3. Other interest-bearing debt**

This heading includes:

- Interest-bearing advances from customers. Interest-bearing advances from customers are accounted for as borrowings; non interest-bearing advances are considered operating liabilities.
- Loans from financial institutions.
- Short-term bank facilities.

Interest-bearing debt is recognized at amortized cost based on the effective interest rate method.

**1.20. Translation of foreign currency denominated transactions**

Foreign currency denominated transactions are translated by group companies into their functional currency at the exchange rate prevailing at the transaction date.

Monetary assets and liabilities denominated in foreign currencies are revalued at the exchange rate prevailing on the last day of the period. Foreign exchange gains and losses are then recognized:

- in operating income when related to operating activities: trade accounts receivable, trade accounts payable, etc;
- in financial income when related to loans or borrowings.

However, currency translation differences relating to the long-term financing of foreign subsidiaries are not recognized in income, but rather directly in translation reserves in consolidated equity until the subsidiary concerned is divested.

**1.21. Derivative instruments and hedge account****1.21.1. Risks hedged and financial instruments**

The AREVA group uses financial instruments to hedge foreign exchange risks, interest rate risks and the price of commodities. The derivative instruments used include mostly forward exchange contracts, currency and interest rate swaps, currency options and options on commodities.

The risks hedged relate to receivables, borrowings and firm commitments in foreign currencies, planned transactions in foreign currencies, and planned sales and purchases of commodities.

**1.21.2. Accounting for derivative instruments**

As provided in IAS 39, derivative instruments are initially recognized at fair value and subsequently revalued at the end of each period until settled.

Accounting methods vary depending on whether the derivative instruments are designated as fair value hedges or cash flow hedges or do not qualify for hedge accounting.

## 5.5. Notes to the consolidated financial statements

## Note 1. Accounting principles

**Fair value hedges**

This designation covers hedges of firm commitments in foreign currencies: procurement, sales, receivables and debt. The hedged item and the derivative instrument are revalued simultaneously through the income statement.

**Cash flow hedges**

This designation covers hedges of probable future cash flows: planned procurement and sales in foreign currencies, planned purchases of raw materials, etc.

The highly probable hedged item is not valued in the balance sheet. Only the derivative hedge is revalued at the end of each accounting period. The portion of the gain or loss that is considered effective is recognized directly in equity under the heading "Deferred unrealized gains and losses", on an after-tax basis. Only the ineffective portion of the hedge impacts income for the period.

The amount accumulated in equity is transferred to income when the hedged item impacts the income statement, i.e. when the hedged transaction is settled and recognized in the financial statements.

**Derivative instruments not qualifying for hedge accounting**

When derivative instruments do not qualify for hedge accounting, fair value gains and losses are recognized immediately in the income statement.

**1.21.3. Presentation of derivative instruments in the balance sheet and the income statement****Presentation in the balance sheet**

Derivative instruments used to hedge risks on commercial transactions are reported under operating assets and liabilities. Derivative instruments used to hedge risks related to loans and borrowings are reported under Financial assets or Borrowings.

**Presentation in the income statement**

The spot component of fair value gains and losses on derivative instruments and hedged items relating to operating activities is recognized under "Other operating income and expenses". The discount/premium component is recognized under "Financial income".

For loans and borrowings denominated in foreign currencies, fair value gains and losses on hedging instruments and hedged items are reported under "Financial income".

**1.22. Income tax**

Since January 1, 1983, AREVA has had regulatory approval to submit a consolidated tax return under article 209-5 of the French tax code. Renewal of this tax status was requested for the 2005 to 2007 period. The consolidated tax expense is reported under "Income tax", whether a tax expense or a tax credit (except for tax related to discontinued operations).

Tax related to operations discontinued or sold during the year, if any, is reported under "Net income from discontinued operations".

As provided in IAS 12, deferred taxes are determined according to the liability method. The current tax rate or the rate known at the balance sheet date as applicable at the time of anticipated reversal of temporary differences between book basis and tax basis of assets and liabilities is applied to all such differences. Deferred taxes are not discounted to net present value.

Temporary taxable differences generate a deferred tax liability.

Temporary deductible differences, tax loss carry-forwards, and unused tax credits generate a deferred tax asset equal to the probable amounts recoverable in the future. Deferred tax assets are analyzed case by case, based on income projections for the next three to five years.

Deferred tax assets and liabilities are netted for each taxable entity if the entity is allowed to offset its current tax receivables against its current tax liabilities.

Deferred tax liabilities are recognized for all taxable temporary differences of subsidiaries, associates and partnerships, unless AREVA is in a position to control the timing of reversal of the temporary differences and it is probable that such reversal will not take place in the near future.

## 5.5. Notes to the consolidated financial statements

Note 2. Consolidation scope

**NOTE 2. CONSOLIDATION SCOPE****2.1. Consolidated companies (French/Foreign)**

<i>(number of companies)</i>	<b>2005</b>		<b>2004</b>	
Consolidation method	Foreign	French	Foreign	French
Full consolidation	120	78	159	90
Equity method	5	8	4	8
Proportionate consolidation	12	0	12	0
<b>Sub-total</b>	<b>137</b>	<b>86</b>	<b>175</b>	<b>98</b>
<b>Total</b>	<b>223</b>		<b>273</b>	

**2.1.1. 2005 transactions**

The main changes in the scope of consolidation during the year were as follows:

**Disposal of FCI****Disposal process**

AREVA's connectors business, held by FCI, was originally built by AREVA NP through a series of acquisitions dating as far back as the end of the 1980s. After the connectors market suffered a setback, with a significant impact on FCI's financial statements in 2001-2002, AREVA decided to help with the recovery of this subsidiary. The support provided for the restructuring of production facilities between 2001 and 2004 allowed FCI to return to profitability in 2004.

AREVA received numerous expressions of interest from potential buyers after indicating to the market that FCI was not a strategic asset for the Group. In June 2005, a decision was made to solicit offers formally, and a multi-phase process was initiated to select potential buyers. AREVA contacted 36 prospects, including industrial groups and investment funds.

On September 5, 2005, the three top candidates submitted firm and final offers to acquire 100% of FCI's share capital. On September 19, 2005, AREVA signed a sales agreement with Bain Capital after receiving a positive opinion from AREVA's Works Council and approval from the Supervisory Board, meeting on the same day. The share transfer agreement closed on November 3, 2005, after all conditions precedent had been satisfied.

The shares were sold to Bain Capital for €582 million, or €4.10 per share.

**Transactions subsequent to the acquisition of AREVA T&D**

At the end of 2004, a certain number of matters relating to the completion of the transaction contemplated in the Share Purchase Agreement executed on September 25, 2003, remained outstanding. In August 2005, the Transmission & Distribution business consolidated in Alstom Ltd (India) was transferred to AREVA T&D after all remaining conditions precedent were satisfied. Alstom had agreed to acquire from AREVA all AREVA T&D (India) operations not related to the power Transmission & Distribution business. On August 3, 2005, 80% of the shares of AREVA T&D Pakistan were transferred to AREVA T&D Holding. Another entity of lesser importance in Portugal will be transferred by Alstom to AREVA T&D in 2006.

As part of the establishment of AREVA T&D, Alstom transferred 49% of the share capital of a company called SPE Mexique. In 2003, Alstom and AREVA executed an agreement transferring all SPE Mexique shares back to Alstom. This contract contains conditions precedent that have not yet been met. Given the difficulties encountered in satisfying the conditions necessary for the sale of the SPE Mexique shares, Alstom and AREVA signed an agreement on February 23, 2005, under which the risks and rewards relating to SPE Mexique are transferred to Alstom. In view of this contract, SPE Mexique is not included in AREVA's consolidated financial statements.

On September 23, 2005, at Alstom's request, AREVA T&D Holding signed a letter of intent with Merrill Lynch (ML) to transfer the shares of SPE Mexique held by AREVA T&D Holding subsidiaries to ML as soon as the conditions precedent allowing the sale of SPE Mexique shares to a third party have been met. The sale is expected to close in the first half of 2006.

## 5.5. Notes to the consolidated financial statements

Note 2. Consolidation scope

**Determination of the goodwill generated by the acquisition of AREVA T&D**

The goodwill generated by this acquisition results from the difference, as of the acquisition date, between the purchase price paid to Alstom and acquisition costs incurred by AREVA, on the one hand, and the fair value of all assets, liabilities and contingent liabilities acquired as of the acquisition date, on the other hand. The fair value of the net assets acquired was determined based on valuations performed by independent experts: a review was performed of company liabilities and led to the recognition in the opening balance sheet of a certain number of adjustments.

More specifically, the goodwill determined at the end of 2004 was adjusted in 2005 as follows:

- Accounting for the sale of assets held by AREVA T&D in New Zealand and Australia. The gain on the disposal of these assets was deducted from the goodwill calculated at the end of 2004.
- The transfer of Transmission & Distribution operations consolidated in Alstom Ltd India was taken into account.
- Small adjustments were made to the valuation of various assets, liabilities and contingent liabilities. These adjustments were taken into account in calculating the goodwill associated with the acquisition of AREVA T&D.

Following completion of these procedures, the residual goodwill was valued at €497 million. AREVA T&D allocated the goodwill resulting from the acquisition of AREVA T&D to the Systems, Automation and Services Business Units.

This goodwill was subject to an impairment test, as explained in Note 1.10. The value in use was determined by discounting the future cash flows of the business units using an average discount rate of 9.0% and assuming an annual growth rate of 2.0% after 2007. No impairment was recognized as a result of this test.

**Vendor warranties**

The agreement to purchase AREVA T&D includes two types of vendor warranty: a general warranty and specific warranties, as indicated below:

- a 10-year environmental warranty with a trigger threshold of €12 million;
- a tax warranty for periods during which returns may be audited;
- a retirement plan warranty in the United Kingdom;
- a warranty for specific contracts, litigation or technical defects providing for full indemnification by Alstom, item by item.

The general warranty applies in cases of misrepresentation. It has a threshold of €19 million and is capped at €175 million. No claim may be submitted under the general warranty after March 31, 2006. AREVA has notified Alstom of several events which may be subject to indemnification, to be determined case by case when the amount of the loss is known. The most significant events are described in Note 35. Notices have been or will be provided concerning technical incidents on equipment.

**Restructuring**

In 2005, AREVA T&D implemented the restructuring plan set up by management and presented to the European Works Council and the appropriate bodies in each of the countries concerned on the date of acquisition. This included a decision to shut down the Saint-Ouen site in France, the sale of the low voltage business in Chalon in December 2005 (2005 sales: €17 million) and various site reconfigurations in Europe and the United States.

The components and major objectives of this plan are as follows:

- cost savings generated by adapting industrial resources to the regional challenges of the T&D market; and
- cost savings generated by operating performance improvements at all levels of the organization and, in particular, by process improvements and reductions in procurement costs.

AREVA T&D signed a CASA early retirement agreement on January 25, 2005. An amendment to this agreement was signed with labor representatives to include 406 additional employees meeting the age criteria provided in the agreement.

**Change in consolidated Group: disposal of operations in Australia and New Zealand**

Pursuant to the agreement of December 22, 2004, AREVA T&D and Transfield Services signed a contract for the purchase of AREVA T&D's telecom and electrical services operations in Australia and New Zealand. The purchase price is €95 million. The transaction closed in April 2005 after all regulatory authorizations were received and conditions precedent satisfied. These operations were consolidated by AREVA through the date of sale. The disposal does not have a material impact on 2005 consolidated net income.

These operations concern outsourced engineering and maintenance services provided to owners of major infrastructures and industrial companies operating in the electricity, heavy industry, telecom and related infrastructure sectors. They are not part of AREVA T&D's core businesses.

## 5.5. Notes to the consolidated financial statements

Note 2. Consolidation scope

**Acquisition of Uddcomb Engineering Förvaltning AB**

The Group closed the acquisition of Swedish company Uddcomb, which specializes in engineering, analyses and project management as well as in repair services for the nuclear industry. The company is consolidated in the Reactors and Services Division.

**Acquisition of a business from Siemens**

The Group acquired a maintenance business specialized in nuclear power plant control systems from Siemens. This business was integrated into the Reactors and Services Division.

**STMicroelectronics**

Following the repurchase of its own shares by FT1CI, AREVA's stake in FT1CI increased from 79% to 100% in August 2005. The repurchase was financed by a sale of STMicroelectronics shares held indirectly by France Telecom. As a result of this change, AREVA's percentage of control over STMicroelectronics fell from 13.9% to 10.9%.

**Framapar**

AREVA sold its interest in Framapar to CCF Banque d'investissement.

**ISS MPP**

AREVA sold its interest in ISS MPP at the end of April 2005.

**Teknassur**

Teknassur, a wholly-owned subsidiary of Frarea, was liquidated on March 4, 2005.

**Other changes in the consolidated Group**

AREVA increased its interests in O1DB Metravib, O1DB GmbH, Principia Development and Principia Marine.

The following companies entered into the scope of consolidation: AREVA Beijing Consulting, AREVA Com, Société d'enrichissement du Tricastin, AREVA NC Rokkasho. These companies are fully consolidated.

In September 2005, the Group acquired 21.2% of REpower, which has been equity accounted since that date.

**2.1.2. Transactions in 2004**

The main changes in the scope of consolidation during the year are described hereunder.

**Acquisition of Alstom's Transmission & Distribution business**

On January 9, 2004, having received all of the necessary European Commission and national antitrust authorizations, the AREVA group executed the final acquisition agreement for Alstom's Transmission & Distribution business.

T&D's business – electricity Transmission & Distribution – is an important component of the value chain for the electric power industry. It connects electric power generators with end-users, consisting of large and small businesses as well as individual consumers. The T&D market begins at the power plant outlet and ends at the point where individual and industrial users are connected to the grid. T&D supplies this market with electricity transformation equipment, including transformers and grid connection equipment, i.e. circuit breakers and disconnecting switches, often combined within substations. These major equipment items go hand in hand with measurement equipment, measurement transformers, automatic relays, grid operating systems, and grid safety equipment such as lightning arresters. T&D does not supply low value-added equipment, such as power lines and electric towers. T&D also offers grid monitoring and management systems and a broad range of value-added services to electric operators.

**Purchase price**

AREVA and Alstom signed the Share Purchase Agreement (SPA) for Alstom's Transmission & Distribution (T&D) operations on September 25, 2003, with a closing date of January 9, 2004.

The SPA set the purchase price for T&D at €950 million, subject to price adjustments concerning certain operating and balance sheet items relating to 2003, as well as the cash balance transferred as of December 31, 2003.

As provided in the SPA, the two groups jointly called in an independent expert, to determine these adjustments. The independent expert submitted its conclusions on December 23, 2004.

- The enterprise value after adjustment was reduced from €950 million to €913 million, representing a decrease of €37 million in the purchase price.
- The net cash position of the division at the end of 2003 was valued at €140 million.



## 5.5. Notes to the consolidated financial statements

## Note 2. Consolidation scope

Prior to the presentation of the independent expert's conclusions, AREVA paid the amount of €950 million (including €23 million held in an escrow account pending the sale of the Indian and Pakistani subsidiaries). AREVA then made an additional payment to Alstom on December 29, 2004, of €103 million.

The total price paid by AREVA for the acquisition of the T&D operations was, therefore, €1,053 million, financed using the Group's cash.

**TSDI Lilly Financial Corporation Limited**

Since January 1, 2004, as required by the law on financial security, Lilly Financial Corporation Limited, the investment firm holding the perpetual subordinated debt and deposit, has been consolidated in AREVA's financial statements.

**Mining companies**

AREVA increased its stake in Katco from 45% to 51% as of April 30, 2004. Katco was equity accounted up to April 30, 2004 and is fully consolidated since May 1, 2004. The goodwill generated by the acquisition of this additional stake is not material.

Cominak and AMC, previously equity-accounted, are consolidated under the proportionate method since January 1, 2004, to reflect AREVA's joint control over these companies.

**STMicroelectronics**

Following the repurchase of its own shares by FT1CI, AREVA's stake in FT1CI increased from 63.8% to 79.0% in December 2004. This buy-back transaction corresponded to the distribution of the proceeds from the sale of STMicroelectronics shares to France Telecom. As a result of this change, AREVA's percentage of control over STMicroelectronics fell from 17.3% to 13.9%. The Group share remained unchanged.

**EMA et Comilog**

On July 1, 2004, AREVA sold its stakes in EMA and Comilog. These companies were equity-accounted up to June 30, 2004.

**Other changes in the consolidated Group**

AREVA increased its interest in O1DB Inc, Principia RD, Principia Marine and Open Cascade. These companies, which were proportionately consolidated as of December 31, 2003, are fully consolidated as from January 1, 2004.

AREVA sold its interest in Eurodoc on January 1, 2004. This divestment did not generate a significant capital gain. Eurodoc contributed consolidated sales of €13 million for the year ended December 31, 2003.

AREVA sold its interest in Gemma in November 2004. Gemma sales for the year ended December 31, 2004, totaled €6 million.

The following companies entered into the scope of consolidation: AREVA Finance Gestion, TDI SA, PIC, Jeumont Eole, Interuranium Australia, Sodeprom, Tecnimarse, FCI Microconnections Asia, FCI connectors Trading and FCI expansion 2. They are all fully consolidated.

Signum was removed from the scope of consolidation as from January 1, 2004. FCI SPV was liquidated.

Changes in corporate structure:

DGI was absorbed by Euriware S.A. as from January 1, 2004. Incore Services and Visionic were absorbed by AREVA NP as from January 1, 2004. Metravib was absorbed by O1 DB Acoustic as from January 1, 2004.



## 5.5. Notes to the consolidated financial statements

Note 2. Consolidation scope

## 2.2. Impact on the financial statements of changes in the consolidation scope and methods

In 2005 and 2004, changes in the consolidation scope and methods had the following impacts on consolidated sales revenue and operating income:

Deconsolidated companies (in millions of euros)	2005	2004
Sales revenue	1,391	14
Operating income	87	(4)

The deconsolidation of these companies had the following impact on the Group's sales revenue:

(in millions of euros)	2005*
FCI	1,289
AREVA T&D New Zealand	76
AREVA T&D EBT	8
Isis MPP (AREVA TA)	16
AREVA T&D Spol Sro (Slovakia)	2
<b>Total</b>	<b>1,391</b>

\* 2004 Sales revenue of companies deconsolidated in 2005, less sales revenue recognized in 2005 before the disposal.

Newly consolidated companies  
and change in consolidation method

(in millions of euros)	2005	2004
Sales revenue	113	3,243
Operating income	33	34

The impact on sales revenue of newly consolidated companies, either as a result of an acquisition or a move to full or proportionate consolidation, is presented below:

(in millions of euros)	2005	2004
UDDCOMB	6	-
AREVA T&D India Ltd	83	-
Alstom T&D Lightning Arresters Ltd	2	-
Alstom T&D Systems Ltd	13	-
AREVA T&D Pakistan Privated Limited	7	-
AREVA T&D Spol Sro (Slovakia)	2	-
AMC	-	17
AREVA T&D	-	3,186
Cominak	-	12
Jeumont Eole	-	1
FCI Expansion 2	-	5
FCI Microconnections Asia Pte	-	7
TDI SA	-	2
AREVA TA (change in consolidation method)	-	12
Tecnimarse	-	1
<b>Total</b>	<b>113</b>	<b>3,2</b>

## 5.5. Notes to the consolidated financial statements

Note 2. Consolidation scope

**2.3. Key balance sheet items and net income of discontinued operations**

FCI's consolidated balance sheet and income statements on the date of sale (November 3, 2005) were the following:

**Balance sheet as of November 3, 2005**

ASSETS (in millions of euros)	November 3, 2005*			December 31, 2004**
	Gross	Accumulated depreciation, amortization and provisions	Net	Net
Intangible assets	130	(119)	11	12
Goodwill	310	-	310	274
Property, plant and equipment	1,246	(901)	346	351
Long-term notes and investments	8	-	8	6
Pension fund assets	12	-	12	8
Deferred tax assets	855	(766)	89	85
<b>Non-current assets</b>	<b>2,561</b>	<b>(1,786)</b>	<b>775</b>	<b>736</b>
Inventories	138	(16)	122	107
Work-in process	8	-	8	7
Other operating receivables	294	(5)	289	267
Non-operating receivables	14	-	14	20
Other current financial assets	-	-	-	-
Cash	47	-	47	21
<b>Current assets</b>	<b>501</b>	<b>(21)</b>	<b>480</b>	<b>422</b>
<b>Total assets</b>	<b>3,062</b>	<b>(1,807)</b>	<b>1,255</b>	<b>1,158</b>

**LIABILITIES**

(in millions of euros)

	November 3, 2005*	December 31, 2004**
Equity attributable to equity holders of the parent	472	371
Minority interests	5	4
<b>Total equity</b>	<b>477</b>	<b>375</b>
Provisions for contingencies and losses	140	174
Borrowings	325	315
Deferred tax liabilities	-	-
<b>Non-current liabilities</b>	<b>465</b>	<b>489</b>
Operating liabilities	288	265
Non-operating liabilities	25	29
<b>Current liabilities</b>	<b>313</b>	<b>294</b>
<b>Total liabilities</b>	<b>1,255</b>	<b>1,158</b>

\* Adjusted data per IFRS, including IAS 32 and 39.

\*\* Adjusted data per IFRS, excluding IAS 32 and 39.

## 5.5. Notes to the consolidated financial statements

Note 2. Consolidation scope  
Note 3. Sales revenue

**Consolidated income statement for the period ended November 2005**

<i>(in millions of euros)</i>	<b>November 3, 2005*</b>	<b>December 31, 2004**</b>
<b>Sales revenue</b>	<b>1,072</b>	<b>1,289</b>
Cost of sales	(779)	(940)
<b>Gross margin</b>	<b>293</b>	<b>349</b>
Research and development expenses	(64)	(75)
Sales and marketing expenses	(81)	(102)
General and administrative expenses	(83)	(103)
Other current operating income and expenses	6	17
<b>Current operating income</b>	<b>70</b>	<b>86</b>
Non-current operating items	(1)	(5)
<b>Operating income</b>	<b>69</b>	<b>81</b>
<b>Net financial expense</b>	<b>(4)</b>	<b>(15)</b>
<b>Net current income before tax</b>	<b>65</b>	<b>66</b>
Income tax	(19)	(35)
<b>Net income before minority interests</b>	<b>46</b>	<b>31</b>
Minority interests		
<b>Net income attributable to equity holders of the parent</b>	<b>46</b>	<b>31</b>

\* Adjusted data per IFRS, including IAS 32 and 39.

\*\* Adjusted data per IFRS, excluding IAS 32 and 39.

**NOTE 3. SALES REVENUE**

<i>(in millions of euros)</i>	<b>2005</b>	<b>2004</b>
Sales accounted for according to the percentage of completion method	3,708	2,541
Other sales of products and services		
- Sales of products	3,447	3,429
- Sales of services	2,970	3,851
<b>Total</b>	<b>10,125</b>	<b>9,821</b>

Sales revenue does not include sales corresponding to exchanges of products or services without cash consideration.

The table below reports data on contracts recognized according to the percentage of completion method, as of December 31, 2005:

<i>(in millions of euros)</i>	
Amount of costs incurred and profits recognized, net of losses recognized, through December 31, 2005	15,988
Customers advances	2,807
Amounts withheld by customers	6

## 5.5. Notes to the consolidated financial statements

Note 4. Personnel expenses and operating leases

Note 5. Depreciation, amortization and impairment of property, plant and equipment and intangible assets and provisions impacting operating income

Note 6. Other non-current operating income and expenses

**NOTE 4. PERSONNEL EXPENSES AND OPERATING LEASES**

<i>(in millions of euros, except workforce)</i>	2005	2004
Payroll expenses	(3,120)	(3,166)
Employees at the end of the year	58,760	57,909
Operating leases	104	85

FCI had 12,160 employees in 2004.

Payroll expenses include salaries and related social security contributions, excluding retirement benefits.

**NOTE 5. DEPRECIATION, AMORTIZATION AND IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS AND PROVISIONS IMPACTING OPERATING INCOME**

The Group's income is presented by destination. Additional information on expenses by nature is provided below:

<i>(in millions of euros)</i>	2005	2004
Amortization of intangible assets	(97)	(83)
Depreciation of property, plant and equipment	(396)	(406)
Impairment of property, plant and equipment	(1)	-
Impairment of goodwill	-	(9)

<i>(in millions of euros)</i>	2005	2004
Provisions, net of reversals	(132)	409

**NOTE 6. OTHER NON-CURRENT OPERATING INCOME AND EXPENSES**

<i>(in millions of euros)</i>	2005	2004
<b>Restructuring and early retirement costs</b>	<b>(138)</b>	<b>(205)</b>
Goodwill impairment	-	(9)
Other non-current operating income and expenses	(56)	38
<b>Total</b>	<b>(194)</b>	<b>(176)</b>

At December 31, 2005, restructuring and early retirement costs represented €102 million in the Transmission & Distribution business and €36 million in the Nuclear business.

At December 31, 2005, other non-current operating income and expenses included mostly:

- Expenses relating to items valued in connection with the T&D business acquisition, but which are not related to current operations.

- A contingency provision regarding a possible penalty for violation of competition rules in the Transmission and Distribution industry. The Group considers it probable that it will receive a statement of grievances for alleged anti-competitive practices in the business acquired from Alstom on January 9, 2004. AREVA took corrective measures as soon as it was informed of these practices. Nonetheless, AREVA and its advisors evaluated the estimated amount of the penalty and set up a provision. AREVA will adjust the amount of the provision when the statement is received and, ultimately, when the definitive penalty is assessed. Irrespective of the provision, AREVA intends to submit a claim under the vendor warranty provided by Alstom.

## 5.5. Notes to the consolidated financial statements

Note 7. Net financial expense

**NOTE 7. NET FINANCIAL EXPENSE**

<i>(in millions of euros)</i>	<b>2005</b>	<b>2004</b>
Income from cash and cash equivalents	59	54
Gross borrowing costs	(43)	(27)
<b>Net borrowing costs</b>	<b>16</b>	<b>27</b>
<b>Other financial income and expenses</b>	<b>(29)</b>	<b>(30)</b>
<b>Share related to end-of-life-cycle obligations</b>	<b>(32)</b>	<b>(2)</b>
Income from disposal of securities	26	21
Dividends received	33	29
Interest on debt to CEA	-	(20)
Interest income on receivables from CEA	5	-
Impairment of securities	-	62
Discounting reversal on end-of-life-cycle operations	(96)	(94)
<b>Share not related to end-of-life-cycle obligations</b>	<b>3</b>	<b>(28)</b>
Foreign exchange gain (loss)	(5)	0
Income from disposal of securities and change in value of securities held for trading	92	38
Dividends received	29	30
Impairment of financial assets	5	7
Interest income on prepayments received (Back End contracts)	(42)	(39)
Other	(18)	(8)
Financial income from pensions and other employee benefits	(59)	(56)
<b>Net financial expense</b>	<b>(13)</b>	<b>(3)</b>

The net gain on sales of securities included in the share related to end-of-life-cycle obligations includes €16 million, corresponding to the reversal of lasting impairment of securities sold.

At December 31, 2004, financial income related to assets earmarked to cover end-of-life-cycle obligations includes €62 million, corresponding to the reversal of a provision for impairment of securities.

At December 31, 2005, income from disposal of securities not related to end-of-life-cycle operations includes €25 million from the disposal of Assystem Brime shares and €59 million from the disposal of ERA shares. At December 31, 2004, it includes mostly the sale of Total shares.

## 5.5. Notes to the consolidated financial statements

Note 8. Income taxes

**NOTE 8. INCOME TAXES****Analysis of income tax expense***(in millions of euros)*

	2005	2004
Current taxes (France)	15	(51)
Current taxes (other countries)	(102)	(91)
<b>Total current taxes</b>	<b>(87)</b>	<b>(142)</b>
Deferred taxes	(59)	18
<b>Total income tax expense</b>	<b>(146)</b>	<b>(124)</b>

**Reconciliation of income tax expense and income before taxes***(in millions of euros)*

	2005	2004
Net income attributable to equity holders of the parent	1,049	451
Less: income from disposal of operations	(598)	(31)
Minority interests	94	139
Share in net income of equity associates	(153)	(128)
Tax expense/(income)	146	124
Income before tax	538	555
<b>Theoretical tax income/(expense)</b>	<b>(185)</b>	<b>(193)</b>
Reconciliation	-	-
Impact of tax consolidation	38	61
Transactions taxed at a reduced rate	39	63
Permanent differences	(38)	(55)
<b>Effective tax income/(expense)</b>	<b>(146)</b>	<b>(124)</b>

**The tax rates used in France are as follows:***(in %)*

	2005	2004
Tax rate	34.43	34.93

**Permanent differences***(in millions of euros)*

	2005	2004
Parent/subsidiary tax treatment and inter-company dividends	(4)	(3)
Impact of permanent differences for tax purposes	3	(7)
Impact of internal/inter-company transactions	(10)	(30)
Other permanent differences	(27)	(15)
<b>Total permanent differences</b>	<b>(38)</b>	<b>(55)</b>

## 5.5. Notes to the consolidated financial statements

Note 8. Income taxes

**Effective tax rate***(in millions of euros)*

	2005	2004
Operating income	551	558
Net financial expense	(13)	(3)
Other income	-	-
<b>Total income subject to tax</b>	<b>538</b>	<b>555</b>
Tax expense	(146)	(124)
<b>Effective tax rate</b>	<b>27.14%</b>	<b>22.34%</b>

**Deferred tax assets and liabilities***(in millions of euros)*

	2005	2004
Deferred tax assets	892	471
Deferred tax liabilities	865	549
<b>Net deferred tax assets and liabilities</b>	<b>27</b>	<b>(78)</b>

**Main categories of deferred tax assets and liabilities***(in millions of euros)*

	2005	2004
Impact of temporary differences related to:		
Non-current assets	(112)	86
Working capital assets	(31)	(8)
Provisions for pension obligations	274	247
Provisions for restructuring	54	29
Regulated provisions	(387)	(381)
Provisions for end-of-life-cycle obligations	(331)	(206)
Valuation differences	17	(12)
Impact of loss carry-forwards	559	87
Other temporary differences	(16)	80
<b>Net deferred tax assets and liabilities</b>	<b>27</b>	<b>(78)</b>

**Reversal schedule***(in millions of euros)*

	2005	2004
Deferred tax assets to be recovered in more than 12 months	3	(167)
Deferred tax assets to be recovered in 12 months or less	24	89

## 5.5. Notes to the consolidated financial statements

Note 8. Income taxes

Note 9. Net income from discontinued operations

## Change in consolidated deferred tax assets and liabilities

*(in millions of euros)*

	2005	2004
<b>As of January 1</b>	<b>(78)</b>	<b>(212)</b>
Tax on continuing operations, recognized through the income statement	(59)	18
Tax on discontinued operations	419	(9)
Tax recognized directly in equity	(179)	2
Change in consolidated Group	(95)	132
Currency translation adjustments	19	(15)
Other transactions	-	6
<b>As of December 31</b>	<b>27</b>	<b>(78)</b>

## Deferred taxes recognized directly in equity

*(in millions of euros)*

	2005	2004
Change in method	7	-
IAS 32-39 impacts	(186)	-
<b>Net deferred taxes recognized directly in equity</b>	<b>(179)</b>	<b>0</b>

## Deferred tax assets not recognized

*(in millions of euros)*

	2005
Tax credits	57
Tax losses	282
Other temporary differences	-
<b>Total deferred tax assets not recognized</b>	<b>339</b>

## NOTE 9. NET INCOME FROM DISCONTINUED OPERATIONS

Net income from discontinued operations for 2005 corresponds to the following elements:

- Net income from discontinued operations\* (FCI) for the period January 1 to 2005-November 3, 2005 (date of disposal): €70M
- Gain on the disposal transaction itself: €109M
- Tax impact: €419M

\* Including release to income of currency translation reserves and retained earnings.

Net income from discontinued operations represents €598 million, including a net after-tax gain of €528 million on the disposal transaction itself.

The consolidated gain on the disposal transaction corresponds to the difference between the sale price (€582 million) and the fair value of the equity transferred to the buyer (€459 million), net of disposal expenses (€14 million). The net amount is €109 million.

The tax impact corresponds, firstly, to the recognition of the short-term tax loss as an asset (€382 million), available to offset profits from other operations of the Group and, secondly, to the reversal of deferred tax liabilities related to tax consolidation (€37 million).

The net after-tax income from discontinued operations reported for 2004 corresponds to FCI's net income.



## 5.5. Notes to the consolidated financial statements

Note 10. Goodwill

**NOTE 10. GOODWILL**

Goodwill as of December 31, 2005, was as follows:

<i>(in millions of euros)</i>	January 1, 2005	Acquisitions	Disposals	Minority interest put options	Currency translation adjustments	Other	December 31, 2005
<b>Nuclear Power divisions</b>	<b>1,378</b>	<b>36</b>	<b>-</b>	<b>164</b>	<b>17</b>	<b>1</b>	<b>1,596</b>
Front End	191	-	-	(6)	-	-	185
Reactors and Services	243	36	-	-	17	1	298
Back End	-	-	-	-	-	-	-
Other nuclear - AREVA	944	-	-	170	-	-	1,114
<b>Transmission &amp; Distribution divisions</b>	<b>564</b>	<b>(3)</b>	<b>(45)</b>	<b>-</b>	<b>-</b>	<b>(17)</b>	<b>499</b>
<b>Connectors Division</b>	<b>264</b>		<b>(300)</b>	<b>-</b>	<b>36</b>	<b>-</b>	<b>0</b>
<b>Total</b>	<b>2,206</b>	<b>33</b>	<b>(345)</b>	<b>164</b>	<b>53</b>	<b>(16)</b>	<b>2,095</b>

The increase in goodwill comes mainly from:

- the acquisition of Swedish company Uddcomb, which specializes in engineering, project management and review, as well as in repair services for the nuclear industry (€14.5 million); and
- the acquisition of a business specializing in the maintenance of nuclear power plant control systems from Siemens (€21.5 million).

The disposal of T&D operations in Australia and New Zealand resulted in a reduction in goodwill of €45 million. Acquisition of T&D's operations in India and Pakistan generated a small adjustment to goodwill recognized when AREVA T&D was acquired in 2004.

In addition, final amendments to the T&D acquisition agreement with Alstom and the integration of assets that had not been transferred contributed to a reduction in goodwill of €17 million.

The heading "Other nuclear - AREVA" corresponds, firstly, to goodwill recognized when AREVA was established in 2001 and, secondly, to the difference between the value of put options held by minority interests in AREVA NP and the value of the corresponding minority interests. The revaluation of these options as of December 31, 2005, triggered an increase in goodwill of €170 million.

Put options held by minority interests in Eurodif expired without being exercised. The corresponding goodwill, in the amount of €6 million, has been canceled.

**Goodwill impairment tests**

The Group performed goodwill impairment tests as of December 31, 2005, for all cash-generating units with goodwill balances.

As indicated in Note 1.10, these tests compare the net carrying amount of CGU assets with the recoverable amount, determined using the discounted cash flow method.

The following assumptions were used to determine the net present value of the cash flows to be generated by the CGUs:

	Discount rate (after tax)	Equivalent discount rate before tax	Standard annual growth rate
Front End Division	9%	13%	2%
Reactors and Services Division	8%	10.25 to 11.5%	2%
T&D Division	9%	13%	2%
Other nuclear - AREVA (average rates)	8%	10.5%	2%

No impairment needed to be recognized.

## 5.5. Notes to the consolidated financial statements

Note 10. Goodwill

Note 11. Other intangible assets

Goodwill as of December 31, 2004, was as follows:

(in millions of euros)	January 1, 2004	Acquisitions	Disposals	Impairment	Currency translation adjustments	Other	December 31, 2004*
<b>Nuclear Power Divisions</b>	<b>867</b>	<b>2</b>	<b>(8)</b>	<b>(9)</b>	<b>(8)</b>	<b>(22)</b>	<b>822</b>
Front End	207	-	-	-	-	(22)	185
Reactors and Services	249	2	-	-	(8)	-	243
Other nuclear - AREVA	411	-	(8)	(9)	-	-	394
<b>Transmission &amp; Distribution Division</b>	<b>-</b>	<b>564</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>564</b>
<b>Connectors Division</b>	<b>284</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(20)</b>	<b>-</b>	<b>264</b>
<b>Total</b>	<b>1,151</b>	<b>567</b>	<b>(8)</b>	<b>(9)</b>	<b>(29)</b>	<b>(22)</b>	<b>1,649</b>

\* Excluding IAS 32.

The T&D acquisition generated goodwill of €564 million.

The column "Other" corresponds to the recognition during the year of a deferred tax asset in connection with the Duke acquisition in the Front End Division. This asset did not meet the criteria for recognition at the date of acquisition.

Impairments relate to certain Duke operations which the Group intends to discontinue.

The difference of €556 million between the amount of goodwill in the Nuclear divisions as of December 31, 2004, and the value as of January 1, 2005, corresponds to the impact of the first-time adoption of IAS 32. It is equivalent to the difference between the value of put options held by minority shareholders in AREVA NP and Eurodif and the value of the corresponding minority interests.

## NOTE 11. OTHER INTANGIBLE ASSETS

Intangible assets primarily consist of pre-mining expenses and capitalized research and development expenses.

### 2005

(in millions of euros)	NCA as of January 1, 2005	Additions	Disposals	Amortization	Currency translation adjustments	Other changes	NCA as of December 31, 2005
Pre-mining expenses	319	58	0	(23)	60	(2)	413
Research and development expenses	0	80	0	(10)	1	0	71
Other	277	61	0	(68)	8	1	278
<b>Total</b>	<b>597</b>	<b>199</b>	<b>0</b>	<b>(101)</b>	<b>69</b>	<b>(1)</b>	<b>761</b>

Most increases for 2005 concern programs in Finland, Canada, France and Kazakhstan, in the *Reactors* Business Unit (€85 million), the *Mining* Business Unit (€58 million) and the *Enrichment* Business Unit (€26 million).

They include capitalization of R&D expenses for various projects in accordance with IAS 38 and development expenses at mining sites.

As of December 31, 2005, other intangible assets primarily comprised licenses and patents (€115 million), and software (€51 million).

## 5.5. Notes to the consolidated financial statements

Note 11. Other intangible assets

## 2004

<i>(in millions of euros)</i>	NCA as of January 1, 2004	Additions	Disposals	Amortization	Currency translation adjustments	Other changes	NCA as of December 31, 2004
Pre-mining expenses	278	36	0	(15)	(6)	26	319
Other	191	22	(1)	(67)	(3)	136	277
<b>Total</b>	<b>469</b>	<b>58</b>	<b>(1)</b>	<b>(82)</b>	<b>(9)</b>	<b>162</b>	<b>597</b>

The increase in pre-mining expenses as of December 31, 2004, is primarily attributable to the full consolidation of Katco as from May 1, 2004 and the proportionate consolidation of mining companies AMC and Cominak, previously equity-accounted (Note 2).

As of December 31, 2004, other intangible assets primarily comprised software (€59 million), licenses and patents (€116 million) and trademarks (€24 million).

## Capitalized pre-mining expenses

<i>(in millions of euros)</i>	NCA as of January 1, 2005	Additions	Disposals	Amortization	Currency translation adjustments	Other changes	NCA as of December 31, 2005
Uranium	305	53	0	(16)	60	(2)	400
Gold	14	5	0	(7)	0	0	12
<b>Total</b>	<b>319</b>	<b>58</b>	<b>0</b>	<b>(23)</b>	<b>60</b>	<b>(2)</b>	<b>413</b>

<i>(in millions of euros)</i>	NCA as of January 1, 2004	Additions	Disposals	Amortization	Currency translation adjustments	Other changes	NCA as of December 31, 2004
Uranium	265	31	0	(8)	(6)	23	305
Gold	13	5	0	(7)	0	4	14
<b>Total</b>	<b>278</b>	<b>36</b>	<b>0</b>	<b>(15)</b>	<b>(6)</b>	<b>26</b>	<b>319</b>

## Exploration expenses (included in research and development expenses in the income statement)

<i>(in millions of euros)</i>	2005	2004
Uranium	14	13
Gold	2	3
<b>Total</b>	<b>16</b>	<b>16</b>

## 5.5. Notes to the consolidated financial statements

Note 12. End-of-life-cycle asset

**NOTE 12. END-OF-LIFE-CYCLE ASSET**

In addition to the value of its property, plant and equipment, AREVA recognizes the deferred portion of the Group's share of end-of-life-cycle obligations, such as nuclear facility dismantling, decontamination, etc. The Group's share of this adjustment account asset is amortized according to the same schedule as the underlying property, plant and equipment. An adjustment account

asset is also recognized for the third party share of end-of-life-cycle obligations, corresponding to the share of dismantling, waste retrieval and packaging operations to be financed by third parties. Conversely, a provision is established to cover total estimated end-of-life-cycle costs as soon as a facility starts up, including any share to be funded by third parties.

	Group share			Third party share	December 31, 2005	December 31, 2004	January 1, 2004
	Gross	Amortization	Net				
Dismantling	613	(451)	163	1,553	1,715	1,695	3,223
Waste retrieval and packaging	-	-	-	493	493	482	2,563
<b>Total</b>	<b>613</b>	<b>(451)</b>	<b>163</b>	<b>2,045</b>	<b>2,208</b>	<b>2,177</b>	<b>5,786</b>

**2005**

(in millions of euros)	NCA as of January 1, 2005	Increases	Decreases	Charges to and reversals of amortization and provisions	Discounting reversals	Other changes	NCA as of December 31, 2005
Group share	162	5	-	(18)	0	14	163
Third party share	2,015	0	(41)	0	74	(3)	2,045
Asset (Marcoule)	-	-	-	-	-	-	-
<b>Total</b>	<b>2,177</b>	<b>5</b>	<b>(41)</b>	<b>(18)</b>	<b>74</b>	<b>11</b>	<b>2,208</b>

**2004**

(in millions of euros)	NCA as of January 1, 2004	Increases	Decreases	Charges to and reversals of amortization and provisions	Discounting reversals	Other changes	NCA as of December 31, 2004
Group share	171	8	-	(19)	-	2	162
Third party share	2,115	-	(51)	-	98	(147)	2,015
Asset (Marcoule)	3,500	-	(3,500)	-	-	-	0
<b>Total</b>	<b>5,786</b>	<b>8</b>	<b>(3,551)</b>	<b>(19)</b>	<b>98</b>	<b>(145)</b>	<b>2,177</b>

The net end-of-life-cycle asset represented €2,208 million as of December 31, 2005, compared with €2,177 million as of December 31, 2004.

The third party share of the end-of-life-cycle asset mainly corresponds to funding expected from EDF for the La Hague site and from the CEA for the Pierrelatte site. This heading increases based on discounting reversals and decreases based on work performed.

The costs associated with waste retrieval and packaging correspond to the funding expected from EDF for its share of the commitment for the La Hague site.

These assets will be recovered when AREVA and EDF execute an agreement finalizing the terms and conditions of payment. In effect, when waste retrieval and packaging obligations are covered by commitments from third parties regarding future costs, no liability or corresponding adjustment asset is recognized. The share of waste retrieval and packaging work already completed and to be funded by EDF is included in work in-process.

## 5.5. Notes to the consolidated financial statements

Note 13. Property, plant and equipment

**NOTE 13. PROPERTY, PLANT AND EQUIPMENT****2005**

<i>(in millions of euros)</i>	Land	Buildings	Plant, equipment and tooling	End-of-life- cycle asset	Other	In process	Total
<b>Gross amount as of January 1, 2005</b>	<b>238</b>	<b>2,047</b>	<b>17,328</b>	<b>585</b>	<b>848</b>	<b>277</b>	<b>21,324</b>
Additions	1	17	87	0	31	280	415
Disposals	(15)	(40)	(91)	0	(56)	(15)	(217)
Currency translation adjustments	8	49	112	3	19	12	204
Change in consolidated Group	(23)	(198)	(877)	0	(110)	(47)	(1,255)
Other changes	(1)	21	165	26	25	(236)	0
<b>Gross amount as of December 31, 2005</b>	<b>208</b>	<b>1,897</b>	<b>16,725</b>	<b>613</b>	<b>757</b>	<b>271</b>	<b>20,471</b>
<b>Depreciation and provisions as of January 1, 2005</b>	<b>(81)</b>	<b>(1,259)</b>	<b>(15,036)</b>	<b>(423)</b>	<b>(661)</b>	<b>0</b>	<b>(17,459)</b>
Depreciation/impairment	(1)	(71)	(313)	(18)	(62)	0	(466)
Disposals	4	28	85	0	51	0	168
Currency translation adjustments	(1)	(17)	(62)	0	(14)	0	(95)
Change in consolidated Group	2	105	709	0	88	0	905
Other changes	1	5	19	(10)	6	(2)	19
<b>Depreciation and provisions as of December 31, 2005</b>	<b>(78)</b>	<b>(1,208)</b>	<b>(14,600)</b>	<b>(451)</b>	<b>(591)</b>	<b>(2)</b>	<b>(16,928)</b>
<b>Net carrying amount as of January 1, 2005</b>	<b>157</b>	<b>789</b>	<b>2,292</b>	<b>162</b>	<b>188</b>	<b>277</b>	<b>3,865</b>
<b>Net carrying amount as of December 31, 2005</b>	<b>131</b>	<b>688</b>	<b>2,125</b>	<b>163</b>	<b>166</b>	<b>269</b>	<b>3,542</b>

Changes in consolidation scope primarily concern the disposal of FCI for negative €350 million.

**2004**

<i>(in millions of euros)</i>	Land	Buildings	Plant, equipment and tooling	End-of-life- cycle asset	Other	In process	Total
<b>Gross amount as of January 1, 2004</b>	<b>195</b>	<b>1,840</b>	<b>16,775</b>	<b>605</b>	<b>684</b>	<b>391</b>	<b>20,491</b>
Additions	1	21	110	-	47	275	455
Disposals	(17)	(121)	(214)	-	(50)	(142)	(543)
Currency translation adjustments	(2)	(14)	(36)	(1)	(5)	(3)	(61)
Change in consolidated Group	62	306	502	-	183	23	1 076
Other	(2)	15	190	(20)	(10)	(266)	(93)
<b>Gross amount as of December 31, 2004</b>	<b>238</b>	<b>2,047</b>	<b>17,328</b>	<b>585</b>	<b>848</b>	<b>277</b>	<b>21,324</b>
<b>Depreciation and provisions as of January 1, 2004</b>	<b>(86)</b>	<b>(1,149)</b>	<b>(14,558)</b>	<b>(434)</b>	<b>(510)</b>	<b>(134)</b>	<b>(16,871)</b>
Depreciation	(2)	(83)	(359)	(19)	(69)	-	(531)
Impairment	-	-	-	-	-	134	134
Disposals	2	91	228	-	51	-	373
Currency translation adjustments	-	5	22	-	4	-	32
Change in consolidated Group	(1)	(147)	(396)	-	(135)	-	(679)
Other	6	24	26	30	(2)	-	83
<b>Depreciation and provisions as of December 31, 2004</b>	<b>(81)</b>	<b>(1,259)</b>	<b>(15,036)</b>	<b>(423)</b>	<b>(661)</b>	<b>0</b>	<b>(17,459)</b>
<b>Net carrying amount as of January 1, 2004</b>	<b>109</b>	<b>691</b>	<b>2,217</b>	<b>171</b>	<b>174</b>	<b>257</b>	<b>3,620</b>
<b>Net carrying amount as of December 31, 2004</b>	<b>157</b>	<b>788</b>	<b>2,292</b>	<b>162</b>	<b>187</b>	<b>277</b>	<b>3,865</b>

Changes in the consolidated Group include the consolidation of T&D for €372 million.  
In 2005, the net value of finance lease contracts capitalized was €31 million (€40 million in 2004).

## 5.5. Notes to the consolidated financial statements

Note 14. Assets earmarked for end-of-life-cycle operations

## NOTE 14. ASSETS EARMARKED FOR END-OF-LIFE-CYCLE OPERATIONS

This heading is comprised of the following:

<i>(in millions of euros)</i>	December 31, 2005	January 1, 2005*
Receivables related to decommissioning	129	110
<b>Earmarked assets</b>	<b>2,669</b>	<b>2,398</b>
<b>Total</b>	<b>2,798</b>	<b>2,508</b>

\* Including IAS 39.

Receivables related to decommissioning include mostly a receivable resulting from the execution of a contract under which the CEA agreed to fund a share of decommissioning expenses at the La Hague and Cadarache plants. This receivable, which bears interest

at a rate of approximately 5%, represents €123 million as of December 31, 2005 (including Value Added Tax). This receivable has no set due date.

The portfolio of assets earmarked to fund end-of-life-cycle expenses includes the following:

<i>(in millions of euros)</i>	December 31, 2005	January 1, 2005
<b>IN MARKET VALUE</b>		
Publicly traded shares	570	977
Equity mutual funds	973	833
<b>Bond and money market mutual funds</b>	<b>1,126</b>	<b>588</b>
<b>Total</b>	<b>2,669</b>	<b>2,398</b>
<b>BY REGION</b>		
Euro zone	2,164	1,972
Non-euro Europe	502	424
Other	2	1
<b>Total</b>	<b>2,669</b>	<b>2,398</b>

### Purpose of earmarked portfolio

As a nuclear facility operator, the AREVA group has a legal obligation to secure and decommission its facilities when they are shut down permanently, in whole or in part. AREVA must also sort and package waste and scrap from past operations or from facility decommissioning, based on applicable regulations, for the disposal of final waste (see Note 25).

To meet its share of this obligation, the Group has segregated part of its liquidities to cover future facility decommissioning and waste disposal expenses. A portfolio of assets earmarked to pay for these expenses was thus established.

This portfolio was constructed based on a budget of disbursements. These operations are scheduled to take place, for the most part, during the 2025-2060 timeframe. Accordingly, the portfolio is managed with long-term objectives.

The portfolio is invested in short- and long-term bonds and in European equities, including direct and indirect holdings in publicly traded French companies and in independently managed European equity mutual funds. As of December 31, 2005, the portfolio comprised 58% equities (75% as of January 1, 2005) and 42% bonds (25% as of January 1, 2005).

Allocations by asset class, and changes in allocations over time, are consistent with asset allocation strategies reviewed by AREVA's Cleanup and Decommissioning Fund Monitoring Committee.

AREVA relies on outside advisors to monitor portfolio management with a long-term perspective and to ensure that the overall approach is consistent with the Group's objective. Since January 1, 2005, overall portfolio performance is benchmarked to the MSCI Equity Europe index for its equity component and to the FTSE euro zone Government Bond aggregate index for its interest rate component.

## 5.5. Notes to the consolidated financial statements

Note 14. Assets earmarked for end-of-life-cycle operations

## Publicly traded shares

AREVA's portfolio of publicly traded shares is shown below.

Securities held	Number of shares	Market value as of December 31, 2005	Market value as of January 1, 2005
AGF	-	-	46
Suez	-	-	447
Michelin	1,774,225	84	89
Saint-Gobain	6,328,000	318	280
Schneider	2,220,782	167	114
<b>Total publicly traded shares</b>		<b>570</b>	<b>977</b>

The fund managers must follow strict investment guidelines at all times, listed below.

### Composition of bond mutual funds

Bond mutual funds must invest:

- a minimum of 80% of their assets in euro-denominated bonds;
- no more than 20% of their assets in bonds denominated in US dollars or in non-euro zone European Union currencies, in which case the foreign exchange risk must be hedged.

### Risk assessment

Investment in equities is not allowed. Each fund's sensitivity to interest rate fluctuations must be between a minimum of 0 and a maximum of 5. Average sensitivity as of June 30, 2005, was 2.04. The securities selected must be rated by Moody's and/or Standard & Poor's in accordance with the table below:

	Moody's	S&P
0-1 year	P1	A1
1-4 years	Aa3	AA-
4-7 years	Aa1	AA+
> 7 years	Aaa	AAA

### Derivatives

The sole purpose of derivatives is to hedge existing positions. Total nominal commitments may not exceed the fund's net assets.

### Fund valuation

The bond funds' Net Asset Value is determined by valuing the securities held by each fund at market value on the last day of the period.

## Dedicated equity funds

### Composition of equity funds

Some of the assets earmarked to fund future cleanup and dismantling operations are invested, with a long-term objective, in equity funds dedicated to AREVA. The funds are fully invested in equities. Cash from transactions is held only on a temporary basis. A mutual fund representing 2% of the portfolio's total value is invested in French equities. All other funds invest at least 90% of their assets in equities of E.U companies. No single security accounts for more than 5% of the total assets of dedicated equity funds.

### Risk assessment

The performance of mutual funds invested in European equities, other than French equities, is benchmarked to the MSCI Europe ex France net dividend reinvested index. The tracking error for mutual funds as a whole is between 2 and 3 over the long-term. Fund trends therefore closely track the index.

### Derivatives

The sole purpose of derivatives is to hedge existing positions. Total nominal commitments may not exceed the fund's net assets.

### Fund valuation

The funds are valued based on their net asset value, corresponding to the market value of the securities held by each fund on the last day of the period.

## 5.5. Notes to the consolidated financial statements

Note 14. Assets earmarked for end-of-life-cycle operations

Note 15. Equity associates

**Position as of December 31, 2005**

The portfolio's market value based on year-end closing prices is €2,669 million, compared with €2,398 million as of January 1, 2005.

The portfolio is designed to cover all end-of-life-cycle obligations expected to be on the balance sheet by the time decommissioning operations are performed.

As of December 31, 2005, the portfolio comprised 58% equities (75% as of December 31, 2004) and 42% bonds (25% as of December 31, 2004). The decrease in equity investments is due to the reclassification of the Suez shares, which are now recognized under "Other non-current financial assets" (see Note 16). These shares were temporarily replaced with money market mutual funds.

The AGF shares were sold to finance end-of-life-cycle obligations disbursements in 2005, in particular the final payment due to the CEA for the decommissioning of the Marcoule plant.

A review of the portfolio's strategic allocation is being carried out.

The table below presents the allocation by sector of all equity mutual funds included in the portfolio.

Sectors in %	All funds
Energy	11
Base products	5
Manufacturing	8
Cyclical consumer goods	8
Non-cyclical consumer goods	11
Health	11
Finance	30
Information technologies	3
Telecom	7
Utilities	5
<b>Total</b>	<b>100</b>

**NOTE 15. EQUITY ASSOCIATES****Change in investments in equity associates**

(in millions of euros)

	2005
<b>Investments in equity associates as of January 1</b>	<b>1,313</b>
Share in net income of equity associates	153
Dividends	(29)
Currency translation adjustments	34
Acquisitions	27
Disposals	(2)
Other changes	(209)
<b>Investments in equity associates as of December 31</b>	<b>1,288</b>

Other changes correspond for the most part to a reduction in the investment in STMicroelectronics, subsequent to the disposal by France Télécom of its interest in this company (see below).



## 5.5. Notes to the consolidated financial statements

Note 15. Equity associates

## Investments in equity associates (by associate)

<b>December 31, 2005</b> (in millions of euros)	% of control	Share in net income of equity associates	Investment in equity associates, excluding goodwill	Goodwill	Investment in equity associates, including goodwill
STMicroelectronics <sup>(1)</sup>	10.94	38	788	43	831
Eramet	26.25	104	356	35	391
REpower	21.20	0	21	7	27
Other equity associates		11	38	-	38
<b>Total</b>		<b>153</b>	<b>1,203</b>	<b>85</b>	<b>1,288</b>

<b>January 1, 2005</b> (in millions of euros)	% of control	Share in net income of equity associates	Investment in equity associates, excluding goodwill	Goodwill	Investment in equity associates, including goodwill
STMicroelectronics <sup>(1)</sup>	13.9	74	922	59	981
Eramet	26.2	48	268	35	303
Other equity associates		6	29	-	29
<b>Total</b>		<b>128</b>	<b>1,219</b>	<b>94</b>	<b>1,313</b>

(1) In 2004, STMicroelectronics Holding NV was the sole owner of STMicroelectronics Holding II B.V., which in turn held 30.8% of STMicroelectronics. STMicroelectronics Holding NV is 45.2% owned by FT1CI, in which AREVA holds a 79% interest, and which is fully consolidated. AREVA controlled 13.9% of STMicroelectronics and had an equity interest of 11% as of December 31, 2004. In August 2005, France Télécom sold its investment in STMicroelectronics. As a result, AREVA controls 100% of FT1CI as of December 31, 2005 and its percentage of control in STMicroelectronics equals its equity interest (10.9%).

By the deadline set to close its accounts, AREVA had not received a detailed assessment of the impact of IFRS adoption on the financial statements of STMicroelectronics. Accordingly, AREVA's investment in this company has not been adjusted for IFRS.

The shareholders' agreement renewed on March 17, 2004, among AREVA, France Télécom (through August 2005) and Finmeccanica establishes the rules governing relations between the parties and seeks to improve the liquidity of their indirect investments in the company and preserve a stable and balanced shareholders' base. It provides AREVA with significant influence over STMicroelectronics.

## Fair value of investments in publicly traded equity associates

(in millions of euros)	<b>December 31, 2005</b>			<b>January 1, 2005</b>		
	% of control	Investment in equity associates	Fair value at stock market price	% of control	Investment in equity associates	Fair value at stock market price
STMicroelectronics <sup>(1)</sup>	10.94	831	1,507	13.89	981	1,804
Eramet	26.25	391	547	26.25	303	447
REpower	21.20	27	40	-	-	-
<b>Total</b>	<b>-</b>	<b>1,249</b>	<b>2,054</b>	<b>-</b>	<b>1,284</b>	<b>2,252</b>

## 5.5. Notes to the consolidated financial statements

Note 16. Other non-current financial assets

**NOTE 16. OTHER NON-CURRENT FINANCIAL ASSETS**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>
Available-for-sale securities	1,976	1,114
Loans to equity associates	32	38
Other non-current financial assets	355	318
Derivatives on financing activities	2	21
<b>Total</b>	<b>2,365</b>	<b>1,491</b>

**Available-for-sale securities**

Available-for-sale securities are as follows:

<i>(in millions of euros)</i>	Number of shares as of December 31, 2005	<b>December 31, 2005</b>	<b>January 1, 2005</b>
Publicly traded shares (at market value)			
- Total	1,837,516	390	295
- Alcatel	2,597,435	27	30
- Société Générale	1,690,000	176	126
- Assystem Brime <sup>(1)</sup>	-	-	89
- Suez	27,627,000	727	-
- Safran (formerly Sagem)	30,772,945	622	483
Investment in privately held companies	-	34	91
<b>Total</b>		<b>1,976</b>	<b>1,114</b>

*(1) The value recognized for Assystem Brime as of January 1, 2005 includes redeemable share subscription warrants (BSAR).*

Available-for-sale securities include mostly shares of publicly traded companies held by AREVA, including shares of Safran and Suez.

- On December 27, 2004, Sagem filed a Public Exchange Offer for Snecma shares, together with a takeover bid to purchase additional shares. After completion of the transactions, AREVA held 7.4% of the share capital and 12.5% of the voting rights of the company, now known as Safran.
- Shares of Suez held by AREVA on January 1, 2005 were included in the portfolio of assets earmarked to finance end-of-life-cycle obligations (see Note 14). Suez filed a Combined Public Offer on August 9, 2005 for the shares of its subsidiary Electrabel and performed a share capital increase with retention of preferential subscription rights on the same date. AREVA subscribed to this share increase and now holds 2.18% of the share capital and 1.98% of the voting rights of the company. After the transaction, the shares were reclassified in "Other non-current financial assets".

The shares of Assystem Brime were sold during the first half of 2005.

The change in "Investments in privately held companies" reflects the disposal of AREVA's investment in Energy Resources of Australia, an Australian uranium mining company. This transaction produced a gain of €59 million, which is included in financial income (see Note 7).

As of December 31, 2005, this heading includes mostly Investments in companies owning mineral deposits.

**Other non-current financial assets**

As of January 1 and December 31, 2005, this heading included mostly:

- a €150 million down-payment to the shareholders of Ureco for the acquisition of an interest in Enrichment Technology Company (ETC);
- a €159 million deposit to the US Customs Service in connection with alleged dumping (€123 million at the end of 2004).

## 5.5. Notes to the consolidated financial statements

Note 16. Other non-current financial assets

Note 17. Inventories and in process

**Urenco**

In 2003, the AREVA group decided to invest in the gaseous centrifuge uranium enrichment process. Accordingly, AREVA entered into certain agreements with shareholders of Urenco, the owner of this technology, to acquire a 50% interest in ETC. The agreements also provide the right to use this technology and ensure the supply of the centrifuge cascades and related services necessary to build the George Besse II uranium enrichment facility. In 2003, AREVA made a down-payment in the amount of €150 million towards the purchase price of an investment in ETC and for the right to use the ultracentrifugation enrichment technology.

These agreements are subject to ratification, by July 5, 2006 at the latest, of a quadripartite treaty signed in Cardiff in July 2005 by France, Germany, the Netherlands and the United Kingdom. The purpose of this treaty is to allow the four governments to verify and safeguard the use of the ETC technology. So far, the treaty has been ratified by France, Germany and the United Kingdom. The ratification process is underway in the Netherlands.

**Litigation for alleged dumping and unfair subsidies**

In 2001, the United States Department of Commerce (DOC) ordered that countervailing duties be levied on enrichment services imported to the United States from France, Germany, the Netherlands and the United Kingdom. This action followed complaints filed in December 2000 by the United States Enrichment Corporation (USEC) against Eurodif and Urenco for dumping and unfair subsidies. The level of countervailing duties applied to Eurodif exports to the United States led to \$188 million being deposited with the U.S. Customs Service at the end of 2005, recoverable once the case has been adjudicated (see Note 35.). Considering the Group's degree of confidence regarding the outcome of the case, no provision has been recognized in connection with this litigation or for the deposits made with the U.S. Customs Service.

**NOTE 17. INVENTORIES AND IN PROCESS***(in millions of euros)*

	December 31, 2005			January 1, 2005		
	Gross	Impairment	Net	Gross	Impairment	Net
Raw materials and other supplies	692	(171)	521	669	(188)	481
Goods in process	546	(19)	527	497	(14)	483
Services in process	577	(89)	488	498	(89)	409
Intermediate and finished products	765	(28)	737	794	(41)	753
<b>Net carrying amount</b>	<b>2,580</b>	<b>(307)</b>	<b>2,273</b>	<b>2,458</b>	<b>(332)</b>	<b>2,126</b>
• Inventories and work-in-process:						
– at cost			2,048			1,713
– at fair value net of disposal expenses			225			299
* Excluding FCI (€114M).			2,273			2,012*

*(in millions of euros)*

	December 31, 2004			January 1, 2004		
	Gross	Impairment	Net	Gross	Impairment	Net
Raw materials and other supplies	669	(188)	481	468	(141)	327
Goods in process	497	(14)	483	372	(20)	352
Services in process	498	(89)	409	381	(23)	358
Intermediate and finished products	766	(41)	725	636	(46)	590
<b>Net carrying amount</b>	<b>2,430</b>	<b>(332)</b>	<b>2,098</b>	<b>1,857</b>	<b>(230)</b>	<b>1,627</b>

The increase in inventories is primarily due to the T&D acquisition (inventories of €513 million as of the acquisition date).

• Inventories and work-in-process (excluding FCI):

– at cost	1,712
– at fair value net of disposal expenses	270
	1,982

The difference between the net carrying amount of inventories as of December 31, 2004 (excluding IAS 39) and the net carrying amount as of January 1, 2005 (applying IAS 39) is due to the revaluation at fair value of inventories held for trading.

## 5.5. Notes to the consolidated financial statements

Note 18. Accounts receivable and related accounts

Note 19. Other operating receivables

**NOTE 18. ACCOUNTS RECEIVABLE AND RELATED ACCOUNTS**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
Gross	3,856	3,358	3,357	2,275
Impairment	(63)	(67)	(67)	(41)
<b>Net carrying amount</b>	<b>3,793</b>	<b>3,291</b>	<b>3,290</b>	<b>2,234</b>

As of December 31, 2004, Trade accounts receivable and related accounts include €1,080 million (gross) in respect of Transmission & Distribution operations.

**Change in impairment of accounts receivable and related accounts**

<b>January 1, 2005</b>	<b>(67)</b>
Change in consolidated Group	(4)
Increases	(18)
Reversal (when risk has materialized)	21
Reversal (when risk has not materialized)	14
Other (conversion)	(9)
<b>December 31, 2005</b>	<b>(63)</b>

The gross amount of receivable and related accounts by maturity was as follows:

• Maturity < 1 yr	€3,551M
• Maturity 1-5 yrs	€285M
• Maturity > 5 yrs	€20M

As of December 31, 2005, Accounts receivable and related accounts include receivables from contracts recognized according to the percentage of completion method of €1,248 million (€934 million as of January 1, 2005).

**NOTE 19. OTHER OPERATING RECEIVABLES**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
French State	263	225	225	202
Miscellaneous accounts receivable	554	590	594	531
Financial instruments	77	141	0	0
Other	20	21	41	2
<b>Total</b>	<b>914</b>	<b>977</b>	<b>860</b>	<b>735</b>

Miscellaneous account receivables include advances and down payments to suppliers of €220 million at the end of 2005 and receivables from employees and social security organizations.

The value by maturity of "Other operating receivables" is as follows:

• Maturity < 1 yr	€884M
• Maturity 1-5 yrs	€24M
• Maturity > 5 yrs	€6M

Financial instruments include fair value hedges of commercial transactions and fair value hedges of firm commitments.

## 5.5. Notes to the consolidated financial statements

Note 20. Cash and cash equivalents  
 Note 21. Other current financial assets  
 Note 22. Equity

**NOTE 20. CASH AND CASH EQUIVALENTS**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>
Short-term investments ( $< 3$ months when the investment was made)	1,227	788
Cash and current accounts	257	267
<b>Net value</b>	<b>1,484</b>	<b>1,055</b>

<i>(in millions of euros)</i>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
Short-term investments ( $< 3$ months when the investment was made)	787	1,295
Cash and current accounts	267	72
<b>Valeur nette</b>	<b>1,054</b>	<b>1,367</b>

Short-term investments with maturities of less than three months when the investment was made consist mostly of negotiable instruments and short-term cash mutual funds.

**NOTE 21. OTHER CURRENT FINANCIAL ASSETS**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>
Short-term investments with maturities greater than 3 months	245	229
Other current financial assets and derivatives on financing activities	19	34
<b>Total</b>	<b>264</b>	<b>263</b>

Short-term investments with maturities greater than three months include bonds and negotiable mid-term instruments, some of which serve as security for expenses to be incurred under sales contracts for which customer advances have been received, and balanced equity/bond funds.

**NOTE 22. EQUITY****Share capital**

As of December 31 AREVA's share capital was held as follows:

	<b>December 31, 2005</b>	<b>December 31, 2004</b>
CEA	78.9%	78.9%
French State	5.2%	5.2%
Caisse des dépôts et consignations	3.6%	3.6%
Erap	3.2%	3.2%
Total	1.0%	1.0%
Crédit Agricole Indosuez and employee shareholders	1.6%	1.6%
EDF	2.5%	2.5%
<b>Holders of shares with voting rights</b>	<b>96.0%</b>	<b>96.0%</b>
<b>Holders of investment certificates</b>	<b>4.0%</b>	<b>4.0%</b>
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

**Currency translation reserves**

Currency translation reserves represented €83 million in 2005 (negative €70 million in 2004). This increase reflects changes in the value of the US dollar exchange rate for the most part.

**Share option plan**

The Group does not have a share option plan.

**Earnings per share**

The average number of shares and investment certificates used to calculate earnings per share in 2005 was 35,442,701 (including 1,429,108 investment certificates), unchanged from previous years.

## 5.5. Notes to the consolidated financial statements

Note 23. Minority interests

Note 24. Pension obligations and other employee benefits

## NOTE 23. MINORITY INTERESTS

The largest minority interests were as follows:

(in millions of euros)	December 31, 2005	January 1, 2005	December 31, 2004
STMicroelectronics	-	216	221
AREVA NP	-	-	345
Eurodif	141	87	115
Other	87	66	65
<b>Total</b>	<b>228</b>	<b>369</b>	<b>746</b>

In August 2005, France Télécom sold its residual interest in FT1CI, which holds STMicroelectronics. As a result, there are no residual minority interests in STMicroelectronics.

As provided in IAS 32, put options held by Siemens in respect of its investment in Framatome ANP (AREVA NP) are recognized as borrowings and the corresponding minority interests are cancelled (see Note 1.19.1.). The difference between the value of these options and the minority interests cancelled is recognized as goodwill.

## NOTE 24. PENSION OBLIGATIONS AND OTHER EMPLOYEE BENEFITS

Group companies, in accordance with laws and practices prevailing in the various countries in which they operate, may pay retirement bonuses to their retiring employees, based on their compensation and seniority. Long-service jubilee payments and early retirement pensions are sometimes due in France and in Germany, while complementary pensions may contractually guarantee a given level of income to certain employees. Certain Group companies also grant other post-retirement benefits, such as the reimbursement of medical expenses.

These defined benefit plans are recognized in accordance with the accounting method defined in Note 1.16.

Each year, independent actuaries determine the Group's commitments as of the year-end.

In some companies, these obligations are covered in whole or in part by insurance policies or external retirement funds. In such cases, the obligations and the covering assets are valued independently. The difference between the obligation and the assets is either a funding surplus or a deficit. A provision is recognized in the event of a deficit and an asset is recognized in the event of a surplus, subject to specific conditions.

## Balance sheet reconciliation

(in millions of euros)	December 31, 2005	December 31, 2004
<b>Provision for pension obligations and other employee benefits</b>	<b>1,096</b>	<b>1,031</b>
<b>Pension plan assets</b>	<b>(1)</b>	<b>(10)</b>
Local pension plan assets	(42)	(33)
<b>Total</b>	<b>1,053</b>	<b>988</b>
Retirement bonuses	157	146
Complementary retirement benefits	184	239
Early retirement benefits	490	418
Medical expenses and Accident/Disability insurance	196	162
Job-related awards	26	24

CATS, CASA and CASAIC plans are included in early retirement plans.

The main actuarial assumptions used in determining the Group's obligations are as follows:

	2005	2004
Inflation in Euro zone	2%	2%
Discount rate		
– Euro zone	4.25%	4.5%
– US Dollar zone	6%	6%
– Canadian dollar zone	5.5%	6%
Expected average return on plan assets		
– Euro zone	5 to 6.25%	5.5%
– US Dollar zone	7%	7.31%
– Canadian dollar zone	7.4%	7.04%
Annual social security ceiling increase (before inflation)	+ 0.5%	+ 0.5%

## • Mortality tables

	2005	2004
France		
– Annuity	Mortality tables	Mortality tables
– Lump sum payment	TV 88-90	TV 88-90
Germany	Heubeck 2005	Heubeck 1998

• Retirement age: 63 for management personnel, 61 for non-management personnel.

• Average attrition is assumed to occur among employees in each Group company at a declining rate reflecting age brackets.

## 5.5. Notes to the consolidated financial statements

Note 24. Pension obligations and other employee benefits

- Salary increase assumptions, net of inflation (weighted average based on the number of employees in each company):

(in %)	Management personnel		Non-management personnel	
	2005	2004	2005	2004
< 30 years	3.45	3.54	2.05	2.06
30-39 years	2.78	2.70	1.80	1.80
40-49 years	2.12	2.06	1.55	1.55
50-54 years	1.68	1.70	1.42	1.42
55 years or more	1.41	1.50	1.26	1.26

The assumed rate of salary increase reflects changes in consolidation scope.

- Assumed rate of increase in medical expenses in the United States

Year	
2005	11%
2006	10%
2007	9%
2008	8.5%
2009	8%
2010	7.5%

## Plan Assets

## Europe

Type of asset	2005	2004
Cash	5%	19%
Bonds	64%	67%
Equities	28%	11%
Real estate	3%	3%

## United States

Type of asset	2005	2004
Cash	3%	0%
Bonds	37%	41%
Equities	60%	58%
Real estate	0%	0%

Effective return on plan assets	2005	2004
Europe	9.30%	5.69%
United States	5.33%	8.71%

## Net carrying amount of retirement obligations

At December 31, 2005 (in millions of euros)	Retirement bonuses	Complementary retirement benefits		Early retirement benefits		Medical expenses	Job-related awards	Total		Total
		In-house Outsourced	management	In-house Outsourced	management	In-house management	In-house management	In-house Outsourced	management	
Benefit obligation	294	602	125	736	369	212	26	1,605	732	2,364
Fair value of plan assets	(85)	(442)	0	(348)	0	0	0	(853)	0	(875)
Unrecognized actuarial gains/losses	(52)	(73)	(27)	(117)	(9)	(31)	-	(237)	(67)	(309)
Unrecognized past service cost	0	(1)	0	(111)	(30)	15	-	(112)	(15)	(127)
Plan assets recognition limit	-	-	-	-	-	-	-	-	-	-
<b>Total net obligation</b>	<b>157</b>	<b>86</b>	<b>98</b>	<b>161</b>	<b>330</b>	<b>196</b>	<b>26</b>	<b>403</b>	<b>650</b>	<b>1,053</b>

At December 31, 2004 (in millions of euros)	Retirement bonuses	Complementary retirement benefits		Early retirement benefits		Medical expenses	Job-related awards	Total		Total
		In-house Outsourced	management	In-house Outsourced	management	In-house management	In-house management	In-house Outsourced	management	
Benefit obligation	270	554	201	707	352	196	24	1,531	773	2,304
Fair value of plan assets	(79)	(452)	0	(343)	-	-	-	(874)	-	(874)
Unrecognized actuarial gains/losses	(45)	(42)	(21)	(136)	(15)	(32)	-	(223)	(68)	(291)
Unrecognized past service cost	0	(2)	1	(120)	(27)	(2)	-	(123)	(28)	(151)
Plan assets recognition limit	-	-	-	-	-	-	-	-	-	-
<b>Total net obligation</b>	<b>146</b>	<b>58</b>	<b>181</b>	<b>108</b>	<b>310</b>	<b>162</b>	<b>24</b>	<b>311</b>	<b>677</b>	<b>988</b>

## 5.5. Notes to the consolidated financial statements

Note 24. Pension obligations and other employee benefits

## Total expense for the year

<b>2005</b> (in millions of euros)	Retirement bonuses	Complementary retirement benefits	Early retirement benefits	Medical expenses	Job-related awards	Total
Current service cost	14	20	48	5	1	87
Interest on obligation	12	31	49	10	1	103
Expected return on plan assets	(4)	(25)	(17)	0	0	(45)
Actuarial gains or losses recognized in the year	2	3	17	(6)	2	18
Past service cost	0	0	12	(2)	0	10
Plan creation, curtailment or termination	(4)	(16)	43	0	1	24
<b>Total expense for the year</b>	<b>20</b>	<b>13</b>	<b>152</b>	<b>7</b>	<b>5</b>	<b>197</b>

Plan creation, curtailment or termination reflects:

- freezing pension plans in the United States, generating a gain of €16 million;
- establishing an early retirement plan ("Casa plan") at AREVA T&D, representing a cost of €40 million.

<b>2004</b> (in millions of euros)	Retirement bonuses	Complementary retirement benefits	Early retirement benefits	Medical expenses	Job-related awards	Total
Current service cost	12	26	65	3	1	107
Interest on obligation	13	40	51	9	1	113
Expected return on plan assets	(5)	(29)	(19)	0	0	(52)
Actuarial gains or losses recognized in the year	0	0	10	0	1	11
Past service cost	0	0	12	0	0	13
Plan creation, curtailment or termination	(2)	(2)	(7)	0	3	(8)
<b>Total expense for the year</b>	<b>18</b>	<b>34</b>	<b>112</b>	<b>13</b>	<b>6</b>	<b>183</b>

2004 data includes FCI costs in the amount of €7 million.

## Change in the provision

(in millions of euros)	<b>2005</b>	<b>2004</b>
<b>CHANGES IN PROVISIONS</b>		
Restated opening balance	988	549
First-time adoption of IFRS (actuarial gains or losses recognized in equity)	-	214
Foreign exchange adjustment	17	(12)
Change in consolidated Group	(46)	164
Total expense	197	183
Contributions collected/benefits paid	(103)	(109)
<b>Benefit obligation as of December 31</b>	<b>1,053</b>	<b>988</b>

Changes in consolidated Group for 2005 include the following:

- disposal of FCI (impact: €72 million);
- acquisition of ICS1 from Siemens (€19 million);
- acquisition of three T&D entities in India (€4 million).



## 5.5. Notes to the consolidated financial statements

Note 25. Provisions for end-of-life-cycle obligations

**NOTE 25. PROVISIONS FOR END-OF-LIFE-CYCLE OBLIGATIONS**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>
Decommissioning of nuclear facilities	3,262	3,154
Waste retrieval and packaging	1,228	1,177
<b>Provisions for end-of-life-cycle operations</b>	<b>4,490</b>	<b>4,332</b>

<i>(in millions of euros)</i>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
Decommissioning of nuclear facilities	3,154	4,752
Waste retrieval and packaging	1,177	3,523
<b>Provisions for end-of-life-cycle operations</b>	<b>4,332</b>	<b>8,275</b>

The table below summarizes the AREVA balance sheet accounts affected by the treatment of end-of-life-cycle operations.

<b>ASSETS</b> <i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>	<b>LIABILITIES</b>	<b>December 31, 2005</b>	<b>January 1, 2005</b>
End-of-life-cycle asset (Note 12.)	2,208	2,177	Provisions for end-of-life-cycle operations	4,490	4,332
– AREVA share <sup>(1)</sup>	163	162	– funded by AREVA	2,444	2,317
– third party share <sup>(2)</sup>	2,045	2,015	– funded by third parties <sup>(2)</sup>	2,045	2,015
– third party asset (Marcoule)	-	-	– provision (Marcoule)	-	-
Assets earmarked to finance end-of-life-cycle obligations <sup>(3)</sup>	2,675	2,219			

<b>ASSETS</b> <i>(in millions of euros)</i>	<b>December 31, 2004</b>	<b>January 1, 2004</b>	<b>LIABILITIES</b>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
End-of-life-cycle asset (Note 12.)	2,177	5,786	Provisions for end-of-life-cycle operations	4,332	8,275
– AREVA share <sup>(1)</sup>	162	171	– funded by AREVA	2,317	2,215
– third party share <sup>(2)</sup>	2,015	2,115	– funded by third parties <sup>(2)</sup>	2,015	2,115
– third party asset (Marcoule)	0	3,500	– provision (Marcoule)	0	3,945
Assets earmarked to finance end-of-life-cycle obligations <sup>(3)</sup>	2,281	2,234			

(1) Amount of total provision to be funded by AREVA still subject to amortization.

(2) Amount of the provision to be funded by third parties.

(3) Portfolio of financial assets earmarked to finance AREVA's share of the total provision (€2,444 million as of December 31, 2005).

<i>(in millions of euros)</i>	<b>NCA as of January 1, 2005</b>	Reversal (when risk has materialized) Expenses for the year	Discounting reversal	Change in assumptions, budgets, etc.	<b>NCA as of December 31, 2005</b>
Decommissioning provision	3,154	(33)	143	(2)	3,262
Provision for waste retrieval and packaging	1,177	(4)	51	4	1,228
<b>Total</b>	<b>4,332</b>	<b>(37)</b>	<b>194</b>	<b>2</b>	<b>4,490</b>

## 5.5. Notes to the consolidated financial statements

Note 25. Provisions for end-of-life-cycle obligations

**Nature of the commitments**

As a nuclear operator, the AREVA group has a legal obligation to secure and decommission its facilities when they are shut down permanently. The Group must also package, in accordance with prevailing standards, the various waste types generated by operating activities, which could not be processed during treatment. Group facilities subject to these obligations include facilities in the front-end of the fuel cycle, in particular Eurodif's enrichment plant in Pierrelatte, but they are predominantly facilities at the back-end of the fuel cycle, including the treatment plants at La Hague and the MELOX and Cadarache uranium/plutonium (MOX) fuel fabrication plants.

Under certain circumstances, essentially in the case of used fuel treatment services, customers have agreed to fund a portion of the cost related to decommissioning operations and to the disposal of final waste, of which they remain the owners. For AREVA, this has the effect of transferring the financial responsibility for decommissioning, waste retrieval and packaging from the Group to third parties.

In December 2004, the CEA, EDF and COGEMA signed an agreement regarding the Marcoule plant. The CEA will assume the responsibilities of owner-operator of the site and will be responsible for funding the site cleanup effort. This agreement does not cover final waste disposal costs.

It provides for the payment of a final consideration to the CEA decommissioning fund by EDF and AREVA NC, corresponding to their respective financial obligations. AREVA NC's obligation is €427 million (subject to escalation from January 2004). This amount was recognized as a provision in the 2003 financial statements and subsequently paid in full, half at the end of 2004 and half at the beginning of 2005.

Since December, 12 2004, AREVA's only provision concerning the Marcoule site corresponds to the Group's share of obligations for final waste retrieval and disposal.

The expenses relating to these commitments will be incurred between 2006 and 2060, based on forecast facility shut-down and the scheduling of operations. Cash spending for decommissioning of the UP2-800 and UP3 plants in La Hague is expected to occur during the period 2040-2060.

**Determination of decommissioning provisions*****Dismantling***

Decommissioning obligations are calculated facility by facility as follows:

- The Group's dismantling standards correspond to the following final condition: buildings are decontaminated where they stand and all nuclear waste areas are decommissioned to conventional waste status. This corresponds to a decommissioning level of between levels 2 and 3 of the International Atomic Energy Agency (IAEA) scale, which is currently under review.
- Detailed decommissioning and waste management cost estimates for back-end facilities were prepared by SGN. As prime contractor for the construction of the majority of the Group's treatment and recycling facilities, this engineering firm was judged to be the most qualified to select methods for the decommissioning of these facilities. Eurodif prepared the decommissioning cost estimates for the enrichment business.
- The estimates are revised annually to take inflation into account. These expenses are then allocated by year, adjusted for inflation and discounted to present value, as explained in Note 1.18.2. A provision is then recognized based on the present value. The discounting reversal is recognized in Net financial expense.

As of December 31, 2004 and 2005, the rates applied for facilities located in France were the following:

- Inflation rate: 2%.
- Discount rate 5%.

Cost estimates will be updated if applicable regulations change or substantial technological developments are anticipated. In any event, the Group has set a goal of updating each estimate at least once every six years. In 2004, the Group updated its cost estimates for the La Hague and MELOX sites.

***Waste retrieval and packaging***

Some waste from fuel treatment performed under older contracts could not be processed on site, as packaging facilities were not yet in service at that time. This waste must now be retrieved and packaged with methods and technologies approved by the French safety authorities. Some of these methods require additional studies.

In 2004, the Group performed a detailed review of its obligations in this area.

Operations funded by third parties are handled in the same way as for other types of contracts. These operations are included in services to optimize waste packaging routinely performed for customers at the La Hague plant. The customers retain ownership

## 5.5. Notes to the consolidated financial statements

Note 25. Provisions for end-of-life-cycle obligations

of the packaged waste and must bear the cost of final disposal. In December 2004, the Group executed an agreement with the CEA formalizing its obligations. The cost of these operations is thus not included in the provision for end-of-life-cycle operations or in the corresponding third-party asset as of December 31, 2004. Upon receipt, the CEA's payment will be recognized as an advance. It will then be released to sales revenue as the work is performed. The same procedure will apply to EDF's share, once an agreement between the parties is executed.

Cost evaluations are based on technical assumptions and planning schedules.

Capital costs for waste retrieval are estimated based on a preliminary design and on Group estimates of operating costs for waste retrieval and packaging. The provision recognized to cover these expenses is calculated on a present value basis using the same principles and rates as for dismantling costs.

**Final waste disposal**

AREVA recognizes a provision for radioactive waste expenses for which the Group is responsible.

These expenses include:

- the Group's share of the cost of monitoring disposal facilities in the Manche and Aube regions, which receive or will receive low-level, short-lived waste;
- the shipment and underground disposal of low-level, long-lived waste (graphite) owned by the Group;
- the shipment and disposal of medium and high-level waste covered by the French law of December 30, 1991 (now included in articles L.542-1 et seq. of the French environmental code). The provision is based on the assumption that a deep geological repository will be built.

For this particular cost, the Group considers that estimates are subject to uncertainties and decided to update the provisions as part of the transition to IFRS. In the financial statements as of June 30, 2005, AREVA added a 3% contingency to expenses prior to discounting, thus reducing the actual discount rate to 2%, i.e. the same as the projected rate of inflation.

A working group established in 2004 at the request of the Ministry of Industry's Department of Energy and Raw Materials (DGEMP) issued its report during the second half of 2005. AREVA reviewed the report of the working group and adopted a reasonable cost estimate of €14.1 billion for the deep geological disposal repository, including allowances for contingencies. The revised cost estimate is significantly higher than the one used previously by the Group to calculate its share of expenses. Consequently, the 3% risk premium included in the financial statements as of December 31, 2005 to cover these uncertainties was removed. Taking into account the disbursement schedule and a discount rate of 5%, the net present value of the provision is €409 million as of December 31, 2005, essentially unchanged from January 1, 2005.

This change in estimate has no significant impact on 2005 net income.

**Provision for end-of-life-cycle operations, before discounting**

Provisions for end-life-cycle operations before discounting (subject to escalation from the date of closing):

(in millions of euros)	December 31, 2005	December 31, 2004
Decommissioning of nuclear facilities	7,053	6,814
Waste retrieval and packaging	2,106	1,444
<b>Total</b>	<b>9,159</b>	<b>8,258</b>

**EDF/AREVA NC negotiations**

EDF and AREVA NC embarked on framework negotiations to establish:

Firstly:

- the legal and financial terms of a transfer to AREVA NC of EDF's current financial obligations with respect to dismantling operations at the La Hague site (including, conceivably, payment of a lump sum to settle EDF's long-term commitment). At the end of September 2003, the parties reached agreement on their respective shares of the dismantling costs for the La Hague plant;
- EDF's and AREVA NC's respective shares of obligations for the retrieval and packaging of waste at the La Hague and Saint-Laurent des Eaux sites.

Secondly:

- the financial terms of the future used fuel treatment contract beyond 2007.

Considering the global nature of this negotiation, AREVA did not modify in its financial statements for the year ended December 31, 2005, the respective shares of dismantling expenses allocated to the parties. Based on available information, this is not expected to have any significant impact on the Group's financial statements or financial position.

**Funding of decommissioning and waste retrieval expenses**

AREVA has set aside a portion of its cash holdings to fund future decommissioning and waste retrieval operations through a special financial portfolio recognized in the balance sheet under "Asset earmarked for end-of-life-cycle operations" (see Note 14).

## 5.5. Notes to the consolidated financial statements

Note 26. Other provisions for risk and liabilities

**NOTE 26. OTHER PROVISIONS FOR RISK AND LIABILITIES**

<i>(in millions of euros)</i>	January 1, 2005	Additions	Recaptures (when risk has materialized)	Recaptures (when risk has not materialized)	Reclassifications, changes in consolidated group/foreign exchange	December 31, 2005
Restoration of mining sites and mill decommissioning	57	15	(24)	-	18	66
Provision for site cleanup and reclamation of other industrial sites	10	13	(1)	0	3	25
<b>Other non-current provisions</b>	<b>66</b>	<b>29</b>	<b>(25)</b>	<b>0</b>	<b>21</b>	<b>91</b>
Restructuring and layoff plans	234	82	(78)	(26)	(47)	165
Provision for ongoing cleanup	74	7	(7)	(0)	(7)	67
Provisions for customer warranties	228	90	(55)	(52)	25	236
Provisions for losses to completion	91	45	(36)	(11)	4	93
Accrued costs	437	67	(83)	(6)	3	417
Other	241	217	(40)	(37)	(27)	353
<b>Current provisions</b>	<b>1,305</b>	<b>508</b>	<b>(299)</b>	<b>(133)</b>	<b>(49)</b>	<b>1,331</b>
<b>Total provision</b>	<b>1,371</b>	<b>537</b>	<b>(324)</b>	<b>(133)</b>	<b>(28)</b>	<b>1,422</b>

<i>(in millions of euros)</i>	January 1, 2004	Additions	Recaptures (when risk has materialized)	Recaptures (when risk has not materialized)	Reclassifications, changes in consolidated group/foreign exchange	December 31, 2004
Restoration of mining sites and mill decommissioning	73	8	(23)	-	(1)	56
Provision for site cleanup and reclamation of other industrial sites	-	-	0	0	10	10
<b>Other non-current provisions</b>	<b>73</b>	<b>8</b>	<b>(23)</b>	<b>0</b>	<b>9</b>	<b>66</b>
Restructuring and layoff plans	140	152	(92)	(35)	68	234
Provision for ongoing cleanup	-	8	(1)	1	67	74
Provisions for customer warranties	119	53	(45)	(38)	139	228
Provisions for losses to completion	99	37	(46)	(19)	20	91
Accrued costs	431	39	(81)	(4)	52	437
Other	201	92	(84)	(36)	86	259
<b>Current provisions</b>	<b>990</b>	<b>380</b>	<b>(348)</b>	<b>(131)</b>	<b>432</b>	<b>1,323</b>
<b>Total provision</b>	<b>1,063</b>	<b>388</b>	<b>(371)</b>	<b>(131)</b>	<b>441</b>	<b>1,389</b>

As of December 31, 2005, other provisions for contingencies and losses were as follows:

	December 31, 2005
Contingencies on contracts	27
Provisions for litigation	43
Provisions for tax risk	37
Provisions for fines and penalties	92
Other loss provisions	44
Other contingency provisions	110
<b>Total</b>	<b>353</b>

## 5.5. Notes to the consolidated financial statements

Note 26. Other provisions for risk and liabilities  
Note 27. Borrowings

## Provisions for restructuring and layoff plans

The provisions for restructuring total €165 million in 2005. They include €73 million for layoff plans and €92 million for site closures and related expenses.

These provisions, including a layoff plan spending schedule and the personnel involved, are indicated below.

<i>(in millions of euros)</i>	Site closure and related costs	Layoff plan	Layoff plan, spending forecast		
Company			2006	2007	2008
AREVA NP	-	3	3	-	-
AREVA T&D	86	58	35	11	11
AREVA NC	6	12	4	8	1
AREVA TA	-	-	-	-	-
<b>Total</b>	<b>92</b>	<b>73</b>	<b>42</b>	<b>19</b>	<b>12</b>

Layoff provisions are generally recognized when plans are presented to employee representatives. Layoff plans may concern total or gradual activity terminations, changes in employee assignments or, to a lesser extent, negotiated departures.

## Provisions for contract completion

Provisions for contract completion totaled €417 millions as of December 31, 2005. These provisions correspond to additional services, such as waste storage or processing, that must be rendered under a contract after margins on the activity have already been recognized under the company's accounting method.

## NOTE 27. BORROWINGS

<i>(in millions of euros)</i>	Long-term borrowings	Short-term borrowings	December 31, 2005	January 1, 2005**
Put options of minority shareholders	1,076	-	1,076	931
Bond issues	1	0	1	3
Interest-bearing advances	450	47	497	449
Loans from financial institutions	59	226	286	322
Short-term bank facilities	0	56	56	98
Financial instruments	0	38	38	4
Miscellaneous debt *	51	12	63	77
<b>Total borrowings</b>	<b>1,637</b>	<b>379</b>	<b>2,016</b>	<b>1,883</b>

\* Including finance lease obligations.

\*\* Including IAS 32/39.

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## 5.5. Notes to the consolidated financial statements

## Note 27. Borrowings

Debt by maturity, currency and type of interest rate:

<i>(in millions of euros)</i>	<b>December 31, 2005</b>
Maturing in one year or less	379
Maturity 1-2 years	101
Maturity 2-3 years	119
Maturity 3-4 years	115
Maturity 4-5 years	115
Maturing in more than one year	1,187
<b>Total</b>	<b>2,016</b>

<i>(in millions of euros)</i>	<b>December 31, 2005</b>
Euro	1,685
US dollar	49
Canadian dollar	213
Other	70
<b>Total</b>	<b>2,016</b>

<i>(in millions of euros)</i>	<b>December 31, 2005</b>
Fixed rate debt	123
Floating rate debt	776
<b>Total</b>	<b>899</b>
Puts-Siemens	1,076
Framépargne liquidity agreement	4
Financial instruments	37
<b>Total</b>	<b>2,016</b>

## Maturities of financial assets and borrowings as of December 31, 2005 <sup>(1)</sup>

Maturity	< 1 year	1-2 years	2-3 years	3-4 years	4-5 years	> 5 years	Total
<b>Financial assets <sup>(2)</sup></b>	1,552	0	78	73	0	45	1,748
Including fixed rate assets	0	0	78	73	0	45	196
Including floating rate assets <sup>(3)</sup>	1,552	0	0	0	0	0	1,552
<b>(Borrowings)</b>	(379)	(101)	(119)	(115)	(115)	(1,187)	(2,016)
Including fixed rate borrowings	(72)	(10)	(7)	(3)	(3)	(29)	(123)
Including floating rate borrowings	(271)	(87)	(112)	(112)	(112)	(82)	(776)
Including non-interest bearing borrowings	(37)	(4)	0	0	0	(1,076)	(1,117)
<b>Net exposure before hedging</b>	1,173	(101)	(41)	(43)	(115)	(1,141)	(268)
Share exposed to fixed rates	(72)	(10)	71	70	(3)	17	73
Share exposed to floating rates	1,281	(87)	(112)	(112)	(112)	(82)	776
Interest free share	(37)	(4)	0	0	0	(1,076)	(1,117)

(1) Nominal amounts converted into €.

(2) Cash and other current financial assets.

(3) Maturities < 3 months are considered floating rate

### Guarantees and covenants

No assets have been pledged to secure borrowings or debt, except for assets financed under finance lease arrangements.

### Covenants

Certain loan agreements to finance Group subsidiaries, such as CRI Canada, include covenants.

These covenants relate to:

- Gearing ratios at Group level or the coverage of debt by cash flows. These types of ratios did not apply at the 2005 year-end, as the Group maintained a positive cash position.
- Debt service. None of these ratios approach the thresholds included in the agreements.

## 5.5. Notes to the consolidated financial statements

Note 28. Advances and prepayments received  
Note 29. Other liabilities

**NOTE 28. ADVANCES AND PREPAYMENTS RECEIVED**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
Prepayments and advances on orders	3,631	3,234	3,234	2,448
Customer advances and prepayments invested in non-current assets	1,040	1,092	1,092	1,167
<b>Total</b>	<b>4,671</b>	<b>4,326</b>	<b>4,326</b>	<b>3,615</b>

This account comprises non-interest bearing operating and capex advances received from customers pursuant to contractual commitments. The advances are reimbursed by deduction from sales invoiced under these contracts, which primarily concern sales of fuel, used fuel treatment and recycling services and AREVA T&D's Systems operations. Interest-bearing advances are recognized in Borrowings.

Only prepayments and advances effectively collected are recognized as a liability.

Customer advances and prepayments invested in non-current assets comprise amounts received from customers and used to finance capital expenditures for the performance of long-term contracts to which they have subscribed, running until 2015.

Trade advances and prepayments comprise amounts received from customers under contracts which do not provide financing for major non-current assets. In the case of long-term contracts, the amount recognized in the balance sheet represents the net balance of advances and prepayments received and sales invoiced or recognized on a percentage of completion basis; it also includes interest income calculated on cash surpluses generated by these advances and prepayments, the amount of which is determined on an individual contract basis.

The increase in advances and prepayments in 2004 is attributable to advances and prepayments received by T&D, representing €541 million.

**NOTE 29. OTHER LIABILITIES****Operating liabilities**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
Taxes and social security liabilities (excluding income tax)	1,031	936	936	743
Financial instruments	121	136	0	0
Other operating liabilities	492	473	476	417
<b>Total</b>	<b>1,644</b>	<b>1,545</b>	<b>1,412</b>	<b>1,160</b>

As of December 31, 2005, operating liabilities by maturity were as follows:

- Maturity < 1 year: €1,499M
- Maturity 1-5 years: €112M
- Maturity > 5 years: €33M

**Non-operating liabilities**

<i>(in millions of euros)</i>	<b>December 31, 2005</b>	<b>January 1, 2005</b>	<b>December 31, 2004</b>	<b>January 1, 2004</b>
<b>Total</b>	<b>1</b>	<b>354</b>	<b>353</b>	<b>-</b>

Non-operating liabilities as of December 31, 2004 include the balance of the final consideration due to the CEA (see Note 25) of €212 million.

This debt had been repaid by December 31, 2005.

## 5.5. Notes to the consolidated financial statements

Note 30. Net cash from operating activities and net cash flow from discontinued operations

Note 31. Related party transactions

## NOTE 30. NET CASH FROM OPERATING ACTIVITIES AND NET CASH FLOW FROM DISCONTINUED OPERATIONS

### Change in working capital requirement (WCR)

<i>(in millions of euros)</i>	2005	2004
Change in inventories and work-in-process	(228)	(9)
Change in accounts receivable and other receivables	(486)	(286)
Change in accounts payable and other liabilities	172	361
Change in customer advances and prepayments received	239	276
Change in advances and prepayments made	(14)	(39)
Change in Forex hedge of WCR	31	-
<b>Total</b>	<b>(286)</b>	<b>303</b>

The cash position transferred was as follows:

*(in millions of euros)*

FCI cash position as of January 1, 2005	(283)
Cash from operating activities	60
Cash used in investing activities	(63)
Cash used in financing activities	(19)
Currency translation impact	20
<b>FCI cash position at the date of disposal</b>	<b>(285)</b>

### Net cash from discontinued operations (FCI)

As of December 31, 2005, this item includes:

<i>(in millions of euros)</i>	2005
Proceeds from FCI disposal, net of disposal expenses	568
Negative FCI cash position transferred	285
<b>Total</b>	<b>853</b>

## NOTE 31. RELATED PARTY TRANSACTIONS

Transactions between the parent company and its subsidiaries, which are related parties, were eliminated on consolidation and are not presented in this Note.

Transactions between the Group and other related parties are as follows:

<i>(in millions of euros)</i>	December 31, 2005	
	CEA	STMicroelectronics
Guarantees given to related parties	1	-
Guarantees received from related parties	-	-
Borrowings from related parties	240	-
Loans to/receivables from related parties	532	-
Sales	574	9
Purchases	24	-

<i>(in millions of euros)</i>	December 31, 2004	
	CEA	STMicroelectronics
Guarantees given to related parties	-	-
Guarantees received from related parties	-	-
Borrowings from related parties	318	-
Loans to/receivables from related parties	283	-
Sales	495	-
Purchases (including €427 million CEA final consideration)	485	-

Following the disposal of FCI, the value of transactions with STMicroelectronics is not material.



## 5.5. Notes to the consolidated financial statements

Note 31. Related party transactions  
 Note 32. Greenhouse gas emission allowances  
 Note 33. Derivatives instruments

## Relations with government-owned companies

The Group has business relationships with government-owned companies, in particular EDF. Transactions with EDF include sales of uranium, enrichment services and nuclear fuel, maintenance and sales of equipment for nuclear reactors, and used fuel transportation, storage, treatment and recycling services. Ongoing negotiations with EDF are described in Note 25 – Provisions for end-of-life-cycle obligations.

## Compensation of key executives

<i>(in millions of euros) (amounts recognized)</i>	2005	2004
Short-term benefits and termination allowances	3,916	3,069
Post-employment benefits	66	109
Other long-term benefits	-	-
<b>Total</b>	<b>3,982</b>	<b>3,178</b>

Key executives include members of the Executive Board and the Supervisory Board. Short-term benefits and termination allowances include compensation paid and a termination allowance to be paid in 2006.

## NOTE 32. GREENHOUSE GAS EMISSION ALLOWANCES

The table below shows the CO<sub>2</sub> allowances received by AREVA group companies in 2005, actual emissions, and allowances sold on the Powernext market.

*(in metric tons of CO<sub>2</sub>)*

Allowances received by AREVA	173,518
Actual emissions	133,703
Excess of allowances over emissions	39,815
Allowances sold on the Powernext market	39,500

Proceeds from sales of allowances were recognized in income under "Other current operating income".

## NOTE 33. DERIVATIVES INSTRUMENTS

### General objectives and counterparty risk management

The Group uses derivative instruments to manage its exposure to currency and interest rate risk, fluctuations in commodity prices, and changes in the price of certain publicly traded securities. Excluding specific situations (notably comprehensive foreign exchange hedges used for proposals), these instruments are hedges of assets, liabilities and specific commitments.

The Group controls the counterparty risk associated with these instruments by centralizing the commitments and by implementing a series of procedures that specify the limits and characteristics of the counterparty for each type of instrument.

Management of interest rate risk and commodity price risk is centralized at parent company level. Foreign exchange risk is also usually managed by the parent company on behalf of the subsidiaries. The few subsidiaries that manage their foreign exchange exposure directly implement their strategy in concurrence with the parent company.

### Foreign exchange risk management

AREVA trades currencies on forward markets and uses derivative products to hedge or manage:

- The foreign exchange risk exposure of subsidiaries engaged in international trade as a result of firm commitments or highly probable future cash flows. For certain contracts, the foreign exchange risk during the proposal phase is hedged by specific insurance contracts (e.g. Coface contracts) or on a comprehensive basis within the Group. Firm commitments are systematically hedged from inception. Other exposure may be identified through an annual or multi-annual budget process, in which case the risk hedged corresponds to a certain percentage of the estimated budget. Risks are hedged for a maximum period of three years.
- The balance sheet exposure on loans to subsidiaries made in currencies other than the functional currency, when financing in the currency in which they operate is not provided.

Foreign currency cash positions are managed using currency swaps.

## 5.5. Notes to the consolidated financial statements

Note 33. Derivatives instruments

## Interest rate risk management

The Group uses several types of financial instruments, as required by market conditions, to allocate its debt between fixed rate and floating rate obligations and to manage its investment portfolio. The Group primarily uses swaps for debt management and cash management purposes. Interest rate futures are used to manage medium-term investments.

## Commodity risk management

The Group uses financial instruments, including forward sales and purchases, commodity swaps and options, to reduce its exposure to commodity price volatility for commodities used in manufacturing, especially copper, gold and silver, and to hedge its sales as a producer, especially for AREVA NC's gold mining subsidiaries. All hedging activities are budget-based.

## Equity risk

To manage its long-term investment positions, the Group may elect to use puts and calls backed by equities held in the portfolio. No such transaction was pending as of December 31, 2005.

## Liquidity risk

AREVA's centralized treasury department manages the counterparty risk on financial instruments and the credit risk associated with managing the Group's cash position based on limits of exposure established annually by the Executive Committee. These limits take into account the ratings given to the counterparties or the financial instruments and the maturity of the transaction.

## Market value of financial instruments

The market value of financial instruments was provided by counterparty banks and financial institutions for commodity transactions or calculated using standard methods based on market conditions at the year-end for currency transactions

Market value of the contracts <sup>(1)</sup>					
(in millions of euros)	Nominal value of contracts	Cash flow hedges	Fair value hedges	Not allocated (Trading)	Total
<b>FORWARD FOREX CONTRACTS</b>					
US dollars for euros	(586.95)	(6.45)	(7.09)	(1.84)	(15.38)
Canadian dollars for euros	(21.96)	(0.68)	(0.92)	0.45	(1.16)
Pounds sterling for euros	(3.01)	(0.21)	0.02	-	(0.19)
Australian dollars for euros	(36.25)	-	0.79	-	0.79
Swiss francs for euros	25.74	-	(0.21)	0.25	0.04
Other	(277.23)	(0.48)	7.84	(0.08)	7.29
<b>Total</b>	<b>(899.65)</b>	<b>(7.82)</b>	<b>0.44</b>	<b>(1.22)</b>	<b>(8.61)</b>
<b>CURRENCY SWAPS</b>					
US dollars for euros	(543.81)	(0.31)	(10.28)	(1.22)	(11.81)
Canadian dollars for euros	(213.85)	-	(27.79)	(0.07)	(27.86)
Pounds sterling for euros	(66.79)	-	0.58	(0.31)	0.26
Australian dollars for euros	57.36	-	(1.25)	0.00	(1.26)
Swiss francs for euros	41.30	-	0.00	(0.25)	(0.26)
Other	(68.92)	-	(2.16)	(0.90)	(3.07)
<b>Total</b>	<b>(794.72)</b>	<b>(0.31)</b>	<b>(40.91)</b>	<b>(2.76)</b>	<b>(44.00)</b>
<b>Grand total</b>	<b>(1,694.38)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(52.60)</b>

(1) Gain / (loss)

## 5.5. Notes to the consolidated financial statements

Note 33. Derivatives instruments

Notional amounts of contracts by maturity as of December 31, 2005								Market value
(in millions of euros)	2006	2007	2008	2009	2010	> 5 years	Total	
<b>FOREIGN EXCHANGE INSTRUMENTS</b>								
<b>Currency swaps - borrower</b>								
US dollars for euros	624.5	80.3	6.2	4.1	1.2		716.4	(16.8)
Canadian dollars for euros	220.0						220.0	(28.7)
Pounds sterling for euros	78.9						78.9	0.3
Australian dollars for euros	44.6						44.6	0.0
Swiss francs for euros	5.2	0.9					6.1	0.1
Other currencies	117.7						117.7	(3.2)
<b>Currency swaps - lender</b>								
US dollars for euros	107.7	64.8			0.1		172.6	5.0
Australian dollars for euros	101.9						101.9	(1.2)
Swiss francs for euros	47.4						47.4	(0.3)
US dollars for Canadian dollars	11.9						11.9	0.0
Pounds sterling for euros	10.2	1.9					12.1	(0.1)
Canadian dollars for euros	2.0	3.9			0.3		6.2	0.9
Other currencies	36.0	0.9					36.9	0.1
<b>Forward transactions - Buyer</b>								
US dollars for euros	109.9	39.1	1.0	0.4	0.4	0.1	150.9	5.6
US dollars for Mexican pesos	10.2						10.2	0.0
Yens for euros	12.7	16.6	0.5				29.8	(0.8)
US dollars for Swiss francs	11.5	6.4					17.9	0.8
US dollars for Pounds sterling	0.2	1.0	0.5				1.7	0.0
Swiss francs for euros	61.3	12.2	0.7	0.7			75.0	(1.0)
Pounds sterling for euros	58.7	6.1					64.8	0.1
Canadian dollars for euros	2.0	0.4	3.4	0.3			6.0	0.2
Australian dollars for euros	2.0						2.0	0.0
Other currencies	66.6	13.5	6.3	0.4			86.9	(1.6)
<b>Forward transactions - Seller</b>								
US dollars for euros	393.7	129.7	28.2	14.0	16.8	0.8	583.2	(20.6)
US dollars for Pounds sterling	23.0	40.8	13.8	23.5	2.7		103.9	(0.2)
US dollars for Mexican pesos	66.6	0.4					67.0	0.4
Qatar rials for US dollars	20.6	42.2					62.8	0.8
US dollars for euros (Coface contracts)	92.9	48.4	9.9	3.5			154.6	(0.4)
Pounds sterling for euros	38.2	23.1	6.5				67.8	(0.3)
Swiss francs for euros	43.5	3.5	2.3				49.3	1.0
Australian dollars for euros	38.2						38.2	0.8
Canadian dollars for euros	21.4	0.7	0.8				22.8	(1.0)
Canadian dollars for euros (Coface contracts)	0.0	2.4	2.8				5.2	(0.3)
Other currencies	144.9	43.2	1.4	0.2	1.1		190.8	7.7
<b>Currency options</b>								
<b>Calls - buyer</b>								
Euros for US dollars								
Pounds sterling for Canadian dollars								
<b>Calls - seller</b>								
Euros for US dollars								
<b>Puts - seller</b>								
Euros for Pounds sterling								
Euros for US dollars								
<b>Collars</b>								
US dollars for euros								

Notional amounts in foreign currency have been converted into euro based on year-end closing exchange rates, except for currency swaps.

## 5.5. Notes to the consolidated financial statements

Note 33. Derivatives instruments

Notional amounts of contracts by maturity as of December 31, 2005								Market value
(in millions of euros)	2006	2007	2008	2009	2010	> 5 years	Total	
<b>INTEREST RATE INSTRUMENTS</b> Fixed rate								
<b>Interest rate swaps- fixed receiver</b>	-	-	-	-	-	-	-	-
Euro [2.5350%]	-	-	-	-	-	-	-	-
Euro*	40.0	-	38.1	-	-	-	78.1	0.9
US dollar [2.535% - 5.7391%]	-	-	-	-	-	-	-	-
<b>Interest rate swaps- fixed payer</b>	152.6	-	-	-	-	-	152.6	0.7
Euro	-	-	-	-	-	-	-	-
Euro [2.100% - 2.415%]	-	-	-	-	-	-	-	-
US dollar [2.5350% - 5.7391%]	445.9	-	-	-	-	-	445.9	0.0
<b>Interest rate swaps- floating/floating</b>	8.5	-	-	-	-	-	8.5	0.1
Floating-rate payer swap in dollar	-	-	-	-	-	-	-	-
Floating-rate receiver swap in dollar	-	60.2	12.5	-	-	-	72.7	(0.9)

\* Floating-rate payer swap in CAD (currency swap)

Market value of the contracts <sup>(1)</sup>					
(in millions of euros)	Nominal value of contracts	Cash flow hedges	Fair value hedges	Not allocated (Trading)	Total
<b>FORWARD TRANSACTIONS</b>					
Aluminium	2.73	0.39	-	-	0.39
Silver	0.32	0.08	-	-	0.08
Copper	46.79	9.51	-	-	9.51
Gold	(1.89)	( 0.28)	-	-	(0.28)
<b>Grand Total</b>	<b>47.96</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9.70</b>

(1) Gain / (loss)

	Notional amounts of contracts by maturity as of December 31, 2005							Market value
(in millions of euros)	2006	2007	2008	2009	2010	> 5 years	Total	
<b>COMMODITIES</b>								
<b>Gold</b>								
Forward transactions - Buyer								
Forward transactions - Seller	1.9	-	-	-	-	-	1.9	(0.3)
Options – Call buyer	-	-	-	-	-	-	-	-
<b>Copper</b>								
Forward transactions - Buyer	43.6	3.2	-	-	-	-	46.8	9.5
Forward transactions - Seller	-	-	-	-	-	-	-	-
Options – Call buyer	-	-	-	-	-	-	-	-
Options – Call seller	-	-	-	-	-	-	-	-
<b>Silver</b>								
Forward transactions - Buyer	-	0.3	-	-	-	-	0.3	0.1
Forward transactions - Seller	-	-	-	-	-	-	-	-
Options – Call buyer	-	-	-	-	-	-	-	-
Options – Call seller	-	-	-	-	-	-	-	-
<b>Aluminium</b>								
Forward transactions - Buyer	2.3	0.4	-	-	-	-	2.7	0.4
Forward transactions - Seller	-	-	-	-	-	-	-	-
Options – Call buyer	-	-	-	-	-	-	-	-
Options – Call seller	-	-	-	-	-	-	-	-

## 5.5. Notes to the consolidated financial statements

Note 34. Commitments given or received

**NOTE 34. COMMITMENTS GIVEN OR RECEIVED**

AREVA has established a procedure to identify and confirm off-balance sheet items disclosed in these Notes. This procedure includes a definition of the main categories of commitments and their valuation methods. It also includes a method to collect and control the data, relying largely on confirmations from third parties.

**Off-balance sheet commitments**

<i>(in millions of euros)</i>	<b>December 31, 2004</b>	<b>December 31, 2005</b>	Less than one year	1 to 5 years	More than 5 years
<b>COMMITMENTS GIVEN</b>	<b>2,430</b>	<b>3,076</b>	<b>966</b>	<b>1,836</b>	<b>273</b>
<b>Operating commitments given</b>	<b>2,131</b>	<b>2,689</b>	<b>876</b>	<b>1,547</b>	<b>267</b>
<b>Contract guarantees given</b>	<b>1,992</b>	<b>2,463</b>	<b>776</b>	<b>1,478</b>	<b>209</b>
Bid guarantees	43	75	71	4	0
Performance guarantees	1,417	1,867	394	1,298	175
Guarantees covering the repayment of advances	25	45	34	12	0
Guarantees for waiver of guarantee retentions	92	80	34	33	14
After-sales warranties	94	101	57	38	6
Other contract guarantees	321	295	187	94	14
<b>Other operating guarantees</b>	<b>139</b>	<b>227</b>	<b>100</b>	<b>69</b>	<b>58</b>
<b>Commitments given on financing</b>	<b>51</b>	<b>49</b>	<b>29</b>	<b>18</b>	<b>3</b>
Comfort letters	5	1	1	0	0
Endorsements	1	1	0	1	0
Guarantees and surety	36	42	24	17	2
Pledges	1	0	0	0	0
Mortgages	4	0	0	0	0
Other commitments given on financing	4	5	4	0	1
<b>Other commitments given</b>	<b>247</b>	<b>337</b>	<b>61</b>	<b>272</b>	<b>4</b>
Financial recovery clauses	7	3	0	0	3
Vendor warranties	66	303	36	267	0
Subsidies subject to contingent repayment	6	2	0	2	0
Discounted notes not yet matured	5	2	2	0	0
Other commitments given	164	27	23	3	1
<b>COMMITMENTS RECEIVED</b>	<b>701</b>	<b>900</b>	<b>306</b>	<b>281</b>	<b>313</b>
<b>Operating commitments received</b>	<b>250</b>	<b>427</b>	<b>96</b>	<b>278</b>	<b>52</b>
Contract guarantees received	250	427	96	278	52
<b>Commitments received on collateral</b>	<b>15</b>	<b>36</b>	<b>25</b>	<b>1</b>	<b>10</b>
Personal, corporate and asset-backed guarantees	15	36	25	1	10
<b>Other commitments received</b>	<b>436</b>	<b>437</b>	<b>185</b>	<b>2</b>	<b>251</b>
Vendor warranties	426	425	175	0	250
Financial recovery clauses	0	0	0	0	0
Other commitments received	10	12	10	2	0
<b>RECIPROCAL COMMITMENTS</b>	<b>1,254</b>	<b>907</b>	<b>594</b>	<b>189</b>	<b>123</b>
Authorized credit lines not drawn	557	122	64	41	18
Major Capex orders	12	74	73	1	0
Operating leases	250	266	58	147	61
Documentary credit	38	47	3	0	44
Share purchase or sell options	388	396	396	0	0
Security piggyback arrangements	0	0	0	0	0
Other reciprocal commitments	8	3	1	1	0

In 2004, off-balance sheet commitments given by FCI represented €42 million.

## 5.5. Notes to the consolidated financial statements

Note 34. Commitments given or received

The Group's off-balance sheet commitments are presented by economic purpose: operating commitments, commitments related to financing, and other types of commitments. This breakdown relates to commitments given and commitments received. A third type of commitments is recognized: reciprocal commitments. This last type of commitment corresponds to commitments given by the Group in consideration for a warranty from a third party.

### Commitments given

Commitments given are up €646 million compared with 2004. This increase relates mostly to guarantees given for Transmission & Distribution contracts, which require a guarantee almost systematically, and includes vendor warranties of €252 million for a guarantee of assets and liabilities given in connection with the disposal of FCI in 2005.

In addition, AREVA gave a specific guarantee in respect of ownership of FCI shares sold to Bain Capital. This amount, which is capped at the sale price, is not included in the summary table.

Operating commitments represent 87% of all commitments given. Two-thirds of such guarantees are performance guarantees.

In addition, the Group gave a parent-company guarantee to TVO for the full value of the contract for the construction of an EPR reactor in Finland. The Group received a counter-guarantee from Siemens corresponding to this supplier's share of the TVO contract. The net commitment given by the Group is in the range of €1.5 billion to €2 billion. It is not included in the summary table.

### Commitments received

Commitments received are up €199 million compared with 2004. This increase relates mostly to an increase in bid bonds in the Reactors and Services Division in the United States.

Vendor warranties received from Alstom in connection with the Transmission & Distribution Division acquisition are described in Note 2. The maturity date reported for Alstom's general warranty is the deadline to submit claims.

### Reciprocal commitments

Reciprocal commitments decrease compared with 2004. This decrease was mainly due to cancellation of a credit line that AREVA SA did not use.

### Other commitments

The Framépargne mutual fund included in the AREVA group savings plan held 280,727 shares of the company as of December 31, 2005. The liquidity of these shares, which are not publicly traded, is guaranteed as provided by the law on employee savings plans. This guarantee was given to Framépargne by an independent financial institution. To allow this commitment to take effect, AREVA gave a value guarantee to the financial institution covering the same period. As of December 31, 2005, this guarantee covers 279,848 shares sold by Framépargne to the financial institution. As required by IAS 32 and 39 on financial instruments, this commitment is recognized as a derivative on treasury shares and revalued to fair value at the balance sheet date. A financial liability of €4.4 million was recognized for this purpose in the financial statements as of December 31, 2005. The corresponding liability was €5.85 million at the date of adoption of IAS 32 and IAS 39, i.e. January 1, 2005. This derivative does not qualify for hedge accounting and, accordingly, all changes in value are recognized through the income statement.

The financial liability is equal to the difference between the average purchase price of the shares acquired by the independent financial institution and the sale price, estimated based on the latest available market price as determined by an expert. As AREVA's commitment is valued based on the latest available price determined by the expert, no additional off-balance sheet commitment is recognized for the balance of the guarantee.

AREVA has a given a commitment to the shareholders of Urenco to acquire 50% of their shares in the British company ETC. This commitment, not to exceed €396 million, is in addition to the €150 million downpayment AREVA made when the memorandum of agreement was signed. This amount is recognized in the balance sheet under "Other non-current financial assets". As closing is to take place after December 31, 2005, but no later than June 30, 2006, this commitment was adjusted based on the Euribor interest rate. This commitment includes guarantees and is subject to approval by four countries: France, Germany, the Netherlands and the United Kingdom.

So far, the treaty has been ratified by France, Germany and the United Kingdom. The parliamentary ratification process is under way in the Netherlands.

## 5.5. Notes to the consolidated financial statements

Note 34. Commitments given or received  
 Note 35. Disputes and contingent liabilities

## Shareholders' agreements

- AREVA–Siemens shareholders' agreement

The shareholders' agreement signed in 2001 between AREVA NP (absorbed in 2001 by AREVA) and Siemens provides for the exercise of a put option (by Siemens in respect of AREVA NP shares held by it) and a call option (by AREVA NP in respect of AREVA NP shares held by Siemens) under the following terms and conditions.

First, the put and call may be exercised after a deadlock, as defined in the agreement, in particular if it becomes impossible to make certain decisions such as shutting down a site, changing the bylaws, etc., or if Siemens does not approve the financial statements for two consecutive years.

Secondly, the shareholders' agreement provides that after 11 years, i.e. from 2012, the parties may exercise the put and the call unconditionally. Siemens will be free to exercise a put option enabling it to sell all its shares to AREVA, based on an expert valuation, and AREVA will be free to exercise a call option

enabling it to buy all AREVA NP shares held by Siemens, based on an expert valuation. For this reason, Siemens' put option has been reported under Borrowings (see Note 27).

- AREVA–STMicroelectronics shareholders' agreement

The STMicroelectronics shareholders agreement includes measures to counter takeover bids by issuing preferred shares to the parties. A signatory of the shareholders' agreement may trigger these procedures, after which they apply to all signatories.

- In the second half of 2004, Synatom, a subsidiary of Electrabel with an 11% minority interest in Eurodif, announced its intention to sell this interest to AREVA NC. A college of three experts was appointed by the parties to value Eurodif. On conclusion of this valuation, which was completed in the first half of 2005, Synatom could have elected to sell its interest to AREVA NC at the price determined by the college of experts. However, Synatom elected not to exercise its option and retained its interest as of December 31, 2005.

## NOTE 35. DISPUTES AND CONTINGENT LIABILITIES

### Tax disputes

During 2003 and 2004, the French tax authorities conducted an audit of consolidated income reported by the AREVA group for 2000 and 2001. This audit is now complete and its financial consequences are included in the financial statements.

### Complaint regarding former mining sites near Bessines

Two associations have filed a complaint for alleged waste dumping and damage to fish life in the vicinity of former mining sites near Bessines, France. The lower criminal court of Limoges heard the case on June 24, 2005. In a decision issued on October 14, 2005, the court ruled in favor of COGEMA (AREVA NC) on all counts. The decision of the court regarding alleged criminal conduct cannot be appealed.

The plaintiffs have appealed the component of the ruling denying civil damages. On May 24, 2006, the case will be reheard by the Court of Appeal of Limoges ruling on damages only.

### Exelon

AREVA NP Inc. a reçu au cours du premier semestre 2003 During the first half of 2003, Exelon submitted a warranty claim concerning nuclear fuel delivered by AREVA NP, Inc.

Having observed leaking fuel rods in a few of the assemblies loaded into its reactors, for which neither the cause nor the responsibility have as yet been definitively determined, Exelon decided:

- to suspend the current contract "for cause",
- to unload the assemblies ahead of schedule, along with other assemblies of the same type in another reactor, and plans doing the same in two other reactors.

AREVA NP contested the claim submitted by Exelon for non-achievement of the guaranteed burnup rate.

A commercial agreement resuming and extending the contract was signed on August 28, 2004, thus completely settling the dispute with the customer.



## 5.5. Notes to the consolidated financial statements

Note 35. Disputes and contingent liabilities

**ISF2**

The ISF2 project concerns the construction of a dry storage unit for nuclear fuel (RBMK) in Ukraine.

In May 2004, the customer wrote to AREVA NP advising that the condition of the assemblies did not comply with the contractual documents. Without prejudicing the contractual positions of either party and independently of pending commercial and financial negotiations, a memorandum of understanding was signed on July 17, 2004 by the three parties including AREVA NP, the customer's representative (PMU) and the plant, thus demonstrating their desire to cooperate to resolve this issue.

At the customer's request, AREVA NP drafted a technical solution taking into account the possibility that the customer may not be able to establish the actual condition of the fuel assemblies (contractual responsibility of the customer). In November 2004, this solution was presented to the donor countries in the presence of all interested parties (EBRD, AREVA NP, Customer, Ukrainian Safety Authorities).

In July 2005, the cost estimate of the solution proposed by AREVA NP was presented to the meeting of donor countries. At their request, the EBRD performed a technical and financial audit. Concurrently, the contract was suspended by mutual agreement of the parties for an initial three-month period and specific work was undertaken under a service contract to continue the most critical tasks during this interim period.

The technical and financial report commissioned by the donor countries was issued in January 2006. AREVA NP expressed its disagreement with the report's conclusion during the general meeting of donor countries held on February 14, 2006. During this same meeting, AREVA NP made new suggestions to continue with the project. The contract will remain suspended until the parties reach an agreement.

**McClean**

On September 23, 2002, the Trial Division of the Federal Court of Canada, ruling on a claim filed by the Inter-Church Uranium Committee Educational Cooperative (ICUCEC) against the nuclear safety authority for violating the licensing process, canceled the permit to operate the McClean uranium mine and mill issued by the Atomic Energy Control Board (AECB) in 1999. On appeal by AREVA NC, Inc., the Federal Court of Appeal of Canada reversed the decision made by the Federal Court. On March 24, 2005, the Supreme Court of Canada rejected the appeal filed by ICUCEC against the decision of the Federal Court of Appeal, thus bringing to a final conclusion all court proceedings regarding the validity of the site's operating permits.

**Litigation for alleged dumping in the United States**

In 2001, the United States Department of Commerce (DOC) ordered that countervailing duties be levied on enrichment services imported to the United States from France, Germany, the Netherlands and the United Kingdom. This action followed complaints filed in December 2000 by the United States Enrichment Corporation (USEC) against Eurodif and Urenco for dumping and unfair subsidies. The level of countervailing duties applied to Eurodif exports to the United States led to \$188 million being deposited with the US Customs Service at the end of 2005, recoverable once the case has been adjudicated.

Eurodif defense's included administrative proceedings before the US DOC and a legal proceeding before the US Court of International Trade (CIT):

- In February 2003, Eurodif asked the DOC to revise provisional countervailing duties paid in 2001 and 2002. Final administrative decisions revising these duties were issued in July and September 2004. The revision reduced the level of the countervailing duties by approximately 80% compared with the provisional amount. The duties for alleged dumping in 2004 were determined in October 2005.
- In April 2002, Eurodif appealed the DOC decision before the US Court of International Trade (CIT).  
  
The CIT issued favorable rulings validating Eurodif's legal analysis in March 2003 and in September 2003.
- On March 3, 2005, the US Court of Appeal for the Federal Circuit (CAFC), which is the ultimate level of appeal, issued a ruling in favor of Eurodif, thus terminating all legal proceedings and the anti-dumping and subsidy protection measures implemented by the DOC. The CAFC confirmed its ruling during re-hearings on September 9, 2005.

The Group is not in a position to determine when the deposits made by Eurodif will be recovered, considering the complexity of the legal process involved.



## 5.5. Notes to the consolidated financial statements

Note 35. Disputes and contingent liabilities  
 Note 36. Events subsequent to year-end

## Ongoing investigations

An investigation carried out by the European Commission into alleged anti-competition practices between suppliers of gas-insulated substations highlighted practices completely unknown to AREVA at the time of the **Transmission & Distribution** Division acquisition. AREVA cooperated fully with the Commission in establishing the facts. The Commission has not yet issued a statement of objections against AREVA, which does not know the legal nature of the facts involved. AREVA involved Alstom in all of its activities before the Commission, as it considers that a claim may be valid under the Vendor warranties given by Alstom and that Alstom itself may be subject to penalties.

This investigation led to investigations by competition authorities in Australia, Hungary, Mexico and New Zealand. AREVA wants to eradicate any anti-competition practices that it may identify, and has had various discussions with the Commission on the steps it has taken to ensure that this is done. AREVA is currently implementing a compliance program in all of its businesses.

## Administrative sanctions against a Mexican subsidiary of AREVA T&D

Proceedings were instigated by Mexican authorities against a subsidiary of AREVA T&D in 2004 for anti-competition practices, which could lead to this company not being allowed to bid for public contracts in Mexico.

A court decision exonerating AREVA T&D was rendered on August 11, 2005. However, the local authority concerned has taken a measure similar to the first decision to prevent AREVA T&D SA from gaining access to public contracts in Mexico. Proceedings have been initiated to ensure enforcement of the court's ruling and suspend the administrative measure until a new court decision, if any, is issued on the merits.

## NOTE 36. EVENTS SUBSEQUENT TO YEAR-END

None.

## 5.5. Notes to the consolidated financial statements

Note 37. Consolidation scope

## NOTE 37. CONSOLIDATION SCOPE

FC: full consolidation

PC: proportionate consolidation

EM: equity method

Name of Unit or controlling entity			December 31, 2005		December 31, 2004	
Company name, legal form, corporate office	Country	Business reg. no.	Method	%	Method	%
<b>NUCLEAR POWER</b>						
<b>Front End Division</b>						
AMC	Sudan		PC	40	PC	40
ANF GmbH Advanced Nuclear Fuels - 49811 Lingen	Germany		FC	66	FC	66
CERCA SA - 92400 Courbevoie	France	572 205 433	FC	66	FC	66
CEZUS SA - 92400 Courbevoie	France	71 500 763	FC	66	FC	66
Cie de française de Mokta (CFM) - 78140 Vélizy-Villacoublay	France	552 112 716	FC	100	FC	100
Cie Française de Mines et Métaux (CFMN) - 78140 Vélizy-Villacoublay	France	300 574 894	FC	100	FC	100
Cigar Lake	Canada		PC	37	PC	37
CMA	Ivory Coast		IG	90	FC	90
AREVA NC Australia - Sydney - NSW 2000	Australia		FC	100	FC	100
AREVA NCMinerals Corporation (COMIN) - 82 604 Mills NY	USA		FC	100	FC	100
Cominak - Niamey	Niger		PC	34	PC	34
Cominor	France	422 123 984	FC	100	FC	100
Comurhex - 78140 Vélizy-Villacoublay	France	712 007 962	FC	100	FC	100
CRI CAN	Canada		FC	100	FC	100
CRI USA	USA		FC	100	FC	100
Eurodif Production - 26700 Pierrelatte	France	307 146 472	FC	59.65	FC	59.65
Eurodif SA - 78140 Vélizy-Villacoublay	France	723 001 889	FC	59.65	FC	59.65
FBFC SNC - 92400 Courbevoie	France	300 521 754	FC	66	FC	66
FBFC International SA - 1000 Brussels	Belgium		FC	66	FC	66
Fragema GIE ME - 69006 Lyon	France	338 344 658	FC	66	FC	66
Frog's Leg	Australia		PC	51	PC	51
Interuranium Australia	Australia		FC	100	FC	100
Katco	Kazakhstan		FC	51	FC	51
Le Bourneix (SMB) - 78140 Vélizy-Villacoublay	France	323 097 899	FC	100	FC	100
McArthur	Canada		PC	30	PC	30
McClean	Canada		PC	70	PC	70
Midwest	Canada		PC	70	PC	70
Mineraus	Australia		FC	100	FC	100
Mines de Jouac (SMJ) - 78140 Vélizy-Villacoublay	France	303 697 924	FC	100	FC	100
MUL	Canada		FC	100	FC	100
PMC USA	USA		FC	100	FC	100
SET (Société d'Enrichissement du Tricastin) 4, rue Paul Dautier Vélizy-Villacoublay	France	440 252 666	FC	100	FC	100
SMI	Ivory Coast		FC	51	FC	51
Socatri	France	302 639 927	FC	59.65	FC	59.65
Sofidif	France	303 587 216	FC	60	FC	60
Somaïr - Niamey	Niger		FC	63.40	FC	63.40
Timet Savoie SA - 95023 Cergy-Pontoise	France	408 579 084	EM	19.80	EM	19.80
Urangesellschaft - 60486 Frankfurt	Germany		FC	100	FC	100
Urangesellschaft USA	USA		FC	100	FC	100
Uranium Disposition Services LLC	USA		PC	31.68	PC	31.68
White Foil	Australia		PC	51	PC	51

## 5.5. Notes to the consolidated financial statements

Note 37. Consolidation scope

Name of Unit or controlling entity			December 31, 2005		December 31, 2004	
Company name, legal form, corporate office	Country	Business reg. no.	Method	%	Method	%
<b>Reactors &amp; Services Division</b>						
01DB Brésil	Brazil		FC	82.68	FC	51.01
01dB GmbH	Germany		FC	64.07	FC	53.47
01DB INC	USA		FC	80.50	FC	82.27
01DB Italia	Italy		PC	41.34	PC	41.14
01DdB Métravib - 69670 Limonest	France	409 869 708	FC	82.68	FC	82.27
Aesse	Italy		PC	41.34	PC	41.14
Axylia	France	380 094 235	FC	83.58	FC	83.58
Canberra Aquila	USA		FC	100	FC	100
Canberra CO (APTEC Instruments Ltd)	Canada		FC	100	FC	100
Canberra Dover Inc	USA		FC	100	FC	100
Canberra Eurisys Benelux	Belgium		FC	100	FC	100
Canberra Eurisys GMBH	Germany		FC	100	FC	100
Canberra Eurisys Maintenance SA	France	322 522 681	FC	99.98	FC	99.98
Canberra Eurisys SA	France	384 449 773	FC	100	FC	100
Canberra Harwell	United Kingdom		FC	100	FC	100
Canberra Inc.	USA		-	Merged	FC	100
Canberra Industrie Inc.	USA		FC	100	FC	100
Canberra Japan	Japan		FC	100	FC	100
CNSV	Belgium		FC	100	FC	100
Cortex	Germany		FC	82.68	FC	82.33
Corys Tess 38000 Grenoble	France	413 851 924	EM	28.42	EM	28.42
Cte-Ndt SA - 94583 Rungis	France	308 548 742	FC	66	FC	66
ELTA	France	388 919 177	FC	55.15	FC	55.15
Euriware SA	France	320 585 110	FC	100	FC	100
FANP Canada Ltd - Services	Canada		FC	66	FC	66
Framex South Africa - 8000 Cape Town	South Africa		FC	66	FC	66
Geraco	France	432 125 664	FC	100	FC	100
Groupe Euriware	France	378 566 343	FC	100	FC	100
Helion	France	435 050 737	FC	83.58	FC	83.58
Intercontrôle SA - 94583 Rungis	France	305 254 526	FC	66	FC	66
Isis Mpp - 31084 Toulouse	France	325 517 621	-	Sold	FC	71.64
Jeumont EOLE Tour AREVA 1, place de la coupole						
92400 Courbevoie	France	410 343 669	FC	66	FC	66
Jeumont SA - 92400 Courbevoie	France	341 805 836	FC	66	FC	66
LNS	South Africa		EM	29.70	EM	29.70
MCS	USA		FC	55	FC	55
NDT GmbH	Germany		FC	66	FC	66
NNS SNC - 69006 Lyon	France	333 824 530	FC	39.60	FC	39.60
OAK Ridge	USA		FC	100	FC	100
Open Cascade	France	420 919 805	FC	62.69	FC	52.66
PEA Consulting	France	592 029 128	FC	100	FC	100
Principia Marine	France	384 408 993	FC	62.69	FC	26.85
Principia RD - 83507 La Seine-sur-Mer	France	320 786 171	FC	62.69	FC	52.66
RJH	France	448 727 859	FC	69	FC	69
Sarelem SA - 92400 Courbevoie	France	319 606 091	FC	66	FC	66
SGT – LTD	USA		PC	33	PC	33
Sofinel	France	312 664 824	EM	29.70	EM	29.70
Somanu SA - 92400 Courbevoie	France	328 946 231	FC	66.17	FC	66.17
AREVA TA - 91190 Gif-sur-Yvette	France	772 045 879	FC	83.58	FC	83.58
Technimarse	Spain		FC	66	FC	66
Technoplus Industries - 13170 Les Pennes Mirabeau	France	338 296 478	FC	83.58	FC	83.58
UDD COMB SG Services	Sweden		FC	66	-	-

## 5.5. Notes to the consolidated financial statements

Note 37. Consolidation scope

Name of Unit or controlling entity			December 31, 2005		December 31, 2004	
Company name, legal form, corporate office	Country	Business reg. no.	Method	%	Method	%
<b>Back End Division</b>						
Cie Nucléaire de services (CNS)	France	401 649 363	FC	51	FC	51
AREVA NC Engineering	USA		-	Merged	FC	100
AREVA NC Logistics	France	602 039 299	FC	100	FC	100
AREVA NC Rokkasho	Japan		FC	100	-	-
ESI	France	400 013 629	FC	53.58	FC	53.65
Gads	France	420 952 194	FC	67.06	FC	67.06
Gamma Assistance	France	350 322 293	FC	67.06	FC	67.06
Gie Commox	France	331 102 624	FC	100	FC	100
Lemaréchal	France	323 266 460	FC	100	FC	100
Mainco	France	350 130 167	FC	100	FC	100
Mécachimie	France	304 864 036	FC	100	FC	100
Mécagest	France	350 357 596	FC	100	FC	100
MELOX - 78140 Vélizy-Villacoublay	France	378 783 237	FC	100	FC	100
MSIS	France	327 492 336	FC	67.06	FC	67.06
NHC - 20 814 Bethesda Maryland (Numatec Hanford Corp)	USA		FC	100	FC	100
Polinorsud	France	343 008 231	FC	67.06	FC	67.06
RTC	France	331 055 947	FC	67.06	FC	67.06
Séchaud et Metz - 92260 Fontenay-aux-Roses	France	652 030 677	EM	34	EM	34
SGN - 78180 Montigny-le-Bretonneux	France	612 016 956	FC	100	FC	100
SICN	France	325 720 209	FC	100	FC	100
Socodei - 95613 Éragry-sur-Oise	France	380 303 107	EM	49	EM	49
Sogéfibre - 78180 Montigny-le-Bretonneux	France	351 543 004	FC	100	FC	100
STMI	France	672 008 489	FC	67.06	FC	67.06
Strnilog	France	388 398 059	FC	67.06	FC	67.06
Transnuc LTD (TN Tokyo)	Japan		FC	100	FC	100
Transnucléaire US (under consolidation)	USA	—	FC	100	FC	100
Trihom	France	378 649 040	FC	44.26	FC	44.26
Valfibre - 50700 Valognes	France	950 619 890	FC	99.90	FC	99.90
<b>Legal nuclear entities covering several divisions</b>						
ANP GmbH, 91058 Erlangen	Germany		FC	66	FC	66
AREVA NC	France	305 207 169	FC	100	FC	100
AREVA NC Allemagne	Germany		FC	100	FC	100
AREVA NC Inc.	USA		FC	100	FC	100
FANP SAS - 92400 Courbevoie	France	428 764 500	FC	66	FC	66
FANP, Inc. - Corporate	USA		FC	66	FC	66
FUSA (AREVA NP USA Inc.)	USA		FC	66	FC	66
<b>Transmission &amp; Distribution Division</b>						
AREVA T&D Instrument Transformers PVT Ltd	India		FC	100	FC	100
AREVA T&D Lightning Arresters Ltd	India		FC	100	-	-
AREVA T&D Systems Ltd	India		FC	100	-	-
AREVA T&D AB	Sweden		FC	100	FC	100
AREVA T&D AG	Switzerland		FC	100	FC	100
AREVA T&D Algeria SPA	Algeria		FC	100	FC	100
AREVA T&D Argentina SA	Argentina		FC	100	FC	100
AREVA T&D AS	Norway		FC	100	FC	100
AREVA T&D Australia Ltd	Australia		FC	100	FC	100
AREVA T&D Austria AG	Austria		FC	100	FC	100
AREVA T&D Beijing Switchgear Co. Ltd	China		FC	100	FC	100
AREVA T&D Belgium SA	Belgium		FC	100	FC	100
AREVA T&D Canada Inc.	Canada		FC	100	FC	100
AREVA T&D Chile SA	Chile		FC	100	FC	100

## 5.5. Notes to the consolidated financial statements

Note 37. Consolidation scope

Name of Unit or controlling entity			December 31, 2005		December 31, 2004	
Company name, legal form, corporate office	Country	Business reg. no.	Method	%	Method	%
AREVA T&D de Energia Ltda	Brazil		FC	100	FC	100
AREVA T&D EBT SA	France	389 191 412	-	Sold	FC	100
AREVA T&D Egypt S.A.E	Egypt		FC	100	FC	100
AREVA T&D Energietechnik GmbH	Germany		FC	100	FC	100
AREVA T&D Enerji Endustrisi A.S	Turkey		FC	100	FC	100
AREVA T&D Études Techniques (Tunisie)	Turkey		FC	100	-	-
AREVA T&D FIR S.P.A	Italy		FC	100	FC	100
AREVA T&D Hellas A.E.	Greece		FC	100	FC	100
AREVA T&D Holding SA	France	449 834 308	FC	100	FC	100
AREVA T&D Hungaria Kft	Hungary		FC	100	FC	100
AREVA T&D HVDC India Ltd	United Kingdom		FC	100	FC	100
AREVA T&D Iberica SA	Spain		FC	100	FC	100
AREVA T&D Inc.	USA		FC	100	FC	100
AREVA T&D India Ltd	India		FC	66	-	-
AREVA T&D International Egyth for electricity SAE	Egypt		FC	100	FC	100
AREVA T&D Italy Spa	Italy		FC	100	FC	100
AREVA T&D Japan KK	Japan		FC	100	FC	100
AREVA T&D Kazakhstan LLP	Kazakhstan		FC	100	FC	100
AREVA T&D Limited	China		FC	100	FC	100
AREVA T&D Long & Crawford Ltd	United Kingdom		FC	100	FC	100
AREVA T&D Ltd Thailand	Thailand		FC	49	FC	49
AREVA T&D Malaysia Sdn Bhd	Malaysia		FC	100	FC	100
AREVA T&D Maroc	Morocco		FC	100	FC	100
AREVA T&D Middle East FZE	Arabia		FC	100	FC	100
AREVA T&D Nederland BV	Netherlands		FC	100	FC	100
AREVA T&D New Zealand	New Zealand		-	Deconsolidated	FC	100
AREVA T&D Nigeria Ltd	Nigeria		FC	100	-	-
AREVA T&D Pakistan Privated Limited	Pakistan		FC	80	-	-
AREVA T&D Parafoudres SA	France	424 783 645	FC	100	FC	100
AREVA T&D Power Electronics Ltd Int	United Kingdom		FC	100	FC	100
AREVA T&D Protection & Controle SA	France	343 074 142	FC	100	FC	100
AREVA T&D Pte Ltd	South Korea		FC	100	FC	100
AREVA T&D SA	France	389 191 800	FC	100	FC	100
AREVA T&D SA (Poland)	Poland		FC	100	FC	100
AREVA T&D SA Colombie	Colombia		FC	100	FC	100
AREVA T&D SA de CV	Mexico		FC	100	FC	100
AREVA T&D Sachsenwerk GmbH	Germany		FC	100	FC	100
AREVA T&D Schorch Transformatoren GmbH	Germany		-	Merged	FC	100
AREVA T&D Sénégal	Senegal		FC	100	FC	100
AREVA T&D Shanghai Power Automat. Co Ltd	China		FC	59	FC	59
AREVA T&D Shanghai Transformer Co Ltd	China		FC	52	FC	52
AREVA T&D Spa	Italy		FC	100	FC	100
AREVA T&D Spol sro (Slovaquie)	Slovakia		FC	100	-	-
AREVA T&D SPR International Ltd	United Kingdom		FC	100	FC	100
AREVA T&D Suzhou high Voltage Switch Co	China		FC	80	FC	80
AREVA T&D Transformateurs de Mesure SA	France	343 074 092	FC	100	FC	100
AREVA T&D UK Ltd	United Kingdom		FC	100	FC	100
AREVA T&D Vakuumschalttechnik GmbH	Germany		-	Merged	FC	100
AREVA T&D Venezuela SA	Venezuela		FC	100	FC	100
AREVA T&D Xiamen Switchgear Co, Ltd	China		FC	100	-	-

## 5.5. Notes to the consolidated financial statements

Note 37. Consolidation scope

Name of Unit or controlling entity			December 31, 2005		December 31, 2004	
Company name, legal form, corporate office	Country	Business reg. no.	Method	%	Method	%
AREVA T&D Xiamen Vacuum Interrupter Co, Ltd	China		FC	70		
AREVA T&D Zao	Russia		FC	98.37	FC	98.37
Corelex GIE	France	313 104 572	FC	100	FC	100
Laboratoire Oksman Seraphin SA	France	321 735 789	FC	100	FC	100
P. T. Alstom Distribution	Indonesia		FC	100	FC	100
PT Alstom Transmission Indonesia	Indonesia		FC	100	FC	100
PT Unelec indonesia	Indonesia		FC	67.65	FC	67.65
Suzhou AREVA T&D Switchgear Ltd SPA	China		FC	58	FC	58
<b>Connectors Division</b>						
Berg UK Ltd, Dunstable	United Kingdom		-	Sold	FC	100
FCI Asia Technology Pte Ltd - Singapore 049908	Singapore		-	Sold	FC	100
FCI Automotive France SA - 28230 Épernon	France	775 678 980	-	Sold	FC	100
FCI Electronics Mexico S de RL de CV - Chihuahua, Mexico	Mexico		-	Sold	FC	100
FCI Trésorerie SA - 78000 Versailles	France	393 476 783	-	Sold	FC	100
FCI Americas International Holding Inc., Manchester, NH 03109	USA		-	Sold	FC	100
FCI Americas Technology Inc., Manchester, NH 16830	USA		-	Sold	FC	100
FCI Américas, Inc Manchester, NH 03019	USA		-	Sold	FC	100
FCI Asia Pte Ltd - Singapore 049908	Singapore		-	Sold	FC	100
FCI Austria GmbH - A 5230 Mattighoffen	Austria		-	Sold	FC	100
FCI Automotive Deutschland GmbH - 90411 Nürnberg	Germany		-	Sold	FC	100
FCI Belgium NV - 2800 Mechelen	Belgium		-	Sold	FC	100
FCI Besançon SA - 25000 Besançon	France	388 636 896	-	Sold	FC	100
FCI Brasil Ltda - CEP 04901 - 020 Sao Paulo	Brazil		-	Sold	FC	100
FCI Canada Inc. - Scarborough Ontario M1P 2G9	Canada		-	Sold	FC	100
FCI Connectors Australia Pty Ltd - Smithfield NSW 2164	Australia		-	Sold	FC	100
FCI Connectors Espana SA - 08635 San Esteve de Sesrovires	Spain		-	Sold	FC	100
FCI Connectors Hong Kong Ltd, Tsimshatsui, Kowloon	China		-	Sold	FC	100
FCI Connectors Malaysia Sdn Bhd - 47400 Petaling Jaya, Selangor	Malaysia		-	Sold	FC	100
FCI Connectors Sweden AB S-10074 Stockholm	Sweden		-	Sold	FC	100
FCI Connectors Trading (Shanghai) Co, Ltd	China		-	Sold	FC	100
FCI Connectors U.K. Ltd - LU5 4TS Dunstable	United Kingdom		-	Sold	FC	100
FCI Connectors UK 2001 Ltd, Dunstable	United Kingdom		-	Sold	FC	100
FCI Deutschland GMBH - 65824 Schwalbach	Germany		-	Sold	FC	100
FCI Dongguan Co. Ltd - Shatian Town, Dongguan City	China		-	Sold	FC	100
FCI Electrique France SA - 27000 Évreux	France	775 596 679	-	Sold	FC	100
FCI Expansion 2 SA - 78000 Versailles	France	440 251 312	-	Sold	FC	100
FCI Finland OY - 02270 Espoo	Finland		-	Sold	FC	100
FCI Hertogenbosch BV - 5213JG's - Hertogenbosch	Netherlands		-	Sold	FC	100
FCI Holland Holding BV - 5213JG's - Hertogenbosch	Netherlands		-	Sold	FC	100
FCI Hungary KFT - 2800 Tatabánya	Hungary		-	Sold	FC	100
FCI Ireland BV - 5222 AV's Hertogenbosch	Netherlands		-	Sold	FC	100
FCI Italia SpA - 10156 Torino	Italy		-	Sold	FC	100
FCI Japan KK - Shinagawa-ku Tokyo	Japan		-	Sold	FC	93.60
FCI Katrineholm AB - 64122 Katrineholm	Sweden		-	Sold	FC	100
FCI Korea Ltd - Kyungju-si	South Korea		-	Sold	FC	100
FCI Mechelen NV - B 2800 Malines	Belgium		-	Sold	FC	100
FCI Microconnections SA - 78200 Mantes-la-Jolie	France	335 187 696	-	Sold	FC	100
FCI Microconnections Asia Pte Ltd - Singapore 049908	Singapore		-	Sold	FC	100

## 5.5. Notes to the consolidated financial statements

Note 37. Consolidation scope

Name of Unit or controlling entity			December 31, 2005		December 31, 2004	
Company name, legal form, corporate office	Country	Business reg. no.	Method	%	Method	%
FCI Nantong Ltd - Jaingsu Province, PRC	China		-	Sold	FC	100
FCI Nederland BV - 2908 LJ Capelle A/D IJssel	Netherlands		-	Sold	FC	100
FCI OEN Connectors Ltd - 682 019, Cochin	India		-	Sold	FC	67.83
FCI Pontarlier SA - 78000 - Versailles	France	383 703 808	-	Sold	FC	100
FCI PRC Ltd - Tsimshatsui Kowloon Hong-Kong	China		-	Sold	FC	100
FCI Qingdao Co. Ltd - Shangdong 266101 PRC	China		-	Sold	FC	100
FCI Schweiz AG - 6340 Baar	Switzerland		-	Sold	FC	100
FCI Scotland Ltd - Glasgow G33 4JD	United Kingdom		-	Sold	FC	100
FCI Singapore Pte Ltd - Singapore 049908	Singapore		-	Sold	FC	100
FCI Taiwan Ltd, Chungli - Taoyuan	Taiwan		-	Sold	FC	100
FCI Technology & Services Ltd, Cochin, Kerala	India		-	Sold	FC	100
FCI USA, Inc. - Etters (Valley Green) PA 17319	USA		-	Sold	FC	100
FCI Europe - 78000 Versailles	France	421 188 426	-	Sold	FC	100
FCI France SA - 78000 Versailles	France	552 056 533	-	Sold	FC	100
FCI SA - 78000 Versailles	France	349 566 240	-	Sold	FC	100
AREVA NP Connectors Mexico SA de CV - Toluca, C.P 50200	Mexico		-	Sold	FC	100
Société Rhénane de Participation SA - 78000 Versailles	France	318 099 306	-	Sold	FC	100
<b>Holding companies and other operations – Investments</b>						
AREVA BEIJING Consulting Co	China		FC	100	-	-
AREVA Finance Gestion 79009 Paris	France	421 356 593	FC	100	FC	100
AREVA Inc.	USA		FC	100	FC	100
AREVA Japan	Japan		FC	100	FC	100
AREVA Korea	South Korea		FC	100	FC	100
AREVA SA - 79009 Paris	France	712 054 923	FC	100	FC	100
AREVACOM - 92084 Paris La Défense	France	399 673 425	FC	100	-	-
CEDEC - 75015 Paris	France	394 329 841	FC	90.14	FC	90.14
CERE SA - 92400 Courbevoie	France	330 956 871	FC	100	FC	100
CILAS	France	669 802 167	EM	37	EM	37
COGERAP	France	328 171 004	FC	100	FC	100
DE-SE AREVA NP De&S Hanford, Inc.	USA		FC	66	FC	66
Eramet	France	632 045 381	EM	26.25	EM	26.42
Fipt SA - 92400 Courbevoie	France	351 737 051	FC	100	FC	100
Framapar SA - 92400 Courbevoie	France	410 343 669	-	Sold	FC	100
AREVA NP Blakey Staffing Solution	Canada		FC	66	FC	66
AREVA NP DE&S Inc. Argentine Branch	Argentina		FC	66	FC	66
AREVA NP DE&S Srl	Peru		FC	66	FC	66
AREVA NP DE&SR, Inc.	Canada		FC	66	FC	66
AREVA NP&DE&S	Czech Republic		FC	66	FC	66
FRAREA - 92400 Courbevoie	France	381 484 955	FC	100	FC	100
FT1CI	France	385 129 036	FC	100	FC	78.99
LILLY Financial Corporation limited	Cayman Islands		FC	100	FC	100
PIC	USA		FC	100	FC	100
REpower	Germany		EM	21.20	-	-
SEPI SA - 1211 Genève	Switzerland		FC	100	FC	100
SODEPROM 2 rue Paul Dautier - 78140 Vélizy	France	328 223 706	FC	100	FC	100
SOFRADIR	France	334 835 709	EM	20	EM	20
STMicroelectronics	Netherlands		EM	10.94	EM	10.97
STMicroelectronics Holding II BV	Netherlands		EM	39.62	EM	35.66
STMicroelectronics Holding NV	Netherlands		EM	39.62	EM	35.66
TDI SA	Switzerland		FC	100	FC	100
Teknassur - Luxembourg	Luxemburg		-	Liquidated	FC	100

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## NOTE 38. SUMMARY OF THE IMPACT OF IFRS ADOPTION ON THE BALANCE SHEET AS OF JANUARY 1, 2004, AND DECEMBER 31, 2004, AND ON THE CONSOLIDATED INCOME STATEMENT FOR 2004

Pursuant to European Regulation 1606/2002 of July 19, 2002, AREVA's consolidated financial statements for the year ended December 31, 2005 were prepared in accordance with International Financial Reporting Standards (IFRS), as approved by the European Union and applicable at that date. IFRS was implemented retroactively from January 1, 2004, as required in IFRS 1 "First-time adoption of IFRS". The options selected for first-time adoption of IFRS on January 1, 2004 are presented in Note 1 on accounting principles.

Note 38 explains the main impacts of first IFRS adoption on the balance sheet as of January 1, 2004 and December 31, 2004 and on the consolidated income statement for 2004.

Certain calculations of the impact of IFRS adjustments on AREVA's 2004 financial statements were completed in 2005, after the annual report for 2004 had been published. Therefore, comparative data for 2004 included in the financial statements for 2005 are sometimes different from preliminary data included in Section 5.1.9. of the 2004 Annual report. For the most part, this relates to reclassifications among balance sheet accounts, on the one hand, and income statement accounts, on the other hand. These reclassifications are presented in the tables below. They have no impact on Equity as of January 1 and December 31, 2004 or on net income for 2004.

### Impact of IFRS adoption on the presentation of the balance sheet and the income statement

#### *Presentation of the balance sheet*

##### Current and non-current assets and liabilities

The structure of the balance sheet is modified by the distinction between current and non-current assets and current and non-current liabilities.

Current assets and liabilities are those with a maturity of no more than one year, or which relate to the operating cycle of the company.

##### Headings presented separately

IAS 1 requires the presentation of certain headings in specific sections of the balance sheet, including:

- deferred tax assets and liabilities (in non-current assets and non-current liabilities respectively);
- current tax assets and liabilities (in current assets and current liabilities respectively);
- pension fund assets (in non-current assets).

In addition, goodwill relating to equity associates must be recognized in "Equity associates".

##### Breakdown of changes impacting the presentation of the balance sheet

- Purchased goodwill is transferred from "Intangible assets" to "Goodwill".
- Goodwill relating to equity associates is transferred from "Goodwill" to "Equity associates".



## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

As such, the heading “Goodwill” solely comprises goodwill relating to consolidated companies. The heading “Equity associates” represents the Group’s share in the equity of the companies concerned, plus the goodwill relating to these associates.

- The heading “Long-term investments” is broken down into several headings:
  - pension plan assets are presented under a specific heading.
  - the portion of loans, receivables and deposits maturing in one year or less is presented in current financial assets.

In addition, to facilitate the reading of the balance sheet, AREVA has chosen to present all financial assets earmarked to finance end-of-life-cycle obligations in a separate non-current asset heading called “Assets earmarked for end-of-life-cycle obligations”.

- The heading “Other accounts receivable” is broken down into several headings:
  - deferred tax assets,
  - current tax assets,
  - other operating receivables,
  - other non-operating receivables.
- The heading “Cash and marketable securities” is broken down into two headings:
  - “Cash and cash equivalents”, comprising cash balances, non-trade current accounts and risk-free marketable securities with an initial maturity of less than three months;
  - “Other current financial assets” comprising the remaining marketable securities and the current portion of loans, receivables and deposits maturing in one year or less.
- The heading “Other Shareholders’ equity” is transferred to “Borrowings”.
- Provisions for contingencies and losses are split between “Current provisions” and “Non-current provisions”.

However, to facilitate the reading of the balance sheet, AREVA has chosen to present all provisions for employee benefits (pensions and other benefits) and all provisions for end-of-life-cycle obligations as non-current provisions. The portion of these provisions maturing in less than one year will be disclosed in the Notes to the consolidated financial statements.

Exceptionally, the IFRS pro forma balance sheet as of January 1, 2004, presents the provisions relating to Marcoule end-of-life-cycle obligations in current provisions, due to the signature of an agreement covering the payment of a full and final amount, effective January 1, 2004. Similarly, the end-of-life-cycle asset in respect of Marcoule is presented in current assets.

In addition, all provisions relating to the operating cycle (provisions for litigation, customer warranties, etc.) are recognized in current provisions.

- The heading “Borrowings” is split between “Short-term borrowings” and “Long-term borrowings”, depending on maturity.
- Trade advances and prepayments concern the operating cycle and, as such, are recognized as current liabilities. Customer advances and prepayments invested in non-current assets are treated in the same way, as they are released by offset against sales to the customers who granted them.
- The heading “Other liabilities” is broken down into several headings:
  - deferred tax liabilities,
  - current tax liabilities,
  - other operating liabilities,
  - other non-operating liabilities.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

The following table presents reclassifications impacting the presentation of the balance sheets as of January 1, 2004, and December 31, 2004.

## Balance sheet as of January 1, 2004, in IFRS format

The new IFRS balance sheet headings are presented in *italics*

ASSETS <i>(in million of euros)</i>	Published French GAAP balance sheet as of December 31, 2003	IFRS account transfers	French GAAP balance sheet as of January 1, 2004, adjusted for IFRS format	Explanatory notes
<b>Non-current assets</b>	<b>19,094</b>	<b>(3,629)</b>	<b>15,465</b>	
Goodwill, net	1,265	(91)	1,174	(1)(2)
Intangible assets	482	(13)	469	(1)
Property, plant and equipment	3,447	1,118	4,565	
<i>Including: end-of-life-cycle asset (AREVA share)</i>	<i>n.a.</i>	<i>1,118</i>	<i>1,118</i>	(3)
Decommissioning assets	9,109	(9,109)	n.a.	(3)
<i>End-of-life-cycle asset (third-party share)</i>	<i>n.a.</i>	<i>4,491</i>	<i>4,491</i>	(3)
<i>Assets earmarked for end-of-life-cycle obligations</i>	<i>n.a.</i>	<i>2,234</i>	<i>2,234</i>	(4)
Equity associates	1,492	104	1,596	(2)
Other long-term investments	3,299	(3,299)	n.a.	(4)
<i>Other non-current financial assets</i>	<i>n.a.</i>	<i>601</i>	<i>601</i>	(4)
<i>Pension fund assets</i>	<i>n.a.</i>	<i>42</i>	<i>42</i>	(4)
<i>Deferred tax assets</i>	<i>n.a.</i>	<i>293</i>	<i>293</i>	(5)
<b>Current assets</b>	<b>7,097</b>	<b>3,629</b>	<b>10,726</b>	
<i>Marcoule end-of-life-cycle asset</i>	<i>n.a.</i>	<i>3,500</i>	<i>3,500</i>	(3)
Inventories and work-in-process	1,619	0	1,619	
Trade accounts receivable and related accounts	2,234	0	2,234	
Other accounts receivable	1,208	(1,208)	n.a.	(5)
<i>Other operating receivables</i>	<i>n.a.</i>	<i>782</i>	<i>782</i>	(5)
<i>Current tax assets</i>	<i>n.a.</i>	<i>133</i>	<i>133</i>	(5)
<i>Other non-operating receivables</i>	<i>n.a.</i>	<i>0</i>	<i>0</i>	(5)
Cash and marketable securities	2,036	(2,036)	n.a.	(6)
<i>Cash and cash equivalents</i>	<i>n.a.</i>	<i>1,367</i>	<i>1,367</i>	(6)
<i>Other current financial assets</i>	<i>n.a.</i>	<i>1,091</i>	<i>1,091</i>	(4)(6)
<b>Total assets</b>	<b>26,191</b>	<b>0</b>	<b>26,191</b>	

(1) Transfer of purchased goodwill to "Goodwill".

(2) Transfer of goodwill relating to equity associates to "Equity associates".

(3) Transfer of decommissioning assets to the new headings "End-of-life-cycle asset (AREVA share)", "End of-life-cycle assets (third-party share)" and "Marcoule end-of-life-cycle asset" (special heading used as of January 1, 2004 only).

(4) Transfer of "Other long-term investments" to four new headings: "Assets earmarked for end-of-life-cycle obligations", "Pension fund assets", "Other non-current financial assets" and "Other current financial assets".

(5) Transfer of "Other receivables" to four new headings "Deferred tax assets", "Other operating receivables", "Current tax assets" and "Other non-operating receivables".

(6) Transfer of "Cash and marketable securities" to two new headings: "Cash and cash equivalents" and "Other current financial assets".

n.a.: not applicable; heading not used in the standards base under consideration

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## Balance sheet as of January 1, 2004, in IFRS format (continued)

The new IFRS balance sheet headings are presented in italics

LIABILITIES <i>(in millions of euros)</i>	Published French GAAP balance sheet as of December 31, 2003	IFRS account transfers	French GAAP balance sheet as of January 1, 2004, adjusted for IFRS format	Explanatory notes
<b>Equity and minority interests</b>	<b>5,072</b>	<b>0</b>	<b>5,072</b>	
Share capital	1,347	0	1,347	
Consolidated premiums and reserves	2,414	389	2,803	(7)
Currency translation reserves	(37)	0	(37)	
Net income attributable to equity holders of the parent	389	(389)	0	(7)
Minority interests	959	0	959	
Perpetual subordinated debt	215	(215)	n.a.	(8)
<b>Non-current liabilities</b>	<b>14,792</b>	<b>(4,633)</b>	<b>10,159</b>	
Pensions and retirement obligations ( <i>Employee benefits</i> )	609	0	609	
Provisions for contingencies and losses	13,383	(13,383)	n.a.	(9)
<i>Provisions for end-of-life-cycle operations</i>	n.a.	8,371	8,371	(9)
<i>Other non-current provisions</i>	n.a.	69	69	(9)
Borrowings	800	(800)	n.a.	(10)
<i>Long-term borrowings</i>	n.a.	851	851	(8)(10)
<i>Deferred tax liabilities</i>	n.a.	259	259	(11)
<b>Current liabilities</b>	<b>6,112</b>	<b>4,848</b>	<b>10,960</b>	
<i>Provisions for Marcoule end-of-life-cycle operations</i>	n.a.	3,945	3,945	(9)
<i>Other current provisions</i>	n.a.	993	993	(9)
<i>Negative goodwill</i>	n.a.	5	5	(9)
<i>Short-term borrowings</i> <sup>(9)</sup>	n.a.	164	164	(10)
Advances and prepayments received	3,615	0	3,615	
Trade accounts payable and related accounts	1,009	0	1,009	
Other liabilities	1,488	(1,488)	n.a.	(11)
<i>Other operating liabilities</i>	n.a.	1,158	1,158	(11)
<i>Current tax liabilities</i>	n.a.	71	71	(11)
<i>Other non-operating liabilities</i>	n.a.	0	0	(11)
<b>Total liabilities and equity</b>	<b>26,191</b>	<b>0</b>	<b>26,191</b>	

(7) Transfer of 2003 net income to consolidated reserves in order to present the balance sheet as of January 1, 2004 in accordance with IFRS.

(8) Transfer of "Perpetual subordinated notes" to "Long-term borrowings".

(9) Transfer of "Provisions for contingencies and losses" to five new headings: "Provisions for end-of-life-cycle operations", "Other non-current provisions", "Negative goodwill", "Other current provisions" and "Provisions for Marcoule end-of-life-cycle operations" (special heading used as of January 1, 2004 only).

(10) Transfer of "Borrowings" to two new headings: "Long-term borrowings" and "Short-term borrowings".

(11) Transfer of "Other liabilities" to four new headings "Deferred tax liabilities", "Other operating liabilities", "Current tax liabilities" and "Other non-operating liabilities".

n.a.: not applicable; heading not used in the standards base under consideration.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## Balance sheet as of December 31, 2004, in IFRS format

The new IFRS balance sheet headings are presented in *italics*

ASSETS <i>(in millions of euros)</i>	Published French GAAP balance sheet as of December 31, 2004	IFRS account transfers	French GAAP balance sheet as of December 31, 2004, adjusted for IFRS format	Explanatory notes
<b>Non-current assets</b>	<b>15,782</b>	<b>485</b>	<b>16,267</b>	
Goodwill, net	1,718	(62)	1,656	(1)(2)
Intangible assets	608	(12)	596	(1)
Property, plant and equipment	3,701	1,060	4,761	
<i>Including: end-of-life-cycle asset (AREVA share)</i>	<i>n.a.</i>	<i>1,060</i>	<i>1,060</i>	(3)
Decommissioning assets	5,372	(5,372)	n.a.	(3)
<i>End-of-life-cycle asset (third-party share)</i>	<i>n.a.</i>	<i>4,312</i>	<i>4,312</i>	(3)
<i>Assets earmarked for end-of-life-cycle obligations</i>	<i>n.a.</i>	<i>2,281</i>	<i>2,281</i>	(4)
Equity associates	1,240	74	1,314	(2)
Other long-term investments	3,143	(3,143)	n.a.	(4)
<i>Other non-current financial assets</i>	<i>n.a.</i>	<i>823</i>	<i>823</i>	(4)
<i>Pension fund assets</i>	<i>n.a.</i>	<i>32</i>	<i>32</i>	(4)
<i>Deferred tax assets</i>	<i>n.a.</i>	<i>492</i>	<i>492</i>	(5)
<b>Current assets</b>	<b>8,877</b>	<b>(485)</b>	<b>8,392</b>	
<i>Marcoule end-of-life-cycle asset</i>	<i>n.a.</i>	<i>0</i>	<i>0</i>	(3)
Inventories and work-in-process	2,088	0	2,088	
Trade accounts receivable and related accounts	3,288	0	3,288	
Other accounts receivable	1,869	(1,869)	n.a.	(5)
<i>Other operating receivables</i>	<i>n.a.</i>	<i>857</i>	<i>857</i>	(5)
<i>Current tax assets</i>	<i>n.a.</i>	<i>116</i>	<i>116</i>	(5)
<i>Other non-operating receivables</i>	<i>n.a.</i>	<i>404</i>	<i>404</i>	(5)
Cash and marketable securities	1,632	(1,632)	n.a.	(6)
<i>Cash and cash equivalents</i>	<i>n.a.</i>	<i>1,054</i>	<i>1,054</i>	(6)
<i>Other current financial assets</i>	<i>n.a.</i>	<i>585</i>	<i>585</i>	(4)(6)
<b>Total Assets</b>	<b>24,659</b>	<b>0</b>	<b>24,659</b>	

(1) Transfer of purchased goodwill to "Goodwill".

(2) Transfer of goodwill relating to equity associates to "Equity associates".

(3) Transfer of decommissioning assets to the new headings "End-of-life-cycle asset (AREVA share)", "End of-life-cycle assets (third-party share)" and "Marcoule End-of-life-cycle asset" (special heading used as of January 1, 2004 only).

(4) Transfer of "Other long-term investments" to four new headings: "Assets earmarked for end-of-life-cycle obligations", "Pension fund assets", "Other non-current financial assets" and "Other current financial assets".

(5) Transfer of "Other receivables" to four new headings "Deferred tax assets", "Other operating receivables", "Current tax assets" and "Other non-operating receivables".

(6) Transfer of "Cash and marketable securities" to two new headings: "Cash and cash equivalents" and "Other current financial assets".

n.a.: not applicable; heading not used in the standards base under consideration.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004 and December 31, 2004 and on the consolidated income statement for 2004

## Balance sheet as of December 31, 2004, in IFRS format (continued)

The new IFRS balance sheet headings are presented in italics

LIABILITIES <i>(in millions of euros)</i>	Published French GAAP balance sheet as of December 31, 2004	IFRS account transfers	French GAAP Balance sheet as of December 31, 2004, adjusted for IFRS format	Explanatory notes
<b>Equity and minority interests</b>	<b>5,017</b>	<b>0</b>	<b>5,017</b>	
Share capital	1,347	0	1,347	
Consolidated premiums and reserves	2,583	0	2,583	
Currency translation reserves	(117)	0	(117)	
Net income attributable to equity holders of the parent	428	0	428	
Minority interests	776	0	776	
Perpetual subordinated debt	0	0	n.a.	
<b>Non-current liabilities</b>	<b>11,428</b>	<b>(1,104)</b>	<b>10,324</b>	
Pensions and retirement obligations ( <i>Employee benefits</i> )	853	0	853	
Provisions for contingencies and losses	9,632	(9,632)	n.a.	(7)
<i>Provisions for end-of-life-cycle operations</i>	n.a.	8,258	8,258	(7)
<i>Other non-current provisions</i>	n.a.	134	134	(7)
Borrowings	943	(943)	n.a.	(8)
<i>Long-term borrowings</i>	n.a.	744	744	(8)
<i>Deferred tax liabilities</i>	n.a.	335	335	(9)
<b>Current liabilities</b>	<b>8,214</b>	<b>1,104</b>	<b>9,318</b>	
<i>Provisions for Marcoule end-of-life-cycle operations</i>	n.a.	0	0	(7)
<i>Other current liabilities</i>	n.a.	1,238	1,238	(7)
<i>Negative goodwill</i>	n.a.	2	2	(7)
<i>Short-term borrowings</i> <sup>(9)</sup>	n.a.	199	199	(8)
Advances and prepayments received	4,326	0	4,326	
Trade accounts payable and related accounts	1,688	0	1,688	
Other liabilities	2,200	(2,200)	n.a.	(9)
<i>Other operating liabilities</i>	n.a.	1,430	1,430	(9)
<i>Current tax liabilities</i>	n.a.	91	91	(9)
<i>Other non-operating liabilities</i>	n.a.	344	344	(9)
<b>Total liabilities and equity</b>	<b>24,659</b>	<b>0</b>	<b>24,659</b>	

(7) Transfer of "Provisions for contingencies and losses" to five new headings: "Provisions for end-of-life-cycle operations", "Other non-current provisions", "Negative goodwill", "Other current provisions" and "Provisions for Marcoule end-of-life-cycle operations" (special heading used as of January 1, 2004 only).

(8) Transfer of "Borrowings" to two new headings: "Long-term borrowings" and "Short-term borrowings".

(9) Transfer of "Other liabilities" to four new headings "Deferred tax liabilities", "Other operating liabilities", "Current tax liabilities" and "Other non-operating liabilities".

n.a.: not applicable; heading not used in the standards base under consideration.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## Presentation of the income statement

AREVA has chosen to adopt the model proposed by the French National Accounting Board in its recommendation of October 27, 2004. In addition, the Group retains the presentation of operating expenses by function.

The main changes to the presentation of the income statement are as follows:

- The “Exceptional items” account is removed; exceptional items are transferred to operating income or other income statement accounts, depending on their nature.
- The sub-total “Current operating income” is created within operating income. Non-current operating items include:
  - goodwill impairment losses;
  - restructuring costs and early retirement plans;
  - impairment losses, and gains and losses on the sale of property, plant and equipment and intangible assets, gains and losses on the deconsolidation of subsidiaries, and other changes in consolidation scope (excluding gains or losses on the sale of activity segments, presented separately).
- The costs of end-of-life-cycle obligations for nuclear facilities, currently included in “Other operating income and expenses”, are transferred to “Cost of sales” under IFRS.
- Employee benefit costs (pensions and related retirement benefits) currently included in “Other operating income and expenses” are split into three categories:
  - the provision discount reversal, net of returns on plan assets, is recognized in Financial income;
  - current and past service costs are split between the various operating expense items by destination: Cost of sales, Research and development expenses, Sales and marketing expenses, and General and administrative expenses;
  - the amortization of actuarial gains and losses is recognized in operating income under “Other operating income and expenses”.
- Net financial expense is split into two categories:
  - net borrowing costs comprising:
    - gross borrowing costs (interest on borrowings),
    - income from cash and cash equivalents;
  - other financial income and expenses, mainly comprising:
    - income from financial assets other than cash,
    - gains and losses on sales of financial assets,
    - the discount reversal of provisions for employee benefits, net of returns on plan assets,
    - the discount reversal on provisions for end-of-life-cycle obligations, net of the discount reversal for the end-of-life-cycle asset funded by third parties.
- “Goodwill amortization” is removed in accordance with IFRS 3, which prohibits the amortization of goodwill and requires impairment tests. Impairment losses recognized as a result of these tests are recognized, where applicable, in non-current operating income items.

In accordance with IAS 36, AREVA performs impairment tests in respect of cash-generating units (CGU), to which goodwill is allocated. The CGUs correspond to Business Units (BU), with the exception of the *Mining* BU, which comprises a Gold CGU and a Uranium CGU by region. These tests are performed by applying the methodology recommended by IAS 36: the recoverable amount of a CGU is the higher of (a) its fair value less costs to sell, and (b) its value in use, determined using the discounted estimated future cash flow method.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

Reclassifications affecting the presentation of the 2004 income statement are presented in the table below:

## 2004 Income Statement in IFRS format

The new IFRS balance sheet headings are presented in italics

<i>(in millions of euros)</i>	Published French GAAP 2004 Income Statement	IFRS format account transfers	French GAAP 2004 Income Statement in IFRS format	Explanatory notes
<b>Sales revenue</b>	<b>11,109</b>	<b>0</b>	<b>11,109</b>	
<i>Other operating income</i>	0	8	8	(1)
<i>Cost of sales</i>	(8,347)	(8)	(8,355)	(1)
<b>Gross margin</b>	<b>2,762</b>	<b>0</b>	<b>2,762</b>	
Research and development expenses	(402)	0	(402)	
Sales and marketing expenses	(602)	0	(602)	
General and administrative expenses	(787)	0	(787)	
<i>Other operating income and expenses</i>	(358)	126	(232)	(2)(6)
<b>Current operating income</b>	<b>613</b>	<b>126</b>	<b>739</b>	
<i>Restructuring and early retirement costs</i>	0	(68)	(68)	(2)(4)
<i>Other non-current income and expenses</i>	0	29	29	(3)(4)(5)
<b>Operating income</b>	<b>613</b>	<b>87</b>	<b>700</b>	
<i>Income from cash and cash equivalent</i>	48	0	48	
<i>Gross borrowing costs</i>	(30)	0	(30)	
<b>Net borrowing costs</b>	<b>18</b>	<b>0</b>	<b>18</b>	
<i>Other financial income and expenses</i>	99	(66)	33	(6)(8)
<b>Net financial income/(expense)</b>	<b>117</b>	<b>(66)</b>	<b>51</b>	
Exceptional items	46	(46)	0	(3)
<b>Income tax</b>	<b>(209)</b>	<b>11</b>	<b>(198)</b>	(3)
<b>Net income of consolidated businesses</b>	<b>567</b>	<b>(14)</b>	<b>553</b>	
Share in net income of equity affiliates	131	(3)	128	(3)
Goodwill amortization	(152)	17	(135)	(7)(8)
<b>Net income before minority interests</b>	<b>546</b>	<b>0</b>	<b>546</b>	
Minority interests	(118)	0	(118)	
<b>Net income attributable to equity holders of the parent</b>	<b>428</b>	<b>0</b>	<b>428</b>	

(1) Transfer of royalty and other income from "Cost of sales" to the new heading "Other operating income": €8 million.

(2) Transfer of restructuring and early retirement costs from "Other operating income and expenses" to a specific new heading within non-current operating items: €68 million.

(3) Transfer of exceptional items to operating income (€38 million), income tax (€11 million) and share in net income of equity associates (-€3 million).

(4) New heading making up "Non-current operating items".

(5) Other non-current income and expense items include gains and losses on the sale of property, plant and equipment and intangible assets, impairment of property, plant and equipment and intangible assets and the net income from deconsolidation of companies and other changes in consolidation scope.

(6) Transfer of the reverse discounting of pension provisions from operating income to financial income: €58 million.

(7) Transfer of goodwill amortization corresponding to impairment losses: €9 million.

(8) Transfer to financial income of goodwill amortization allocated to marketable securities sold in 2004: €8 million.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## Impact of first-time adoption of IFRS

**End-of-life-cycle asset and Provisions for end-of-life-cycle obligations****Overview of the accounting policy adopted by AREVA in previous years (CRC Regulation No. 2000-06)**

- Cost estimates for end-of-life-cycle operations relating to a facility were provided in full from start-up;
- An equivalent amount was recognized in assets under "End-of-life-cycle asset", which comprised two components:
  - the AREVA share, recognized in "End-of-life-cycle asset - AREVA share" and amortized over the useful life of the facility; the annual amortization expense was recognized in operating income under "Other operating income and expenses".
  - the third party share, recognized in "End-of-life-cycle asset - third party share" and representing a future receivable valued after splitting funding obligations between AREVA and the third parties concerned.
- Provisions for end-of-life-cycle obligations and the end-of-life-cycle asset were not discounted, but were escalated each year to reflect inflation.

**Adoption of IFRS (IAS 37 and IAS 16 and IFRIC 1 interpretation)**

- End-of-life-cycle provisions are discounted by applying to estimated future cash flows by maturity an inflation rate and a discount rate, determined based on the economic situation of the country in which the facility concerned is located.

For facilities in France, AREVA adopted an inflation rate of 2% and a discount rate of 5%, for an effective rate of 3%.

- the inflation rate of 2% reflects market expectations and the long-term objectives of the European Central Bank;
- the effective rate of 3% corresponds to the 3-year rolling average of French 10-year Treasury bonds indexed to inflation (French OATS), interpolated to the average duration of end-of-life-cycle cash spending plus a credit spread.

- Cash flows relating to end-of-life-cycle operations at the UP2-800 and UP3 plants in La Hague are expected to occur between 2040 and 2060. It is assumed these facilities will remain in service until 2025.

A risk premium of 3% has been allocated to the fraction of the provision covering the storage of long-lived waste, reducing the effective discount rate to 0% for these specific operations.

The provision recognized in the financial statements was sufficient to cover the discounted value of the highest cost scenario for deep repository storage applicable in France.

- The share of the end-of-life-cycle asset corresponding to funding expected from third parties has been discounted in exactly the same way as the related provisions.

The Group share of the end-of-life-cycle asset as of January 1, 2004, was valued by applying the exemption provided in IFRIC 1: estimated future cash flows were adjusted for inflation at a rate of 2% and discounted back to the start-up date of the facilities concerned at a rate of 5%. This value was then amortized from that date to January 1, 2004, pro-rated for the estimated period of use.

- Provisions for end-of-life-cycle obligations in respect of the Marcoule plant and the corresponding asset were not discounted in the IFRS balance sheet as of January 1, 2004, in view of an agreement in December 2004 providing for the payment of a full and final amount to CEA to cover the cost of end-of-life-cycle operations.

**Impact on the balance sheets as of January 1, 2004, and December 31, 2004**

The impact on the end-of-life-cycle asset and provisions for end-of-life-cycle obligations was as follows:

As of January 1, 2004 (in millions of euros)	End-of-life-cycle asset *			Provisions for end-of-life-cycle obligations		
	Value before discounting	Discounted value	Difference	Value before discounting	Discounted value	Difference
Third party share	4,491	2,115	(2,376)	4,491	2,115	(2,376)
AREVA share	1,118	171	(947)	3,880	2,215	(1,665)
<b>Total</b>	<b>5,609</b>	<b>2,286</b>	<b>(3,323)</b>	<b>8,371</b>	<b>4,330</b>	<b>(4,041)</b>

\* Excluding Marcoule current assets and liabilities.

Discounting resulted in a decrease of €4,041 million in provisions for end-of-life-cycle obligations and of €3,323 million in the amount of the end-of-life-cycle asset.

The positive net impact on AREVA pre-tax consolidated equity of discounting the end-of-life-cycle asset and provisions was therefore €718 million as of January 1, 2004.



## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

As of December 31, 2004 (in millions of euros)	End-of-life-cycle asset and CEA receivable *			Provisions for end-of-life-cycle obligations		
	Value before discounting	Discounted value	Difference	Value before discounting	Discounted value	Difference
Third party share	4,312	2,015	(2,297)	4,312	2,015	(2,297)
AREVA share	1,060	162	(898)	3,946	2,317	(1,629)
CEA receivable **	128	110	(18)	-	-	-
<b>Total</b>	<b>5,500</b>	<b>2,287</b>	<b>(3,213)</b>	<b>8,258</b>	<b>4,332</b>	<b>(3,926)</b>

\* Excluding Marcoule current assets and liabilities.

\*\* Receivable resulting from agreements signed with CEA in 2004 regarding end-of-life-cycle operations at Cadarache and La Hague (one facility only).

Discounting resulted in a decrease of €3,926 million in provisions for end-of-life-cycle obligations and of €3,213 million in the end-of-life-cycle asset.

The positive net impact on AREVA pre-tax consolidated equity of discounting the end-of-life-cycle asset and provisions was therefore €713 million as of December 31, 2004.

### Impact on the 2004 Income Statement

#### Impact on operating income

The decrease in AREVA's share of the end-of-life-cycle asset results in a substantial reduction in the annual amortization charge in respect of this asset, which in turn generates an improvement in operating income under IFRS of €68 million in 2004. This improvement in operating income under IFRS is of a recurring nature.

#### Impact on financial income

The reverse discounting of provisions for end-of-life-cycle obligations and the third party share in the end-of-life-cycle asset is recognized in "Other operating income and expenses", generating a reduction in financial income under IFRS of €69 million for 2004. This decrease in financial income under IFRS is of a recurring nature. The above amount is expected to increase by 5% annually, assuming a constant base and discount rate.

It should be noted that the similarity between the quantified impacts in 2004 on operating income (+ €68 million) and financial income (- €69 million) is a simple coincidence and does not reflect a reclassification between income statement accounts.

### Employee benefits

#### Overview of the accounting policy adopted by AREVA in previous years (CNC Recommendation No. 2003-R.01)

The Group recognizes the entire amount of its commitments for pensions, early retirement, severance pay, medical insurance, job-related awards, accident and disability insurance and related obligations, whether for active personnel or for retired personnel, in accordance with French National Accounting Board Recommendation No. 2003-R.01 of April 1, 2003, on accounting and valuation rules for pension obligations and similar benefits.

Payments by the Group under defined benefit plans are recognized as expenses of the period to which they relate.

For defined benefit plans, benefit costs are estimated using the projected unit credit method. Under this method, accrued pension benefits are allocated among service periods based on the plan vesting formula. If service in subsequent years results in accrued benefit levels that are substantially higher than those of previous years, the company must allocate the accrued benefits on a straight-line basis.

The amount of future benefit payments to employees is determined based on salary trend assumptions, retirement age and mortality, discounted to net present value based on interest rates for long-term bonds from AAA issuers.

Using the corridor method, the post-January 1, 2001, actuarial gains and losses are spread out over the average expected remaining working life of personnel taking part in these plans for the portion exceeding the largest of the following values by more than 10%:

- the net present value of defined benefits obligations at the balance sheet date, or
- the fair value of plan assets at the balance sheet date.

The costs of plan changes are spread out over the vesting period.

#### Adoption of IFRS (IAS 19 and exemption provided under IFRS 1)

The accounting policy previously adopted by AREVA complies with IAS 19.

However, as indicated in Section 5.1.9.1. above, AREVA has elected to apply the exemption offered by IFRS 1 on first-time adoption of IFRS and has opted to recognize in equity as of January 1, 2004, all differences existing at that date between the liabilities and the funding assets relating to the Group's employee benefit programs, with the exception of past service costs that do not correspond to vested benefits.

In addition, AREVA continues to apply the corridor method in respect of gains and losses arising as a result of changes in assumptions after January 1, 2004.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

### Impact on the balance sheets as of January 1, 2004, and December 31, 2004

- As of January 1, 2004, the recognition of actuarial gains and losses generates
  - an increase in the provision for employee benefits of €190 million, and
  - a decrease in pension fund assets of €25 million, representing a cumulative negative impact on AREVA pre-tax consolidated equity of €215 million as of January 1, 2004.
- The IFRS pro forma balance sheet as of December 31, 2004 shows:
  - an increase in the provision for employee benefits of €179 million, and
  - a decrease in pension fund assets of €22 million, representing a cumulative negative impact on AREVA pre-tax consolidated equity of €201 million as of December 31, 2004.

### Impact on the 2004 Income Statement

Income statement impacts are of two types:

- The amortization of actuarial gains and losses arising before January 1, 2004, is no longer applicable under IFRS, as these gains and losses have been recognized in the balance sheet as of January 1, 2004, generating an improvement in operating income under IFRS of €8 million for 2004. This improvement in operating income under IFRS is of a recurring nature.
  - The reverse discounting of the provision for employee benefits, net of the return on plan assets, is presented under IFRS in "Other financial income and expenses", generating an improvement in operating income and a reduction in financial income in strictly identical amounts, as this represents a reclassification between two income statement headings.
- In 2004, the improvement in operating income and the reduction in financial income under IFRS as a result of this reclassification transfer was €58 million. While this reclassification is of a recurring nature, the amount may vary from year to year, reflecting changes in returns on plan assets or in discount rates used.

### Valuation and amortization of goodwill

#### Overview of accounting policy adopted by AREVA in previous years (CRC Regulation N°. 1999-02)

#### Restructuring costs incurred by a purchased company

Under the previous accounting policy, restructuring costs incurred by a purchased company during the 12-month period following the date of purchase were, under certain conditions, considered an additional component of the purchase consideration; as such, they increased the goodwill rather than being recognized in the consolidated income statement of the purchaser.

#### Goodwill amortization

Goodwill was amortized over a period reflecting the business of the company purchased, not to exceed a maximum of 20 years. Negative goodwill was released to income over a maximum of five years.

#### Adoption of IFRS (IFRS 3 and exemption provided under IFRS 1)

#### Business combinations prior to January 1, 2004, are not adjusted

As indicated in Section 5.1.9.1 above, AREVA applies IFRS 3 from January 1, 2004, and, as such, has not restated business combinations prior to this date.

#### Restructuring costs incurred by the purchased company

IFRS 3 prohibits the recognition of restructuring costs incurred in respect of a purchased company as an additional component of the purchase consideration, with the sole exception of costs meeting the restructuring provision criteria laid down in IAS 37 as of the purchase date.

Other restructuring costs in respect of the purchased company are recognized in the operating income statement in accordance with IAS 37 criteria.

#### Contingent liabilities

IFRS 3 requires the recognition of provisions to cover the contingent liabilities of companies purchased, with the corresponding entry recognized in goodwill. The liabilities concerned are those that do not meet the normal criteria for the recognition of provisions laid down in IAS 37.

#### Goodwill amortization

IFRS 3 prohibits the recurring amortization of goodwill; it requires companies to perform systematic annual impairment tests on cash-generating units to which goodwill is allocated, applying the methodology laid down in IAS 36.

Goodwill impairment identified by these tests is recognized in the income statement and is definitive.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

In addition, negative goodwill is recognized as a profit in the year in which the company is purchased and is not allocated over several years.

**Finalization of goodwill**

The purchasing company has a period of 12 months following the date of purchase to finalize the valuation of assets and liabilities purchased and determine the goodwill (subject to subsequent adjustments to the purchase consideration).

The goodwill cannot be changed after this 12-month period. IFRS 3 does, however, provide for one exception to the general rule: if the potential benefit of income tax loss carry-forwards or other deferred tax assets did not satisfy the criteria for recognition at the purchase date, but subsequently does, the carrying amount of the goodwill must be reduced to the amount which would have been recognized if the deferred tax asset had been recognized at the purchase date. This reduction in the value of goodwill is recognized as an expense.

**Impact on the balance sheet as of January 1, 2004**

Negative goodwill was canceled. This generated a positive impact on consolidated equity of €5 million as of January 1, 2004.

In addition, for practical reasons linked to the complexity of impairment tests, AREVA decided to cancel positive goodwill of minimal amounts; this generated a €22 million negative impact on consolidated equity as of January 1, 2004.

**Impact on the valuation of AREVA T&D goodwill****Restructuring costs**

Restructuring costs incurred or provided by AREVA T&D as of December 31, 2004, totaled €142 million. As indicated above, these costs are treated under French GAAP as a component of the acquisition price and translate into a corresponding increase in goodwill, net of the corresponding deferred tax, i.e. €87 million.

The allocation to goodwill of restructuring costs in respect of a purchased entity is prohibited under IFRS. The goodwill relating to the acquisition of AREVA T&D was therefore reduced by €87 million under IFRS.

As a result, 2004 operating income under IFRS is €142 million less and the tax burden is reduced by €55 million. The net impact on 2004 net income under IFRS is negative €87 million.

**Contingent liabilities**

Contingent liability provisions were recognized in the AREVA T&D acquisition balance sheet in the amount of €16 million. These provisions primarily concern contingent liabilities in respect of customer warranties and the cost of cleaning up industrial sites.

Goodwill was increased in the same amount, after deduction of the corresponding deferred tax, representing a net impact of €11 million.

**Summary of impacts on AREVA T&D goodwill**

The T&D goodwill was reduced by €76 million under IFRS (before 2004 amortization):

*(in millions of euros)*

2004 restructuring costs	(142)
Deferred tax	55
Contingent liabilities	16
Deferred tax	(5)
<b>Net impact</b>	<b>(76)</b>

**Impact on the 2004 Income Statement****Goodwill amortization**

Under French GAAP, the 2004 amortization charge was €152 million, including:

- Impairment losses of €8 million in respect of businesses included in a current acquisition.

Under IFRS, this impairment is transferred to operating expenses, generating a reduction in operating income of €8 million. This is a one-time, non-recurring impact.

- €9 million cancellation of AREVA goodwill in respect of Total shares sold in 2004.

Under IFRS, this charge is transferred to Other financial income and expenses, generating a decrease in financial income of €9 million. This is a non-recurring impact due to the adoption of IAS 39 as from January 1, 2005.

- Recurring amortization charge of €135 million in respect of AREVA group goodwill. As indicated above, goodwill is not amortized under IFRS. The charge was therefore reversed, generating an improvement of €135 million in 2004 net income under IFRS. This is a recurring impact.
- In accordance with the requirements of IFRS 3, AREVA performed impairment tests in respect of all cash-generating units to which goodwill has been allocated. These tests were performed in accordance with the methodology laid down in IAS 36 "Impairment of assets". No impairment was recognized as of December 31, 2004, as a result of these tests.

**AREVA T&D restructuring costs**

As indicated above, the allocation to goodwill of restructuring costs incurred in respect of acquired entities is prohibited under IFRS. As a result, 2004 operating income under IFRS is €142 million less and the tax burden is reduced by €55 million. The net impact on 2004 net income is therefore negative €87 million.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

### Deferred taxes

A deferred tax asset not recognized at the time of a previous acquisition was recognized in income in the French GAAP financial statements as of December 31, 2004 in the amount of €22 million via a reduction in the tax expense for the period.

Under IFRS, the corresponding goodwill is canceled in an equivalent amount, generating a €22 million increase in the 2004 tax expense. This is a one-time, non-recurring impact.

### Consolidation of special purpose entities

#### Overview of the accounting policy adopted by AREVA in previous years (CRC Regulation No. 1999-02 and Financial Security Act)

Until December 31, 2003 inclusive, French GAAP did not permit the consolidation of special purpose entities in which the consolidating company did not hold shares.

The consolidation of such entities became mandatory in French GAAP consolidated financial statements from January 1, 2004 pursuant to the Financial Security Act. Consolidation under French GAAP as of January 1, 2004 of Lilly, the investment firm holding the perpetual subordinated bonds and the guarantee deposit, resulted in the removal from the balance sheet of the perpetual subordinated debt (€215 million) recognized in "Other equity" and the guarantee deposit (€180 million) recognized under "Long-term investments". The net amount as of January 1, 2004 (€38 million) was reclassified to Borrowings.

#### Adoption of IFRS (IAS 27 and SIC 12)

IAS 27 and SIC 12 require the consolidation of special purpose entities. This standard and the interpretation are applicable as of January 1, 2004.

#### Impact on the balance sheet as of January 1, 2004

Under IFRS, Lilly is consolidated in the balance sheet as of January 1, 2004.

The consolidation of Lilly as of January 1, 2004, did not, however, impact AREVA's consolidated Shareholders' equity as of that date. It generated a reduction in an equal amount (€180 million) in "Other non-current financial assets" and "Long-term borrowings".

Adoption of IAS 27 and SIC 12 also did not impact the 2004 income statement or the balance sheet as of December 31, 2004, as Lilly was consolidated under French GAAP at that date.

### Accounting for inventories and commitments relating to uranium trading activities

#### Overview of the accounting policy adopted by AREVA in previous years

Uranium trading activity inventories were valued at acquisition cost, using the weighted-average cost method.

Provisions were recognized in respect of unrealized losses on contractual commitments to customers and suppliers; unrealized gains were not recognized.

#### Adoption of IFRS (IAS 2)

Pending adoption of IAS 39, which will change the method of accounting for contractual commitments to uranium trading activity customers and suppliers from January 1, 2005, AREVA has elected to apply the following options in the IFRS pro forma financial statements as of January 1 and December 31, 2004:

- Valuation of uranium trading activity inventories at the lower of the year-end spot rate or the expected realizable value based on contractual commitments.
- Cancellation of provisions recognized under French GAAP as of December 31, 2004, insofar as the net unrealized gains and losses position shows an overall unrealized gain.

#### Impact on 2004 financial statements

- Balance sheet as of January 1, 2004: €9 million adjustment to uranium inventories (positive impact on consolidated equity as of the transition date).
- As of December 31, 2004: €11 million adjustment to uranium inventories and cancellation of the provisions for unrealized losses of €3 million.
- 2004 income statement: €5 million increase in 2004 operating income. This impact is of a recurring nature but the amount is likely to vary significantly from year to year and could also become negative.

### Deferred taxes

#### Overview of the accounting policy adopted by AREVA in previous years

Deferred taxes were determined tax entity by tax entity using the liability method based on differences between consolidated book values and the tax value of assets and liabilities.

Temporary net taxable differences generate a deferred tax liability. Deferred tax assets are recognized in respect of deductible net temporary differences and tax loss carry-forwards and tax credits, provided their future use is considered probable. Deferred tax assets are analyzed case by case based on mid-range income projections over three-to five-year periods.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

**Adoption of IFRS (IAS 12)**

Adoption of IAS 12 did not have a material impact on the valuation and recognition of deferred tax in the AREVA group, with the exception of the following:

- AREVA does not recognize a deferred tax liability in its French GAAP financial statements in respect of temporary differences relating to perpetual subordinated bonds, as these temporary differences are unlikely to reverse before an extremely long time, if at all, given the perpetual legal nature of these bonds.
- Under IFRS, a deferred tax liability must be recognized in respect of all taxable temporary differences, and deferred tax assets and liabilities cannot be discounted.
- The impact on the AREVA IFRS pro forma financial statements is as follows:
  - as of January 1, 2004: recognition of a deferred tax liability of €22 million, with a negative impact on equity;
  - as of December 31, 2004: the deferred tax liability was raised to €30 million;
  - on the 2004 income statement: the tax expense is €8 million higher than under French GAAP. AREVA anticipates an impact of €4 million per year through 2007.

**Impact of adoption of other IFRS regulations regarding deferred taxes**

The most significant IFRS tax adjustments correspond to the recognition of deferred taxes on all IFRS adjustments that create temporary differences between the book and tax values of assets and liabilities, and in particular those relating to end-of-life-cycle obligations and employee benefits.

**Impact on the balance sheet as of January 1, 2004**

These adjustments generated an increase in the deferred tax liability of €225 million as of January 1, 2004 (€137 million increase in liabilities and €88 million decrease in assets).

The high effective tax rate calculated by comparing this amount of €225 million to the corresponding tax basis of approximately €500 million is due to the fact that certain subsidiaries with negative IFRS adjustments to equity do not recognize a deferred tax asset at the standard rate:

- because they have tax loss carry-forwards, or
- because they benefit from a reduced tax rate (e.g. Eurodif).

Including the adjustment relating to the perpetual subordinated notes, deferred taxes under IFRS had a negative impact of €247 million on AREVA's consolidated equity as of January 1, 2004.

**Impact on the balance sheet as of December 31, 2004**

Taking account transactions in 2004, the adjustments relating to the acquisition of AREVA T&D, and the cancellation of the tax benefit relating to a provision reversal applied to goodwill (see Section 5.1.9.3.8. above), deferred taxes had a negative impact of €234 million on AREVA's consolidated equity as of December 31, 2004.

**Impact on the 2004 income statement**

Including the impact of the adjustment relating to the perpetual subordinated notes and the adjustments detailed above, the 2004 deferred tax expense was reduced by €39 million under IFRS. This impact is of a non-recurring nature.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## IFRS pro forma balance sheet as of January 1, 2004

ASSET (in millions of euros)	French GAAP balance sheet as of December 31, 2003, restated in IFRS format	IFRS adjustments presented in the 2004 Annual Report	IFRS pro forma balance sheet as of January 1, 2004, presented in the 2004 Annual Report	Additional IFRS account transfers and adjustments (A)	Definitive IFRS pro forma balance sheet as of January 1, 2004
<b>Non-current assets</b>	<b>15,465</b>	<b>(3,636)</b>	<b>11,829</b>	<b>0</b>	<b>11,829</b>
Goodwill, net of consolidated companies	1,174	(22)	1,152	0	1,152
Intangible assets	469	0	469	0	469
Property, plant and equipment	4,565	(946)	3,619	0	3,619
including: end-of-life-cycle asset (AREVA share)	1,118	(947)	171	0	171
End-of-life-cycle asset (third-party share)	4,491	(2,376)	2,115	0	2,115
Assets earmarked for end-of-life-cycle obligations	2,234	0	2,234	0	2,234
Equity affiliates <sup>(1)</sup>	1,596	1	1,597	0	1,597
Other non-current financial assets <sup>(2)</sup>	601	(180)	421	0	421
Pension fund assets	42	(25)	17	0	17
Deferred tax assets	293	(88)	205	0	205
<b>Current assets</b>	<b>10,726</b>	<b>6</b>	<b>10,732</b>	<b>0</b>	<b>10,732</b>
Marcoule end-of-life-cycle asset <sup>(3)</sup>	3,500	0	3,500	0	3,500
Inventories and work-in-process	1,619	8	1,627	0	1,627
Trade accounts receivable and related accounts	2,234	0	2,234	0	2,234
Other operating receivables	782	(2)	780	(45)	735
Current tax assets	133	0	133	0	133
Other non-operating receivables	0	0	0	45	45
Cash and cash equivalents <sup>(4)</sup>	1,367	0	1,367	0	1,367
Other current financial assets <sup>(5)</sup>	1,091	0	1,091	0	1,091
<b>Total assets</b>	<b>26,191</b>	<b>(3,630)</b>	<b>22,561</b>	<b>0</b>	<b>22,561</b>

(1) Including net goodwill relating to equity associates.

(2) Long-term portfolio investments and non-current portion (maturing after one year) of financial loans and receivables..

(3) Assets and liabilities in respect of Marcoule decommissioning obligations covered by the agreement with CEA.

(4) Liquid assets and risk-free marketable securities with an initial maturity of less than 3 months.

(5) Other marketable securities and current portion (maturing in one year or less) of financial loans and receivables.

(A) Account transfer between operating and non-operating receivables.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## IFRS pro forma balance sheet as of January 1, 2004 (continued)

LIABILITIES AND EQUITY (in millions of euros)	French GAAP balance sheet as of December 31, 2003, restated in IFRS format	IFRS adjustments presented in the 2004 Annual Report	IFRS pro forma balance sheet as of January 1, 2004 presented in the 2004 Annual Report	Additional IFRS account transfers and adjustments (B)	Definitive IFRS pro forma balance sheet as of January 1, 2004
<b>Equity and minority interests</b>	<b>5,072</b>	<b>244</b>	<b>5,316</b>	<b>0</b>	<b>5,316</b>
Share capital	1,347	0	1,347	0	1,347
Consolidated premium and reserves <sup>(6)</sup>	2,803	295	3,098	(37)	3,061
Currency translation reserves	(37)	0	(37)	37	0
Net income attributable to equity holders of the parent	0	0	0	0	0
Minority interests	959	(51)	908	0	908
<b>Non-current liabilities</b>	<b>10,159</b>	<b>(3,868)</b>	<b>6,291</b>	<b>0</b>	<b>6,291</b>
Employee benefits	609	190	799	0	799
Provisions for end-of-life-cycle operations	8,371	(4,041)	4,330	0	4,330
Other non-current liabilities <sup>(7)</sup>	69	4	73	0	73
Long-term borrowings <sup>(8)</sup>	851	(180)	671	0	671
Deferred tax liabilities	259	159	418	0	418
<b>Current liabilities</b>	<b>10,960</b>	<b>(6)</b>	<b>10,954</b>	<b>0</b>	<b>10,954</b>
Provisions for Marcoule end-of-life-cycle operations <sup>(3)</sup>	3,945	0	3,945	0	3,945
Other current provisions	993	(3)	990	0	990
Negative goodwill	5	(5)	0	0	0
Short-term borrowings <sup>(9)</sup>	164	0	164	0	164
Advances and prepayments received	3,615	0	3,615	0	3,615
Trade accounts payable and related accounts	1,009	0	1,009	0	1,009
Other operating liabilities	1,158	2	1,160	0	1,160
Current tax liabilities	71	0	71	0	71
Other non-operating liabilities	0	0	0	0	0
<b>Total liabilities and equity</b>	<b>26,191</b>	<b>(3,630)</b>	<b>22,561</b>	<b>0</b>	<b>22,561</b>

(3) Assets and liabilities in respect of Marcoule decommissioning obligations covered by the agreement with CEA.

(6) Including 2003 net income attributable to equity holders of the parent.

(7) Provisions for reconstitution of mines and clean-up of equipment and industrial sites.

(8) Borrowings maturing after one year.

(9) Bank overdrafts and borrowings maturing in one year or less.

(B) The additional adjustments concern:

- the reduction of translation reserves to nil as of January 1, 2004 and their transfer to consolidated reserves, pursuant to the option authorized by IFRS 1.



## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## IFRS pro forma balance sheet as of December 31, 2004

ASSET (in millions of euros)	French GAAP balance sheet as of December 31, 2004, restated in IFRS format	IFRS adjustments presented in the 2004 Annual Report	IFRS pro forma balance sheet as of December 31, 2004, presented in the 2004 Annual Report	Additional IFRS account transfers and adjustments (A)	Definitive IFRS pro forma balance sheet as of December 31, 2004,
<b>Non current assets</b>	<b>16,267</b>	<b>(3,222)</b>	<b>13,045</b>	<b>86</b>	<b>13,131</b>
Goodwill, net	1,656	(8)	1,648	1	1,649
Intangible assets	596	0	596	1	597
Property, plant and equipment	4,761	(896)	3,865	0	3,865
including: end-of-life-cycle asset (AREVA share)	1,060	(898)	162	0	162
End-of-life-cycle asset (third party share)	4,312	(2,297)	2,015	0	2,015
Assets earmarked for end-of-life-cycle obligations	2,281	0	2,281	110	2,391
Equity associates <sup>(1)</sup>	1,314	21	1,335	(1)	1,334
Other non-current financial assets <sup>(2)</sup>	823	0	823	(24)	799
Pension fund assets	32	(22)	10	0	10
Deferred tax assets	492	(20)	472	(1)	471
<b>Current assets</b>	<b>8,392</b>	<b>(7)</b>	<b>8,385</b>	<b>(89)</b>	<b>8,296</b>
Inventories and work-in-process	2,088	10	2,098	(1)	2,097
Trade accounts receivable and related accounts	3,288	2	3,290	0	3,290
Other operating receivables	857	(1)	856	4	860
Current tax assets	116	0	116	0	116
Other non-operating receivables	404	(18)	386	(116)	270
Cash and cash equivalents <sup>(3)</sup>	1,054	0	1,054	0	1,054
Other current financial assets <sup>(4)</sup>	585	0	585	24	609
<b>Total assets</b>	<b>24,659</b>	<b>(3,229)</b>	<b>21,430</b>	<b>(3)</b>	<b>21,427</b>

(1) Including goodwill relating to equity associates.

(2) Long-term portfolio investments and non-current portion (maturing after one year) of financial loans and receivables.

(3) Liquid assets and risk-free marketable securities with an initial maturity of less than 3 months.

(4) Other marketable securities and current portion (maturing in one year or less) of financial loans and receivables.

(A) Account transfers:

- between non-operating receivables and end-of-life-cycle asset (CEA receivable of €110 million)
- between current and non-current financial assets.



## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## IFRS pro forma balance sheet as of December 31, 2004 (continued)

LIABILITIES AND EQUITY (in million of euros)	French GAAP balance sheet as of December 31, 2004, restated in IFRS format	IFRS adjustments presented in the 2004 Annual Report	IFRS pro forma balance sheet as of December 31, 2004, presented in the 2004 Annual Report	Additional IFRS account transfers and adjustments (B)	Definitive IFRS pro forma , balance sheet as of December 31, 2004
<b>Equity and minority interests</b>	<b>5,017</b>	<b>293</b>	<b>5,310</b>	<b>0</b>	<b>5,310</b>
Share capital	1,347	0	1,347	0	1,347
Consolidated premiums and reserves	2,583	298	2,881	(45)	2,836
Currency translation reserves	(117)	2	(115)	45	(70)
Net income attributable to equity holders of the parent	428	23	451	0	451
Minority interests	776	(30)	746	0	746
<b>Non-current liabilities</b>	<b>10,324</b>	<b>(3,527)</b>	<b>6,797</b>	<b>(75)</b>	<b>6,722</b>
Employee benefits	853	179	1,032	(1)	1,031
Provisions for end-of-life-cycle operations	8,258	(3,926)	4,332	0	4,332
Other non-current provisions <sup>(5)</sup>	134	6	140	(74)	66
Long-term borrowings <sup>(6)</sup>	744	0	744	0	744
Deferred tax liabilities	335	214	549	0	549
<b>Current liabilities</b>	<b>9,318</b>	<b>5</b>	<b>9,323</b>	<b>72</b>	<b>9,395</b>
Current provisions	1,238	7	1,245	78	1,323
Negative goodwill	2	(2)	0	0	0
Short-term borrowings <sup>(7)</sup>	199	0	199	0	199
Advances and prepayments received	4,326	0	4,326	0	4,326
Trade accounts payable and related accounts	1,688	0	1,688	3	1,691
Other operating liabilities	1,430	0	1,430	(18)	1,412
Current tax liabilities	91	0	91	0	91
Other non-operating liabilities	344	0	344	9	353
<b>Total liabilities and equity</b>	<b>24,659</b>	<b>(3,229)</b>	<b>21,430</b>	<b>(3)</b>	<b>21,427</b>

(5) Provisions for reconstitution of mines and clean-up of equipment and industrial sites.

(6) Borrowings maturing after one year.

(7) Bank overdrafts and borrowings maturing in one year or less.

(B) Transfer of translation reserves to consolidated reserves in line with the option applied as of January 1, 2004,  
Account transfer between current and non-current provisions.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## IFRS 2004 pro forma Income Statement

As FCI was sold in 2005 and all related income and expense items were reclassified to “Net income from discontinued operations” as required in IFRS 5.

(in millions of euros)	French GAAP 2004 Income Statement in IFRS format	IFRS adjustments presented in the 2004 Annual Report	IFRS pro forma 2004 Income Statement presented in the 2004 Annual Report	Transfer of FCI to “Net income from discontinued operations”	Additional account transfers (A)	Definitive IFRS 2004 pro forma income Statement
<b>Sales revenue</b>	<b>11,109</b>	<b>0</b>	<b>11,109</b>	<b>(1,288)</b>	<b>0</b>	<b>9,821</b>
<i>Other operating income</i>	8	0	8	(1)	0	7
Cost of sales	(8,355)	(139)	(8,494)	940	76	(7,478)
<b>Gross margin</b>	<b>2,762</b>	<b>(139)</b>	<b>2,623</b>	<b>(349)</b>	<b>76</b>	<b>2,350</b>
Research and development expenses	(402)	0	(402)	75	0	(327)
Sales and marketing expenses	(602)	0	(602)	102	0	(500)
General and administrative expenses	(787)	0	(787)	103	0	(684)
Other operating income and expenses	(232)	221	(11)	(17)	(76)	(104)
<b>Current operating income</b>	<b>739</b>	<b>82</b>	<b>821</b>	<b>(86)</b>	<b>0</b>	<b>735</b>
Restructuring and early retirement costs	(68)	(142)	(210)	5	0	(206)
Other non-current operating income and expenses	29	0	29	0	0	29
<b>Operating income</b>	<b>700</b>	<b>(60)</b>	<b>640</b>	<b>(81)</b>	<b>0</b>	<b>558</b>
<i>Income from cash and cash equivalent</i>	48	0	48	6	0	54
<i>Gross borrowing costs</i>	(30)	0	(30)	3	0	(27)
<b>Net borrowing costs</b>	<b>18</b>	<b>0</b>	<b>18</b>	<b>9</b>	<b>0</b>	<b>27</b>
<i>Other financial income and expenses</i>	33	(69)	(36)	6	0	(30)
<b>Net financial income/(expense)</b>	<b>51</b>	<b>(69)</b>	<b>(18)</b>	<b>15</b>	<b>0</b>	<b>(3)</b>
<b>Income tax</b>	<b>(198)</b>	<b>38</b>	<b>(160)</b>	<b>35</b>	<b>0</b>	<b>(124)</b>
<b>Net income of consolidated businesses</b>	<b>553</b>	<b>(91)</b>	<b>462</b>	<b>(31)</b>	<b>0</b>	<b>431</b>
Share in net income of equity associates	128	0	128	0	0	128
Goodwill amortization	(135)	135	0	-	-	0
<b>Net income before minority interests</b>	<b>546</b>	<b>44</b>	<b>590</b>	<b>(31)</b>	<b>0</b>	<b>559</b>
Minority interests	(118)	(21)	(139)	0	0	(139)
<b>Net income from continuing operations</b>	<b>428</b>	<b>23</b>	<b>451</b>	<b>(31)</b>	<b>0</b>	<b>420</b>
Net income from discontinued operations	-	-	-	31	-	31
<b>Net income attributable to equity holders of the parent</b>	<b>428</b>	<b>23</b>	<b>451</b>	<b>0</b>	<b>0</b>	<b>451</b>

(A) Transfer of amounts relating to the recognition of the agreements concerning the decommissioning of the Marcoule plant from “Other operating income and expenses” to “Cost of sales”.

## 5.5. Notes to the consolidated financial statements

Note 38. Summary of the impact of IFRS adoption on the balance sheet as of January 1, 2004, and December 31, 2004, and on the consolidated income statement for 2004

## Summary of the impact of IFRS adoption on AREVA consolidated equity, as of January 1, 2004, and December 31, 2004, and on the AREVA 2004 consolidated income statement for 2004

(in millions of euros)	Total AREVA equity as of January 1, 2004	Operating income	Net financial income/ (expense)	Exceptional items	Income tax	Share in net income of equity associates	Goodwill amort	2004 net income	T&D Opening BS	Goodwill- deferred tax - account transfers	Other movements	Total AREVA equity as of Decembre 31, 2004
<b>Published Attributable to equity holders of the parent (French GAAP)</b>	<b>4 113</b>							<b>428</b>			<b>(300)</b>	<b>4 241</b>
<b>Published minority interests (French GAAP)</b>	<b>959</b>							<b>118</b>			<b>(301)</b>	<b>776</b>
<b>Total (French GAAP)</b>	<b>5 072</b>	<b>613</b>	<b>117</b>	<b>46</b>	<b>(209)</b>	<b>131</b>	<b>(152)</b>	<b>546</b>			<b>(601)</b>	<b>5 017</b>
Discounting of end-of-life-cycle obligations (§ 5.1.9.3.1)	718	68	(69)					(1)			(4)	713
Employee benefits (§ 5.1.9.3.2)	(215)	66	(58)					8			6	(201)
Deferred tax (§ 5.1.9.3.7)	(247)				39			39	(50)	22	2	(234)
Goodwill, net (§ 5.1.9.3.3)	(17)	(8)	(9)				132	115	(76)	(22)	(6)	(6)
T&D restructuring costs (§ 5.1.9.3.1)		(142)						(142)	142		-	
Valuation of uranium trading inventories (§ 5.1.9.3.1)	9	2						2			-	11
Provisions other than end-of-life-cycle provisions	(1)	-						-	(16)		4	(13)
Equity associates	1			3		(3)	20	20			-	21
Account transfer from exceptional income to operating income	-	39		(39)				-			-	
Account transfer from exceptional income to current tax charge	-			(10)	10						-	
Other adjustments (non-current assets, inventories, trade receivables deferred charges, etc. )	(4)	2	1					3			3	2
<b>Total impact of IFRS adjustments (excl. IAS 32/39)</b>	<b>244</b>	<b>27</b>	<b>(135)</b>	<b>(46)</b>	<b>49</b>	<b>(3)</b>	<b>152</b>	<b>44</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>293</b>
Including: attributable to equity holders of the parent	295							23				323
minority interests	(51)							21			-	(30)
<b>Attributable to equity holders of the parent under IFRS</b>	<b>4 408</b>							<b>451</b>			<b>(295)</b>	<b>4 564</b>
<b>Minority interests under IFRS</b>	<b>908</b>							<b>139</b>			<b>(301)</b>	<b>746</b>
<b>Total under IFRS (excl. IAS 32/39)</b>	<b>5 316</b>	<b>640</b>	<b>(18)</b>	<b>-</b>	<b>(160)</b>	<b>128</b>	<b>-</b>	<b>590</b>			<b>558</b>	<b>5 310</b>

## 5.5. Notes to the consolidated financial statements

Note 39. Impact of first-time adoption of IAS 39 and IAS 32 on the balance sheet as of January 1, 2005

## NOTE 39. IMPACT OF FIRST-TIME ADOPTION OF IAS 39 AND IAS 32 ON THE BALANCE SHEET AS OF JANUARY 1, 2005

The table below shows the transition from the balance sheet as of December 31, 2004, under IFRS, excluding IAS 32 and 39, to the balance sheet as of January 1, 2005, including IAS 32 and 39.

It presents the various adjustments made, with the following net impact on equity:

Equity attributable to equity holders of the parent	+ 364
Minority interests	(377)
Total equity and minority interests	(13)

The main adjustments are:

### Reclassification of Marketable securities (equities) to Non-current financial assets

The portfolio of Total, Alcatel, Société Générale and Assystem Brime shares held by AREVA as of December 31, 2004 was recognized in "Available-for-sale securities" under IFRS 39.

The shares were reclassified from "Other current financial assets" to "Other non-current financial assets" for €353 million, corresponding to their net carrying amount under French GAAP before adjustment to fair value.

### Lasting impairment of available-for-sale securities

Lasting impairment of available-for-sale securities is established retroactively using criteria defined in Note 1 regarding accounting principles (paragraph 1.13). Lasting impairment is recognized when the sliding 12-month average of the market price of the share is less than 70% of its initial fair value. The impairment is equal to the difference between the stock market price of a share at the end of the year and the initial fair value.

Based on these criteria, impairment representing €71 million was added to the provisions already recognized under French GAAP. The impairment was recognized through consolidated reserves.

### Fair value accounting of available-for-sale securities

Available-for-sale securities were recognized at fair value effective January 1, 2005. Shares traded on a stock exchange are valued at market price on December 31, 2004.

The difference between the fair value of available-for-sale securities at January 1, 2005 and their purchase price less impairment is €509 million. This amount was recognized through equity under "Deferred unrealized gains and losses"

### Adjustment to STMicroelectronics treasury shares

Treasury shares held by STMicroelectronics are recognized as a reduction in equity of this company, thus removing €21 million from the value of these shares, which are equity accounted.

### Accounting for put options held by minority shareholders of AREVA group subsidiaries

Put options held by minority shareholders in Framatome ANP (AREVA NP) and Eurodif were valued on January 1, 2005 according to the discounted cash flow method, based on the latest multi-year forecasts prepared by these companies. The discount rate used reflects the time value of money and the market risk premium as of that date.

The value calculated, i.e. €931 million, was recognized under "Long-term borrowings" and offset by:

- minority interests, for €374 million, and
- an increase in goodwill for the remainder, i.e. €557 million.

## 5.5. Notes to the consolidated financial statements

Note 39. Impact of first-time adoption of IAS 39 and IAS 32 on the balance sheet as of January 1, 2005

## **Fair value accounting of cash flow hedges**

Derivative instruments use to hedge the fair value of future probable cash flows exposed to risk on sales and procurements in foreign currencies or the cost of commodities were recognized at fair value on January 1, 2004. A total of €24 million was recognized under "Other operating receivables", offset through equity under "Unrealized deferred gains and losses".

## **Other impacts of first-time adoption of IAS 39: accounting for fair value hedges and derivative instruments not qualifying for hedge accounting**

All derivative instruments designated as fair value hedges (hedging the fair value of receivables, sales and procurements in foreign currencies or interest rate risk on loans and borrowings) were recognized at fair value on January 1, 2004. The firm commitments hedged were recognized in the same manner. Derivative instruments not qualifying for hedge accounting were also recognized at fair value.

These instruments were recognized in several asset accounts for €108 million and liability accounts for €109 million. Accordingly, the impact on equity was negligible.

## 5.5. Notes to the consolidated financial statements

Note 39. Impact of first-time adoption of IAS 39 and IAS 32 on the balance sheet as of January 1, 2005

## Balance sheet as of December 31, 2004 restated for IFRS, including IAS 32 and 39

ASSET (in millions of euros)	Balance sheet as of December 31, 2004 restated from IFRS excl. IAS 32/39	Reclassification: available- for-sale securities <sup>(1)</sup>	Reclassification of STMicroelectronics <sup>(2)</sup>	Permanent Impairment: of available-for- sale securities <sup>(3)</sup>	FV gains/ losses available- for-sale securities <sup>(4)</sup>	FV gains/ losses: securities held for trading <sup>(5)</sup>
<b>Non-current assets</b>	<b>13,131</b>	<b>353</b>	<b>(21)</b>	<b>(71)</b>	<b>509</b>	<b>0</b>
Goodwill on consolidated companies	1,649					
Intangible assets	597					
Property, plant and equipment	3,865					
End-of-life-cycle asset (AREVA share)	162					
End-of-life-cycle asset (third party share)	2,015					
Financial asset earmarked for end-of-life-cycle obligations	2,391			(67)	184	
Equity associates	1,334		(21)			
Other non-current financial assets	799	353		(4)	325	
Pension fund assets	10					
Deferred tax assets	471					
<b>Current assets</b>	<b>8,296</b>	<b>(353)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
Inventories and work-in-process	2,097					
Trade accounts receivable and related accounts	3,290					
Other operating receivables	860					
Current tax-Asset	116					
Other non-operating receivables	270					
Cash and cash equivalents	1,054					1
Other current financial assets	609	(353)				4
<b>Total assets</b>	<b>21,427</b>	<b>0</b>	<b>(21)</b>	<b>(71)</b>	<b>509</b>	<b>5</b>

## SHAREHOLDERS' EQUITY AND LIABILITIES

(in millions of euros)

<b>Equity and minority interests</b>	<b>5,310</b>	<b>0</b>	<b>(21)</b>	<b>(71)</b>	<b>509</b>	<b>5</b>
Share capital	1,347					
Consolidated premiums and reserves	2,836					
Currency translation reserves	(70)					
Net income attributable to equity holders of the parent	451					
Deferred unrealized gains and losses	0					
Minority interests	746					
<b>Non-current liabilities</b>	<b>6,722</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Employee benefits	1,031					
Provisions for end-of-life-cycle operations	4,332					
Other non-current provisions	66					
Long-term borrowings	744					
Deferred tax liabilities	549					
<b>Current liabilities</b>	<b>9,395</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Current provisions	1,323					
Negative goodwill	0					
Short-term borrowings	199					
Advances and prepayments received	4,326					
Trade accounts receivable and related accounts	1,691					
Other operating liabilities	1,412					
Current tax liabilities	91					
Other non-operating liabilities	353					
<b>Total liabilities and equity</b>	<b>21,427</b>	<b>0</b>	<b>(21)</b>	<b>(71)</b>	<b>509</b>	<b>5</b>

(1) Marketable securities shares transferred to "Available-for-sale securities".

(2) Elimination of treasury shares held by STMicro

(3) Permanent impairment of available-for-sale securities, determined retrospectively

(4) Revaluation of available-for-sale securities, to market value as of December 31, 2004

(5) Revaluation of securities held for trading, to market value as of December 31, 2004

## 5.5. Notes to the consolidated financial statements

Note 39. Impact of first-time adoption of IAS 39 and IAS 32 on the balance sheet as of January 1, 2005

Put options held by minority interests <sup>(6)</sup>	Revaluation inventories and derivatives for trading operations <sup>(7)</sup>	Fair value of Framépargne instrument <sup>(8)</sup>	Cash flows <sup>(9)</sup>	Other IAS 39 impacts: fair value hedges and ineligible derivative instrument <sup>(10)</sup>	Deferred tax impact <sup>(11)</sup>	Total IAS 32/39 adjustments	Balance sheet as of January 1, 2005 restated for IAS 32/39
<b>557</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>(32)</b>	<b>1,312</b>	<b>14,441</b>
557						557	2,206
						0	597
						0	3,865
						0	162
						0	2,015
						117	2,508
						(21)	1,313
				17		691	1,490
						0	10
					(32)	(32)	439
<b>0</b>	<b>33</b>	<b>0</b>	<b>24</b>	<b>91</b>	<b>0</b>	<b>(200)</b>	<b>8,096</b>
	28					28	2,125
	5		24	1		1	3,291
				88		117	977
				(1)		0	116
				3		(1)	269
						1	1,055
						(346)	263
<b>557</b>	<b>33</b>	<b>0</b>	<b>24</b>	<b>108</b>	<b>(32)</b>	<b>1,112</b>	<b>22,537</b>
<b>(374)</b>	<b>0</b>	<b>12</b>	<b>24</b>	<b>(1)</b>	<b>(94)</b>	<b>(11)</b>	<b>5,297</b>
							1,347
							2,780
							(70)
							451
							420
							369
<b>931</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>62</b>	<b>999</b>	<b>7,721</b>
						0	1,031
						0	4,332
						0	66
931		6				937	1,681
					62	62	611
<b>0</b>	<b>33</b>	<b>(18)</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>124</b>	<b>9,519</b>
		(18)		0		(18)	1,305
				4		0	0
				4		4	203
				4		0	4,326
	33			100		4	1,695
						133	1,545
				1		0	91
						1	354
<b>557</b>	<b>33</b>	<b>0</b>	<b>24</b>	<b>108</b>	<b>(32)</b>	<b>1,112</b>	<b>22,537</b>

(6) Recording of sell options held by minority shareholders of consolidated subsidiaries.

(7) Revaluation of inventories and derivative instruments included in contracts related to uranium trading activity, to fair value as of December 31, 2004.

(8) Revaluation of commitments given by AREVA to the Framépargne mutual fund, to fair value as of December 31, 2004.

(9) Revaluation of derivative instruments designated as cash flow hedges, to fair value as of December 31, 2004.

(10) Revaluation of derivatives designated as fair value hedges, of hedged commitments and of derivatives not qualifying for hedge accounting.

(11) Deferred tax on adjustments.

## 5.6. AREVA SA Financial statements 2005

### 5.6.1. STATUTORY AUDITORS' REPORT ON THE FINANCIAL STATEMENTS

*This is a free translation into English of the Statutory Auditors' reports issued in the French language and is provided solely for the convenience of English speaking readers. The Statutory Auditors' report includes for the information of the reader, as required under French law in any auditor's report, whether qualified or not, explanatory paragraphs separate from and presented below the audit opinion discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the financial statements taken as a whole and not to provide separate assurance on individual account caption or on information taken outside of the financial statements. Such report, together with the Statutory Auditors' report addressing financial reporting in the Chairman of the Supervisory Board of Directors' report on internal control, should be read in conjunction and construed in accordance with French law and French auditing professional standards applicable in France.*

#### To the shareholders

In accordance with our appointment as Statutory Auditors at your Annual General Meeting, we hereby report to you for the year ended December 31, 2005 on:

- the audit of the accompanying financial statements of AREVA (Société des Participations du Commissariat à l'Énergie Atomique),
- the justification of our assessments, and
- the specific procedures and disclosures required by law.

These financial statements have been approved by the Executive Board. Our role is to express an opinion on these financial statements, based on our audit.

#### I - Opinion on the financial statements

We conducted our audit in accordance with professional standards applicable in France. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements give a true and fair view of the financial position and the assets and liabilities of the Company as at December 31, 2005, and the results of its operations for the year then ended in accordance with rules and accounting principles generally accepted in France.



## II - Justification of our assessments

Pursuant to the provisions of Article L. 823-9 of the French Commercial Code governing the justification of our assessments, we draw your attention to the following:

Participating interests were valued in accordance with the accounting methods described in the Note “Accounting principles, rules and methods – Long-term investments” to the financial statements. As part of our procedures, we reviewed the appropriateness of these accounting methods as well as the reasonableness of the assumptions adopted and the resulting valuations.

These assessments were performed as part of our audit approach for the financial statements taken as a whole and therefore contribute to the expression of the unqualified opinion in the first part of this report.

## III - Specific procedures and disclosures

We have also performed the other procedures required by law, in accordance with professional standards applicable in France.

We have no comment to make as to the fair presentation and consistency with the financial statements of the information given in the report of the Executive Board and in the documents addressed to the shareholders with respect to the financial position and the financial statements.

Pursuant to the law, we assured ourselves that the information relating to the acquisition of interests or control and the identity of the holders of share capital and voting rights have been presented in the Management report.

Paris, March 9, 2006

The Statutory Auditors

Deloitte & Associés

Mazars & Guérard

Salustro Reydel  
Member of KPMG International

Pascal Colin

Jean-Paul Picard

Thierry Blanchetier

Michel Rosse

Denis Marangé

## 5.6. AREVA SA Financial statements 2005

## 5.6.2. BALANCE SHEET

ASSETS <i>(in millions of euros)</i>	December 31, 2005			December 31, 2004
	Gross	Depr/ Amort.Prov.	Net	Net
Subscribed capital not issued				
<b>NON-CURRENT ASSETS</b>				
<b>Intangible assets</b>				
Start-up costs				
Research and development expenses				
Concessions, patents, licenses, software and similar rights	1,960	1,558	402	767
Goodwill <sup>(1)</sup>				
Other intangible assets				
Intangible assets in progress				
Advances and prepayments				
<b>Property, Plant and Equipment</b>				
Land	638	99	540	772
Buildings	5,449	5,077	372	605
Plant, equipment and tooling	301	259	42	28
Other PP&E	11,992	3,107	8,885	6,329
PP&E in progress	2,486		2,486	1,293
Advances and prepayments				
<b>Long-term investments <sup>(2)</sup></b>				
Equity associates	2,898,337	14,646	2,883,691	2,686,944
Loans to equity associates	467,358	542	466,816	385,206
Long-term financial portfolio				
Other long-term securities	6,173	1,746	4,428	6,033
Loans	26		26	27
Other long-term investments	268,077		268,077	288,780
<b>Total fixed asset</b>	<b>3,662,796</b>	<b>27,034</b>	<b>3,635,763</b>	<b>3,376,783</b>
<b>CURRENT ASSETS</b>				
<b>Inventories and work-in-process</b>				
Raw materials and other supplies				
Goods and services in process				
Intermediate and finished products				
Goods				
<b>Prepayments and advances on orders</b>	<b>5,170</b>		<b>5,170</b>	<b>269</b>
<b>Accounts receivable <sup>(3)</sup></b>				
Trade accounts receivable and related accounts	59,688	25	59,663	52,709
Other accounts receivable	189,963	7,543	182,420	93,978
Subscribed capital – issued and not paid				
<b>Marketable securities</b>				
Treasury shares				
Other securities	1,290,201		1,290,201	867,084
Cash instruments	452		452	655
<b>Cash and cash equivalents</b>	<b>709,500</b>		<b>709,500</b>	<b>795,570</b>
Prepaid expenses <sup>(3)</sup>	4,911		4,911	1,028
<b>Total working capital</b>	<b>2,259,885</b>	<b>7,569</b>	<b>2,252,316</b>	<b>1,811,294</b>
Deferred charges				
Loan redemption premium				
Unrealized foreign exchange losses	17		17	3,541
<b>Grand total</b>	<b>5,922,698</b>	<b>34,602</b>	<b>5,888,096</b>	<b>5,191,618</b>

(1) Including lease agreements.

(2) Including maturities of less than one year (gross).

(3) Including maturities of more than one year (gross).

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Cash and cash equivalents include non-trade current accounts totaling €686,198,000.

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## 5.6. AREVA SA Financial statements 2005

## SHAREHOLDERS' EQUITY AND LIABILITIES

*(in millions of euros)*

	December 31, 2005 Net	December 31, 2004 Net
<b>SHAREHOLDERS' EQUITY</b>		
Share capital (including capital issued and paid: 1,346,823)	1,346,823	1,346,823
Additional paid-in capital, merger premiums, share premiums	328,289	328,289
Revaluation adjustments		
Equity method adjustment		
Reserves:		
- Legal reserve	134,682	141,085
- Reserves provided in the by laws or by contract		
- Regulated reserves	3,304	3,304
- Other reserves	6,403	
Retained earnings	184,518	212,829
<b>Net income for the year</b>	<b>347,951</b>	<b>301,555</b>
Investment subsidies		
Tax-drivers provisions	546	1,169
<b>Total shareholders' equity</b>	<b>2,352,515</b>	<b>2,335,054</b>
<b>OTHER SHAREHOLDERS' EQUITY</b>		
Proceeds from issue of participating shares		
Advances subject to covenants		
Other shareholders' equity	212,647	212,647
<b>Total other shareholders' equity</b>	<b>212,647</b>	<b>212,647</b>
<b>PROVISIONS FOR CONTINGENCIES AND LOSSES</b>		
Provisions for contingencies	44,230	58,261
Provisions for losses	100,804	74,937
<b>Total provisions for contingencies and losses</b>	<b>145,034</b>	<b>133,199</b>
<b>DEBT <sup>(1)</sup></b>		
Convertible bond issues		
Other bond issues		
Bank borrowings <sup>(2)</sup>	5,122	4,308
Miscellaneous loans and borrowings <sup>(3)</sup>	3,077,724	2,407,800
Trade advances and prepayments on orders in progress		28,625
Trade accounts payable and related accounts	49,726	35,618
Taxes and social security taxes	18,666	19,734
Accounts payable on non-current assets and related accounts	682	1,660
Other liabilities	25,924	12,258
Cash instruments	48	711
Deferred income <sup>(1)</sup>		
<b>Total borrowings</b>	<b>3,177,891</b>	<b>2,510,714</b>
Unrealized foreign exchange gains	8	4
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITY</b>	<b>5,888,096</b>	<b>5,191,618</b>
<i>(1) Including maturities of more than one year (a).</i>	360,000	356
<i>(1) Including maturities of less than one year (a).</i>	2,817,891	2,481,733
<i>(2) Short-term bank facilities and bank credit balances.</i>	5,122	4,308
<i>(3) Including equity loans.</i>		
<i>(a) Excluding trade advances and prepayments.</i>		

"Miscellaneous loans and borrowings" include non-trade current liabilities totaling €3,074,646,000.

## 5.6. AREVA SA Financial statements 2005

## 5.6.3. INCOME STATEMENT

	2005			2004
	France	Export	Total	Total
<i>(in millions of euros)</i>				
<b>OPERATING INCOME <sup>(1)</sup></b>				
Sales of goods				
Sales of products				
Sales of services	97,983		97,983	86,585
<b>Net sales</b>	<b>97,983</b>		<b>97,983</b>	<b>86,585</b>
Production in inventory				
Self-constructed assets				
Net partial proceeds from long-term transactions				
Operating subsidies				
Reversal of provisions and transfer of expenses			819	396
Other income			238	172
<b>Total operating income</b>			<b>99,040</b>	<b>87,152</b>
<b>OPERATING EXPENSES <sup>(2)</sup></b>				
Purchases of goods				
Change in inventory				
Purchases of raw materials and other supplies				
Change in inventory				
Other purchases and expenses <sup>(a)</sup>			138,248	127,068
Taxes and related expenses			7,903	5,808
Salaries and other compensation			18,782	16,582
Social security taxes			12,230	10,929
Amortization, depreciation and provisions:				
- On non-current assets: to depreciation and amortization			1,987	2,215
- On non-current assets: charge to provisions				
- On current assets: charge to provisions			156	1,083
- Provisions for contingencies and losses: charge			171	
Other expenses			1,147	787
<b>Total operating expenses</b>			<b>180,623</b>	<b>164,473</b>
<b>Current operating loss</b>			<b>(81,583)</b>	<b>(77,320)</b>
<b>Share in net income from joint operations</b>				
Profit allocated or loss transferred				
Loss allocated or profit transferred			184	-
<b>Financial income</b>				
From equity associates <sup>(3)</sup>			151,804	290,325
From other marketable securities and capitalized receivables <sup>(3)</sup>			464	0
Other interest and related income <sup>(3)</sup>			85,008	53,324
Reversal of provisions and transfer of expenses			82,244	4,730
Foreign exchange gains			141,685	252,580
Net income from disposals of marketable securities				39,558
<b>Total financial income</b>			<b>461,204</b>	<b>640,518</b>
<b>FINANCIAL EXPENSES</b>				
Amortization and provisions			6,043	28,751
Interest and related expenses <sup>(4)</sup>			156,076	64,704
Foreign exchange losses			153,988	243,577
Net loss on disposals of marketable securities				
<b>Total financial expenses</b>			<b>316,108</b>	<b>337,033</b>
<b>Net financial income</b>			<b>145,097</b>	<b>303,485</b>
<b>Income before exceptional items and tax</b>			<b>63,329</b>	<b>226,165</b>

### 5.6.3. INCOME STATEMENT (CONTINUED)

<i>(in millions of euros)</i>	2005	2004
<b>EXCEPTIONAL ITEMS</b>		
From financial management transactions	2,084	1,138
From capital or non-current asset transactions	634,536	71,088
Reversal of provisions and transfer of expenses	2,205,943	6,189
<b>Total exceptional items</b>	<b>2,842,562</b>	<b>78,415</b>
<b>EXCEPTIONAL EXPENSES</b>		
From financial management transactions	621	383
From capital or non-current assets transactions	2,579,773	19,547
Amortization, depreciation and provisions	75,037	13,539
<b>Total exceptional expenses</b>	<b>2,655,430</b>	<b>33,469</b>
<b>Exceptional items</b>	<b>187,132</b>	<b>44,946</b>
Employee profit-sharing	-	-
Income tax	(97,489)	(30,444)
<b>Total income</b>	<b>3,402,807</b>	<b>806,085</b>
<b>Total expenses</b>	<b>3,054,856</b>	<b>504,530</b>
<b>Net income</b>	<b>347,951</b>	<b>301,555</b>
<i>(a) Including:</i>		
- Finance lease payments (property).		
- Finance lease payments (real estate).		247
(1) Including income from prior years.		
(2) Including expenses from prior years.		
(3) Including income from related parties.	168	
(4) Including interest paid to related parties.	156	

## 5.6. AREVA SA Financial statements 2005

## 5.6.4. CONSOLIDATED CASH FLOW STATEMENT

<i>(in millions of euros)</i>	2005	2004
<b>CASH FROM OPERATING ACTIVITIES</b>		
Net income for the year	348	302
Net depreciation and amortization	2	2
Net provisions	(73)	34
Loss (gain) on disposals of non-current assets and investment	(186)	(91)
Non-deductible interest on perpetual subordinated bonds	(3)	(1)
Change in trade advances and prepayments	(24)	29
Change in accounts receivable and other receivables	70	32
Change in accounts payable and other liabilities	28	(82)
Other	-	20
<b>Total cash flow from operating activities (I)</b>	<b>162</b>	<b>242</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>		
Investment in PP&E and intangible assets	(5)	(5)
Net investment in long-term notes and investments	(727)	(1,027)
Reduction of long-term notes and investments	5	35
Repayment of loans to equity associates	3	320
Security deposits	-	(2)
Loans	-	-
Disposals of PP&E and intangible assets	3	70
Disposals of long-term notes and investments	633	1
Change in non-current asset receivables and debt	1	31
Other	-	-
<b>Total cash flow (used in investing activities) (II)</b>	<b>(88)</b>	<b>(577)</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>		
Dividends paid by AREVA	(340)	(220)
Change in borrowings, excluding non-deductible interest on perpetual subordinated bonds	-	-
<b>Total cash flow used in financing activities (III)</b>	<b>(340)</b>	<b>(220)</b>
Change in investment securities	-	111
<b>Change in net cash (I + II + III)</b>	<b>(265)</b>	<b>(444)</b>
<b>Net cash at the beginning of the year (A)</b>	<b>(961)</b>	<b>(517)</b>
<b>Net cash at the end of the year (B)</b>	<b>(1,226)</b>	<b>(961)</b>
<b>Change in net cash (B - A)</b>	<b>(265)</b>	<b>(444)</b>
Change in investment securities		
<b>Net change in cash position</b>	<b>(265)</b>	<b>(444)</b>

## 5.7. Notes to the corporate financial statements

The notes hereunder supplement the balance sheet, before appropriation of earnings for the year ended December 31, 2005, showing total assets of €5,888,096K, and the income statement, showing net income of €347,951K. These statements are for the twelve-month period beginning January 1 and ending December 31, 2005.

These notes include:

Highlights of the year and

- Accounting policies, rules and methods
- Notes to the balance sheet
- Notes to the income statement
- Additional information

These notes and tables are an integral component of the financial statements approved by AREVA's Supervisory Board.

### 5.7.1. SCOPE OF BUSINESS

AREVA is a services and financial holding company. Services provided include centralized cash management and consulting and support services for the Group.

### 5.7.2. HIGHLIGHTS OF THE YEAR

AREVA sold the FCI Division to investment fund Bain Capital for €582 million. This sale contributed €853 million to net cash.

Amendment 11 to the T&D purchase agreement between Alstom and AREVA was signed on September 30, 2005. It sets the definitive price for all transferred assets. This amendment had no significant impact on AREVA's income statement for the year.

In 2005, AREVA acquired Suez shares for €646 million.

AREVA acquired a 21.2% stake in REpower, a German designer and manufacturer of wind turbines, for €27 million.

The seventh and last installment payment from the liquidation of Creusot Loire was received in 2005 (€2.9 million). The total final uncollectible amount is €53.6 million.

## 5.7. Notes to the corporate financial statements

## 5.7.3. ACCOUNTING POLICIES, RULES AND METHODS

## 5.7.3.1. Rules and methods concerning balance sheets accounts

The financial statements of AREVA SA for the year ended December 31, 2005, were prepared in accordance with French accounting standards as defined and amended by regulation 99-03 of April 29, 1999, published by the French Accounting Board.

***Property, plant and equipment and intangible assets***

Assets held by AREVA SA are comprised mostly of office improvements, furniture, and computer equipment. Accordingly, the new regulation on assets had no material impact on the presentation of the company's corporate financial statements.

Property, plant and equipment and intangible assets appear on the balance sheet at cost, in accordance with applicable regulations.

Depreciation and amortization is calculated using the most appropriate method for the asset category.

Off-the-shelf software is amortized over 3 years or less, buildings are depreciated over 25 years, building improvements and office furniture over 10 years, and office equipment, computers and transportation equipment over 5 years.

Each asset is subject to an individual depreciation schedule. A provision may be recorded when a specific asset's book value exceeds its value in use.

***Long-term notes and investments***

Long-term notes and investments are recorded on the balance sheet at cost on the day of contribution or acquisition.

A provision for write-down of equity associates is recorded when their original cost exceeds their value in use, determined security by security.

The provision is computed based on the Group's interest in each associate's equity (or consolidated equity for first-tier companies) as of year-end. However, this valuation also takes into account events or positions subsequent to year-end, when they are known before closing, as well as each subsidiary's estimated profitability or market value.

AREVA's interest in AREVA T&D, Inc. will be sold at cost to AREVA T&D Holding in 2006. Accordingly, no provision was recorded for this interest.

***Receivables and debt***

Receivables and debt are recorded at nominal value. Receivables may be written down to reflect potential collection difficulties based on information available at closing.

Receivables and borrowings in foreign currencies are translated and recorded in euros based on exchange rates in effect at year-end.

Unrealized losses and gains are recorded on the balance sheet as currency translation differences.

Receivables and borrowings in foreign currencies whose exchange rates have been hedged are recorded in euros based on the hedged rate. Unrealized foreign exchange losses are recognized through a contingency provision.

***Marketable securities***

Marketable securities are valued at acquisition cost or at current value if the latter is lower. A provision for impairment is recorded when the valuation as of the end of the period shows an overall loss by class of securities. The current value is equal to the average closing market price of the securities during the last month of the period.

A provision for impairment of other cash investments, such as debt instruments that are not publicly traded, is recorded separately when warranted.

***Other shareholders' equity***

The gross amount of the perpetual subordinated bond issue is recorded as "Other shareholders' equity" and remains at its original cost.

The amount of the deposit deducted from this issue and paid to an investment firm is recorded under "Other long-term notes and investments". This deposit, recorded on the balance sheet at its original cost on the date of the perpetual subordinated debt issue, can be recovered only under exceptional circumstances.

***Provisions for contingencies and losses***

AREVA SA records provisions for contingencies and losses, for instance to cover restructuring or litigation expenses.

AREVA recorded a provision for deferred tax liability to recognize the expected use of tax losses that the French subsidiaries are entitled to apply against future profits, as provided under French tax consolidation rules (see 1.3).

AREVA's provisions for contingencies and losses are consistent with French accounting board rules on liabilities, dated December 7, 2000 (CRC 2000-06).



## 5.7. Notes to the corporate financial statements

**Pension commitments**

The financial statements reflect all of AREVA's pension, retirement and related benefit commitments, both for active personnel and for retirees, net of any plan assets and unrecognized gains covering the liabilities.

For defined contribution plans, payments by the Group are recorded as expenses for the period to which they relate.

For defined benefit plans, benefit costs are estimated using the projected unit credit method. Under this method, accrued pension benefits are allocated among service periods based on the plan vesting formula. If services in subsequent years result in accrued benefit levels that are substantially higher than those of previous years, the company must allocate the accrued benefits on a straight-line basis. The amount of future benefit payments to employees is determined based on salary trend assumptions, retirement age and mortality, discounted to present value based on interest rates for long-term bonds from AAA issuers.

Actuarial gains and losses spread out over the average expected remaining working life of personnel taking part in these plans for the portion exceeding the largest of the following values by more than 10%:

- the present value of the defined benefit obligation at the balance sheet date,
- the fair value of plan assets at the balance sheet date.

The costs of plan changes are allocated over the vesting period.

**5.7.3.2. Cash flow statement**

AREVA has adopted the indirect method of presentation, which starts with net income for the period.

Cash consists of the following items: cash and cash equivalents, bank credit balances, short-term investments with maturities of less than three months and current accounts.

**5.7.3.3. Tax data**

AREVA received a renewal of regulatory approval to submit a consolidated tax return under article 209-5 of the French Tax Code for the period 2005/2007. All French and foreign companies owned 50% or more are included in the tax consolidation scope.

Under the rules governing consolidated tax returns, income tax expense is computed based on the Group's consolidated taxable income rather than on taxable income reported by AREVA SA.

AREVA has also elected to adopt the provisions of articles 223A et seq. of the French Tax Code concerning tax integration. The provisions of the tax integration agreements signed between AREVA and its tax-integrated subsidiaries are subject to common law.

## 5.7. Notes to the corporate financial statements

## 5.7.4. NON-CURRENT ASSETS

## 5.7.4.1. Non-current assets

BOX A		Gross value at the beginning of the year	Increases	
			Revaluations	Acquisitions
<b>Intangible assets</b>				
Start-up costs and R&D expenses	<b>Total I</b>	-	-	-
Other intangible assets	<b>Total II</b>	<b>1,694</b>	-	<b>266</b>
<b>Property, plant and equipment</b>				
Land		942	-	-
Buildings erected on owned land		4,635		
Buildings erected on third party land		-	-	-
Building facilities, fixtures and improvements		3,574	-	-
Plant, equipment and tooling		431	-	32
Miscellaneous facilities, fixtures and improvements		5,736	-	3,023
Transportation equipment		169	-	
Office equipment, computer equipment and furniture		2,366	-	857
Recyclable packaging and miscellaneous		-	-	-
PP&E in progress		1,293	-	1,193
Advances and prepayments		-	-	-
	<b>Total III</b>	<b>19,146</b>	-	<b>5,104</b>
<b>Long-term notes and investments</b>				
Equity associates	-	-	-	
Other investments		4,834,399	-	673,780
Other long-term securities		7,934	-	1,289
Loans and other long-term investments		732,478	-	233,176
	<b>Total IV</b>	<b>5,574,811</b>	-	<b>908,245</b>
<b>Grand total</b>	<b>(I + II + III + IV)</b>	<b>5,595,651</b>	-	<b>913,615</b>

BOX B		Decreases		Gross value at the end of the year	Revaluation of initial value
		Reclassifications	Disposals		
<b>Intangible assets</b>					
Start-up costs and R&D expenses	(I)	-	-	-	-
Other intangible assets	(II)	-	-	1,960	-
<b>Property, plant and equipment</b>					
Land		-	304	638	-
Buildings erected on owned land		-	2,044	2,590	-
Buildings erected on third party land		-	-	-	-
Building facilities, fixtures and improvements		-	715	2,859	-
Plant, equipment and tooling		-	162	301	-
Miscellaneous facilities, fixtures and improvements		-	97	8,662	-
Transportation equipment		-	63	106	-
Office equipment, computer equipment and furniture		-	-	3,224	-
Recyclable packaging and miscellaneous		-	-	-	-
PP&E in progress		-	-	2,486	-
Advances and prepayments		-	-	-	-
	Total III	-	3,385	20,865	-
<b>Long-term notes and investments</b>					
Equity associates		-	-	-	-
Other investments		-	2,609,842	2,898,337	-
Other long-term securities		-	3,050	6,173	-
Loans and other long-term investments		-	230,193	735,461	-
	Total IV	-	2,843,085	3,639,971	-
<b>Grand total</b>	<b>(I + II + III + IV)</b>		<b>2,846,470</b>	<b>3,662,796</b>	

## 5.7. Notes to the corporate financial statements

**Property, plant and equipment**

The decrease in “Land” and “Buildings” reflects several asset disposals in 2005, mostly at the Chalon-sur-Saône site.

**Long-term notes and investments**

- “Other investments” in the amount of €2,898,337K are essentially comprised of the following holdings:

– Cere	€251,541K
– AREVA NC	€703,929K
– Eramet	€291,693K
– AREVA NP	€277,638K
– AREVA T&D Holding	€500,000K
– Suez	€646,303K

Increases are mainly related to the following transactions: acquisition of Suez shares for €646,303K; acquisition of REpower Systems AG shares for €27,374K.

Decreases primarily reflect the disposal of FCI, as described in the Highlights of the year, for a gross amount of €2,505,872K. Other decreases include the disposal of AREVA T&D UK to AREVA T&D Holding at its original cost (€48,949K) and the disposal of Framapar to CCF for €1.00, as provided in the joint ownership agreement.

- The heading “Loans and other long-term investments” includes:

	December 31, 2004	Additions	Decreases	December 31, 2005
Loans to equity associates	387,142	230,312	150,096	467,358
Loans	56,556	-	56,530	26
Other long-term notes and investments	288,780	2,864	23,567	268,077

- “Loans to equity associates” concern medium-term loans made to certain Group companies, mainly:

AREVA T&D Holding (€331,742K), Cogema, Inc. (USD 81,000K) and UG Deutschland (USD 44,025K).

- “Loans”: The opening balance includes a loan to Creusot Loire in the gross amount of €56.5 million. A provision for write-down had been recorded for the full amount. The seventh and last installment payment for the liquidation of this company was received in 2005 (€2.9 million). On December 31, 2005, the residual balance of the loan was written off (€53.6 million). The provision was reversed for €56.5 million, generating a profit of €2.9 million recognized in 2005.

- “Other long-term notes and investments” mainly include:

- €150,000K corresponding to an advance paid for the acquisition of interest in ETC, a subsidiary of the Urenco group. In 2003, the AREVA group decided to invest in the gaseous centrifuge uranium enrichment process. Consequently, AREVA entered into certain agreements with shareholders of Urenco, the owner of the technology, to acquire 50% of their technology subsidiary, ETC. The goal of these agreements is also to acquire the right to use the technology and to procure centrifuge cascades and associated services needed to build the Georges Besse II plant. In 2003, AREVA made a down payment in the amount of €150 million towards the overall purchase price for the interest in ETC and for the right to use the centrifuge enrichment technology.
- €64,717K corresponding to the amount of the deposit paid to an investment firm (USD 76,085K) out of proceeds from a perpetual subordinated debt issue (see section 2.10). This deposit, which can be recovered only under exceptional circumstances, is recorded on the balance sheet at the rate of exchange in effect on the date of the perpetual debt issue (1 USD = €0.85059).
- €49,604K corresponding to non-deductible interest on the perpetual subordinated debt.

## 5.7. Notes to the corporate financial statements

## 5.7.4.2. Depreciation and amortization

*Balance and transactions during the year*

BOX A		Value at the beginning of the year	Charge	Reversal	Value at the end of the year
<b>Intangible assets</b>					
Start-up costs and R&D expenses	<b>Total I</b>	-	-	-	-
Other intangible assets	<b>Total II</b>	<b>928</b>	<b>630</b>	-	<b>1,558</b>
<b>Property, plant and equipment</b>					
Land		170	0	72	99
Buildings erected on owned land		4,260	81	1,980	2,361
Buildings erected on third party land		-	-	-	-
Building facilities, fixtures and improvements		3,343	66	694	2,716
Plant, equipment and tooling		403	18	162	259
Miscellaneous facilities, fixtures, and improvements		1,063	778	3	1,839
Transportation equipment		63	22	23	62
Office equipment, computer equipment and furniture		816	390	-	1,206
Recyclable packaging and miscellaneous		-	-	-	-
	<b>Total III</b>	<b>10,119</b>	<b>1,356</b>	<b>2,934</b>	<b>8,541</b>
<b>Grand total</b>	<b>(I + II + III)</b>	<b>11,047</b>	<b>1,987</b>	<b>2,934</b>	<b>10,100</b>

*Allocation of depreciation and amortization**Provisions,  
Depreciation subject  
to favored tax status*

BOX B		Straight line depreciation	Accelerated depreciation	Exceptional depreciation	BOX C	
Depreciable assets					Charge	Reversal
<b>Intangible assets</b>						
Start-up costs and R&D expenses	(I)	-	-	-	-	-
Other intangible assets	(II)	<b>630</b>	-	-	-	-
<b>Property, plant and equipment</b>						
Land		0	-	-	-	-
Buildings erected on owned land		81	-	-	-	-
Buildings erected on third party land		-	-	-	-	-
Buildings facilities, fixtures & improvements		66	-	-	-	-
Plant, equipment and tooling		18	-	-	-	-
Miscellaneous facilities, fixtures & improvements			778	-	-	-
Transportation equipment		22	-	-	-	-
Office equipment, computer equipment & furniture		390	-	-	1	4
Recyclable packaging and miscellaneous		-	-	-	-	-
	<b>Total III</b>	<b>1,356</b>	-	-	<b>1</b>	<b>4</b>
<b>Grand total (I + II + III)</b>		<b>1,987</b>	-	-	<b>1</b>	<b>4</b>

## 5.7. Notes to the corporate financial statements

## 5.7.4.3. Cash and marketable securities

Headings	As of December 31, 2005	As of December 31, 2004
Investment securities - equities (gross book value)	143,075	143,075
Investment securities - equities (impairment)	-	-
Other marketable securities (gross book value)	1,147,126	724,009
Other marketable securities (impairment)	-	-
Cash instruments	452	655
Cash and cash equivalents	709,500	795,570
<b>Total</b>	<b>2 000 153</b>	<b>1 663 309</b>

Marketable securities, comprised mainly of negotiable debt instruments and Total shares, totaled €1,290,201K as of December 31, 2005. Unrealized gains on marketable securities totaled €246,846K at year-end. Cash and cash equivalents include current accounts totaling €686,199K.

## 5.7.4.4. Provisions recorded on the balance sheet

	Amount at the beginning of year	Charge	Reversal	Amount at year-end	
<b>TAX-DRIVEN PROVISIONS</b>					
Provisions for reconstitution of mineral deposits					
Provisions for capital investment	677		620	58	
Provisions for price increase					
Depreciation subject to favored tax status	16	1	4	13	
Including: exceptional increase (30%)					
Tax provision for foreign operations before 01/01/92					
Tax provision for foreign operations after 01/01/92					
Provisions for initial organization					
Other tax-driven provisions	476			476	
<b>Total I</b>	<b>1,169</b>	<b>1</b>	<b>624</b>	<b>546</b>	
<b>PROVISIONS FOR CONTINGENCIES AND LOSSES</b>					
Provisions for litigation	20,426			20,426	
Provisions for customer warranties					
Provisions for losses on forward markets					
Provisions for fines and penalties					
Provisions for foreign exchange losses	3,541	2,396	3,541	2,396	
Provisions for pension and similar benefits	1,296	171	63	1,404	
Provisions for taxes	51,164	73,913	25,683	99,394	
Provisions for renewal of non-current assets					
Provisions for major repairs					
Provisions for payroll taxes, tax and employee vacations					
Other provisions for contingencies and losses	56,771	1,122	36,480	21,413	
<b>Total II</b>	<b>133,199</b>	<b>77,603</b>	<b>65,767</b>	<b>145,034</b>	
<b>PROVISIONS FOR IMPAIRMENT OF:</b>					
Intangible assets					
Property, plant and equipment					
Investment in equity associates					
Investment in equity securities	2,147,456	1,005	2,133,815	14,646	
Other long-term notes and investments	60,365	1,641	59,718	2,288	
Inventories and work-in-process					
Trade accounts receivable	159		134	25	
Other	32,763	1,109	26,329	7,543	
<b>Total III</b>	<b>2,240,743</b>	<b>3,755</b>	<b>2,219,995</b>	<b>24,503</b>	
<b>Grand total</b>	<b>(I + II + III)</b>	<b>2,375,111</b>	<b>81,359</b>	<b>2,286,386</b>	<b>170,084</b>
<i>Incl. charges/reversals:</i>	<i>- operating</i>	233	1,395		
	<i>- financial</i>	6,097	79,673		
	<i>- exceptional</i>	75,030	2,205,319		

## 5.7. Notes to the corporate financial statements

**Provisions for contingencies and losses**

The Framépargne mutual fund included in the AREVA group savings plan held 280,727 shares of the company as of December 31, 2005. The liquidity of these shares, which are not publicly traded, is guaranteed as provided by the law on employee savings plans. This guarantee is given to Framépargne fund investors through an independent financial institution. Subsequently, to allow this commitment to take effect, the company counter-guaranteed the financial institution for the same period. This guarantee concerns 279,848 shares sold by Framépargne. A €4.4 million provision was recorded in this respect as of December 31, 2005.

Loss provisions include mostly a deferred liability related to AREVA's use of certain of its subsidiaries' tax losses in the consolidated tax return (€99,395K).

Reversals of provisions for contingencies and losses include reversals applied against losses (€26,019K) and reversals of provisions that became unnecessary (€39,748K).

The latter concern mostly:

- reversals of provisions for deferred taxes relating to entities removed from the tax consolidation scope in 2005 (€25,683K);
- reversals of provisions for a counter-guarantee given to Framépargne (€13,608K).

**Provisions for impairment**

- Provisions for impairment of "Investments in equity associates" are comprised essentially of the reversal of a provision for impairment of FCI shares (€2,131,500K).
- The heading "Provision for impairment of other long-term notes and investments" includes:

	As of December 31, 2004	Charge	Reversal	As of December 31, 2005
Loans to equity associates	1,936	-	1,394	542
Other long-term securities	1,900	1,641	1,795	1,746
Loans	56,529	-	56,529	-
Other long-term notes and investments	-	-	-	-

- Provisions for impairment of "Other investments in equity securities" include the reversal of a provision for impairment of Transgene shares sold during the year (€1,795K).
- "Other provisions for impairment" include the reversal of a provision related to AREVA's consolidated tax status (€25,264K).

## 5.7. Notes to the corporate financial statements

## 5.7.4.5. Statement of receivables and liabilities

**Statement of receivables**

<b>BOX A</b>	Gross amount	Maturity < 1 year	Maturity > 1 year
<b>Non-current assets</b>			
Loans to equity associates	467,358	10,151	457,207
Loans <sup>(1)(2)</sup>	26	26	-
Other long-term notes and investments	268,077	3,758	264,319
<b>Current assets</b>			
Doubtful trade accounts	27	27	-
Other trade accounts receivable	59,661	59,661	-
Loans of securities	-	-	-
Accounts receivable from employees and related accounts	699	699	-
Social Security administration and other social institutions	-	-	-
Income tax	6,889	6,889	-
Value added tax	12,835	12,835	-
Other taxes and similar payments	119,956	119,956	-
Miscellaneous	86	86	-
Associates <sup>(2)</sup>	39,366	39,366	-
Miscellaneous accounts receivable	10,132	10,132	-
Prepaid expenses	4,911	4,911	-
<b>Total</b>	<b>990,023</b>	<b>268,497</b>	<b>721,526</b>

(1) Including loans granted during the year.

(1) Including repayments during the year.

(2) Loans and advances to associates.

**Statement of liabilities**

<b>BOX B</b>	Gross amount	Maturity < 1 year	1 to 5 years	> 5 years
Convertible bond issues <sup>(1)</sup>	-	-	-	-
Other bond issues <sup>(1)</sup>	-	-	-	-
Bank borrowings <sup>(1)</sup>	-	-	-	-
- maturity at inception: one year or less	5,122	5,122	-	-
- maturity at inception: more than one year	-	-	-	-
Miscellaneous loans and borrowings <sup>(1)(2)</sup>	3,077,724	3,077,364	360	-
Trade accounts payable and related accounts	49,726	49,726	-	-
Accounts payable to employees and related accounts	7,751	7,751	-	-
Social Security administration and other social institutions	3,055	3,055	-	-
Income tax	-	-	-	-
Value added tax	6,607	6,607	-	-
Covered bonds	-	-	-	-
Other taxes and similar payments	1,252	1,252	-	-
Accounts payable on non-current assets and related accounts	682	682	-	-
Associates <sup>(2)</sup>	-	-	-	-
Other liabilities	25,972	25,972	-	-
Loans of securities	-	-	-	-
Unearned income	-	-	-	-
<b>Total</b>	<b>3,177,891</b>	<b>3,177,531</b>	<b>360</b>	<b>-</b>

(1) Including borrowings during the year.

(1) Including repayments during the year.

(2) Loans from associates.

“Bank borrowings” correspond to bank account credit balances.

“Miscellaneous loans and borrowings” correspond mostly to non-trade current accounts, including cash advances made to or received from subsidiaries under certain cash management agreements (€3,074,646K).

“Other liabilities” include 2,243K corresponding to debt related to current accounts for tax integration.

## 5.7. Notes to the corporate financial statements

**5.7.4.6. Accrued income**

(Order 83-1020 of November 29, 1983 – article 23)

**Accrued income included in the following B/S accounts**

	As of December 31, 2005	As of December 31, 2004
Loans to equity associates	24,641	14,529
Other securities held	-	-
Loans	-	5,433
Other long-term notes and investments	-	-
Trade accounts receivable and related accounts	10,595	46,397
Other accounts receivable	120,406	82,698
<i>including State - other accounts receivable</i>	<i>119,956</i>	<i>82,425</i>
Marketable securities	1,200	1,646
Cash and cash equivalents	703	1,297
<b>Total</b>	<b>157,545</b>	<b>152,000</b>

Accrued income included in "Cash and cash equivalents" represents interest receivable on non-trade current accounts.

**5.7.4.7. Accrued expenses**

(Order 83-1020 of November 29, 1983 – article 23)

**Accrued expenses including in the following B/S accounts**

	As of December 31, 2005	As of December 31, 2004
Convertible bond issues	-	-
Other bond issues	-	-
Bank borrowings	-	-
Miscellaneous loans and borrowings	1,839	758
Trade and related accounts payable	44,501	32,397
Taxes and social security taxes	11,268	9,034
Accounts payable on non-current assets and related accounts	656	771
Other borrowings	2,034	548
<b>Total</b>	<b>60,298</b>	<b>43,508</b>

Accrued expenses included in "Miscellaneous loans and borrowings" represents interest payable on non-trade current accounts (€386K).

**5.7.4.8. Share capital**

(Order 83-1020 of November 29, 1983 – Article 24-12)

Categories of	Par Value	Beginning of the year	Number of shares Issued during the year	Redeemed during the year	At year- end
Shares	0.04	34,013,593	0	0	34,013,593
Investment certificates	0.04	1,429,108	0	0	1,429,108



## 5.7. Notes to the corporate financial statements

**5.7.4.9. Shareholders' equity excluding share capital**

(in €K)	As of December 31, 2004	Increases	Decreases	As of December 31, 2005
Merger premiums	184,357	-	-	184,357
Consolidation goodwill	143,932	-	-	143,932
Legal reserve	134,682	-	-	134,682
Regulated reserves	6,405	-	6,403	2
Blocked reserves	3,302	-	-	3,302
Available reserves	0	6,403	-	6,403
Retained earnings	212,830	10,029	38,341	184,518
Net income for the year	301,555	347,951	301,555	347,951
Tax-driven provisions	1,169	-	623	546
<b>Total</b>	<b>988,232</b>	<b>364,383</b>	<b>346,922</b>	<b>1,005,693</b>

On May 12, 2005, the Combined Meeting of Shareholders decided to distribute dividends in the amount of €339,896K out of the net income for 2004 (€301,555K) and retained earnings (€38,341K).

The long-term gains reserve as of December 31, 2004 (€6,403K) was transferred to available reserve during the year.

**5.7.4.10. Other shareholders' equity*****Perpetual subordinated debt (TSDI)***

AREVA NP issued 250 perpetual subordinated securities with a par value of USD 1,000,000 on November 15, 1991, which were subscribed directly by financial institutions. These securities are redeemable only if the company is liquidated, after other creditors have been fully compensated. However, the issuer has reserved the right to redeem all or part of the securities in the event of extraordinary circumstances beyond its control during the first 15 years.

This perpetual subordinated debt, valued at the exchange rate in effect on the date of issuance (USD 1.00 = €0.85059), is recorded on the balance sheet as "Other Shareholders' equity". The securities are recorded at their original cost, as the Group does not incur any foreign exchange risk on the transaction.

The securities coupons, payable in perpetuity on a semi-annual basis, are equivalent to the 6-month Libor rate plus 0.70%.

A USD 76,085,000 deposit was deducted from proceeds from the issue and paid to an investment firm. It is recorded under "Other long-term financial investments". In consideration for this deposit, the investment firm will pay AREVA, as of the sixteenth year following the perpetual subordinated debt date of issue, interest equal to the interest due by AREVA to the holders of the perpetual subordinated debt after fifteen years. This deposit is valued at the rate of exchange in effect on the perpetual subordinated debt issue date (USD 1.00 = €0.85059) and is not repayable, except in the event of extraordinary circumstances.

## 5.7. Notes to the corporate financial statements

**5.7.4.11. Data on related parties**

(Order 83-1020 of November 29, 1983 – Article 24-15)

**Balance sheet accounts**

	Transactions with		Debt or receivables evidenced by an instrument
	Related parties	Equity investments	
<b>LONG-TERM NOTES AND INVESTMENTS</b>			
Equity associates	1,920,634	-	-
Loans to equity associates	467,358	-	-
Loans	1	-	-
Other long-term securities	-	-	-
Other long-term investments	20	-	-
<b>Total long-term notes and investments</b>	<b>2,388,013</b>	<b>-</b>	<b>-</b>
<b>ACCOUNTS RECEIVABLE</b>			
Accounts receivable and related accounts	57,580	-	-
Other accounts receivable	47,258	-	-
Subscribed capital – issued and not paid	-	-	-
<b>Total accounts receivable</b>	<b>104,838</b>	<b>-</b>	<b>-</b>
Marketable securities	-	-	-
Cash and cash equivalents	683,154	-	-
<b>LIABILITIES</b>			
Other convertible bond issues	3,074,269	-	-
Trade advances and prepayments	-	-	-
Trade accounts payable and related accounts	30,421	-	-
Other liabilities	3,728	-	-
<b>Total liabilities</b>	<b>3,108,418</b>		

**Income statement accounts**

	Transactions with		Debt or receivables evidenced by an instrument
	Related parties	Equity investments	
<b>FINANCIAL INCOME AND EXPENSES</b>			
Financial income	227,342	-	-
Financial expenses	115,667	-	-
<b>Total</b>	<b>343,009</b>	<b>-</b>	<b>-</b>

## 5.7. Notes to the corporate financial statements

## 5.7.4.12. Five-year data

<i>(in millions of euros)</i>	2001	2002	2003	2004	2005
<b>SHARE CAPITAL AT YEAR END</b>					
Share capital	1,346,823	1,346,823	1,346,823	1,346,823	1,346,823
Number of ordinary shares outstanding	34,013,593	34,013,593	34,013,593	34,013,593	34,013,593
Number of shares with preferred dividend rights	1,429,108	1,429,108	1,429,108	1,429,108	1,429,108
<b>ACTIVITIES AND INCOME</b>					
Pre-tax sales	55,618	73,133	36,046	86,585	97,983
Income before tax, profit-sharing, amortization, depreciation and provisions	193,610	1,084,311	598,720	306 817	(1,952,579)
Income tax	(49,667)	17,662	(56,566)	(30,444)	(97,489)
Employee profit-sharing					
Income after tax, profit-sharing, amortization, depreciation and provisions	(712,961)	216,230	372,444	301,555	347,951
Income distributed	219,745	219,745	219,745	339,896	*
<b>EARNINGS PER SHARE</b> <i>(In euros)</i>					
Income after tax and profit-sharing but before amortization, depreciation and provisions	7	30	18	10	(53)
Income after tax, profit-sharing, amortization, depreciation and provisions	(20)	6	11	9	10
Dividend per share	6	6	6	10	*
<b>PERSONNEL</b>					
Average number of employees	108	189	197	161	184
Payroll for the period	14,766	18,337	17,726	16,582	17,751
Amounts paid for benefits (Social Security, social agencies, etc.)	7,335	6,826	8,005	8,526	9,073

\* 2005: pending decisions of the annual meeting of shareholders.

## 5.7. Notes to the corporate financial statements

## 5.7.5. NOTES TO THE INCOME STATEMENT

## 5.7.5.1. Current operating income

Reported sales include:

- Charge allocations to subsidiaries, corresponding to shared services and the right to use a trademark, for a total of €76,871K.

The trademark license fee is charged to all Group entities at the rate of 0.5% of contributions to consolidated sales. The shared services fee is charged only to French consolidated entities, at the rate of 0.6% of contributions to consolidated sales.

- Proceeds from real estate operations (€7,506K)
- Charge allocation for personnel expenses (€3,674K)

Operating expenses reflect holding company activities and services provided to subsidiaries. The operating loss thus came to €81,583K.

## 5.7.5.2. Net financial income

Net financial income includes, among other items:

- |   |            |
|---|------------|
| • Dividends from participating interests  | €138,720K  |
| • Investment income   | €19,735K   |
| • Dividends from Total  | €11,489K   |
| • Net expense on current accounts   | €(19,694)K |
| • Foreign exchange income (loss) and discount/premium expenses  | €(15,287)K |
| • Financial expense on perpetual subordinated debt  | €(5,878)K  |
| • Income (loss) from disposals of other securities  | €(1,548)K  |
| • Reversal of provisions of a financial nature (guarantee of AREVA share price for Framépargne in particular) | €16,168K   |

## 5.7.5.3. Exceptional items

Exceptional items include:

- |  |           |
|--|-----------|
| • Gain on sale of FCI (including reversal of provisions on shares) | €208,450K |
| • Net gain on sale of real estate in Chalon-sur-Saône              | €1,969K   |

## 5.7.5.4. Income tax

AREVA's income tax for 2005, determined in accordance with the rules specific to tax consolidation, represented income of €97,489K. This includes tax income for 2005, adjustments to the tax expense reported for 2004, and taxes paid by tax integrated subsidiaries.

AREVA reported a tax loss for 2005. Two main events contributed to the tax loss: the sale of FCI and the tax loss recorded by Cogema SA (included in the tax integration scope), mostly because of a provision for geological disposal.

Accordingly, AREVA did not have to pay any income tax for the year and will record income corresponding to taxes saved under the tax consolidation and integration systems, which benefit AREVA as ultimate parent company.

The tax savings generated by the tax integration and tax consolidation systems are:

- Tax integration: €63,993K
- Tax consolidation: €30,363K

Other items, representing €3,133K, relate to adjustments to the 2004 tax position and the consolidated taxable income estimate for 2004.

The tax income for the year therefore came to €97,489K.

The impact of tax related events came to €74,523K on a net basis, taking into account a net charge to the provision for deferred taxes of (€48,230K) and the reversal of the 2001 provision on consolidated taxable income, to reflect the collection of a refund (€25,264K).

## 5.7. Notes to the corporate financial statements

## 5.7.6. ADDITIONAL DATA

## 5.7.6.1. Employees

The company employed 184 people on December 31, 2005, as indicated in the following table:

	2005	2004	2003
Management	125	111	131
Supervisors	24	14	22
Support staff	35	36	44
<b>Total</b>	<b>184</b>	<b>161</b>	<b>197</b>

## 5.7.6.2. Pensions and other employee benefits

AREVA SA pays retirement bonuses to its retiring employees, based on their compensation and seniority.

This defined benefit plan is recorded in accordance with accounting methods defined in Note 5.7.3.1.

Each year, independent actuaries determine AREVA's commitments as of year-end.

**Balance sheet reconciliation**

(in millions of euros)	December 31, 2005
Provision for pension obligations and other employee benefits	1,404

The main actuarial assumptions used in determining the Group's obligations are as follows:

(in %)	2004	2005
Inflation	2.00	2.00
Discount rate	4.50	4.25

- Mortality tables used: TV 88-90
- Retirement age: 63 for management personnel, 61 for non-management personnel.
- Average turnover rate

(in %)	Management personnel	Non-management
< 30	1.60	1.60
30-39	1.60	1.60
40-49	1.60	1.60
50-54	1.60	1.60
55 and above	0.00	0.00

- Assumed rate of salary increase, net of inflation

(in %)	Management personnel	Non-management personnel
< 30	1.50	0.50
30-39	1.50	0.50
40-49	1.50	0.50
50-54	1.50	0.50
55 and above	1.50	0.50

**Net book value of retirement obligations**

(in thousands of euros)	December 31, 2005
	Retirement bonuses
Actuarial liability	1,632
Fair value of plan assets	-
Unrecognized actuarial gains and losses	(228)
Unrecognized past service cost	-
<b>Total net obligation</b>	<b>1,404</b>

**Total expense for the year****Change in the provision**

(in thousands of euros)	December 31, 2005
Restated opening balance	1,234
Total expense	170
Contributions and benefits paid	0
<b>Net book balance as of December 31</b>	<b>1,404</b>

**Expense recorded in 2005**

(in thousands of euros)	Retirement bonuses
Service cost	103
Interest cost	67
Expected return on plan assets	-
Amortization of actuarial gains or losses	-
Past service cost	-
Plan establishment, curtailment or liquidation	-
<b>Total expense for the year</b>	<b>170</b>

## 5.7. Notes to the corporate financial statements

**5.7.6.3. Information on lease arrangements**

No lease arrangements were recorded in 2005.

**5.7.6.4. Company exposure to market risk*****General objectives and counterparty risk management***

The group uses derivatives to manage its exposure to currency and interest rate risk, fluctuations in commodity prices and changes in the price of certain publicly traded securities. Excluding specific situations (notably comprehensive foreign exchange hedges during proposals), these instruments generally qualify as hedges of the Group's assets, liabilities and specific commitments.

The Group manages the counterparty risk associated with these instruments by centralizing the commitments and by implementing a series of procedures that specify the limits and characteristics of the counterparty for each type of instrument.

Management of interest rate risk and commodity price risk is centralized in the parent company. Foreign exchange risk is usually managed by the parent company on behalf of the subsidiaries. The few subsidiaries that manage their foreign exchange exposure directly implement their strategy in concert with the parent company.

***Foreign exchange risk management***

AREVA trades currencies on forward markets and uses derivative products to cover or manage:

- the foreign exchange risk exposure of subsidiaries engaged in international trade as a result of receivables, payables and firm commitments or highly probable future cash flows. Exposure is systematically hedged when it is incurred.

For certain contracts, the foreign exchange risk during the proposal phase may be hedged by specific insurance contracts (e.g. Coface contracts) or on a comprehensive basis within the Group. Other exposure may be identified through an annual or multi-year budget, in which instance the risk covered corresponds to a percentage of the estimated budget.

- The balance sheet risk on loans to subsidiaries made in currencies other than their own when financing in the currency in which they operate has not been set up.

The Group uses currency swaps to manage its foreign currency cash positions.

## 5.7. Notes to the corporate financial statements

## AREVA

Notional amounts of contracts (by maturity)

as of December 31, 2005

(in millions of euros)

**FOREIGN EXCHANGE INSTRUMENTS****Currency swaps - borrower**

	2006	2007	2008	2009	2010	> 5 ans	Total	Market value
U.S. dollars for euros	479.2	80.3	6.2	4.1	1.2	-	571.1	(15.08)
Canadian dollars for euros	195.9						195.9	(25.1)
Pounds sterling for euros	79.8						79.8	(0.1)
Australian dollars for euros	61.9						61.9	0.0
Swiss francs for euros	13.8	0.9					14.7	0.1
Yens for euros	8.3						8.3	0.0
U.S. dollars for Canadian dollars	2.5						2.5	0.0
U.S. dollars for pounds sterling	0.5						0.5	0.0
Other currencies	121.1						121.1	(3.0)

**Currency swaps - lender**

U.S. dollars for euros	248.3	67.0	0.1	0.1	0.2	0.1	315.8	5.5
Canadian dollars for euros	181.6	3.9			0.3	0.2	186.0	25.8
Australian dollars for euros	140.1						140.1	(1.2)
Swiss francs for euros	50.5						50.5	(0.3)
Pounds sterling for euros	17.0	1.9					18.9	0.3
Yens for euros	3.5						3.5	(0.1)
U.S. dollars for Canadian dollars	0.9						0.9	0.0
U.S. dollars for pounds sterling	0.3						0.3	0.0
Other currencies	91.2	0.9					92.1	1.51

**Forward transactions - Buyer**

U.S. dollars for euros	483.0	144.6	33.1	20.7	15.8	1.0	698.1	25.72
U.S. dollars for pounds sterling	25.4	46.8	20.3	23.5	2.7		118.7	0.203
Pounds sterling for euros	95.2	23.1	6.5					0.346
Swiss francs for euros	79.1	14.7	1.1	0.7			95.7	(1.358)
U.S. dollars for Mexican pesos	76.8	0.4					77.2	(0.389)
U.S. dollars for Canadian dollars	65.8						65.8	(6.886)
Australian dollars for euros	40.3						40.3	(0.797)
Yens for euros	16.4	16.8	0.5				33.6	(0.840)
Canadian dollars for euros	23.5	1.2	4.5	0.3		1.0	30.6	1.266
Other currencies	85.1	106.4	7.7	0.7	0.5		200.3	0.47

**Forward transactions - Seller**

U.S. dollars for euros	461.5	150.7	32.8	16.0	17.4	0.9	679.2	(22.688)
Pounds sterling for euros	80.9	23.1	6.5				110.5	0.142
U.S. dollars for pounds sterling	25.4	46.8	20.3	23.5	2.7		118.7	(0.177)
Swiss francs for euros	78.2	15.7	3.0	0.7			97.7	1.560
U.S. dollars for Mexican pesos	76.8	0.4					77.2	0.389
U.S. dollars for Canadian dollars	66.1						66.1	6.909
Australian dollars for euros	39.3						39.3	0.807
Canadian dollars for euros	24.7	5.1	4.5	0.3	0.3	1.0	35.8	(2.086)
Yens for euros	15.4	17.6	0.5				33.4	1.016
Other currencies	96.6	94.3	7.7	0.7	0.5		199.8	(0.29)

**Currency options****Calls - buyer****Calls - seller****Puts - seller****Collars**

Notional amounts in foreign currency have been converted into euros based on year-end closing exchange rates, except for currency swaps.

## 5.7. Notes to the corporate financial statements

**Interest rate risk management**

The Group uses several types of financial instruments, as required by market conditions, to allocate its debt between fixed rates and floating rates and to manage its investment portfolio. The Group primarily uses swaps for debt management and cash management purposes. Rate futures are used to manage medium term investments.

**AREVA**

Notional amounts of contracts (by maturity)

**as of December 31, 2005**

(in millions of euros)	2006	2007	2008	2009	2010	> 5 ans	Total	Market value
<b>INTEREST RATE INSTRUMENTS</b>								
Fixed rate								
<b>Interest rate swaps - fixed receiver</b>								
Euro [2.5350%]	40.0	-	-	-	-	-	40.0	0.0
US Dollar [2.5350% - 5.7391%]	161.06	-	-	-	-	-	161.0	0.6
<b>Interest rate swaps - fixed payer</b>								
Euro [2.1% - 2.415%]	445.94	-	-	-	-	-	445.94	0.0
US Dollar [2.5350% - 5.7391%]	161.06	-	-	-	-	-	161.0	(0.6)
<b>Currency swaps- Floating/Floating</b>								
Floating-rate payer swap in dollars	-	60.2	12.5	-	-	-	73.0	(0.9)
Floating-rate receiver swap in dollars	-	60.2	12.5	-	-	-	73.0	0.9

**Commodity price risk**

The Group uses financial instruments, including forward sales/purchases and commodity swaps, to reduce its exposure to price volatility for commodities used in manufacturing its products, especially gold, copper, aluminum and silver, and to hedge its sales as a producer, especially for AREVA NC's gold mining subsidiaries. All hedging activities are budget-based.

Notional amounts by maturity date

**as of December 31, 2005**

(in millions of euros)	2006	2007	2008	2009	2010	> 5 ans	Total	Market Value
<b>COMMODITIES</b>								
<b>Gold</b>								
Forward transactions - Buyer	1.9	-	-	-	-	-	1.9	0.3
Forward transactions - Seller	1.9	-	-	-	-	-	1.9	(0.3)
Options - Call buyer	-	-	-	-	-	-	-	-
<b>Copper</b>								
Forward transactions - Buyer	43.6	3.2	-	-	-	-	46.8	9.5
Forward transactions - Seller	43.6	3.2	-	-	-	-	46.8	(9.5)
Options - Call buyer	-	-	-	-	-	-	-	-
Options - Call seller	-	-	-	-	-	-	-	-
<b>Silver</b>								
Forward transactions - Buyer	-	0.3	-	-	-	-	0.3	0.1
Forward transactions - Seller	-	0.3	-	-	-	-	0.3	(0.1)
Options - Call buyer	-	-	-	-	-	-	-	-
Options - Put seller	-	-	-	-	-	-	-	-
<b>Aluminum</b>								
Forward transactions - Buyer	2.3	0.4	-	-	-	-	2.7	0.4
Forward transactions - Seller	2.3	0.4	-	-	-	-	2.7	(0.4)
Options - Call buyer	-	-	-	-	-	-	-	-
Options - Put seller	-	-	-	-	-	-	-	-

**Risk on equities**

To manage its long-term investment positions, the Group may elect to use puts and calls backed by portfolio equities. No such transaction was pending as of the end of the year.



## 5.7. Notes to the corporate financial statements

**Market value of financial instruments**

The market value of financial instruments was provided by counterparty banks and financial institutions or calculated using standard methods based on market conditions at year-end.

**5.7.6.5. Off-balance sheet commitments, excluding leases**

The Group has established a procedure to identify and confirm off-balance sheet items disclosed in these Notes. This procedure includes a definition of the main categories of commitments and their valuation methods. It also includes a method to collect and control the data, relying largely on confirmations from third parties.

With respect to vendor warranties given or received, the maturity date in the following tables corresponds to the deadline for lodging a warranty claim.

**5.7.6.5.1. Commitments given**

(in thousands of euros)

	Total	< 1 yr	1 to 5 yrs	> 5 yrs
<b>Total operating commitments given</b>	<b>435,956</b>	<b>184,717</b>	<b>204,295</b>	<b>46,944</b>
Total market guarantees	400,354	184,717	204,295	11,342
- Performance guarantees	220,756	74,068	135,346	11,342
- After-sales warranties	2,748		2,748	
- Other contract guarantees	176,850	110,649	66,201	
Other operating commitments given	35,602			35,602
<b>Total commitments given on financing</b>	<b>1,040,825</b>	<b>652,551</b>	<b>371,802</b>	<b>16,472</b>
Letters of comfort	40,936	22,185	18,476	275
Guarantees and surety	996,302	627,035	353,070	16,197
Other commitments given on financing	3,587	3,331	256	
<b>Total other commitments given</b>	<b>303,449</b>	<b>35,750</b>	<b>267,270</b>	<b>429</b>
Financial recovery clauses	429			429
Vendor warranties	303,020	35,750	267,270	
<b>Total commitments given</b>	<b>1,780,230</b>	<b>873,018</b>	<b>843,367</b>	<b>63,845</b>
Guarantees payable on first demand	1,314,000	664,861	632,938	16,201
Conditional guarantees	466,230	208,157	210,429	47,644

- The Group gave a parent-company guarantee to TVO for the full value of the contract for construction of an EPR reactor in Finland. The Group received a counter-guarantee from Siemens corresponding to this supplier's share of the TVO contract.

The net commitment given by the Group is in the range of €1.5 billion to €2 billion. This amount is not included in the summary table.

- In addition, AREVA gave a guarantee of ownership of FCI shares sold to Bain Capital. This amount, which is capped at the sale price, is not included in the summary table.

## 5.7. Notes to the corporate financial statements

**5.7.6.5.2. Commitments received***(in thousands of euros)*

	Total	< 1 yr	1-5 yrs	> 5 yrs
Corporate and secured guarantees	24,300	23,734	566	-
Vendor warranties	423,500	173,500	-	250,000
<b>Total commitments received</b>	<b>447,800</b>	<b>197,234</b>	<b>566</b>	<b>250,000</b>

**5.7.6.5.3. Reciprocal commitments***(in thousands of euros)*

	Total	< 1 yr	1-5 yrs	> 5 yrs
Security call or put options	395,624	395,624	-	-
<b>Total reciprocal commitments</b>	<b>395,624</b>	<b>395,624</b>	<b>0</b>	<b>0</b>

Reciprocal commitments are as follows:

In 2003, AREVA gave a commitment to the shareholders of Urenco to acquire a 50% interest in the British company ETC. This commitment represents €388.3 million. In addition, when the memorandum of agreement was executed, AREVA made a €150 million down payment, recorded on the balance sheet under "Other long-term notes and investments" (see note 2.3). This consideration will be adjusted based on the Euribor rate for the period January 1, 2005 to the transaction closing date, which will be no later than December 31, 2006.

A number of guarantees and conditions precedent apply to this commitment.

Acquisition of the 50% interest in ETC will give AREVA access to centrifuge technology for uranium enrichment.

**5.7.6.6. Executive officer compensation**

Total compensation and benefits in kind paid to executive officers (members of the Executive and Supervisory Boards) during the year by the company and companies under its control (as defined under article L. 225-102-1 of the French Commercial Code, introduced by the New Economic Regulations law of May 15, 2001 and amended by the Financial Security Act of August 1, 2003) totaled €3,166K.

**5.7.6.7. Events subsequent to year-end**

None.

**5.7.6.8. Litigation*****Tax disputes***

In 2003 and 2004, the French tax authorities conducted an audit of consolidated income reported by the AREVA group for 2000 and 2001. This audit is now complete and its financial consequences are included in the financial statements.

***European Commission investigation into anti-competition practices in the Gas Insulated Switchgears (GIS) market***

An investigation carried out by the European Commission into alleged anti-competition practices between GIS suppliers highlighted practices that were completely unknown to AREVA at the time of acquisition. AREVA cooperated fully with the Commission in establishing the facts. The Commission has not yet issued a "notice of grievances" against AREVA, which does not know the legal nature of the facts involved. AREVA involved Alstom in all of its activities before the Commission, as it considers that a claim may be valid under the vendor warranties given by Alstom, and that Alstom itself may be subject to penalties. This investigation led to investigations by anti-competition authorities in Hungary, New Zealand, Australia and Mexico.

AREVA wants to eradicate anti-competition practices in its businesses, and has had various discussions with the Commission on the steps it has taken to ensure that this is done. AREVA is currently implementing a compliance program in all of its businesses.

## 5.7. Notes to the corporate financial statements

### 5.7.6.9. Detailed financial information on subsidiaries and associates as of December 31, 2005

(in thousands of euros unless otherwise indicated)

Financial information	Share capital	Premiums, reserves and retained earnings	Interest in share capital held (in percent)	Gross carrying amount of shares held	Net carrying amount of shares held	Unpaid loans and advances	Sales (before tax) of last fiscal year	Income (loss) from last accounting period	Dividends received in fiscal year 2005
<b>Subsidiaries and affiliates</b>									
<b>A. Detailed financial information on subsidiaries and associates (net carrying amount exceeds 1% of AREVA's share capital)</b>									
<b>1. Subsidiaries (AREVA holds more than 50% of the share capital)</b>									
• Cédec 27/29, rue le Peletier - 75009 Paris	36,532	1,650	90	33,466	33,466	-	0	6,970	6,739
• Compagnie d'Étude et de Recherche pour l'Énergie (CERE) 27/29, rue le Peletier - 75009 Paris	247,500	10,358	100	251,541	251,541	-	0	5,401	6,600
• Cogema 2, rue Paul Dautier - 78141 Vélizy Cedex	100,259	156,344	100	703,929	703,929	-	2,320,381	45,869	0
• AREVA TA Tour AREVA TA - 92084 Paris La Défense Cedex	400,000	88,764	66	277,638	277,638	-	1,041,734	139,020	84,480
• FT1CI 27/29, rue le Peletier - 75009 Paris	54,006	684,551	100	54,889	54,889	-	0	144,883	22,323
• Frarea 27/29, rue le Peletier - 75009 Paris	6,375	81,132	100	30,940	30,940	-	0	2,977	0
• AREVA T&D Holding 27/29, rue le Peletier - 75009 Paris	500,037	(12,426)	100	500,000	500,000	331,742	0	2,516	0
• AREVA T&D Inc. 47 East Industrial Park Drive 3109 Manchester - New Hampshire - USA	n.d.	n.d.	100	37,761	37,761	-	n.d.	n.d.	0
<b>2. Associates (AREVA holds 10-50% of the share capital)</b>									
• Eramet	78,659	714,932	26	291,693	291,693	-	842,948	n.d.	13,515
• AREVA TA	20,000	32,455	25	14,042	14,042	-	248,051	23,496	2,629
• REpower	n.d.	n.d.	21	27,374	27,374	-	n.d.	n.d.	0
<b>B. Summary information on other subsidiaries and associates</b>									
<b>1. Subsidiaries not included in section A above</b>									
a) French subsidiaries (combined)				8,444	2,403	1,136			
b) Foreign subsidiaries (combined)				4,929	4,425				1,162
<b>2 - Associates not included in section A above</b>									
a) French companies (combined)				659,327	653,581				1,273
b) Foreign companies (combined)									



# CORPORATE GOVERNANCE

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## 6.1. Composition and functioning of administrative bodies

### 6.1.1. COMPOSITION OF ADMINISTRATIVE BODIES

#### 6.1.1.1. Composition of the Executive Board

The Executive Board consists of at least two members and at most five members named by the Supervisory Board, which appoints the Chairman of the Executive Board from among its members. When AREVA shares are publicly traded in a regulated market, the Executive Board may be increased to seven members.

The members of the Executive Board must be natural persons. They need not be shareholders and may be AREVA employees. Any Supervisory Board member designated as an Executive Board member shall cease to be a member of the Supervisory Board upon assuming his or her new position.

The Executive Board is appointed for a term of five years expiring at the first meeting of the Supervisory Board, held after the fifth anniversary of that appointment. The Supervisory Board may appoint a new member to the Executive Board during its term.

The decision to increase the number of Executive Board members above the number set at its appointment is subject to the approval of the Executive Board chairman.

Executive Board member terms are renewable.

As of the filing of this annual report, the members of the Executive Board were as follows:

#### **Anne Lauvergeon (age 46)**

Chairman of the AREVA Executive Board since the Supervisory Board appointed her to that position on July 3, 2001. Her term shall expire at the first meeting of the Supervisory Board held after July 3, 2006.

Mrs Lauvergeon holds the rank of *Ingénieur en chef* of the Corps des Mines, is a graduate of École Normale Supérieure and holds a doctorate in Physical Sciences.

She held several positions before joining AREVA. In 1984, she was in charge of studying chemical safety issues in Europe for the French Atomic Energy Commission (CEA). In 1985, she managed underground resources in the Île-de-France region. In 1988, she also became Deputy Department Head of the Conseil Général des Mines. In 1990, Mrs Lauvergeon became a special assistant on international economics and trade to the President of the French Republic, for whom she also served as Deputy Secretary General responsible for the organization of the G7 summits in 1991. In 1995, Mrs Lauvergeon became a general partner in Lazard Frères & Cie, and in 1997 she was Executive Vice-President of Alcatel Télécom.

#### Other offices held:

- Chairman and CEO of AREVA NC since 1999,
- Chairman of AREVA Enterprises, Inc.,
- Vice-Chairman of the Supervisory Board of Safran,
- Director of Suez, Total, AREVA T&D Holding SA and Vodafone Group plc (since November 1, 2005).

#### Offices held having expired over the past five years:

- Permanent representative of AREVA to the Board of Directors of FCI until November 2005,
- Director of Pechiney until 2002,
- Permanent representative of AREVA NC to the Board of Directors of Eramet and Usinor until 2002,
- Permanent representative of AREVA NC to the Board of Directors of AREVA NP until 2001.

## 6.1. Composition and functioning of administrative bodies

**Gérald Arbola (age 57)**

Mr Arbola is the Chief Financial Officer of AREVA. The Supervisory Board appointed Mr Arbola to the Executive Board on July 3, 2001. His term shall expire at the first meeting of the Supervisory Board held after July 3, 2006.

Mr Arbola is a graduate of the Institut d'Études Politiques de Paris. He also holds an advanced degree in economics.

Mr Arbola held several positions in Cogema (now AREVA NC) before joining AREVA. He joined the Cogema group in 1982 as Director of planning and strategy for SGN and served as Chief Financial Officer of SGN from 1985 to 1989 and as Executive Vice President in 1988. He became the Chief Financial Officer of Cogema in 1992 and member of its Executive Committee in 1999, while also serving as Chairman of the Board of SGN in 1997 and 1998.

**Other offices held:**

- Chairman and CEO of FT1C1 and Chairman of Cogerap,
- Chairman of the Supervisory Board of STMicroelectronics Holding NV and STMicroelectronics NV since March 1, 2005, and March 18, 2005, respectively,
- Chairman of AREVA Finance/Gestion,
- Director of AREVA NC and AREVA T&D,
- Member of the Board of Directors of AREVA NP.

**Offices held having expired over the past five years:**

- Director of Assystem until 2003,
- Director of AREVA NP until 2001.

**Didier Bénédicti (age 53)**

Mr Bénédicti was appointed by the Supervisory Board to the Executive Board of AREVA on October 15, 2002. His appointment was confirmed by the Minister of the Economy, Finance and Industry and the Vice Minister in charge of Industry on January 21, 2003. His term will expire at the first meeting of the Supervisory Board held after July 3, 2006.

Mr Bénédicti holds the diploma of Ingénieur from the École Supérieure d'Informatique, d'Électronique et d'Automatique (ESIEA) and is a graduate of the Institut d'Administration des Entreprises (IAE) of Paris

Mr Bénédicti holds the diploma of Ingénieur from the École Supérieure d'Informatique, d'Électronique et d'Automatique (ESIEA) and is a graduate of the Institut d'Administration des Entreprises (IAE) of Paris.

Mr Bénédicti held several positions at Schlumberger, Thomson and Fiat before joining AREVA. In particular, he served as Executive Vice-President of Thomson Brands Armement, Vice-Chairman of Thomson Consumer Electronics, and President of all Magneti Marelli passenger compartment divisions (Fiat group).

**Other offices held:**

- Chairman of AREVA EC (SAS),
- Chief Operating Officer and member of the Board of Directors of AREVA NC since June 2002,
- Member of the Board of Directors of AREVA NC and member of the Supervisory Board of Eurodif SA,
- Member of the Board of Directors of Compagnie Nucléaire de Services (CNS),
- Member of the Board of Directors of Compagnie Nucléaire de Services (CNS),
- Member of the Board of Directors of Société d'Enrichissement du Tricastin SAS (SET).

**Offices held having expired over the past five years:**

- Director of Multiservices et Enseignements Pratiques.

**Vincent Maurel (age 58)**

Mr Maurel was appointed by the Supervisory Board to the Executive Board of AREVA on October 15, 2002. His appointment was confirmed by the Minister of Economy, Finance and Industry and the Vice Minister in charge of Industry on January 21, 2003. His term will expire at the first meeting of the Supervisory Board held after July 3, 2006.

Mr Maurel is a graduate of École Polytechnique and École Nationale Supérieure des Télécommunications.

Mr Maurel joined Framatome ANP (now AREVA NP) in December 2000 as Director of the *Enrichment* Business Unit and member of the Executive Committee. He became President of AREVA NP in December 2001. Previously, he had joined Thomson CSF in 1974, later becoming Executive Vice President and Industrial Director for Alcatel Telspace. Starting in 1993, Mr Maurel managed the steam turbines sector for electric power plants before becoming Chairman of ABB Alstom Power France and its services subsidiary.

**Other offices held:**

- Member of the Supervisory Board and of the Shareholders' Committee of AREVA NP GmbH (Germany),
- Member of the Board of Directors of AREVA NP, Inc. (United States).

**Offices held having expired over the past five years:**

None.

The members of AREVA's Executive Board may be contacted at the Company's corporate office at 27-29, rue Le Peletier, 75009 Paris, France.

*N.B.: In addition, Jean-Lucien Lamy was a member of the Executive Board until October 20, 2005. He resigned after the sale of FCI, of which he was Chairman and CEO.*

## 6.1. Composition and functioning of administrative bodies

### 6.1.1.2. Composition of the Supervisory Board

The members of the Supervisory Board are appointed by the shareholders and by holders of voting right certificates, except for employee-elected members of the Board and representatives of the French government.

The Supervisory Board consists of at least ten and no more than eighteen members, including three members elected by Company personnel, as described below, and representatives of the French State appointed pursuant to Article 51 of law no. 96-314 dated April 12, 1996, as applicable. The three members representing Company personnel are chosen by an electoral college consisting of engineers and managers (one member) and by an electoral college consisting of the other employees (two members).

The members of the Supervisory Board serve for a term of five years. The duties of a member of the Supervisory Board not elected by Company personnel expire at the end of the Annual General Meeting of Shareholders held during the year of expiration of his or her term and convened to approve the financial statements of the previous year.

The General Meeting of Shareholders may dismiss members of the Supervisory Board, other than members representing the French State and members elected by Company personnel. The duties of a member elected by Company personnel expire upon announcement of the results of elections, which AREVA must organize according to the bylaws, or upon the end of said member's employment contract or his or her dismissal, as provided by laws or regulations in effect at the time of the dismissal.

Only natural persons may be elected by Company employees to serve as members of the Supervisory Board. Members of the Supervisory Board not elected by Company employees may be natural or moral persons.

Except as provided by law, each member of the Supervisory Board must own at least one share of the Company.

The Supervisory Board elects a Chairman and a Vice-Chairman from among its members who are charged with convening the Board and conducting meetings, with the Vice-Chairman fulfilling these functions in the event of the Chairman's absence or inability to do so. Only natural persons may be designated as Chairman and Vice-Chairman.

On March 8, 2005, Frédéric Lemoine replaced Philippe Pontet as Chairman of AREVA's Supervisory Board. This appointment was confirmed by AREVA's Annual General Meeting of Shareholders on May 12, 2005. Mr Luc Rousseau, Director General of Enterprises at the Ministry of Economy, Finance and Industry, was appointed on March 11, 2005, to replace Mr Jean-Pierre Falque-Pierrotin.

As of the date of this report, the Supervisory Board was comprised of 16 members including six independent members: Messrs Frédéric Lemoine, Euan Baird, Patrick Buffet, Thierry Desmarest, Gaishi Hiraiwa and Daniel Lebègue. Based on the principles of good governance accepted by all, particularly the Bouton report, individuals who hold less than 10% of the Company's share capital and who have no financial or commercial relationship with the Company (as customer or supplier) are considered independent.

#### *Members appointed by the shareholders*

##### *Frédéric Lemoine (age 40)*

On March 8, 2005, Mr Frédéric Lemoine was appointed to AREVA's Supervisory Board to replace Mr Philippe Pontet, who had resigned. The Annual General Meeting of Shareholders confirmed his appointment on May 12, 2005. He was elected **Chairman of the Supervisory Board** and Chairman of the Strategic Committee on March 8, 2005. His term shall expire at the end of the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Frédéric Lemoine is Inspector of Finance and a graduate of École des Hautes Études Commerciales, of the Institut d'Études Politiques de Paris and of École Nationale d'Administration.

During his professional career, Mr Lemoine was also Deputy Secretary to the President of the French Republic from 2002 to 2004.

#### *Other offices held:*

- General Manager of LCE Sarl,
- Member of the Board of Directors and Chairman of the Audit Committee of Groupama SA,
- Member of the Board of Directors of Flamel Technologies.

#### *Offices held having expired over the past five years:*

- Member of the Board of Directors of Cap Gemini France, Cap Gemini Holland, Cap Gemini UK, Cap Gemini Poland and Cap Gemini Korea until 2002.

##### *Alain Bugat (age 57)*

Mr Bugat became a member of the Supervisory Board on January 23, 2003. The General Meeting of Shareholders confirmed his appointment on May 12, 2003. He was appointed **Vice-Chairman of the Supervisory Board** on June 12, 2003. His term expires at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Mr Bugat is a graduate of École Polytechnique and of École Nationale des Techniques Avancées. He holds the rank of Ingénieur général de l'Armement.



## 6.1. Composition and functioning of administrative bodies

**Other offices held:**

- Administrator General and Chairman of the Board of Directors of the CEA,
- Member of the Board of Directors of DCN SA,
- Representative of the French State to the Board of Directors of AREVA NC,
- Member of the Supervisory Board of CDC Entreprises,
- Member of the Board of Directors of Agence Nationale de la Recherche Technologique (ANRT) – Association.

**Offices held having expired over the past five years:**

- Member of the Board of Directors of EDF until 2004,
- Chairman of the Board of Directors of AREVA TA until 2002,
- Chairman of the Supervisory Board of MVI Technologies until 2003.

**Euan Baird (age 68)**

Euan Baird was appointed to the Supervisory Board by the General Meeting of Shareholders on June 18, 2001. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Euan Baird is a graduate of Cambridge University.

**Other offices held:**

- Member of the Boards of Directors of ScottishPower and Société Générale,
- Member of the Advisory Board of Banque de France.

**Offices held having expired over the past five years:**

- Chairman and CEO of Schlumberger until 2002,
- Member of the Board of Directors of The Haven Trust Management until 2003,
- Member of the Board of Directors of Rolls Royce until 2004.

**Patrick Buffet (age 52)**

Mr Buffet was appointed to the Supervisory Board by the General Meeting of Shareholders on June 18, 2001. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Mr Buffet holds the rank of *Ingénieur* in the Corps des Mines. He is Executive Director of Suez.

**Other offices held:**

- Member of the Boards of Directors of Electabel, Fabricom, Suez Tractebel, Fluxys and Suez Energie Services (SES),
- Member of the Supervisory Boards of Astorg Partners and Ixis-CIB,
- Censor of S.I. Finance, Caravelle and Neuf Telecom.

**Offices held having expired over the past five years:**

- Member of the Boards of Directors of Société Générale de Belgique, Tractebel, Degremont, Suez Lyonnaise Telecom and CEA until 2003,
- Member of the Supervisory Board of Elyo until 2002,
- Member of the Board of Directors of Caravelle Finances until 2001,
- Member of the Supervisory Board of Panoramet,
- Permanent representative of Suez to the Board of Directors of Compagnie Parisienne de Chauffage Urbain until 2001.

**Thierry Desmarest (age 60)**

Mr Desmarest was appointed to the Supervisory Board by the General Meeting of Shareholders on June 18, 2001. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Thierry Desmarest is a graduate of École Polytechnique and holds the rank of *Ingénieur en Chef* in the Corps des Mines. He is Chairman and CEO of Total SA.

**Other offices held:**

- Chairman and CEO of Elf Aquitaine,
- Member of the Supervisory Board of Air Liquide,
- Member of the Board of Directors of Sanofi-Aventis.

**Offices held having expired over the past five years:**  
None.**Gaishi Hiraiwa (age 91)**

Mr Hiraiwa was appointed to the Supervisory Board by the General Meeting of Shareholders on September 3, 2001. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Gaishi Hiraiwa is counselor to the Emperor of Japan and former President of Tepco.

**Other offices held:**

- Member of the Boards of Directors of Kokyo Tatemono Co, Ltd, Three Hundred Club, World Trade Center Building, Inc., and Nippon Television Network Corporation.

**Offices held having expired over the past five years:**

- Member of the Board of Directors of Tōkō Tatemono Co. Ltd until 2004,
- Member of the Boards of Directors of Japan Oil Development Co. Ltd Dai-ichi Mutual Life Insurance Company, Japan Securities Finance Co. Ltd, Arabian Oil Co. Ltd and Sumitomo Mitsui banking Corporation until 2002,

### 6.1. Composition and functioning of administrative bodies

- Member of the Boards of Directors of Indonesia LNG Co. Ltd, The International Oil Trading Co. Ltd and Japan Indonesia LNG Co. until 2001,
- Member of the Supervisory Boards of Sunshine City Corporation and Tokyo Gas Co. Ltd until 2001.

#### **Daniel Lebègue (age 62)**

Mr Lebègue was appointed to the Supervisory Board by the General Meeting of Shareholders on September 18, 2001. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Mr Lebègue is a graduate of Institut d'Études Politiques de Paris and of École Nationale d'Administration.

#### **Other offices held:**

- Member of the Boards of Directors of Alcatel, Scor, Crédit Agricole SA and Technip,
- Chairman of the Institut Français des Administrateurs and Transparence Internationale France, both associations, of the Institut de Développement Durable et des Relations Internationales, and of Eurofi.

#### **Offices held having expired over the past five years:**

- Chairman of the Board of Directors of Compagnie Financière Eulia,
- Member of the boards of directors of Gaz de France and Thalès until 2003,
- Member of the Board of Directors of C3D until 2002,
- Member of the Board of Directors of Dexia until 2001,
- COO of Caisse des Dépôts et Consignations until 2001,
- Chairman of the Supervisory Board of CDC Ixis,
- Member of the Supervisory Boards of Caisse Nationale des Caisses d'Épargne and CNP until 2002,
- Member of the Supervisory Boards of Club Méditerranée and CDC IXIS Capital Market until 2001.

#### **Olivier Pagezy (age 38)**

Mr Pagezy became a member of the Supervisory Board on June 12, 2003. His appointment was confirmed by the General Meeting of Shareholders on May 4, 2004. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Mr Pagezy is a graduate of Institut d'Études Politiques de Paris and of École Nationale d'Administration.

He is Financial Director of the CEA.

#### **Other offices held:**

- Member of the Boards of Directors of CEA Valorisation and Co-Courtage Nucléaire.

#### **Offices held having expired over the past five years:**

None.

#### **Commissariat à l'Énergie Atomique (CEA), represented by Mr Jacques Bouchard**

The CEA became a member of the Supervisory Board on July 18, 2001. This appointment was confirmed by the General Meeting of Shareholders on September 3, 2001. CEA's term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

The CEA is represented by Mr Jacques Bouchard (age 66).

Mr Bouchard is a graduate of École Centrale des arts et manufactures.

#### **Other offices held:**

- Permanent representative of the CEA to the Board of Directors of AREVA TA,
- Member of the Boards of Directors of AREVA NC and SFEN (association).

#### **Other offices held by the CEA:**

- Member of the Boards of Directors of Brevatome, a French company in charge of managing nuclear patent applications, of CEA Valorisation and of AREVA TA.

#### **Offices held having expired over the past five years:**

- Member of the Board of Directors of Sofratome until 2003.

#### **Persons recommended for a seat on the Supervisory Board during the Annual General Meeting of Shareholders of May 2, 2006**

The resolutions presented by the State shareholder to the Annual General Meeting of Shareholders of AREVA of May 2, 2006 (see section 6.5.2) recommend the appointment of the persons listed hereunder to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending 2010: Patrick Buffet, Alain Bugat, the French Atomic Energy Commission (CEA), Thierry Desmarest, Oscar Fanjul, Frédéric Lemoine, Philippe Pradel and Guylaine Saucier, to replace the members of the Supervisory Board appointed by the Shareholders whose terms expire after the Annual General Meeting of May 2, 2006.

## 6.1. Composition and functioning of administrative bodies

**Members representing the French State, appointed by ministerial order****Luc Rousseau (age 49)**

Mr Rousseau was appointed by ministerial order of March 11, 2005, published in the Official Journal on March 25, 2005. He replaced Mr Jean-Pierre Falque-Pierrotin. His term shall expire at the end of the General Meeting of Shareholders convened to approve the financial statement for the year ending December 31, 2005.

Mr Rousseau is a graduate of École Polytechnique and holds the rank of *Ingénieur* in the *Corps des Mines*.

He is Director General of Enterprises at the Ministry of the Economy, Finance and Industry.

**Other offices held:**

- Member of the French Atomic Energy Board (Comité de l'Énergie Atomique),
- Government Commissioner for the Boards of Directors of the French postal service and Oseo Anvar,
- Government Commissioner to the Supervisory Board of All,
- Member of the Board of Directors of ANR (French National Research Agency).

**Offices held having expired over the past five years:** None.

**Dominique Maillard (age 56)**

Mr Maillard was appointed by ministerial order dated June 28, 2001, published in the Official Journal on June 30, 2001. His term will expire at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Mr Maillard is a graduate of École Polytechnique and holds the rank of *Ingénieur* in the *Corps des Mines*. He is Director General of Energy and Raw Materials at the Ministry of the Economy, Finance and Industry.

**Other offices held:**

- Representative of the French State to the Board of Directors of the French postal service, ERAP and the Institut Français du Pétrole,
- Government Commissioner to AREVA NC, Andra and the French Electrical Power Regulatory Commission,
- Member of the Steering Committee of the International Energy Agency and the French Atomic Energy Board (Comité de l'Énergie Atomique).

**Offices held expiring over the past five years:**

- Director General of Energy and Raw Materials until 2001,
- Representative of the French State to the Board of Directors of ADEM.

**Jean-Pierre Lafon (age 65)**

Mr Lafon was appointed by ministerial order of December 15, 2004, published in the Official Journal on December 24, 2004. He replaced Mr Hubert Colin de Verdière. His term shall expire at the end of the General Meeting of Shareholders convened to approve the financial statement for the year ending December 31, 2005.

Mr Lafon holds a doctorate in mathematics. He was Secretary General of the French Ministry of Foreign Affairs until March 31, 2006.

**Other offices held:**

- Representative of the French State to the Board of Directors of ENA,
- Member of the Boards of Directors of GIP/France Coopération Internationale (public interest group), EDF, and the Association Française d'Action Artistique (AFAA),
- Member of the French Atomic Energy Board (Comité de l'Énergie Atomique).

**Offices held having expired over the past five years:** None.

**Bruno Bézard (age 42)**

Mr Bézard was appointed by ministerial order of July 22, 2002, published in the Official Journal of July 26, 2002. He replaced Mr Nicolas Jachiet. His term shall expire at the end of the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005.

Mr Bézard is a graduate of École Polytechnique and École Nationale d'Administration. He is Head of the Equity Holdings department and Deputy Director General of the agency that manages the French government's participating interests at the Department of the Treasury and Economic Policy, Ministry of Economy, Finance and Industry.

**Other offices held:**

- Member of the Boards of Directors of SNCF (French railways), EDF, France Télévisions and the French postal service.

**Offices held having expired over the past five years:**

- Member of the Board of Directors of Renault until 2003.

## 6.1. Composition and functioning of administrative bodies

**Members elected by and representing the employees:****Jean-Claude Bertrand (age 54)**

Mr Bertrand was elected by the employee electoral body on May 28, 2002 in elections validated by the works council (Comité d'Entreprise) on July 25, 2002. He took office at the Supervisory Board Meeting held on July 25, 2002. His term will end following elections held in 2007.

Mr Bertrand is a manager for local economic development at AREVA NC/Pierrelatte.

**Offices held having expired over the past five years:**

None.

**Gérard Melet (age 48)**

Mr Melet was elected by the employee electoral body on May 28, 2002, in elections validated by the works council (Comité d'Entreprise) on July 12, 2002. He took office at the Supervisory Board Meeting held on July 25, 2002. His term will end following elections held in 2007.

Mr Melet is a buyer in the AREVA NC – La Hague purchasing department.

**Offices held having expired over the past five years:**

None.

**Alain Vivier-Merle (age 57)**

Mr Vivier-Merle was elected by the electoral body consisting of engineers and managers on June 20, 2002, in elections validated by the works council (Comité d'Entreprise) on July 12, 2002. He took office at the Supervisory Board Meeting held on July 25, 2002. His term will end following elections held in 2007.

Mr Vivier-Merle is a manager of strategy and marketing programs for AREVA NP in Lyon.

**Other offices held:**

- Chairman of the Supervisory Board of the Framépargne employee savings plan,
- Member of the Supervisory Board of the Framépargne balanced mutual fund.

**Offices held having expired over the past five years:**

- Chairman of the Supervisory Board of Sogepan A until 2004,
- Member of the Supervisory Boards of the AREVA employee savings's plan money market fund until 2004.

Mr Christophe Xerri, representing the unified delegation of AREVA personnel, participates in the meetings of the Supervisory Board in an advisory capacity.

**Comptroller General**

On February 15, Ms Anne-Dominique Fauvet was appointed as Comptroller General to the CEA by ministerial order of the Minister of the Economy, Finance and Industry. In this capacity, she is also Comptroller General to AREVA and attends the meetings of the Supervisory Board.

**Censors**

AREVA's bylaws authorize the Supervisory Board to appoint one or several censors, whose mission is to assist the Supervisory Board in its oversight functions. They attend the meetings without the right to vote.

No censor had been appointed as of the date this report was filed.

**Secretary of the Board**

Bernard de Gouttes, Chief Legal Counsel of the Group, is the Secretary of the Board.

Supervisory Board members may be contacted at the company's corporate office at 27-29, rue Le Peletier, 75009 Paris, France.

### 6.1.1.3. Legal information, conflicts of interest and service contract

As of the date of this annual report, and to AREVA's best knowledge:

- The members of the Supervisory Board and the members of the Executive Board are not subject to potential conflicts of interest between their duties to the Company and their private interests.
- There are no family relationships between members of the Supervisory Board and members of the Executive Board of AREVA.
- No member of the Supervisory Board or the Executive Board has been convicted for fraud over the past five years. None of these members participated in any bankruptcy, receivership or liquidation proceeding in an executive capacity during the past five years, and none was indicted and/or officially sanctioned by a statutory or regulatory authority, including designated professional organizations. Over the past five years, no court has barred any of these members from becoming a member of an administration, executive board or supervisory body of a securities issuer, nor from participating in the management or business operations of an issuer.
- No member of the Executive Board or the Supervisory Board was selected as a member pursuant to an arrangement or an agreement with a major shareholder, a customer or a supplier.
- No service agreement contemplating any benefit has been concluded between AREVA or any of its subsidiaries and any member of the Supervisory Board or the Executive Board.

## 6.1. Composition and functioning of administrative bodies

## 6.1.2. FUNCTIONING OF ADMINISTRATIVE BODIES

### 6.1.2.1. Functioning of the Executive Board

Full authority is vested in the Executive Board to act on behalf of the Company in all circumstances with regard to third parties, except when authority is expressly attributed by law or the bylaws to the Supervisory Board or to the shareholders. Executive Board meetings are recorded in a written meeting report.

The Executive Board convenes General Meetings of Shareholders and voting right certificate holders, and Special Meetings of investment certificate holders.

The Executive Board meets whenever AREVA's interests so require. Meetings are held at the corporate headquarters or any other place indicated in the notice of meeting. The Executive Board met 17 times in 2003, 7 times in 2004 and 15 times in 2005, with an attendance rate of 97%.

For the decisions of the Executive Board to be valid, at least half of the members must be present. Decisions are made on a majority vote of members present or represented. Executive Board decisions are recorded in minutes.

Management duties may be distributed among the members of the Executive Board based on a recommendation by the Chairman of the Executive Board approved by the Supervisory Board. On October 15, 2002, the Supervisory Board approved the following distribution of duties among members of the Executive Board: Anne Lauvergeon and Gérard Arbola are in charge of the Group's general management; Gérard Arbola is also in charge of financial management for the Group; Didier Bénédicti is in charge of R&D for the Group and Vincent Maurel is in charge of information systems for the Group. Since his resignation from the Executive Board on October 20, 2005, following the sale of FCI, Jean-Lucien Lamy is no longer in charge of purchasing for the Group.

The Chairman of the Executive Board represents AREVA with regard to third parties. Based on a recommendation from the Chairman of the Executive Board, the Supervisory Board may appoint one or more general managers with the authority to represent the Company with regard to third parties. As of today, no member of the Executive Board has been appointed in that capacity.

The Executive Board approved its rules of procedure on February 7, 2003, including:

- distribution of duties among the members,
- order of the meetings of the Executive Board,
- conditions for the Executive Board to delegate its authority to an Executive Board member.

### 6.1.2.2. Functioning of the Supervisory Board

The Supervisory Board exercises ongoing control of AREVA's management by the Executive Board. The Executive Board regularly informs the Supervisory Board of the business and operations of the Company through quarterly reports. The Supervisory Board performs such verifications and procedures as it deems necessary in connection with its supervisory responsibilities.

The Supervisory Board appoints certain members and the Chairman of the Executive Board. The Supervisory Board may recommend the dismissal of Executive Board members to the General Meeting of Shareholders. The Supervisory Board may call meetings of the General Meeting of Shareholders.

The Supervisory Board meets at least once quarterly at the corporate office or any other place indicated in the notice of meeting issued by the Chairman, or by the Vice-Chairman in the absence of the former, to review the Executive Board's report.

For decisions of the Executive Board to be valid, at least half of the members must be present. Decisions are made on a majority vote of the members present or represented. In the event of a tie vote, the Chairman of the meeting casts the deciding vote.

The Supervisory Board submits its remarks on the report of the Executive Board and on the financial statements to the Annual General Meeting of Shareholders.

Since the entry into force of French Law No. 2003-706 known as the Financial Security Law, enacted on August 1, 2003, and, amended by Law No. 2005-842 dated 26 July 2005 on the modernization of the economy, the Supervisory Board performs an annual review of its Chairman's report on the preparation and organization of the Board's undertakings and on the Group's internal control procedures.

The Supervisory Board delegates authority to the Executive Board to conduct transactions that the Executive Board cannot accomplish without such authorization. It reviews the overall strategy for AREVA and for the Group. Annual budgets and multi-year plans for AREVA, its direct subsidiaries and the Group are subject to Supervisory Board approval, as well as any transaction at the subsidiary level contemplated by Article 23-2 of the bylaws.

### 6.1. Composition and functioning of administrative bodies

Pursuant to Article 23-2 of the bylaws, the following Executive Board decisions are subject to prior approval by the Supervisory Board when they involve an amount exceeding €80 million:

- issues of marketable securities, regardless of type, that may have an impact on share capital,
- significant decisions on opening establishments in France and abroad, either directly, through creation of a branch, or by establishing a direct or indirect subsidiary, or by acquiring an equity stake; a similar approval is required for decisions to close such establishments,
- significant operations that may affect the Group's strategy and modify its financial structure or scope of business,
- acquisitions, extensions or sales of equity in any company, existing or to be established,
- exchanges of goods, securities or assets, excluding cash operations, with or without payment of cash,
- acquisitions of real estate,
- settlements, compromises or transactions relating to disputes,
- decisions pertaining to loans, borrowings, credit and advances, and
- acquisitions and disposals of any receivables by any means.

In addition, proposals for appropriations of earnings presented by the Executive Board are subject to the prior approval of the Supervisory Board.

On July 3, 2001, the Supervisory Board authorized the Executive Board to carry out certain transactions, up to the following amounts:

- disposals of real property up to €30 million,
- provision of collateral to secure corporate commitments, up to €80 million per year in the aggregate, provided that no single commitment exceeds €30 million.

At that same meeting, the Supervisory Board established its rules of procedure, mainly for:

- the establishment and functioning of the four Committees described below,
- rules for preparing Supervisory Board deliberations,
- conditions for establishing the schedule of Supervisory Board meetings,
- resources at the disposal of Supervisory Board members elected by the employees.

#### ***Supervisory Board meetings in 2005***

In 2005, the Board met eight times at the corporate headquarters (attendance rate: 78%).

The Supervisory Board voted on the matters described below:

- March 8, 2005: the Supervisory Board unanimously approved the business plan, acknowledged the net profit for the year 2004 of €301,555 million, and approved the proposal to distribute a net dividend of €9.59 per share and per investment certificate. The Board finalized its report and heard the Chairman's report in accordance with the law of August 1, 2003, on financial security. During the same meeting, the Supervisory Board authorized the Executive Board to give sureties, endorsements and guarantees with regard to obligations of AREVA T&D UK, a subsidiary, to local landlords of facilities leased on Glover Street, St. Leonard Street and Speke Approach. Finally, the Supervisory Board acknowledged the resignation of Mr Philip Pontet as a member and Chairman of the Supervisory Board and appointed Mr Frédéric Lemoine to replace him as a member. The Board then appointed Mr Lemoine as Chairman of the Supervisory Board for the remainder of Mr Philippe Pontet's term, which expires at the General Meeting of Shareholders convened to approve the financial statements for the year ending December 31, 2005, subject to approval by the next General Meeting of Shareholders. The Annual General Meeting of Shareholders confirmed this appointment on May 12, 2005. On March 8, 2005, the Supervisory Board also appointed Frédéric Lemoine Chairman of the Strategy Committee.
- May 12, 2005: the Supervisory Board reviewed the Bought deal proposed by Banque Lazard and the Accelerated book building strategy proposed by Banque Calyon to dispose of the Group's 28.8% participating interest in Assystem-Brime. Furthermore, the Supervisory Board authorized the Executive Board to conclude a transaction under the best possible terms.
- June 28, 2005: the Supervisory Board approved the recommendations of the Compensation and Nominating Committee regarding executive bonuses for 2004, compensation of the members of the Executive Board for 2005 and the flat allowance paid to the Chairman of the Supervisory Board. The Board also reviewed the T&D Division's three-year restructuring plan, whose objective is to reach a level of profitability similar to its competitors and to improve the division's operating income by 2007, by giving priority to actions regarding product lines and the deployment on fast growing Asian markets (China, India, etc.). During the same meeting, the Supervisory Board acknowledged the previously authorized sale of the Group's participating interest in Assystem-Brime to Banque Lazard. The sale closed on May 13, 2005. A €66.7 million gain was recorded on the sale of the shares and a €6.9 million gain on the sale of share subscription warrants. The Supervisory Board authorized the Executive Board to give sureties, endorsements and guarantees with regard to obligations of AREVA T&D UK, a subsidiary, to local landlords of facilities leased on Frederick Road and Lichfield Road.

(1) whose trade name is AREVA NC.



## 6.1. Composition and functioning of administrative bodies

- September 6, 2005: the Supervisory Board authorized AREVA's subsidiary Cogema<sup>(1)</sup> to subscribe to the capital increase of Suez, for the full allotment of its subscription rights, i.e. approximately €50 million, and to acquire on the market a sufficient number of shares to maintain its percentage of interest in Suez to the level before the capital increase, i.e. approximately €110 million for both transactions. Suez intends to use the funds to acquire its Belgian subsidiary Electrabel.
- September 19, 2005: the Executive Board presented to the Supervisory Board an agreement to establish an exclusive partnership with U.S. utility Constellation Energy for the promotion and sale of at least four EPR reactors in the United States, through a joint company called "UnistarNuclear". The Board also approved the proposed sale of FCI to Bain Capital as presented by the Executive Board and gave management authority to finalize the share purchase agreement. The sales price for FCI shares sets the company's value at €1.067 billion. The Supervisory Board authorized the Executive Board to acquire, in one or several transactions, all Suez shares held by AREVA's subsidiary AREVA NC. These shares were obtained in connection with the capital increase or held previously, at a price equal to the average price per share on the stock market during the previous 20 days, subject to AREVA having sufficient cash to proceed with the transactions after collecting the proceeds from the disposal of FCI. The Board also reviewed the Group's uranium mining policy. AREVA's ambitious objective is to become world leader in terms of uranium production and sales. The Board emphasized the need to speed up the development of known deposits and identify new ones while reactivating exploration efforts.
- September 28, 2005: the Supervisory Board authorized its subsidiary Cogema<sup>(1)</sup> to sell the 7.76% participating interest held indirectly, through a subsidiary, in the Australian company ERA, for a price of no less than A\$10.00 per share, provided that such sale would be subject to a favorable recommendation by the Audit Committee if the price were between A\$10.00 and A\$12.00 per share. ERA shares are traded on the Sydney Stock Exchange.
- On December 2, 2005, the Supervisory Board authorized Cogema<sup>(1)</sup> to sell all or part of the shares held indirectly in ERA at a price at least equal to AU\$9.00 per share.
- December 20, 2005: the Supervisory Board acknowledged the Prime Minister's decision that no sale of AREVA shares would be included in the government's program. The Board approved the proposed budget for 2006 for AREVA, its direct subsidiaries and the Group, including the Front End Division, the Reactors and Services Division, the Back End Division and the T&D Division. The Supervisory Board examined the T&D Division's medium term strategy, including the decision to develop key international markets and segments, particularly in India, China and the Middle East. In addition, the Supervisory Board once again authorized the Executive Board to provide an AREVA guarantee to release Alstom Holdings and any other Alstom holding company of surety or guarantee obligations undertaken

previously for the T&D business, which were transferred or are to be transferred to AREVA pursuant to agreements between AREVA and Alstom, in particular the Share Purchase Agreement of September 25, 2003. At that same meeting, the Supervisory Board authorized the Executive Board to provide surety, endorsement and/or guarantees in the name of AREVA to third parties in an amount not to exceed €550 million in 2006. Further, the Supervisory Board authorized the renewal, through January 1, 2007, of the liquidity agreement between Framépargne and Calyon and the agreement guaranteeing the value of AREVA shares sold by Framépargne to Calyon, given by AREVA to Calyon in an amount of up to €100 million. The Board also decided to amend its internal rules to allow Supervisory Board Committee meetings to be held by videoconference or telecommunications, as provided by the law of July 2005 on the modernization of the economy.

### ***Supervisory Board meetings in 2006***

On March 8, 2006, the Supervisory Board acknowledged the net profit for the year of €347,950 million and approved the proposal to distribute a net dividend of €9.87 per share and per investment certificate. The Board approved the wording of the Supervisory Board report and reviewed its Chairman's report on the preparation and organization of the Board's undertakings and on the Group's internal control procedures, as provided in the Law known as the Financial Security Law, enacted on August 1, 2003, and the Law on the modernization of the economy, enacted on July 26, 2005.

### ***Committees established by the Supervisory Board***

The Supervisory Board may establish committees comprised of Board members, which function under its responsibility. The Board establishes the composition and duties of each committee and the compensation, if any, of the members. On July 3, 2001, the Supervisory Board set up a Strategy Committee, an Audit Committee, and a Compensation and Nominating Committee. On December 10, 2002, the Supervisory Board created a Cleanup and Decommissioning Fund Monitoring Committee.

Prior to each meeting of the Supervisory Board, as necessary, the specialized Committees carry out detailed analysis and regularly report on their work to the members of the Supervisory Board.

### ***Strategy Committee***

The five members of the Strategy Committee are chosen from among the members of the Supervisory Board. They are: Frédéric Lemoine<sup>(2)</sup>, appointed on March 8, 2005, to replace Philippe Pontet, Dominique Maillard, Euan Baird<sup>(2)</sup>, Patrick Buffet<sup>(2)</sup> and Bruno Bézard. Bernard de Gouttes serves as Committee secretary.

(1) Whose trade name is AREVA NC.

(2) Independent members of the Supervisory Board.

### 6.1. Composition and functioning of administrative bodies

The Committee meets at least once per six-month period and as often as necessary to fulfill its duties, and is convened by its Chairman or at least two of its members. It is responsible for advising the Supervisory Board on the strategic objectives of AREVA and of its main subsidiaries and for assessing the risks and merits of major strategic decisions proposed by the Executive Board to the Supervisory Board. It ensures application of AREVA's strategic policy and its implementation at the subsidiary level. It orders studies to be carried out as it deems useful and recommends policies as it deems necessary.

The Strategy Committee met 5 times in 2005 with an attendance rate of 72%:

- On February 7 and February 17, 2005, the Committee reviewed a tentative partnership project with WMC, an Australian metals company that produces uranium in particular, and potential AREVA strategies in the framework of this project.
- On February 23, 2005, the Committee met to review AREVA's 2005-2007 business plan. The Committee gave a favorable opinion on the business plan, which was subsequently submitted to the Supervisory Board for approval.
- On June 20, 2005, the Committee reviewed AREVA's strategy in view of the deferral of the privatization of the Company and the restart of nuclear programs in various countries. Each Committee member presented his point of view on various aspects of the Group's strategy: nuclear power business, Front End, Services and Back End operations, renewable energy strategy, T&D development, FCI, AREVA participating interests, strategic and marketing challenges.
- On December 12, 2005, the Committee examined the T&D Division's strategy beyond the three-year plan for 2004-2006. It reviewed organic growth drivers and the development strategy in India, China and the Middle East. The Committee proceeded with its first examination of the results and outlook of AREVA's Research and Development strategy, which is a determining factor of the Group's development.

At the time of publication of this reference document, no Strategy Committee had been held since 12 December, 2005.

#### Audit Committee

The four members of the Audit Committee are chosen from among the members of the Supervisory Board. They are: Daniel Lebègue<sup>(2)</sup>, Chairman, Bruno Bézard, Jean-Claude Bertrand and Olivier Pagezy (appointed to the Supervisory Board on January 9, 2004, to replace Philippe Rouvillois). Alain Salmon, Director of Participating Interests at CEA, serves as Committee secretary. The Chairman of the Supervisory Board attends the Committee meetings.

The Committee meets at least once quarterly and as often as necessary to fulfill its duties. It is convened by its Chairman or at least two of its members. Its mission is to evaluate and help define accounting, financial and ethical standards, as the case may be, to be implemented by the Group's companies in France and abroad.

<sup>(2)</sup> Independent members of the Supervisory Board.

It verifies the appropriateness and effectiveness of these standards and the effectiveness of internal management controls. It draws up reports and conducts reviews of particular points at the request of the Supervisory Board or on its own initiative. The Committee reviews proposed budgets, preliminary financial statements and proposed multi-year plans for AREVA, its direct subsidiaries and the Group, and submits its comments to the Supervisory Board. For the annual financial statements, it consults with AREVA's Statutory Auditors and those of its subsidiaries in order to assist the Supervisory Board in its mission of audit and control. The Committee has the authority to assess the quality of the financial information provided to the public by AREVA. Upon expiration of the term of a Statutory Auditor, the Committee recommends a new Statutory Auditor or the renewal of the current Auditor's term, after soliciting competitive bids.

The Committee maps the Group's potential and existing risks and assesses resources provided or to be provided to prevent them.

Five Audit Committee meetings were held in 2005, with an attendance rate of 90%:

- On January 14, 2005, the Committee reviewed the results of the internal audit program for 2004, in particular those aspects concerning the T&D business. The Committee noted that the number of internal audit missions increased in 2004. It recalled that the Company would continue to apply the COSO internal auditing standards until market authorities approve a common standard. The Committee noted an improvement in various components of the company's internal controls.
- On March 3, 2005, the Committee reviewed the financial statements for 2004 and the report of the Chairman of the Supervisory Board on internal controls. In this context, the Committee heard the college of AREVA's Statutory Auditors. The Committee recommended that retirement commitments in the Eurozone be calculated based on a 4.5% discount rate, which is closer to the rate selected by other large energy businesses. The Committee suggested changes to the wording of notes 13 and 22 of the Notes to the financial statements. The Statutory Auditors called the Committee's attention to the challenges of the transition to International Accounting Standards IAS 32 and IAS 39, and approved without reservation the financial statements as presented, with comments regarding deep geological disposal costs and the sharing of cleanup and decommissioning costs at the La Hague site. The Committee took note of the Statutory Auditors' positive assessment of the report on internal controls submitted by the Chairman of the Supervisory Board.
- On June 21, 2005, the Committee examined the first updated budget (revision 1) for 2005 and noted that:
  - revision 1 was very similar to the initial budget in the nuclear power business;
  - in the T&D Division, deferral of certain restructuring expenses to 2006 results in an increase in operating income;
  - in the Connectors Division, revision 1 shows a significant deterioration compared with the initial budget. All factors included, the consolidated net income is increasing. The Committee reviewed the two different concepts of net cash: net cash per books and net cash position under IFRS reporting standards.



## 6.1. Composition and functioning of administrative bodies

Furthermore, the Committee examined internal audit procedures and their certification by the French Internal Audit Institute (IFACI). The Committee reviewed the methodology used for risk mapping and agreed that AREVA's approach was consistent with the Group's risk management objectives.

- On September 14, 2005, the Committee examined with the Statutory Auditors the financial statements for the half year. For the first time, these financial statements are presented in accordance with IFRS. Following a discussion of the transition to IFRS, the Committee approved the recommendations of the Executive Board regarding changes in the presentation of the Group's cash position, the continued reporting as "available-for-sale securities" of shares held by AREVA, the conditions and significant impact of lengthening the period of depreciation for La Hague assets and the 4.50% discount rate used to calculate retirement provisions. These decisions are consistent with the Statutory Auditors' recommendations.
- On December 14, 2005, the Committee reviewed the financial forecast for 2005. Financial income is significantly above budget due to various gains on sales of shares (Assystem-Brime and ERA) and a positive impact on net income from the sale of FCI. The committee reviewed the preliminary budget for 2006 and noted the increase in revenue compared with revision 2 of the 2005 budget. It pointed out the increase in gross margin and the expected return of T&D to profitability. The Committee reviewed in depth the significant increase in capital expenditure, which is expected to increase from €563 million in 2005 to €1,180 million in 2006, mostly due to AREVA's investment in ETC. The Committee reviewed the results from the 2005 audit program, which demonstrates the soundness of the overall situation in all Group entities. It also examined the 2006 audit plan based on the risk map, which is updated on a regular basis.

The Audit Committee met once in the first quarter of 2006:

- On March 1, 2006, the Committee reviewed the financial statements for 2005 and reviewed and approved the draft report of the Chairman of the Supervisory Board on internal controls. The Committee heard AREVA's Statutory Auditors, who pointed out that the financial statements had been prepared in accordance with IFRS for the first time and in a very satisfactory manner. The Committee took note of the Statutory Auditors' positive assessment of the report on internal controls submitted by the Chairman of the Supervisory Board. Finally, the Committee reviewed the method of determination of the discount rate applied to end-of-life-cycle obligations and confirmed the 5% rate used for the preparation of the balance sheet.

#### Compensation and Nominating Committee

The three members of the Compensation and Nominating Committee are chosen from among the members of the Supervisory Board. They are: Patrick Buffet<sup>(2)</sup>, Chairman, Daniel Lebègue<sup>(2)</sup> and Bruno Bézard. Bernard de Gouttes serves as Committee secretary. The committee meets at least once per six-month period and as often as necessary to fulfill its duties. It is convened by its Chairman or at least two of its members. The Chairman of the Supervisory Board attends the Committee meetings.

<sup>(2)</sup> Independent members of the Supervisory Board.

With respect to compensation, the Committee is responsible for recommending AREVA's executive compensation levels, retirement and insurance programs, and in-kind benefits for executives to the Supervisory Board based on comparable factors in the market and on individual performance assessments. In this regard, the Committee reviewed the timing and procedures for offering stock ownership plans to corporate officers, management personnel and employees of AREVA and of its direct and indirect subsidiaries. With respect to nominations, the Committee reviews the files of individuals selected to serve as members of the Executive Board and conveys its opinion to the Supervisory Board. The Committee also gives the Supervisory Board its opinion on executive nominations for first-tier companies of the AREVA group.

The Compensation and Nominating Committee met five times in 2005 with an attendance rate of 93%.

- On March 8, 2005, the Committee issued a favorable opinion on the appointment of Frédéric Lemoine as a member of the Supervisory Board, to replace Philippe Pontet, resigning. The Committee also issued a favorable opinion on the designation of Mr Lemoine for the position of Chairman of the Supervisory Board and for his appointment as Chairman of the Strategy Committee.
- On March 24 and June 28, 2005, the Committee recommended adjusting the compensations of the members of the Executive Board, based on information provided by the consulting firm of Towers Perrin. Outside the presence of the individuals involved, the Committee made recommendations for the calculation of 2004 bonuses for the members of the Executive Board, for the determination of their qualitative and strategic objectives for 2005 and for the flat fee paid to the Chairman of the Supervisory Board.
- On November 8 and November 14, 2005, the Committee examined the conditions of resignation of Mr Jean-Lucien Lamy, as member of the Executive Board who left the Group on November 18, 2005, after AREVA sold FCI to Bain Capital on November 3, 2005.

The Compensation and Nominating Committee met three times during the first quarter of 2006.

- On January 30 and February 9, 2006, the Committee reviewed the 2006 objectives for the members of the Executive Board, their fixed annual compensation, the amount of the Directors' fees for members of the Supervisory Board and its committees and the situation regarding Mr Jean-Lucien Lamy, a former member of the Executive Board who resigned on October 20, 2005.
- On March 31, 2006, the Committee examined proposed certain changes to the employment contracts of Messrs Bénédicti and Maurel. It also approved the 2005 bonuses for the members of the Executive Board.

## 6.1. Composition and functioning of administrative bodies

### Cleanup and Decommissioning Fund Monitoring Committee

The Committee has a maximum of five members, chosen from among the members of the Supervisory Board. They are: Alain Bugat (Chairman), Dominique Maillard, Gérard Melet, Olivier Pagezy and Bruno Bézard, who was appointed to the Supervisory Board on March 16, 2004, to replace Philippe Rouvillois. Alain Salmon serves as Committee secretary. The Chairman of the Supervisory Board attends the Committee meetings.

The committee meets at least once per six-month period and as often as necessary to fulfill its duties. It is convened by its Chairman or at least two of its members. The Committee is charged with helping to monitor the asset portfolio set up by AREVA subsidiaries to cover future nuclear cleanup and decommissioning expenses. In this capacity, and based on pertinent documentation submitted by AREVA, including a management charter, the Committee reviews the multiyear schedule of estimated future cleanup and decommissioning expenses for affected companies of the AREVA group; the criteria for establishing, managing and controlling the dedicated funds earmarked to cover expenses by these companies; and the investment management strategy for the related assets. The Committee provides the Supervisory Board with opinions and recommendations on these various topics.

The Committee may interview the financial advisors chosen by the fund management companies.

The Cleanup and Decommissioning Fund Monitoring Committee met three times in 2005 with a 93% attendance rate:

- On June 13, 2005, the Committee analyzed the funding of end-of-life-cycle obligations as of December 31, 2004, and the budgeted provision at December 31, 2005, based on the revised budget. The Committee noted that the liabilities were consistent with information provided previously and that the discrepancy between forecasted and actual spending was minimal. The Committee examined the management of the portfolio of assets earmarked to fund end-of-life-cycle expenses and compared performances to the corresponding benchmarks. It noted the solid performance of French equities and the stable but less impressive performance of mutual funds invested in European equities. The Committee, having heard strategic asset allocation recommendations made by AXA-I.M., raised questions regarding the method used and the sufficiency of the initial contribution to the fund. It concluded that an acceptable level of risk would have to be defined in accordance with market practices. Consequently, the Committee asked AXA-I.M. to provide additional information as soon as possible.

- September 1, 2005: the Committee reassessed the choice of allocating assets belonging to the decommissioning fund in light of complementary research carried out on its behalf by AXA-I.M.: the latter particularly maintained its initial recommendation of 55% of diversified assets that seem to offer a maximum potential gain for a reasonable level of safety. This recommendation was not shared by certain members of the Committee, which then agreed to consider that the question of an additional contribution could only be settled after completion of a study that would determine the contribution necessary to offset a possible shortfall of the Fund, based on an allocation including 40% to 45% diversified products and a confidence level of 90%, i.e. less than 10% risk that the net asset in 2060 might be less than the liability. The Committee asked the Supervisory Board to devise a strategy for the transition from the current situation to the target allocation. The transfer of the Suez shares out of the portfolio earmarked to fund end-of-life-cycle obligations is a first step in this direction.

- December 2, 2005: the Committee reviewed the Supervisory Board's proposals to allow the Committee to make regular recommendations on asset allocations and the funding of the portfolio. In particular, the Committee focused on the ratio of coverage of the liabilities based on a set of recommended indicators, the methods to take into consideration EDF's obligation, which is included in the fund's assets and is still under negotiation, the minimum ratio of coverage in 25 years and the optimum allocation. Considering the diverging points of view expressed by Committee members and the lack of response to certain questions asked on September 1, it was agreed that additional analyses would be performed as soon as possible with the assistance of AXA-I.M. The Committee agreed to revisit this issue during a Supervisory Board meeting in 2006.

The Cleanup and Decommissioning Fund Monitoring Committee met twice during the first quarter of 2006:

- On January 31, 2005, the Committee examined estimated end-of-life-cycle obligations and the portfolio of assets earmarked to fund these obligations, as of December 31, 2005. It also reviewed the Executive Board's recommendation regarding the level of contribution to the Fund and the strategic asset allocation, based on additional analyses by AXA-I.M.
- On March 22, 2006, the Committee examined new recommendations made by the Executive Board regarding management of the Fund's assets and the consequence in terms of the advisory role of AXA-I.M. After reviewing management's presentations regarding accounting and tax considerations, which suggest a centralized asset management system, the Committee recognized the validity of this position and decided that requests for proposals would be prepared in order to select several fund managers.

## 6.1. Composition and functioning of administrative bodies

### 6.1.3. OBSERVATIONS BY THE SUPERVISORY BOARD ON THE EXECUTIVE BOARD'S MANAGEMENT REPORT AND ON THE 2005 FINANCIAL STATEMENTS

In 2005, the Supervisory Board convened eight times at the corporate office on notice duly given by its Chairman (The attendance rate was 78 %).

Before each meeting, the Supervisory Board's specialized Committees conducted in-depth reviews of the topics on the agenda. These committees include the Strategy Committee, the Audit Committee, the Compensation and Nominating Committee, and the Nuclear Cleanup and Decommissioning Fund Monitoring Committee.

The Supervisory Board and its specialized committees have monitored the conduct of business and operations of the Group, its major subsidiaries and its participating interests, including quarterly reports submitted by the Executive Board.

As part of its supervisory role, the board also conducted the audits and controls it deemed necessary on the corporate and consolidated financial statements, relying on the opinion of the Audit Committee and working closely with the Statutory Auditors.

A new Chairman of the Supervisory Board was appointed in 2005. On March 8, 2005, the Supervisory Board acknowledged the resignation of Mr Philippe Pontet as a member and Chairman of the Supervisory Board and appointed Mr Frédéric Lemoine to replace him in both positions. His designation was confirmed by the Annual General Meeting of Shareholders on May 12, 2005. The Supervisory Board also appointed Frédéric Lemoine Chairman of the Strategy Committee.

In addition to its review of recurring topics, particularly the financial statements, budgets, renewals of collaterals and guarantees, significant capital spending projects, the Group's business strategy and operations, governance issues and labor-management relations, the Supervisory Board was called upon on several occasions to review several major deals that are important to the Group's future and require its prior authorization, and which appear in the Executive Board's management report. This concerns the following transactions:

- Sale of all of the Connectors Division (FCI) to Bain Capital for a market value of €1,067 million. This transaction allows AREVA to focus all its resources on its core business, energy.
- Disposal of various non-strategic minority interests, including:
  - a block of shares of French engineering firm Assystem-Brime (€94.6 million gross) and subscription warrants issued by that same company (€7.6 million gross), and
  - a minority interest in Australian mining company ERA (AU\$140.6 million gross), the proceeds of which will be allocated to future development of the Group's mining portfolio.

- Subscription by Cogema <sup>(1)</sup> to the capital increase of Suez for the full allotment of its subscription rights (€52.1 million gross) and acquisition on the market of a sufficient number of shares to maintain AREVA NC's percentage of interest in Suez to the level before the capital increase (€54.3 million gross). Suez intends to use the funds to acquire the shares of minority holders in its Belgian subsidiary Electrabel.
- Transfer of the participating interest in Suez within the Group (from Cogema <sup>(1)</sup> to AREVA), after consultation of the Audit Committee on the accounting treatment of this transaction and verification of the absence of impact on AREVA's corporate and consolidated financial statements.

The Supervisory Board, having heard the opinion of the Strategy Committee, approved the business plan submitted by the Executive Board for the 2005-2007 period, updating the 2005-2009 Strategic Action Plan.

The Supervisory Board examined various projects submitted by the Executive Board in 2005, including:

- The Group's mining policy and AREVA's ambitious objective to become world leader in terms of uranium production and sales. It will be necessary to identify and develop new deposits while reactivating exploration efforts.
- The T&D Division's medium-term strategy. After returning to profitability and becoming competitive after completion of its 2004-2006 three-year plan, the division's objective is to resume its growth on strategic international markets and business segments, particularly in India, China and the Middle East.

The Supervisory Board expressed its satisfaction regarding various projects submitted by the Executive Board in 2005, including:

- An agreement to establish an exclusive partnership with U.S. utility Constellation Energy for the promotion and sale of at least four EPR reactors in the United States, through a joint company called "UnistarNuclear".
- Acquisition of 21.1% of the share capital of REpower, a German wind turbine manufacturing company. With this acquisition, the Group confirms its focus on wind energy as a complement to its nuclear strategy, in the context of renewed interest for a balanced energy mix.
- AREVA's participation in the public debate on radioactive waste management, which foreshadows the preparation of a draft bill on this topic.
- The project to change the trade names of first-tier subsidiaries, which will be implemented in the first half of 2006 to allow AREVA to implement a strong and consistent brand strategy, particularly abroad.

(1) Whose trade name is AREVA NC.

### 6.1. Composition and functioning of administrative bodies

Finally, the Supervisory Board acknowledged the Prime Minister's declaration at the end of October 2005 that the privatization of part of AREVA's share capital was not on the agenda of its government.

After review and audit of the corporate and consolidated financial statements for fiscal year 2005, and pursuant to Article L. 225-68 (6) of the French Commercial Code, the Supervisory Board has no

observations to make on these accounts nor on the Executive Board's management report, as presented during its meeting of March 8, 2006.

For the Supervisory Board  
The Chairman  
Frédéric Lemoine

## 6.1.4. REPORT OF THE SUPERVISORY BOARD CHAIRMAN ON THE PREPARATION AND ORGANIZATION OF THE BOARD'S ACTIVITIES AND INTERNAL CONTROL PROCEDURES

### 6.1.4.1. Introduction and regulatory framework

Under the provisions of Article 225-68 of the French Commercial Code, amended by the Financial Security Law of August 1, 2003, and the Law of July 26, 2005 on the modernization of the economy and the confidence in companies raising funds from the public "the Chairman of the Supervisory Board reports to the General Meeting of Shareholders, in a report attached to the report provided in accordance with Articles L. 225-100, L. 225-102, L. 225-102-1 and L. 233-26, on the preparation and organization of the activities of the Board and on internal control procedures established by the Company".

The Executive Board has made the resources of the corporate departments available to the Chairman of the Supervisory Board, with coordination by the audit department, to perform the work necessary to prepare his mission. This work was submitted to the Audit Committee for an opinion and to the college of Statutory Auditors before it was presented to the Supervisory Board.

### 6.1.4.2. Preparation and organization of the Supervisory Board's activities

#### ***6.1.4.2.1. Supervisory Board's missions***

See paragraph 6.1.2.2.

#### ***6.1.4.2.2. Composition of the Supervisory Board***

See paragraph 6.1.1.2.

#### ***6.1.4.2.3. Activities of the Supervisory Board***

See paragraph 6.1.2.2.

#### ***6.1.4.2.4. Activities of the four committees of the Supervisory Board***

See paragraph 6.1.2.2.

## 6.1. Composition and functioning of administrative bodies

**6.1.4.3. Internal control procedures****6.1.4.3.1. Corporate values and action principles**

Sustainable development is at the center of the AREVA group's industrial strategy, which rests on three pillars: profitable growth, social responsibility, and respect for the environment.

This approach translates into ten commitments:

- Governance.
- Continuous improvement.
- Respect for the environment.
- Financial performance.
- Risk management and prevention.
- Innovation.
- Commitment to employees.
- Community involvement.
- Dialogue and consensus-building.
- Customer satisfaction.

Underpinning this process, AREVA established a Values Charter approved by the Supervisory Board, and promoted the strengthening of internal control systems in all of its entities.

**6.1.4.3.2. Internal control objectives**

AREVA's internal control system enables the Group to meet its objectives and manage risk.

The Group's internal control procedures, based on the recommendations of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), consist of rules, instructions and practices in effect throughout the organization, with the following objectives:

- ensure that its operations and employees,
  - comply with applicable laws and regulations as well as internal rules and standards;
  - support the values, guidelines and objectives defined by the labor-management bodies and their representatives, notably with respect to risk management policy.
- verify that internal and external communications accurately reflect the business and position of the Group and of its subsidiaries.

However, internal control procedures, no matter how well designed and implemented, can only provide reasonable assurances, not absolute guarantees.

**6.1.4.3.3. Main risk factors**

The Group implemented a risk mapping process as soon as AREVA was established. AREVA's Insurance and Risk Management department updates the risk map on an annual basis. The Audit department submits the risk map to the Supervisory Board's Audit Committee. The main risk factors are identified and described in this annual report in paragraph 4.15.

**6.1.4.3.4. Managers and departments with control responsibilities**

In matters of corporate governance, AREVA has opted for an organization based on the separation and balance of powers. Executive and management authority is vested in the Executive Board, while approval and control authority is vested in the Supervisory Board and the General Meeting of Shareholders.

The Executive Board and Executive Committee of AREVA, both comprised of officers from first-tier subsidiaries, define the Group's objectives and contribute to the establishment of internal control systems, with support from the corporate departments.

The corporate departments implement specific controls in their respective areas of responsibility. These departments include the Audit Department, the Finance Department, the Human Resources Department, the Legal Department, the Strategy Department, the Organization and Information Systems Department, the Safety, Health and Security department, etc.

Financial information is analyzed and validated by a number of managers in the financial controls department, including managers in charge of operations and financial controls, financial controllers in the business units and subsidiaries, AREVA's consolidation department, business analysts, etc. The most important issues concerning financial reporting are submitted to the Supervisory Board's Audit Committee.

In addition, a Nuclear Executive Committee was established, with its members consisting primarily of key managers in the nuclear sector in France, Germany and the United States. This Committee is consulted on all matters representing a significant financial commitment or having significant strategic or marketing consequences.

**6.1.4.3.5. General internal control procedures**

Since it was established, AREVA has worked continuously to strengthen its organization and its internal control procedures.

The Group adopted a Values Charter that establishes rules of conduct to which all of the Group's executives must subscribe by signing a letter agreement. These rules incorporate AREVA's policy of ethical behavior, with particular emphasis on human rights, sustainable development, compliance with treaties, laws and regulations, performance, sincerity of communications, protection of individuals and property and continuous improvement. The Charter provides that any individual may report a blatant



## 6.1. Composition and functioning of administrative bodies

dysfunction or a breach of laws or regulations to his or her management. The Charter also establishes precise rules in matters such as insider trading, conflicts of interest and the traceability of payments.

AREVA has also established "organizational" and "standards and procedures" units to prepare organizational procedures for the Company and to centralize procedures management for the entire Group. Contact persons designated in first-tier subsidiaries provide assistance for the implementation of these procedures, which are now distributed with a web-based application launched in 2005. The subsidiaries use them as a basis for developing their own procedures and management processes, including ISO certification, delegation of authority, approval processes for proposals and capital expenditures, continuous improvement initiatives, etc.

### 6.1.4.3.6. Accounting and financial reporting procedures

AREVA prepared an accounting and financial manual, which includes a glossary that defines the notions used in the financial statements and the performance indicators, and standards and procedures applicable to long-term contracts, provisions, end-of-life-cycle obligations, management of environmental liabilities, etc. Every year, the Group updates its key financial policies, which cover areas such as investments, interest rate risk, foreign exchange risk, etc.

In addition, the Group has deployed a shared reporting and consolidation system to harmonize, accelerate and ensure secure processing of accounting and financial data. Group entities record their data in the system according to a schedule and rules established at the corporate level. The reliability of this system is ensured through an automatic interface with local accounting systems. The consolidation process and system administration are centralized at the AREVA level.

In 2005, the Group prepared financial statements restated for IFRS. During the first half of 2005, AREVA deployed an accounting assistance and hedge monitoring system to prepare for implementation of International Accounting Standards (IAS) 32 and 39 regarding the handling of financial instruments. AREVA has decided to adopt these particular standards beginning January 1, 2005.

### 6.1.4.3.7. Assessment of internal controls

AREVA optimizes its internal control systems on a continuous basis.

This effort is supported by the Audit department, which monitors the effectiveness of internal control procedures within the Group and reports to the Executive Board and to the Supervisory Board's Audit Committee. The department's missions, which reflect the Group's risk map, are carried out in accordance with an audit charter and with standards of the profession defined by the Institute of Internal Auditors (Institut français de l'audit et du contrôle interne, IIA-Ifaci). The resulting recommendations give rise to action plans, which are monitored in liaison with the managers involved.

In 2005, AREVA sold the Connectors Division and integrated the T&D Division of Indian and Pakistani operations.

To reflect the growing importance of the Group's operations in the Asia-Pacific region, the Audit department will open an office in China and an audit team will be established in India.

Two synergistic self-assessment initiatives were also set up and are being implemented in all of the Group's entities: the AREVA Way questionnaire, which supports implementation of the continuous improvement initiative, and a self-audit questionnaire specifically designed to help the units improve their internal control processes.

The self-audit questionnaire was previously used in 2003. It was updated in 2005 to reflect changes in the Group's standards, and in particular to take into account the transition to the IFRS. The new questionnaire, which includes 600 questions, was reviewed by AREVA's Statutory Auditors. The questionnaire was distributed to 264 entities in 2005, compared with only 65 entities in 2003 and 188 in 2004. FCI was not included in this effort. Conversely, all AREVA T&D entities in India performed a self-assessment. A software application facilitating data collection is available on the intranet.

The Audit department and the college of Statutory Auditors verified the reliability of some of the responses to the questionnaire in 51 entities and 10 countries, representing more than 70% of AREVA's consolidated sales revenue. In liaison with the Statutory Auditors in France, Statutory Auditors in foreign countries were informed of the responses and verified the adequacy of the supporting documentation and the consistency of the responses with their general knowledge of the audited entity and its environment, including its internal control systems, acquired while performing their regular auditing duties.

This initiative, which should lead to a continuous, in-depth assessment of internal controls throughout the Group, contributes to the continuous improvement of the internal control systems in the Group's entities, whether or not they are subject to the French Law on Financial Security. The verifications have not revealed any dysfunctions that might have a major impact on the business or financial statements of the Group.

In 2005, AREVA T&D strengthened its internal control system, including deployment of procedures in effect in the Group. The Audit department considers that internal controls in the Group's entities are generally efficient. However, progress is still required in 2006, particularly in certain T&D subsidiaries and in the area of information systems.

Chairman of the Supervisory Board  
Frédéric Lemoine

## 6.1.5. STATUTORY AUDITORS' REPORT ON THE REPORT OF THE SUPERVISORY BOARD CHAIRMAN

***Statutory Auditors' report, prepared in accordance with the last paragraph of Article L. 225-235 of the French Commercial Code, on the report prepared by the Chairman of the Supervisory Board of AREVA (Société des Participations du Commissariat à l'Énergie Atomique), with respect to internal control procedures for the preparation and treatment of financial and accounting information***

To the Shareholders,

In our capacity as Statutory Auditors of AREVA (Société des Participations du Commissariat à l'Énergie Atomique) and in accordance with the last paragraph of Article L. 225-235 of the French Commercial Code, we hereby report to you on the report prepared by the Chairman of your Company in accordance with Article L. 225-68 of the French Commercial Code for the year ended December 31, 2005.

It is the responsibility of the Chairman of the Supervisory Board to discuss, in his report, the preparation and organization of the Board's activities and the internal control procedures implemented by the Company.

It is our responsibility to report our observations to you on the information and assertions set out in the Chairman's report on the internal control procedures relating to the preparation and treatment of financial and accounting information.

We have performed our procedures in accordance with the professional guidelines applicable in France. These guidelines require that we perform procedures to assess the fairness of the information set forth in the Chairman's report with respect to internal control procedures relating to the preparation and treatment of the financial and accounting information. These procedures mainly consisted of the following:

- obtaining an understanding of the objectives and general organization of internal controls as well as the internal control procedures relating to the preparation and treatment of financial and accounting information, as presented in the Chairman's report.
- obtaining an understanding of the procedures underlying the information presented in the report.

On the basis of these procedures, we have no comment to make on the information given in respect to the internal control procedures relating to the preparation and treatment of financial and accounting information, set forth in the report of the Chairman of the Supervisory Board, prepared in accordance with the last paragraph of Article L. 225-68 of the French Commercial Code.

Neuilly-sur-Seine and La Défense, March 9, 2006

The Statutory Auditors

Deloitte & Associés

Mazars & Guérard

Salustro Reydel  
Member of KPMG International

Pascal Colin


Jean-Paul Picard

Thierry Blanchetier

Michel Rosse

Denis Marangé







## 6.2. Executive compensation

## 6.2. Executive compensation

### 6.2.1. COMPENSATION OF CORPORATE OFFICERS

Compensation of the Chairman and members of the Board of Directors, as well as the Chairman, Vice-Chairman and members of the Supervisory Board of AREVA is settled by the Ministry of Economy, Finance and Industry based on the opinion of the Compensation and Nominating Committee, and recommendations from the Supervisory Board.

The tables below list all compensation and benefits paid to each of the corporate officers belonging to the Group during 2003, 2004 and 2005 by AREVA, the companies controlled by AREVA or the company controlling AREVA, i.e.: the CEA.

#### 6.2.1.1. Compensation paid to the members of the Executive Board

(in euros)	2003				2004				2005			
Executive Board members <sup>(3)</sup>	Fixed comp. (a)	Variable comp. (b)	In-kind benefits (c)	Total gross comp. (d = a+b+c)	Fixed comp. (a)	Variable comp. (b)	In-kind benefits (c)	Total gross comp. (d = a+b+c)	Fixed comp. (a)	Variable comp. (b)	In-kind benefits (c)	Total gross comp. (d = a+b+c)
Anne Lauvergeon <sup>(1)</sup>	316,266	93,678	7,172	417,116	322,912	123,216	4,248	450,376	364,918	127,643	4,332	496,893
Gérald Arbola <sup>(1)</sup>	280,106	74,943	6,906	361,955	286,308	109,262	4,849	400,419	303,232	112,044	5,136	420,412
Didier Bénédicti <sup>(2)</sup>	273,900	98,770	6,726	379,396	308,529	114,257	5,018	427,804	317,792	115,971	5,016	438,779
Vincent Maurel <sup>(2)</sup>	263,225	171,080	3,866	411,171	266,095	98,542	3,312	367,949	274,096	103,214	3,216	380,526
Jean-Lucien Lamy <sup>(2 &amp; 5)</sup>	253,825	110,760	4,210	368,795	285,916	107,573	3,001	396,490	305,061	253,996	2,470	561,527

(1) Appointed by the Supervisory Board on July 3, 2001. Mr Arbola's employment contract with AREVA NC is suspended while he remains a member of the Executive Board.

(2) Appointed by the Supervisory Board on October 15, 2002, with an effective date of February 1, 2003. Members of the Executive Board whose employment contracts with AREVA were suspended during their terms.

(3) Compensation is calculated based on the date of appointment.

(4) The fixed compensation of members of the Executive Board for 2005 includes adjustments for 2004, i.e. €4,764 for Anne Lauvergeon, €4,224 for Gérald Arbola, €4,560 for Didier Bénédicti, €3,936 for Vincent Maurel and €40,726 for Jean-Lucien Lamy.

(5) After his resignation as a member of the Executive Board on October 10, 2005, his employment contract with AREVA was reinstated until unilaterally terminated. Total gross compensation as an employee through November 21, 2005, was €30,530, including €247 for in-kind benefits.



## 6.2. Executive compensation

**6.2.1.2. 2003 bonus calculation  
(paid in 2004)**

The Compensation and Nominating Committee proposed that 2003 variable compensation for the five members of the Executive Board, representing a maximum of 40% of their respective gross annual fixed compensation, be determined based (i) on quantitative objectives linked to performance for 70% of the bonus amount (AREVA financial performance objectives for Mrs Anne Lauvergeon and Mr Gérald Arbola; split 40/30% between AREVA's financial performance and the performance of the companies under their direct supervision for Messrs Didier Bénédicti, Vincent Maurel and Jean-Lucien Lamy), and (ii) individual strategic and qualitative objectives for the remaining 30%.

The Compensation and Nominating Committee recommended Executive Board bonuses as follows for 2003:

- Anne Lauvergeon and Mr Gérald Arbola: 97% of the ceiling;
- Didier Bénédicti: 94% of the ceiling;
- Jean-Lucien Lamy: 95.5% of the ceiling;
- Vincent Maurel: 94% of the ceiling.

The Ministry of Economy, Finance and Industry and the Vice Minister of Industry approved these amounts.

**6.2.1.3. 2004 bonus calculation  
(paid in 2005)**

The Compensation and Nominating Committee proposed that 2004 variable compensation for the five members of the Executive Board, representing a maximum of 40% of their respective gross annual compensation, be determined based on quantitative objectives for 70% of the bonus amount and based on individual strategic and qualitative objectives for the remaining 30%.

The Committee further recommended that quantitative objectives for Messrs Didier Bénédicti, Vincent Maurel and Jean-Lucien Lamy be further allocated in two sets of objectives representing 35% each, one related to AREVA's financial performance and the other related to the financial performance of the companies under their direct supervision, i.e. AREVA NC, AREVA NP and FCI, respectively.

The Committee recommended an additional bonus for Mr Jean-Lucien Lamy, not to exceed 40% of his annual fixed gross compensation, based on specific and challenging objectives directly related to FCI's financial performance.

The Compensation and Nominating Committee recommended Executive Board bonuses as follows for 2004:

- Anne Lauvergeon: 99% of the ceiling;
- Gérald Arbola: 98% of the ceiling;
- Jean-Lucien Lamy and Vincent Maurel: 97% of the ceiling;
- Didier Bénédicti: 94% of the ceiling.

The Minister of Economy, Finance and Industry and the Vice Minister of Industry approved these amounts.

**6.2.1.4. 2005 bonus calculation  
(to be paid in 2006)**

The Compensation and Nominating Committee proposed that 2005 variable compensation for the four members of the Executive Board (following the departure of Jean-Lucien Lamy pursuant to the sale of FCI in November 2005), representing a maximum of 50% of the fixed gross annual compensation for Anne Lauvergeon and Gérald Arbola, and of 40% of the fixed gross annual compensation for Vincent Maurel and Didier Bénédicti, be determined based on quantitative objectives linked to AREVA's performance for 70% of the bonus amount and based on individual strategic and qualitative objectives for the remaining 30%.

The Committee further recommended that quantitative objectives for Messrs Didier Bénédicti and Vincent Maurel be further allocated in two sets of objectives representing 35% each, one related to AREVA's financial performance and the other related to the financial performance of the companies under their direct supervision, i.e. AREVA NC and AREVA NP, respectively.

**6.2.1.5. Pensions and retirement  
benefits**

There is no pension or similar commitment to Anne Lauvergeon or Didier Bénédicti. A provision for pension representing €39,965 for Gérald Arbola and €26,282 for Vincent Maurel was recorded in 2005.

**6.2.1.6. Director and Officer Liability  
insurance**

The purpose of coverage for officers and directors is threefold. First, it provides liability coverage for financial risk incurred by Group directors and officers due to damage suffered by third parties as a result of professional errors or misconduct in the exercise of their duties.

Secondly, it reimburses Group companies that are legally allowed to indemnify directors and officers for claims submitted against these individuals. Thirdly, it covers civil or criminal defense expenses incurred by officers and directors as a result of claims based on professional errors or misconduct.

The policies exclude coverage of claims based on intentional misconduct by a director or an officer, or on personal gain (financial or otherwise) to which a director or officer was not legally entitled. Fines and penalties levied against directors and officers are also excluded, as well as claims for losses due to pollution, asbestos or toxic mold. In addition, directors and officers liability insurance policies exclude claims based on the purchase of securities or assets of any company at an inadequate price.

## 6.2. Executive compensation

## 6.2.1.7. Compensation of the members of the Supervisory Board

(in euros)	2003			2004			2005		
	Gross comp. (a)	Director fees <sup>(14)</sup> (b)	Total gross comp. (c = a+b)	Gross comp. (a)	Director fees <sup>(14)</sup> (b)	Total gross comp. (c = a+b)	Gross comp. (a)	Director fees <sup>(14)</sup> (b)	Total gross comp. (c = a+b)
Supervisory Board (1 and 2)									
Pascal Colombani <sup>(3 and 4)</sup>	277,280		277,280						
Philippe Pontet <sup>(5, 6 and 13)</sup>	89,748		89,748	119,724		119,724	24,201		24,201
Frédéric Lemoine <sup>(15)</sup>							134,395		134,395
Alain Bugat <sup>(7, 8 and 13)</sup>	150,546		150,546	162,180		162,180	165,097		165,097
Euan Baird		27,964	27,964		19,250	19,250		22,250	22,250
Jacques Bouchard <sup>(4, 9 and 11)</sup>	50,110		50,110	225,680	14,000	239,680	11,000	16,000	27,000
Patrick Buffet		21,000	21,000		26,750	26,750		28,500	28,500
Philippe Braidy <sup>(4 and 7)</sup>	12,260		12,260						
Thierry Desmarest		12,000	12,000		16,000	16,000		16,000	16,000
Gaishi Hiraiwa		22,675	22,675		16,000	16,000		16,000	16,000
Daniel Lebègue		20,000	20,000		31,750	31,750		28,500	28,500
Olivier Pagezy <sup>(3, 4 and 11)</sup>	86,434	8,000	94,434	150,452	27,000	177,452	155,497	26,000	181,497
Jean-Claude Bertrand <sup>(10 and 12)</sup>	46,520	14,000	60,520	49,536	24,250	73,786	51,894	22,250	74,144
Gérard Melet <sup>(10 and 12)</sup>	31,167	12,000	43,167	35,495	20,750	56,245	37,843	19,750	57,593
Alain Vivier-Merle <sup>(10 and 12)</sup>	67,700	12,000	79,700	70,817	16,000	86,817	76,427	16,000	92,427

(1) Compensation calculated based on date of appointment or end of term.

(2) Certain amounts corresponding to prior fiscal years may have been paid in 2003 or 2004:

- Mr Baird: €12,964 for 2002 paid in 2003 and €6,000 for 2003 paid in 2004;
- Mr Bouchard: €2,000 for 2003 paid in 2004;
- Mr Buffet: €6,000 for 2003 paid in 2004;
- Mr Desmarest: €4,000 for 2003 paid in 2004;
- Mr Hiraiwa: €10,675 for 2002 paid in 2003 and €4,000 for 2003 paid in 2004;
- Mr Lebègue: €6,000 for 2003 paid in 2004;
- Mr Pagezy: €5,000 for 2003 paid in 2004;
- Mr Bertrand: €6,000 for 2003 paid in 2004;
- Mr Melet: €5,000 for 2003 paid in 2004;
- Mr Vivier-Merle: €4,000 for 2003 paid in 2004.

(3) Mr Colombani was replaced by Mr Pagezy as a member of the Supervisory Board on June 12, 2003.

(4) Includes compensation received from CEA and AREVA by Messrs. Colombani (in 2003), Braidy (2003), Bouchard and Pagezy (2003, 2004, 2005).

(5) In 2003 and 2004, corresponds to compensation received from AREVA only.

(6) Mr Pontet replaced Mr Colombani as Chairman of the Supervisory Board at the Supervisory Board Meeting held on June 12, 2003.

Mr Pontet receives a flat fee paid by AREVA with approval of the supervising ministries. In 2005, Mr Pontet's total gross compensation included a fee prorated in 2005 through March 8, 2005 (€22,447) and an adjustment for 2004 (€1,754).

(7) Mr Bugat replaced Mr Braidy on the Supervisory Board on January 23, 2003 and was appointed Vice-Chairman of the Supervisory Board at the Supervisory Board Meeting held on June 12, 2003.

(8) The amounts reported for 2003, 2004 and 2005, represents only compensation as CEA Administrator General. Mr Bugat receives no compensation as Vice-Chairman of AREVA's Supervisory Board.

(9) Mr Bouchard replaced Mr Rouvillois as CEA Permanent Representative on September 25, 2003.

(10) Members elected by company personnel, who became members of the Supervisory Board on September 25, 2002, and who opted to distribute their net directors' fees to the labor organization of which they are members. Amounts reported for 2003, 2004 and 2005 correspond to their compensation as employees of certain AREVA subsidiaries (AREVA NC or AREVA NP).

(11) For 2004, Mr Bouchard's compensation included €22,712 for unused vacation pay remaining due as of the date of his retirement. For 2005, it includes an annual performance bonus for 2004 paid on January 1, 2005, the date of his retirement. For 2005, Mr Pagezy's compensation includes a €4,500 year-end bonus paid on January 1, 2005.

(12) The compensation for 2004 and 2005 includes, respectively:

- for Mr Bertrand: €2,220 and €2,390 for incentive compensation;
- for Mr Melet: €1,926 and €2,180 for incentive compensation;
- for Mr Vivier-Merle: €2,910 and €2,204 for profit-sharing.

(13) Mr Pontet and Mr Bugat are not entitled to directors fees.

(14) Every member of the Supervisory Board received a flat fee for each meeting of the Supervisory Board he or she attends, and a flat fee for each meeting of a specialized Committee he or she attends as a Committee member, as follows:

- In 2003: €2,000 per meeting of the Supervisory Board and €1,000 per meeting of a specialized Committee;
- in 2004 and 2005: €2,000 per meeting of the Supervisory Board and €1,250 per meeting of a specialized Committee;

(15) Mr Lemoine was appointed to the Supervisory Board on March 8, 2005, to replace Mr Pontet. The Annual General Meeting of Shareholders ratified the appointment on May 12, 2005. Mr Lemoine is not entitled to directors fees.

## 6.2.2. EXECUTIVE' SHARES OF SHARE CAPITAL

Members of the AREVA Supervisory Board appointed by the shareholders each own one share of stock, except for the CEA, which holds 78.86% of the share capital and 82.99% of the voting rights.

Members of the Executive Board do not own any shares or investment certificates in the Company.

## 6.2.3. STATUTORY AUDITORS' SPECIAL REPORT ON REGULATED AGREEMENTS REFERRED TO IN ARTICLE L. 225-86 OF THE FRENCH COMMERCIAL CODE

In the report presented hereunder, references to the companies Cogema, Framatome ANP and Technicatome should be understood as references to AREVA NC, AREVA NP and AREVA TA respectively, pursuant to the change in and adoption of trade names in March 2006.

As independent Auditors of your Company, we hereby present our report on regulated agreements.

### 6.2.3.1. Agreements authorized in 2005

In accordance with Article L. 225-88 of the French Commercial Code, we have been notified of the agreements authorized by your Supervisory Board.

It is not our responsibility to search for the possible existence of other agreements, but rather, based on the information provided to us, to convey the essential features and terms and conditions of such information that has been given to us, informed, without expressing an opinion on their usefulness or their merit. It is your responsibility, under the terms of Article 117 of the ministerial order dated March 23, 1967, to assess the value of concluding these agreements before approving them.

We have performed our work in accordance with French accounting standards, which require that we use due care to verify the consistency of the information provided to us with the underlying documents from which they derive.

#### *With Cogema*

##### Subscription to the capital increase of Suez

On September 6, 2005, the Supervisory Board authorized its subsidiary Cogema to subscribe to the capital increase of Suez, for the full allotment of its subscription rights, i.e. approximately €50 million, and to acquire on the market a sufficient number of shares to maintain its percentage of interest in Suez to the level before the capital increase, i.e. approximately €110 million for both transactions. Suez intends to use the funds to acquire its Belgian subsidiary Electrobél.

On September 19, 2005, the Supervisory Board authorized the Executive Board to acquire, in one or several transactions, all Suez shares held by AREVA's subsidiary Cogema, obtained in connection with the capital increase or held previously, at a price equal to the average price per share on the stock market during the previous 20 days, subject to AREVA having sufficient cash to proceed with the transactions after collecting the proceeds from the disposal of FCI.

##### Agreement regarding the sale of a participating interest in ERA

On September 28, 2005, the Supervisory Board authorized Cogema to sell the participating interest held indirectly, through a subsidiary, in the Australian company ERA, for a price of no less than AU\$10.00 per share, provided that such sale would be subject to a favorable recommendation by the Audit Committee if the price were between AU\$10.00 and AU\$12.00 per share. ERA shares are traded on the Sydney Stock Exchange.

On December 2, 2005, the Supervisory Board reexamined the context of the disposal of ERA shares and ultimately authorized the sale of all or part of the shares at a price at least equal to AU\$9.00 per share.

Cognizant members of the Supervisory Board: Messrs Alain Bugat, Jacques Bouchard and Dominique Maillard.

Cognizant members of the Executive Board: Mrs Anne Lauvergeon and Messrs Gérald Arbola and Didier Bénédicti.

## 6.2. Executive compensation

**6.2.3.2. Prior-year agreements remaining in effect during the fiscal year**

Pursuant to the ministerial order of March 23, 1967, we have been informed that several agreements approved in previous years remained in effect in 2005.

***With Cogema***

- On October 15, 2002, the Supervisory Board authorized the signature of a service agreement for recurring and non-recurring services invoiced to AREVA by Cogema. The main features of this service agreement were as follows:

Services invoiced in 2005 with respect to 2005: €6,326,000.

Amount invoiced in 2005 with respect to the balance remaining for 2004: €1,480,000.

- On March 27, 2003, the Supervisory Board authorized the Executive Board to transfer to AREVA or to counter-sign a guarantee issued by AREVA for CAD280 million on its subsidiary Cogema with respect to a syndicated bank loan for C\$305 million granted in November 2000 to Cogema Resources Inc. Canada. This commitment was updated on December 31, 2005, to C\$230 million.
- On July 8, 2004, the Supervisory Board authorized an agreement under which Cogema gave AREVA authority to manage, organize and control, in the name of Cogema and for its account, assets earmarked to fund end-of-life-cycle and radioactive waste management expenses. This agreement has no set expiration date. It may be terminated by either party subject to a three-month notice. The fee is calculated in accordance with principles governing service agreements in the AREVA group.

Services invoiced in 2005 with respect to 2005: €37,392.

***With Cogema, Framatome ANP, FCI and Technicatome***

On July 25, 2002, the Supervisory Board authorized Mr Arbola, acting in his capacity as a member of the Executive Board, to sign four service agreements for recurring and non-recurring services invoiced by AREVA to several of its subsidiaries.

The four service agreements expired on December 31, 2004. In 2005, the following adjustments were recorded under these agreements:

***AREVA and Cogema***

Credit issued in 2005 for 2004: -€2,710,000

***AREVA and Framatome ANP***

Amount invoiced in 2005 for 2004: nil

***AREVA and FCI***

Amount invoiced in 2005 for 2004: €60,936

***AREVA and Technicatome***

Credit issued in 2005 for 2004: -€208,030

***AREVA T&D Holding SA***

On December 21, 2004, the Supervisory Board authorized a service agreement between AREVA and AREVA T&D Holding SA to adjust invoices for services performed in 2004, for a global amount of €21,503,000 for the year.

This service agreement expired on December 31, 2004. However, the following adjustment was recorded in 2005:

Credit issued in 2005 for 2004: -€5,654,000

## 6.2. Executive compensation

**With FCI (company sold on November 3, 2005)**

In 2005, FCI did not use the US\$600 million line of credit authorized by the Supervisory Board on April 16, 2002. This facility expired on April 18, 2005.

On December 10, 2002, the Supervisory Board had approved various guarantees given to the buyer of FCI's Military/ Aerospace/Industry division, sold in 2003, including:

- a guarantee given for CATS/CASA early retirement plans, up to €17.8 million. This guarantee was definitively settled with the buyer on June 14, 2005.
- a counter-guarantee related to the sale, for an amount not to exceed €33.25 million. This amount was revised to €32.25 million as per Article 8.1.2 (c) of the Share Purchase Agreement signed on September 19, 2005, between AREVA and FCI's buyer.

**With Framatome ANP**

The warranty of assets and liabilities granted by AREVA to Framatome ANP as part of the sale of Intercontrôle remained in effect during the fiscal year. AREVA made no payment in 2005 in connection with this warranty.

**With Établissements Pierre Mengin**

An interest-free shareholder's advance in the amount for €1,936,102.52 was granted to Établissements Pierre Mengin in 1989. It was partially repaid to AREVA in 2005. The balance outstanding at December 31, 2005, is €1,136,102.52.

Neuilly-sur-Seine and La Défense, March 9, 2006

The Statutory Auditors

Deloitte & Associés

Mazars & Guérard

Salustro Reydel  
Member of KPMG International

Pascal Colin

Jean-Paul Picard

Thierry Blanchetier

Michel Rosse

Denis Marangé

**6.2.4. AUDIT FEES**

(in thousands of euros)	Audit	Audit-related services	Other services	Total
Deloitte	6,011	877	33	6,921
KPMG	2,453	116	103	2,672
Mazars	3,213	568	-	3,781
<b>Total</b>	<b>11,677</b>	<b>1,561</b>	<b>136</b>	<b>13,374</b>

## 6.3. Profit-sharing plans

### 6.3.1. CORPORATE SAVINGS PLANS AND INVESTMENT VEHICLES

In early 2005, AREVA decided to harmonize and unify the various savings plans in the French subsidiaries and established a common Group Savings Plan. This new plan gives employees a single statement for all their assets and a much wider choice of new services.

The centralized reporting of all assets held by French employees has been subcontracted to Creelia, a subsidiary of Crédit Agricole Asset Management. The centralization of account reporting and custodian services for almost 41,000 active and retired employee accounts allows each employee to receive complete information on all of his or her assets in the various funds. This information can be accessed on-line and exchanges among funds are possible at all times and without fee. Employees can also redeem shares held in any fund.

The AREVA group Savings Plan offers a complete range of funds covering all asset categories. It includes:

- *AREVA Monétaire*, a treasury fund managed by Société Générale Asset Management (SGAM) fully invested in money market instruments;
- *AREVA Obligataire*, a bond fund managed by Crédit Agricole Asset Management (CAAM) and fully invested in bonds from issuers in the euro zone;
- *AREVA Actions Zone Euro*, a fund managed by CIC Asset Management and fully invested in equity instruments from issuers in the euro zone;

- Three balanced funds: *AREVA Diversifié Obligataire*, managed by Natexis Interépargne Asset Management (25% equities/75% bonds); *AREVA Diversifié Equilibré*, managed by HSBC Asset Management (50% equities/50% bonds); *AREVA Diversifié Dynamique*, managed by Société Générale Asset Management (75% equities/25% bonds).

- *AREVA ISR*, a fund managed by Fongepar Gestion Financière. This socially responsible fund is fully invested in equities of companies implementing principles of social responsibility in employment practices.

A diversified pool of fund managers was selected with a view to optimizing investor returns. The performance of the managers will be measured regularly and the management contracts will be reassessed as needed.

The first fund supervision committees met six months after the AREVA group Savings Plan funds were established. These meetings brought together some 100 employee and management representatives.

In addition, the February 9, 2005, agreement on AREVA group savings plans also provides for the establishment of a savings plan monitoring committee. This committee will make recommendation for improvement of the Group Savings Plan.

### 6.3.2. INCENTIVE REMUNERATION AND PROFIT-SHARING PLANS

Various incentive remuneration and profit-sharing agreements are in effect in companies throughout the Group. The aim is to allow each individual employee to benefit from collective performance while allowing them to take advantage of favorable income tax and social security tax treatment.

In 2005, the Group paid out a total of €65 million in respect of performance objectives for 2004.

Under these agreements, employees receive incentive remuneration when specific objectives have been reached and/or profit-sharing bonuses based on the group's overall financial performance.

#### 6.3.2.1. Profit-sharing

Employee profit-sharing regulations, spelled out in Articles L. 442-1 et seq. of the French Labor Code, provide for employees to receive a portion of the company's net taxable income, determined according to a legally mandated formula incorporated in almost all profit-sharing agreements signed by Group entities.

The global amount so determined is then allocated among the company's employees based on their seniority and/or the beneficiary's salary, in accordance with specific agreements.

## 6.3. Profit-sharing plans

A company's profit-sharing contributions may not be withdrawn by a beneficiary for a period of five years, unless otherwise allowed by regulation. These contributions benefit from preferential tax and social security tax treatment. Subject to provisions of the agreement, employees may elect investment of these contributions in company-sponsored mutual funds included in the contributing company's employee savings plans.

### 6.3.2.2. Incentive remuneration

Incentive remuneration, regulated under Articles L. 441-1 et seq. of the French labor Code, allows a company to provide financial incentives to its employees based on specific and technical qualitative and quantitative objectives. Incentive remuneration agreements are concluded for periods of three years. The various agreements in effect in the Group expire on dates specific to each Group entity involved.

The performance criteria included in the incentive remuneration agreements concluded by Group entities are defined jointly by the management of the Company and by the organizations representing Company personnel. Depending on the agreement, these criteria may include:

- quantitative performance, such as operating income, sales revenue, operating profit, etc.;
- productivity improvements;
- cost reductions;
- qualitative performance (performance improvement objectives specific to each company, e.g. meeting delivery schedules, reduced customer claims, improved industrial safety as evidenced by lower accident frequency and accident severity rates, quality certification or renewal, etc.).

Company contributions for incentive remuneration are paid after year-end closing. Employees usually have the option of investing these contributions in the employee savings plan to which the company subscribes. These contributions, which the beneficiary may not withdraw for a period of five periods, benefit from preferential tax and social security tax treatment applicable to employee savings plans.

### 6.3.3. EMPLOYEE SHARE OWNERSHIP

When the Group was established in September 2001, Framatome ANP shares held by employees via the Framépargne corporate mutual fund were exchanged for AREVA shares. Those shares are currently invested in the "Framépargne" fund of the AREVA group savings plan.

Some of the shares are held by Calyon, the bank that guarantees the liquidity of the Framépargne fund.

At December 31, 2005, employee shareowners through Framépargne represented 0.79% of AREVA's share capital.

### 6.3.4. STOCK OPTIONS ALLOWING SUBSCRIPTION OR ACQUISITION OF SHARES – ISSUE OF SHARES FOR NO CONSIDERATION

As of the date this report was filed, AREVA has not established a stock option plan allowing the subscription and/or acquisition of shares at the Group level.

## 6.4. AREVA Values Charter

On June 12, 2003, the Supervisory Board reviewed the AREVA Values Charter adopted by the Executive Board.

The Values Charter applies to all operations controlled by the Group, whether nuclear or non-nuclear, in any country in which these operations are conducted, without exception.

The Charter applies to all managers and employees. At each level, local management is responsible for implementing the Values Charter. The Charter covers our values, action principles and rules of conduct.

AREVA values are the essence of the Group's sustainable development initiative. They include integrity, excellence, responsibility, sincerity, partnership, profitability and customer satisfaction.

The principles of action focus on each category of AREVA group stakeholders: customers, shareowners, employees, suppliers and subcontractors, the public and the environment.

In addition, the Values Charter spells out rules of conduct applicable to everyone in specific domains of risk exposure, in particular regarding conflicts of interests, insider information and insider trading. The Values Charter refers to a memorandum circulated by AREVA on the prevention of insider trading; this

memorandum applies to all Group executives and employees. In particular, the memorandum confirms that executives and employees holding insider information regarding the Group or AREVA investment certificate must (i) refrain from concluding or facilitating, directly or through a third party, any transaction involving AREVA's investment certificate before the public has gained access to that information; and (ii) refrain from divulging insider information inside or outside the Group, except as required to fulfill their duties. The memorandum also includes a number of recommendations to prevent insider trading.

An Advisory Committee on Ethics has been established to oversee implementation of the Values Charter, capitalize on lessons learned and propose changes as required.

The Chairman of the Executive Board has designated a business ethics advisor, who reports to the head of the Group's legal department. He advises management regarding ethical conflicts concerning the Values Charter, designs and oversees training programs regarding ethics and Group values in liaison with AREVA University, and coordinates a network of business ethics contacts in first-tier subsidiaries.

The Values Charter may be downloaded from the Group's website ([www.areva.com](http://www.areva.com)).



## 6.5. Annual General Meeting of Shareholders of May 2, 2006

### 6.5.1. ORDER OF BUSINESS

1. Reading of the Executive Board's management report for the year ending December 31, 2005, (including information on the social and environmental consequences of the Company's operations, as required per Article L. 225-102-1 of the French Commercial Code).
2. Reading of the Supervisory Board's report on the Executive Board's report, on the corporate financial statements and on the consolidated financial statements for fiscal year 2005; reading of the report of the Chairman of the Supervisory Board on the Supervisory Board's activities and internal control procedures, and observations submitted by the Company's Statutory Auditors, in accordance with Articles L. 225-68 and L. 225-235 of the French Commercial Code.
3. Reading of the Statutory Auditors' report on the financial statements for fiscal year 2005.
4. Reading of the Statutory Auditors' special report on agreements referred to in Article L. 225-86 of the French Commercial Code.
5. Approval of the corporate and consolidated financial statements of the Company (balance sheet, income statement and notes for the fiscal year ending December 31, 2005).
6. Approval of agreements referred to in Article L. 225-86 of the French Commercial Code.
7. Discharge for the members of the Executive Board, the Supervisory Board and the Statutory Auditors.
8. Appropriation of earnings for the year.
9. Setting of directors' fees for the Supervisory Board for fiscal year 2006.
10. Appointment and renewal of members of the Supervisory Board.
11. Granting of authority to execute formalities.

### 6.5.2. RESOLUTIONS

#### **First resolution**

The shareholders, deliberating as an Ordinary General Meeting, having heard the Executive Board's management report, the Supervisory Board's report, the Chairman of the Supervisory Board's report on the terms and conditions for preparation and organization of the Supervisory Board's functions and on the internal control procedures that were set up, the reading of the Statutory Auditors' reports, and the additional explanations provided verbally, approve in their entirety the reports of the Executive Board, the Supervisory Board and the Chairman of the Supervisory Board, as well as the balance sheet, income statement and notes to the corporate and consolidated financial statements for the year ended December 31, as presented.

Consequently, the shareholders approve the management actions taken and accounted for by the Executive Board, and discharge the members of the Executive Board and of the Supervisory Board as well as the Statutory Auditors of their duties for the past fiscal year.

## 6.5. Annual General Meeting of Shareholders of May 2, 2006

**Second resolution**

The shareholders, deliberating as an Ordinary General Meeting, having heard the reading of the Statutory Auditors' special report on agreements referred to in Article L. 225-86 of the French Commercial Code, hereby approve all of the agreements concluded or continuing fiscal year 2005.

**Third resolution**

The shareholders, taking into consideration net earnings for the year of €347,950,607.95, hereby decide to appropriate distributable earnings, in accordance with the law, as follows:

- Net income for the year	€347,950,607.95
- Legal reserve (fully accrued)	
- Retained earnings	€184,517,879.43
- Distributable earnings (Article L. 232-11 of the French Commercial Code)	€532,468,487.38
- Dividend to shareholders and investment certificate holders	€349,819,458.87

Subsequent to this allocation, retained earnings are brought back to €182,649,028.51.

The net dividend per share and per investment certificate is set at €9.87. Dividend distributions to natural persons are subject to a 40% tax exemption. Dividends will be paid on June 30, 2006.

The shareholders note that the amount of dividends distributed for the three previous fiscal years and the amount of the corresponding tax credit were as follows:

(in euros)	Year	Dividend	Tax credit	Actual income
	2002	6.20	3.10	9.30
	2003	6.20	3.10	9.30
	2004	-	-	9.59

**Fourth resolution**

The shareholders set the total amount of directors' fees for the Supervisory Board at €370,000.

This decision applies to the current year and shall remain in effect unless modified.

**Fifth resolution**

The shareholders, noting that the terms of members of the Supervisory Board have expired, hereby agree to appoint Messrs..... to the Supervisory Board for a term of five years. Their terms shall expire at the end of the General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

The members of the Supervisory Board thus appointed agree to accept the duties now entrusted in them and to meet all of the requirements of the law and of applicable regulations, particularly in respect of simultaneous terms.

## Resolutions presented by the State

### ***Sixth resolution***

The Shareholders agree to appoint Patrick Buffet to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Seventh resolution***

The Shareholders agree to appoint Alain Bugat to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Eighth resolution***

The Shareholders agree to appoint the Commissariat à l'Énergie Atomique (CEA) to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Ninth resolution***

The Shareholders agree to appoint Thierry Desmarest to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Tenth resolution***

The Shareholders agree to appoint Oscar Fanjul to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Eleventh resolution***

The Shareholders agree to appoint Frédéric Lemoine to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Twelfth resolution***

The Shareholders agree to appoint Philippe Pradel to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

### ***Thirteenth resolution***

The Shareholders agree to appoint Guylaine Saucier to the Supervisory Board for a term of five years ending at the Annual General Meeting of Shareholders convened in 2011 to approve the financial statements for the year ending December 31, 2010.

## Resolution presented by the Executive Board

### ***Fourteenth resolution***

The Shareholders grant full authority to the bearer of an original, an excerpt or a copy of the present meeting report for purposes of filing, publishing and recording same, and for other purposes as he shall decide.





## RECENT DEVELOPMENTS AND FUTURE PROSPECTS

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## 7.1. Events subsequent to year-end closing for 2005

## 7.1. Events subsequent to year-end closing for 2005

### ***January 3, 2006***

Through AREVA NP, the Group wins a contract for the design and fabrication of two replacement “once-through” steam generators (OTSG) for unit 1 of the Three Mile Island plant operated by Exelon Corporation. This nuclear equipment is an enhanced once-through steam generator (E-OTSG) featuring greater reliability and availability along with reduced maintenance costs. Delivery is scheduled in 2009.

### ***February 8, 2006***

The U.S. Department of Energy (DOE) launches a major initiative in favor of sustainable energy growth, its Global Nuclear Energy Partnership. The GNEP aims for a system of industrial services and supply guarantees to support fully controlled expansion of nuclear power across the globe that complies with non-proliferation requirements. The two thrusts of the partnership are to:

- institute an international system to increase fuel supply guarantees to countries without a nuclear fuel cycle industry seeking to develop nuclear power;
- take advantage of used fuel's energy content while minimizing final waste volumes by turning to used fuel recycling.

AREVA is ready to contribute to the development and implementation of a supply guarantee system. The Group is pleased by the United States' commitment to used fuel recycling, a sustainable approach to management of the back end of the nuclear cycle.

### ***March 1, 2006***

Spencer Abraham, former U.S. Secretary of Energy, is named Chairman of the Board of Directors of AREVA, Inc. He will bring his support to AREVA's business expansion in North America, his excellent knowledge of world energy markets, and his contacts with international decision makers. His appointment becomes effective March 1, 2006.

As of March 1, 2006, all first-tier subsidiaries of the AREVA group have new names. Cogema becomes AREVA NC, Framatome ANP becomes AREVA NP, and Technicatome becomes AREVA TA. The Transmission & Distribution Division keeps the name AREVA T&D.

## 7.1. Events subsequent to year-end closing for 2005

**March 13, 2006**

Via the Commo economic interest grouping, whose members are AREVA NC (60%) and Belgonucléaire (40%), AREVA signs a contract for the supply of MOX fuel to the Hamaoka nuclear power plant operated by the Japanese utility Chubu. The fuel will be fabricated in six campaigns through 2020. All of the plutonium from treatment of Chubu's used fuel at the La Hague plant will be completely recycled in this manner.

**April 4, 2006**

The Rokkasho Mura plant in the Aomori Province, Japan, enters its final testing phase with the shearing of its first used fuel on April 1. Patterned after UP3, one of La Hague's two plants, the new plant will enable Japan to treat its own used nuclear fuel. Testing will continue until commercial start-up of the plant, scheduled for mid-2007, followed by gradual ramp-up of capacity.

**April 5, 2006**

AREVA announces that it will provide support to the French "K-Challenge" team for the 32nd America's Cup, to be held in Valence, Spain, in the summer of 2007. The boat and its crew will henceforth bear the name AREVA Challenge. The event will give the AREVA brand name greater exposure in France and internationally while associating the name with a sporting event with values similar to those of the Group: technological innovation, team spirit and the use of CO<sub>2</sub>-free energies.

**April 21, 2006**

The Group signed its first contract for the construction of an EPR type reactor with TVO in December 2003. This is the first reactor of its kind. The schedule for construction of this first Generation III reactor has been delayed (see paragraph 4.5.1.8). Since year-end 2005 closing, this delay has been re-estimated at 8-9 months over a completion period of more than five years.

As indicated in the discussion of risk factors in paragraph 4.15.3.2 of this annual report, the Group will assess the potential financial consequences of this delay in 2006 in accordance with its procedures and based on the respective responsibilities of the various parties to the project.

Except for the information contained in this annual report, and particularly in this section, to the best of AREVA's knowledge, there has been no change that would have significantly influenced the Group's financial or commercial position since December 31, 2005.

## 7.2. Outlook

As indicated in the general comments at the beginning of this annual report, this section contains information on the objectives, outlook and development directions for the AREVA group and its markets. This information should not be interpreted as assurance that the facts and data expressed herein will occur or that the objectives will be achieved. Neither AREVA nor the AREVA group shall be held responsible for updating these prospective statements or the information contained in this section.

The AREVA group sees solid financial prospects for the coming years. Its nuclear operations constitute a basis for recurring operating cash flow. However, the amounts reported for the last three fiscal years are high, due firstly to a sharp downturn in working capital requirement, mainly attributable to the receipt of large customer advances and prepayments in the Back End and Reactors and Services Divisions, and secondly to the expected increase in the level of capital expenditure, especially in the Front End Division.

The Nuclear divisions may well benefit, ultimately, from a nuclear revival. This should be put into a medium- to long-term perspective, considering the long cycles that apply in the nuclear operations.

With regard to the Transmission & Distribution Division, the three-year optimization plan launched in 2004 should enable the division to improve its operating profitability considerably so that, by 2007, it should be close to that of its major competitors in the sector. However, given the announced restructuring plans, the division's operating income should bear the impact of restructuring costs until then.

The Group expects to see the following in 2006:

- Growth in sales, like-for-like, with the increase in Nuclear linked to the Front End and Reactors and Services Divisions, and accelerated internal growth in the Transmission & Distribution Division.
- Increased current operating income and operating income, with consolidation of operating income in Nuclear and significant improvement in current operating income in the Transmission & Distribution Division as non-current operating expenses (restructuring costs) decline.
- A drop in the Group's net income, considering the very significant one-time impact of the sale of the Connectors Division in 2005.
- A significant increase in operating Capex.



# Glossary

## ADNR ORDER

French administrative order of March 12, 1998, as amended, pertaining to the carriage of dangerous goods via inland navigation. The purpose of the order is to define rules specific to the carriage of dangerous goods in France by inland navigation, whether such carriage is national or international. It refers to the technical appendices of the Regulations for Carriage of Dangerous Goods on the Rhine (ADNR) adopted by a resolution of the Central Commission for Navigation on the Rhine (CCNR) of December 1, 1993.

## ADR ORDER

French administrative order of June 1, 2001, as amended, pertaining to the carriage of dangerous goods by road. This order incorporates and supplements the provisions of the European Agreement on the International Carriage of Dangerous Goods by Road of September 30, 1957 (ADR), and its appendices, and defines rules specific to the carriage of dangerous goods by road in France, whether such carriage is national or international.

## ANDRA (Agence Nationale pour la gestion des Déchets Radioactifs)

Public industrial and commercial agency with oversight by the Ministries of Industry, Research and the Environment. Andra operates independently of waste generators. Formed in 1991, the agency has three areas of responsibility:

- an industrial mission, by which the agency provides for the management, operation and monitoring of radioactive waste disposal centers, designs and builds new centers for waste that is not acceptable in existing facilities, and defines radioactive waste packaging, acceptance and disposal specifications in accordance with nuclear safety rules;
- a research mission, by which Andra participates in and contributes to research programs pertaining to the long-term management of radioactive waste, in particular in cooperation with the French Atomic Energy Commission (CEA); and
- an information mission, in particular through the development of a register of all radioactive waste on French territory.

## ASSEMBLY, FUEL ASSEMBLY

(See “FUEL ELEMENT”)

## ATOM

The basic component of the chemical elements that form matter. It consists of a nucleus containing positively charged or neutral particles (protons and neutrons), around which negatively charged particles (electrons) spin.

## BARRIER, CONTAINMENT BARRIER

System capable of preventing or limiting the dispersion of radioactive materials.

## BECQUEREL (Bq) (See also “RADIOACTIVITY”)

Unit of measure for nuclear activity (1Bq = 1 atomic particle disintegration per second). The Becquerel is a very small unit. Formerly, nuclear activity was measured in curies (1 curie = 37 billion Bq).

## BURNUP

Fuel depletion is estimated by its specific burnup, expressed in gigawatts per day per metric ton of heavy metal (GWd/MTHM). This is the unit of measure for the energy supplied by the fuel during its residence in the reactor.

## CENTRIFUGATION

See “Ultracentrifugation”.

## CLADDING

Sealed metal tube surrounding nuclear fuel to protect it from corrosion by the coolant and prevent the dispersal of fission products. Cladding constitutes a “primary barrier”.

## CONTAINMENT AREA

During the construction of a facility designed to contain radioactive materials, a series of containment barriers is put up between the materials inside and the environment outside the facility as part of the engineering structures. This creates separate areas called “containment areas”.

## CONTROL RODS

Control rods serve to control the chain reaction in the nuclear reactor core. Control consists of ensuring that the number of neutrons produced in the reactor core through fission is exactly equal to the number of neutrons that dissipate in the reactor core. The ratio between these two numbers (production divided by dissipation) is called the multiplication factor, K, which must be equal to 1. To maintain the K=1 ratio at all times, elements made up of atomic nuclei that absorb the neutrons are inserted (or withdrawn) as required. The control rods inserted into the reactor core “absorb” the neutrons to a greater or lesser degree.

**COOLANT**

The heat-removing fluid circulating in a nuclear reactor core.

**CORE, REACTOR CORE**

Area in a nuclear fission reactor comprising the nuclear fuel and arranged to foster the fission chain reaction.

**CRIMPING**

Method for permanently attaching a connector to a conductor using pressure to squeeze or shape the crimp barrel (section of the splice or terminal that receives the conductor) around the conductor to establish a good electrical and mechanical connection.

**CRITICALITY****(adj. CRITICAL, SUBCRITICAL, SUPERCRITICAL)**

A medium containing a fissile nuclear material becomes critical when neutrons are produced by **fission** of the material at the same rate as they dissipate through absorption and escape to the outside.

**DECAY POWER**

In a reactor that has been shut down or in a used fuel assembly, the power released by the radioactivity of the nuclear fuel and other materials.

**DECOMMISSIONING**

Term covering all stages following the shutdown of a nuclear or mining facility at the end of its operating life, from final closure to the removal of radioactivity at the site, including physical dismantling and decontamination of all non-reusable facilities and equipment.

**DECONTAMINATION**

Decontamination is a physical, chemical or mechanical operation designed to eliminate or reduce the presence of radioactive or chemical materials deposited on or in a facility, open area, equipment or personnel.

**DGSNR****(Direction Générale de la Sécurité Nucléaire et de la Radioprotection)**

French government agency reporting to the Ministers of Industry, the Environment and Health. Its specific functions are to define and implement policy in the fields of nuclear safety (civilian applications) and radiation protection and, in particular, to verify safety-related measures taken, contemplated or implemented by operators in the nuclear sector, and to monitor liquid and gaseous effluent and waste from licensed nuclear facilities. The DGSNR, commonly referred to as the nuclear safety authority, or ASN (Autorité de Sécurité Nucléaire), is supported by the Nuclear Safety and Radiation Protection Divisions (DSNR) of the Regional Departments of Industry, Research and the Environment, or DRIRE.

**DISPOSAL OF RADIOACTIVE WASTE****(see also STORAGE)**

Radioactive waste management operation consisting of disposing of packaged waste in a specially designed area that will ensure safety (reversible or irreversible disposal).

**DOSE**

Unit of measure used to characterize human exposure to radiation. The term "dose" is often erroneously used in place of "dose equivalent".

- Absorbed dose: amount of energy absorbed by living or inert matter exposed to radiation. It is expressed in grays (GY).
- Dose equivalent: the same absorbed dose may have different effects on a living organism, depending on the type of radiation involved (X-rays or alpha, beta or gamma radiation). A dose multiplier, or "quality factor", is used to take these differences into account in calculating the dose, giving a "dose equivalent".
- Effective dose: sum of weighted dose equivalents delivered to various tissues and organs by internal and external irradiation. The unit of measure for effective dose is the sievert (Sv).
- Lethal dose: mortal dose of nuclear or chemical origin.
- Maximum allowable dose: dose that should not be exceeded over a given period.

Gray (Gy): unit of measure for absorbed dose. Absorbed dose was formerly measured in rads (1 gray = 100 rad).

Sievert (Sv): unit of measure for dose equivalent, i.e. the fraction of energy from radiation received by 1 kilogram of living matter. Based on the measured dose of energy received (in gray), the dose equivalent is calculated by applying various factors, depending on the type of radiation received and the organ concerned. The abbreviation for Sievert is Sv.

Commonly used submultiples are:

- the millisievert, or mSv, equal to 0.001 Sv (a thousandth of a Sv),
- the microsievert, or µSv, equal to 0.000,001 Sv (a millionth of a Sv).

For example, the mean annual dose from exposure to natural background radiation (terrestrial, cosmic, etc.) is 2.4 mSv/person in France.

**ELECTRIC CONTACT**

Conducting element of a component that connects with a matching element to transfer current.

**ELECTRICITY DISTRIBUTION SYSTEM**

Network that delivers electricity locally to end-users: industries, businesses, service providers, residences, etc. Electricity is distributed at medium voltage (12-24,000 V) and gradually reduced to low voltage at the point of end-use (230 V in Europe, 110 V in the United States).

**ELECTRICITY TRANSMISSION SYSTEM**

Network for electricity transmission from the power plant to the distribution network. It covers large geographical areas. The transmission network includes high voltage and very high voltage power lines, transformers and switchgear equipment.

**END-OF-LIFE-CYCLE OBLIGATIONS**

In this document, end-of-life-cycle obligations include all obligations connected with the shutdown and decommissioning of nuclear facilities and nuclear waste management.

**ENERGY MARKET MANAGEMENT SYSTEM**

Management software for energy markets that allows power generators and distributors to manage their commercial relations more effectively. The software provides strategic planning; deal conclusion, risk management and optimum processing; and customer account management.

**ENRICHED REPROCESSED URANIUM**

Following analysis, used fuel treated at the La Hague plant can be re-enriched to its initial concentration in fissile isotopes (about 3-5%). This is commonly referred to as ERU.

**ENRICHED URANIUM, DEPLETED URANIUM**

Before it is used to fabricate fuel elements, natural uranium is enriched in <sup>235</sup>U to a concentration of 3-5%. Natural uranium is enriched in <sup>235</sup>U using an isotopic separation process. The physical or chemical processes used to enrich uranium also produce uranium that has a lower concentration of <sup>235</sup>U than natural uranium: this is known as depleted uranium.

**ENRICHMENT**

Process used to increase the abundance of fissile isotopes in an element. Naturally occurring uranium consists of 0.7% <sup>235</sup>U (fissile isotope) and 99.3% <sup>238</sup>U (non-fissile isotope). The proportion of <sup>235</sup>U is increased to 3-4% to make it usable in a pressurized water reactor.

**EPR**

The EPR is a third-generation pressurized water reactor (PWR). The EPR generates about 1,600 MWe of electric power and features enhanced safety and simplified operations and maintenance. It also has a projected service life of 60 years, compared with a 40-year service life for other power reactors.

AREVA offers two third-generation reactor models: the EPR and the SWR 1000, a boiling water reactor (BWR) that can generate 1,000-1,250 MWe.

**EVOLUTIONARY MIS OUTSOURCING**

Management information system outsourcing is when a specialized company manages the information systems of its customers. It is evolutionary when it is accompanied by performance improvement plans.

**EXPOSURE**

Exposure of an organism to a source of radiation, characterized by the dose received.

- External exposure: exposure from a radiation source outside the organism.
- Internal exposure: exposure from a radiation source inside the organism.

**FINAL WASTE**

According to Article L. 541-1-III of the French Environmental Code, final waste, whether or not it is a product of waste treatment, is waste that cannot be further processed by recovering reusable material or by rendering it less polluting or hazardous under current technical and economic conditions.

**FISSILE**

Refers to a nuclide capable of undergoing fission when hit by neutrons, even when those neutrons have low energy. Some examples: <sup>233</sup>U, <sup>235</sup>U, <sup>239</sup>Pu and <sup>241</sup>Pu. High-energy neutrons can induce fission in nearly all heavy nuclei.

**FISSION**

The splitting of a heavy nucleus – usually upon impact with a neutron – into two smaller nuclei, or fission products, accompanied by the emission of neutrons and radiation and the release of a considerable amount of heat. The energy released as heat is the principle underlying nuclear power generation.

**FISSION PRODUCTS**

Fragments of heavy nuclei produced by nuclear fission (the splitting of  $^{235}\text{U}$  or  $^{239}\text{Pu}$  nuclei) or by the subsequent radioactive decay of nuclides formed during this process. These fission fragments and their decay products are collectively referred to as “fission products”. They are separated in used fuel treatment plants by solvent extraction, after the fuel has been dissolved in nitric acid, then concentrated by evaporation and stored pending immobilization in glass and packaging in a stainless steel canister.

**FLEX CONNECTOR**

Interconnection system for flexstrips.

**FUEL CYCLE**

The combination of industrial operations involving nuclear fuel. These operations include uranium ore mining and processing, uranium conversion and enrichment, fuel fabrication, used fuel treatment, recycling of recovered fissile materials, and waste management. The fuel cycle is said to be “closed” when it includes used fuel treatment and recycling of fissile materials recovered by such treatment. The fuel cycle is said to be “open” or “once-through” when fuel is disposed of after it has been used in the reactor.

**FUEL ELEMENT (or fuel assembly)**

Bundle of fuel rods filled with uranium or MOX pellets. The core of a reactor contains from 100 to 200 fuel assemblies, depending on the reactor type.

**FUEL ROD**

Metal tube about 4 m long (about 13 feet) and 1 cm in diameter (2/5 of an inch) filled with about 300 pellets of nuclear fuel.

**FUEL STORAGE POOL**

Pool in which used fuel is stored after removal from the reactor to allow the assemblies to lose most of their radioactivity through radioactive decay. The water shields personnel from the radiation emitted by the spent fuel.

**GASEOUS DIFFUSION**

Process for separating molecular species in gaseous form that uses the difference in the velocity of these molecules, due to their different mass and dimensions, and thus the different rates at which they pass through a semi-permeable membrane. This is how the uranium hexafluorides  $^{235}\text{UF}_6$  and  $^{238}\text{UF}_6$  are separated, causing enrichment in  $^{235}\text{U}$  for nuclear fuel.

**GRID MANAGEMENT SYSTEM**

Systems to optimize electricity flows, prevent equipment overloads, limit losses and analyze outage risks.

**HIGHLY ENRICHED URANIUM (HEU)**

Under the START Agreements, the United States has agreed to market separative work units (SWU) contained in the highly enriched uranium (HEU) from dismantled weapons, while a team of which AREVA is a member will acquire the natural uranium component ( $\text{UF}_6$ ) of the HEU. This second commitment remains in effect until 2013. For the Group, this resource is equivalent to a mine that produces 2,000 metric tons of uranium annually.

**IAEA (International Atomic Energy Agency)**

International organization overseen by the United Nations whose role is to promote the peaceful use of nuclear power and to verify that nuclear materials in users' possession are not diverted to military uses.

**INES (INTERNATIONAL NUCLEAR EVENT SCALE)**

An international scale used to define the severity of an event occurring in a nuclear facility. It was designed by an international group of experts under the aegis of the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD). It was established at the international level in 1991. Like scales used for earthquakes or avalanches, the INES is a tool for providing information to the media and the public. Events are classified by increasing order of severity, from level 0 to level 7. The Chernobyl accident, for example, was a level 7 event. Following a favorable decision on June 24, 1999, by CSSIN, the French Nuclear Safety and Information Board, and after a one-year trial period, the French nuclear safety authority ASN decided on April 11, 2001, to widen the scope of the INES scale to include incidents or accidents involving radioactive materials transportation.

**IRSN (Institut de Radioprotection et de Sûreté Nucléaire) (See also “DGSNR”)**

The French institute for radiation protection and nuclear safety, a public industrial and commercial agency whose mission, in particular, is to conduct research and assessments in the fields of nuclear safety, protection of people and the environment from ionizing radiation, and nuclear materials safeguards. IRSN provides technical support to the DGSNR.

**ISO STANDARD**

From the International Standards Organization. The ISO 9000 standards set organizational and management system requirements to demonstrate the quality of a product or service in terms of customer requirements. The ISO 14000 standards set requirements for environmental management organizations and systems designed to prevent pollution and reduce the environmental effects of an activity.

## ISOTOPES

Elements whose atoms have the same number of electrons and protons, but a different number of neutrons. Uranium, for example, has three isotopes: <sup>234</sup>U (92 protons, 92 electrons, 142 neutrons), <sup>235</sup>U (92 protons, 92 electrons, 143 neutrons), and <sup>238</sup>U (92 protons, 92 electrons, 146 neutrons). A given chemical element can therefore have several isotopes with a differing number of neutrons. All of the isotopes of a given element have the same chemical properties, but different physical properties (mass in particular).

## ISOTOPIC ASSAY

Ratio of the number of atoms of a given isotope of an element to the total number of atoms of that element contained in matter. Isotopic assay is expressed as a percentage.

## LEACHING

Extraction of certain compounds contained in a pulverulent, permeable or porous medium through the passage of an appropriate solvent, which flows naturally through the mass to be processed. It can be applied directly to highly fragmented ground (in situ leaching), or to leach a heap that has been extracted, crushed and placed in an appropriate area (heap leaching). It is used to extract metal elements, including uranium. It is also how rainwater run-off leaches certain components from a mass of waste.

## LICENSED NUCLEAR FACILITIES (INB in France)

Nuclear facilities subject to an administrative licensing process and oversight, pursuant to order 63-1228 of December 11, 1963, as amended. These regulations apply to nuclear reactors (except for those used as part of a propulsion system); particle accelerators; plants used in the preparation, fabrication or conversion of radioactive substances (in particular plants used to prepare nuclear fuel, to treat used fuel, or to process radioactive waste); and facilities for the disposal, interim storage, or utilization of radioactive materials, including waste. The regulations for licensed nuclear facilities apply to the above-mentioned facilities only when the quantity or total activity of the radioactive materials is above a threshold set by an administrative order, based on the type of facility and radioactive element involved. The DGSNR organizes INB inspection and oversight, which is exercised by inspectors of licensed nuclear facilities designated jointly by the Ministers of Industry and the Environment.

## LONG-LIVED HIGH-LEVEL WASTE

Waste from used fuel representing a high level of radioactivity and a very long half-life. At this time, there is no final disposal solution for this waste in France, which is currently immobilized in solid matrices to ensure radionuclide containment. LLHL waste management is the subject of research conducted under the aegis of Andra pursuant to the “Bataille Law” of 1991 (French Waste Act), as codified in the Articles L. 542-1 of the French Environmental Code. Three avenues are being explored: transmutation of long-lived radioactive elements, disposal in deep geologic formations, and immobilization and long-term surface storage.

## MODAL SHIFT ORDERS

These are French administrative orders that set rules for various transport modes (mainly road, rail and river) concerning vehicles, packages, professional driver/conductor/pilot training, and documentation to be provided for the carriage of dangerous goods. The rules stem from international and European Community laws and apply in particular to the carriage of radioactive materials (class 7 carriage).

## MOX

“Mixed Oxides”: a blend of uranium and plutonium oxides used to fabricate certain types of nuclear fuel.

## MTHM (METRIC TONS OF HEAVY METAL)

Heavy metal is the nuclear material in fuel: uranium oxide, or a mixture of uranium and plutonium oxides in the case of MOX fuel. The unit of measure for heavy metal is the metric ton.

## NATURAL URANIUM

Naturally occurring radioactive element in the form of a hard gray metal found in several ores, and in particular in pitchblende. Natural uranium is a mixture of 99.28% fertile <sup>235</sup>U and 0.71% <sup>234</sup>U.

## NUCLEAR FUEL

A nuclide that undergoes fission in a reactor, thereby releasing energy. By extension, a product containing fissile material which supplies energy in the reactor core by maintaining the chain reaction. A 1,300 MWe pressurized water reactor contains about a 100 metric tons of fuel, part of which is periodically replenished.

**NUCLEAR MATERIALS SAFEGUARDS**

This function has two aspects:

- All of the measures taken by operators to ensure the safety of the materials in their possession: monitoring, accountability, containment, physical security of materials and facilities, and security during transport.
- Inspections performed by government or international agencies, such as the IAEA and Euratom, to verify the effectiveness and reliability of these measures.

In both cases, the purpose of safeguards is to prevent any unauthorized transfer or theft of material or malicious activity.

**NUCLEAR SAFETY  
(See also "SAFETY ANALYSIS REPORTS")**

In the nuclear industry, nuclear safety encompasses all of the measures taken at each stage of the design, construction, operation and final shutdown of a facility to ensure operational safety, prevent incidents, and limit their impact.

- Fundamental safety requirements (RFS in French): technical requirements issued by the nuclear safety authority concerning licensed nuclear facilities, which define nuclear safety criteria and describe practices that the French nuclear safety authority deems adequate to ensure compliance with them.
- General operating requirements (RGE in French): document developed by the operator of a licensed nuclear facility defining the prescribed operating range of the facility and identifying functions important for safety. It describes measures to be taken if facility performance is outside the normal operating range.

**PACKAGING**

Fuel packaging: special packaging for used fuel to prepare it either for interim storage or for final disposal.

Waste packaging: operation consisting of converting waste into a form suitable for transport and/or storage and/or final disposal.

- Very low-level radioactive waste (vinyl, cleaning rags, etc.) is placed in steel drums.
- Low- and medium-level waste is first compacted to reduce its volume as much as possible, then encapsulated in a special material (concrete, bitumen or resin) to form solid blocks capable of withstanding environmental conditions.
- For high-level waste, a glass matrix is used (vitrification process). The vitrified waste is placed in stainless steel canisters.

**PLUTONIUM**

Chemical element with the atomic number 94 and conventional symbol Pu. Plutonium 239, a fissile isotope, is produced in nuclear reactors from uranium 238.

**RADIATION, IONIZING RADIATION (see also "RADIOACTIVITY")**

Flux of electromagnetic waves (radio waves, light waves, ultraviolet or X rays, cosmic rays, etc.), of particles of matter (electrons, protons, neutrons), or of a group of such particles. The flux carries energy in proportion to the wave frequency or to the particle speed. Their effect on irradiated objects is often to strip electrons from their atoms, leaving ionized atoms in their wake, which carry electrical charges, hence the generic name of "ionizing" radiation.

**RADIATION PROTECTION (See also "RADIOACTIVITY")**

Term commonly used to designate the branch of nuclear physics concerned with protecting people from ionizing radiation (also referred to as "health physics"). By extension, the term "radiation protection" covers all of the health measures taken to protect the health of members of the public and workers from such radiation and to comply with laws and regulations.

**RADIOACTIVE WASTE (or NUCLEAR WASTE)**

Non-reusable by-products of the nuclear industry. The four classes of waste are based on radioactivity levels:

- very low-level waste (VLLW);
- low-level waste (LLW) from operations and maintenance, such as gloves, booties, face masks, etc., which make up 90% of the waste sent to licensed disposal facilities;
- medium-level waste (MLW), such as dismantled production equipment, measurement instrumentation, etc. (8%);
- high-level waste (HLW), mainly fission products that have been separated during used fuel treatment and recycling operations (2%).

## RADIOACTIVITY

Emission by a chemical element of electromagnetic waves and/or particles caused by a change in its nucleus. Emission can be spontaneous (natural radioactivity of certain unstable atoms) or induced (artificial radioactivity). Radioactivity has several forms:

- Emission of alpha particles (combination of 2 protons and 2 neutrons), called “alpha radiation”.
  - The particles making up alpha radiation are helium 4 nuclei that are highly ionizing but not very penetrating. A single sheet of paper stops them.
- Emission of electrons, known as “beta radiation”.
  - The particles making up beta radiation are electrons with a negative or positive charge. They can be stopped by a few meters of air or a single sheet of aluminum foil.
- Emission of electromagnetic waves, known as “gamma radiation”.
  - Electromagnetic radiation similar to light and X rays. Thick, compact materials (concrete, lead) are needed to stop it.

All of these different types of radiation are grouped together under the general heading of “ionizing radiation”. The radioactivity of an isolated quantity of an element gradually decreases over time as the unstable nuclei dissipate. The half-life is the time required for the radioactivity of a radioactive substance to decrease by half.

## RADIONUCLIDE (or radioelement)

Any radioactive material. Only a small number of radioelements are found in nature: a few heavy elements (thorium, uranium, radium, etc.) and a few light elements (carbon 14, potassium 40). The others – more than 1,500 in number – are created artificially in the laboratory for medical applications or in nuclear reactors as fission products.

## REACTOR, NUCLEAR REACTOR

System in which controlled nuclear reactions are conducted, producing heat that is used to make steam. The steam activates a turbine, which drives an electric generator. Different reactor types use different fuel, moderators (to control the reaction) and coolants (to remove heat used to generate power). The pressurized water reactor (PWR) currently used by EDF uses slightly enriched uranium fuel and pressurized light water as the moderator and coolant.

- Boiling Water Reactor (BWR): nuclear reactor in which boiling pressurized water is used to remove the heat from the reactor.
- Pressurized Water Reactor (PWR): nuclear reactor moderated and cooled by light water maintained in the liquid state in the core through appropriate pressurization under normal operating conditions.

## RESERVES/RESOURCES

### Mineral reserves

The tonnage of measured or indicated mineral resources that is economically recoverable and shown to be so by at least one feasibility study. The study must include adequate information about mining and processing operations, metallurgy, economic aspects and other relevant factors to demonstrate that mining is economically justified at the time the report is written. Mineral reserves include dilution materials and the allowance for mining losses incurred during mining operations. Once reserves have been demonstrated, they are subtracted from the resources category.

### Probable mineral reserves

The tonnage of indicated and, in some cases, measured mineral resources that is economically recoverable and shown to be so by at least one preliminary feasibility study. The study must include adequate information about mining and processing operations, metallurgy, economic aspects and other relevant factors to demonstrate that mining is economically justified at the time the report is written.

### Proven mineral reserves

The tonnage of measured mineral resources that is economically recoverable and shown to be so by at least one preliminary feasibility study. The study must include adequate information about mining and processing operations, metallurgy, economic aspects and other relevant factors to demonstrate that mining is economically justified at the time the report is written.

### Mineral resources

Mineral-bearing concentrations or indicators of a natural, solid inorganic or fossilized organic material in or on the Earth's crust, and which is present in such form, quantity, concentration or quality to indicate that there are reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of the mineral resources are known, estimated, or interpreted based on specific geological evidence and data. They do not include reserves.

### Inferred mineral resources

Mineral resources for which the quantity, concentration or grade can be estimated based on geological evidence and a limited sampling, and can be reasonably relied upon without verification of geological and grade continuity. The estimate is based on limited data and samples collected using appropriate techniques at locations such as outcroppings, surface cuts, shafts, workings and drill holes.



**Indicated mineral resources**

Mineral resources for which the quantity and grade or quality, density, shape and physical characteristics can be estimated with enough confidence to allow suitable application of technical and economic parameters for purposes of planning mining operations and assessing the deposit's economic viability.

The estimate is based on reliable and detailed exploration and testing information that is collected using appropriate techniques at locations such as outcroppings, surface cuts, shafts, workings and drill holes that are close enough together to allow a reasonable assumption about the geological and grade continuity.

**Measured mineral resources**

Mineral resources for which the quantity and grade or quality, density, shape and physical characteristics are so well established that they can be estimated with enough confidence to allow suitable application of technical and economic parameters for purposes of planning mining operations and assessing the deposit's economic viability.

The estimate is based on reliable and detailed exploration and testing data that is collected using appropriate techniques at locations such as outcroppings, surface cuts, shafts, workings and drill holes that are close enough together to allow confirmation of the geological continuity and grade.

"Other mineral resources" correspond to ore bodies that cannot be mined for administrative reasons or that cannot be mined profitably under current market conditions. The indicated tonnages reflect the quantity of metal in the earth without application of the mill's output rate. Additional development work or changes in mining criteria may result in the reclassification of these "other resources" as "resources".

"Global mineral resources" correspond to the sum of all categories of resources.

**RESIDUE**

Non-reusable material remaining after physical or chemical processing. The term has a more specific meaning in used fuel treatment, where it refers to any waste that has been packaged.

**RID ORDER**

French administrative order of June 5, 2001, as amended, pertaining to the carriage of dangerous goods by rail. The order incorporates and supplements the provisions of the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) implementing the Berne Convention concerning International Carriage by Rail (COTIF), adopted May 9, 1980. It defines rules specific to the carriage of dangerous goods by rail in France, whether such carriage is national or international.

**SAFETY ANALYSIS REPORTS**

Reports describing the design of licensed nuclear facilities and the measures taken to ensure safety. These reports identify the risks presented by the facility and analyze the measures taken to prevent those risks as well as measures conducive to reducing the probability of accidents and their effects.

- Preliminary safety analysis report: drafted during the preliminary design stage, this report contains a general description of the facility and of the operations to be performed therein. It endeavors to identify risks, to define safety-related design bases, to list safety criteria and to justify the choice of the site. In France, this report is submitted in support of the application for a construction permit under the provisions of a 1963 decree.
- Interim safety analysis report: submitted in support of the application for an operating license, this report describes the as-built facility and is used to verify that the facility has been built in accordance with the safety principles set out in the preliminary safety analysis report and with the technical requirements for construction stipulated in the construction permit.
- Final safety analysis report: presented after facility testing and before the operating license is granted.

**SAFETY SYSTEM**

Combination of equipment used to detect and eliminate defects or other abnormal operating conditions in electrical networks.

**STORAGE (see also DISPOSAL)**

Temporary storage of radioactive waste.

**SWU (Separative Work Units)**

An enrichment plant's production is expressed in separative work units (SWU). This unit is proportionate to the quantity of uranium processed and is a measure of the work required to separate the fissile isotope.

**TRADING**

Commercial transactions in the natural uranium market in the form of the purchase, sale, exchange, lease or loan of uranium, which are not directly connected to the Group's mining operations.

**TRANSFORMER STATION (SUBSTATION)**

Interface between sections of a power network that operate at different voltages. In the substation, voltage is transformed and electricity supply flows are controlled.



**TRANSPORT CASK**

Specially designed cask that completely contains certain radioactive materials (used fuel, vitrified waste, etc.) during shipment and that retains its integrity in the event of an accident.

**TREATMENT**

Treatment of used fuel to extract fissile and fertile materials (uranium and plutonium) for recycling purposes and to package the different types of waste into a form suitable for disposal. Fission products and transuranics are vitrified.

**ULTRACENTRIFUGATION**

Enrichment process in which a gaseous mixture of isotopes is spun at very high speed, using the centrifugal force to modify the composition of the mixture.

**UO<sub>2</sub> POWDER**

UO<sub>2</sub> is the symbol for uranium oxide. Uranium oxide comes in powder or pellet form. It is one of the components of nuclear material.

**URANIUM**

Chemical element with atomic number 92 and atomic symbol U, which has three natural isotopes: 234U, 235U and 238U. The only naturally occurring fissile nuclide is 235U, a quality that makes it useful as a source of energy.

**URANIUM HEXAFLUORIDE (UF<sub>6</sub>)**

The uranium contained in nuclear fuel must be enriched in fissile 235U. Enrichment is achieved by gaseous diffusion or by ultracentrifugation. The uranium is first converted into a gas called uranium hexafluoride for this purpose.

**VITRIFICATION**

Process used to solidify concentrated solutions of fission products and transuranic elements separated during used fuel treatment by mixing them with a glass matrix at high temperature.

**YELLOWCAKE**

“Cakes” of about 80% uranium concentrates.

**ZIRCONIUM**

Transition metal, like titanium, discovered in 1824 by Berzélius. Zirconium has the atomic number 40 in the periodic table of the elements. It is the alloy base in the cladding of light water reactor fuel elements, chosen for its mechanical strength and corrosion resistance in high-temperature water combined with its very low thermal neutron absorption.

# Table of Concordance

The table below presents, on the left, the minimum information to be included in an annual report in accordance with annex 1 of European Commission Regulation no. 809/2004 of April 29, 2004, and, on the right, the corresponding cross-reference in this annual report.

Minimum information to be included in accordance with annex 1 of European Commission Regulation no. 809/2004 of April 29, 2004


Cross-reference

<b>1. Persons responsible</b>	Section 1 (page 2)
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<b>3. Selected financial information</b>	Section 5.1.3. (pages 208-209)
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A business corporation (société anonyme) with an Executive Board and a Supervisory Board  
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