



La Hague visit

Jean-Michel Romary, Vice Deputy Director, La Hague plant
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Thursday, May 20, 2010



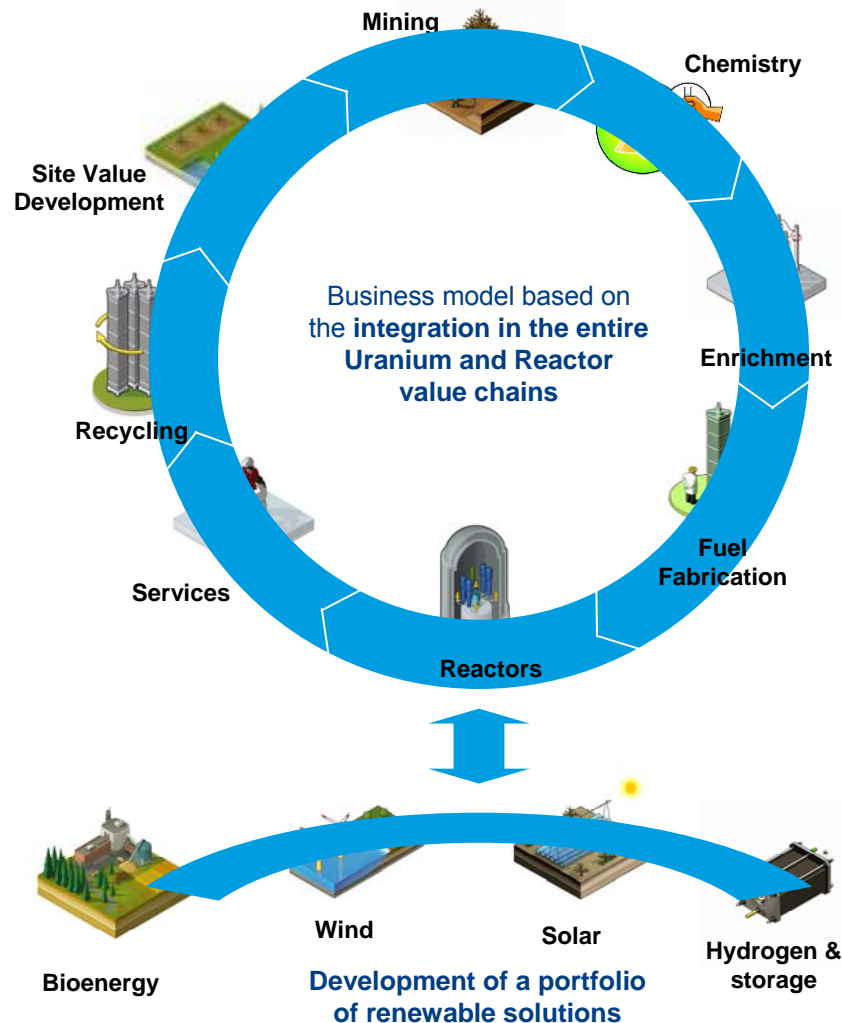


▶ Introduction to AREVA

▶ Overview of the Back-end Business Group

▶ La Hague site presentation

AREVA is a global leader in solutions for CO₂-free power generation



Nuclear and Renewables key figures in 2009

€43.3Bn backlog

€8,529M sales

€647M op. income*

44,817 people

* Excluding OL3 provision of
€50M recorded in H1 2009

AREVA will report under Business Groups* in 2010

**Before
2010
Divisions**

Front-End Division

Reactors & Services Division

Back-End
Division



**Strating
in 2010
Business
Groups**

BG Mining / Front-End



- Mining : Uranium mines exploration and operation activities



- Front-End : Conversion and enrichment of the uranium and design of the fuel for the nuclear reactors

BG Reactors & Services



- Design and construction of nuclear reactors
- Maintenance and modernization of the nuclear power plants

BG Renewable Energies



- Development of wind energy, bio-energy, solar power and hydrogen power solutions

BG Back-End



- Recycling of the used fuel and provider of clean-up and dismantling services

* AREVA's Transmission and Distribution activities ("T&D") remain an additional Business Group of AREVA until closing of the divestment transaction

AREVA captures growth through its low carbon strategy aligned with world energy challenges

Global energy mix

Billions of metric tons of oil equivalent / year

Energy demand **x 1.5**

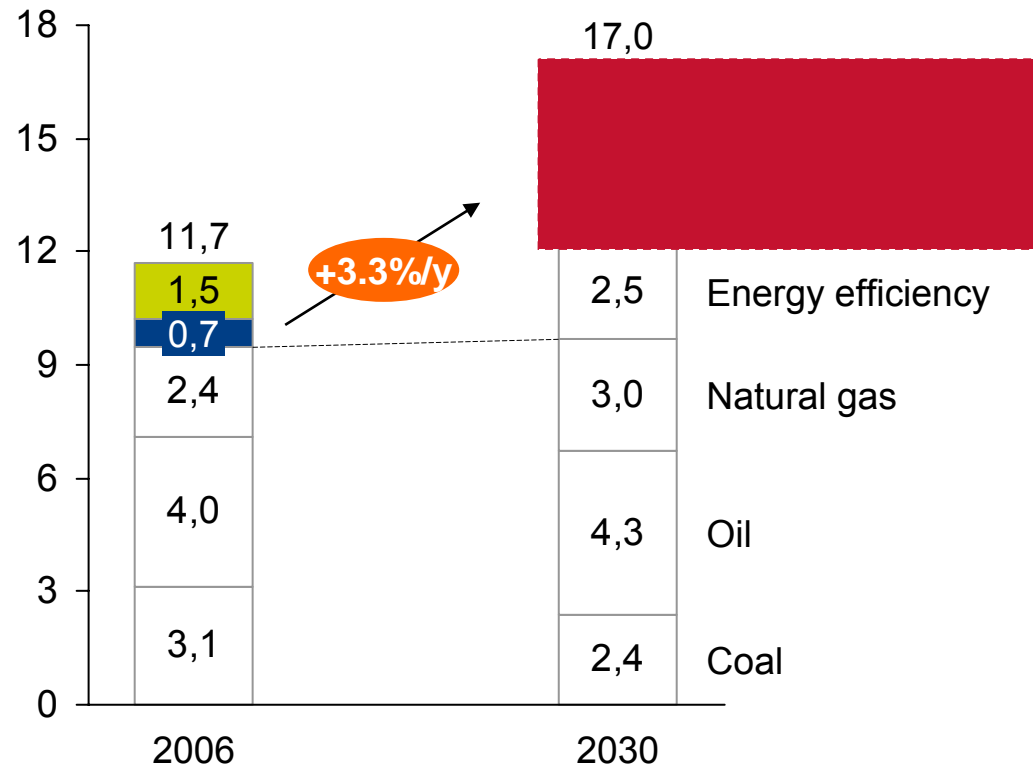
+

Fossil resources ↘

+

CO₂ emissions **/ 2**

=



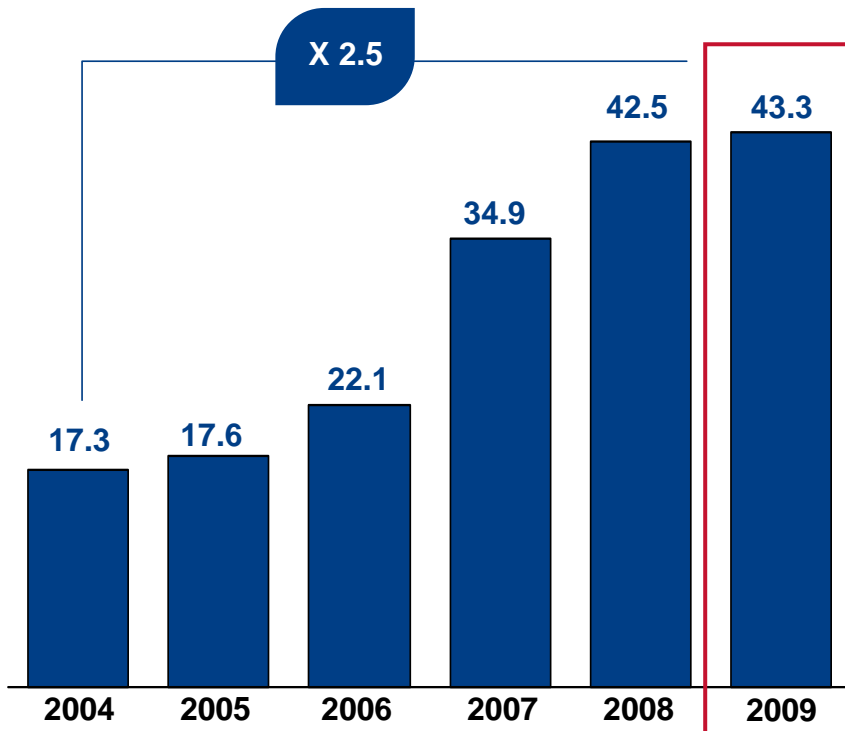
Our mission:

Enabling everyone to have access to even cleaner, safer and more economical energy

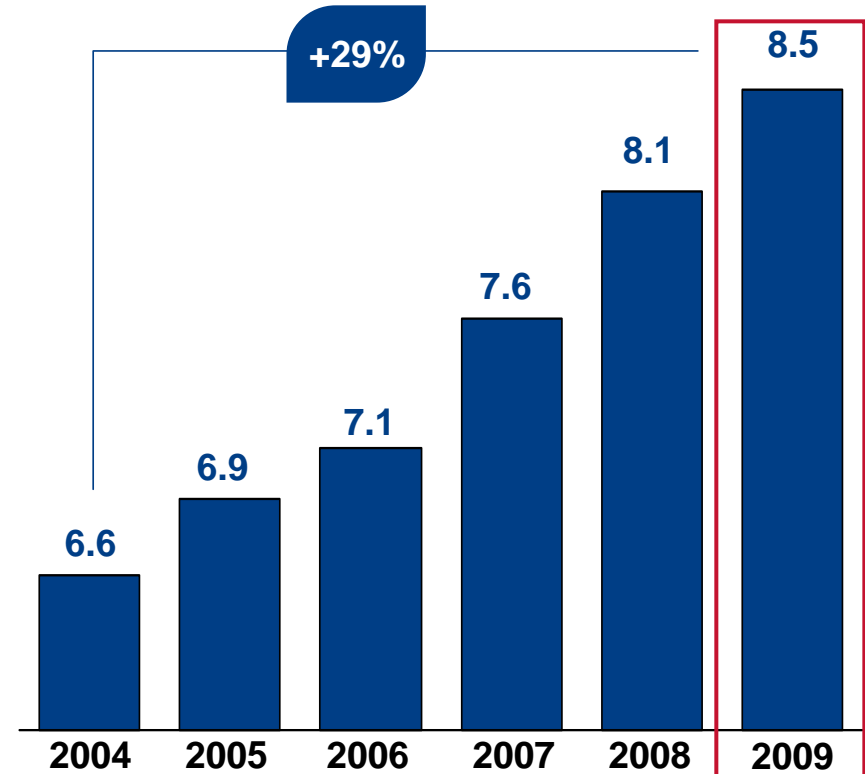
Source: World Energy Outlook 2008 stabilization 450 ppm" scenario, AREVA

Sustained growth

Backlog (€Bn)



Revenue (€Bn)



» Strong visibility and predictability of the business

Confirmed* Strategic Directions for 2012



- ▶ **Build 1/3 of the new nuclear generating capacity****
- ▶ **Secure the fuel cycle for our current and future customers**
- ▶ **Expand our renewable energies offering**
- ▶ **Ensure strong profitable growth in the T&D Division**



*Disposal at 4 times the acquisition price value****



**...while continuously improving our performance
in terms of safety and security**



* Disclosed at the 2007 Annual Results Presentation (26 February 2008)

** In the accessible market

*** Transaction to close in 2010

Confirmed Financial Objectives for 2012



2012 Objectives disclosed at the 2007* annual results presentation

- ▶ **Group Revenue > to €20bn**
- ▶ **Double-digit operating margin**
- ▶ **Generating a significantly positive free operating cash flow**



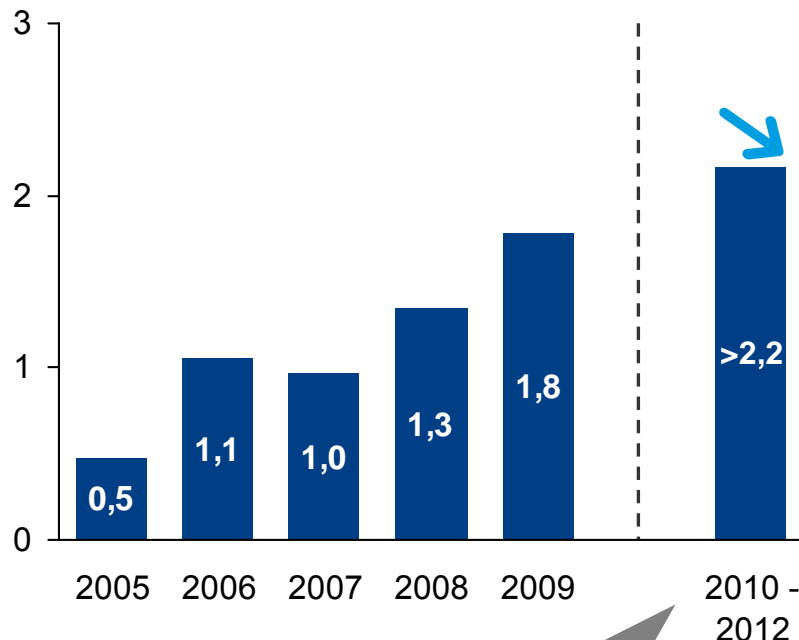
2012 Objectives confirmed in 2010

- ▶ **Excl. T&D → Revenue of €12bn**
- ▶ **Confirmed**
- ▶ **Confirmed**

* 2007 Annual Results Presentation - 26 February 2008

Confirmed investment program over 2010-2012 to strengthen AREVA's leadership

AREVA annual CAPEX *
(€Bn)



Investment optimization program bringing the budget down to €6.5Bn vs. €7.8Bn initially planned (at constant program)

* Acquisition of property, plants and equipment and intangible assets, Excluding T&D

Nuclear Energy



► Key strategic objectives

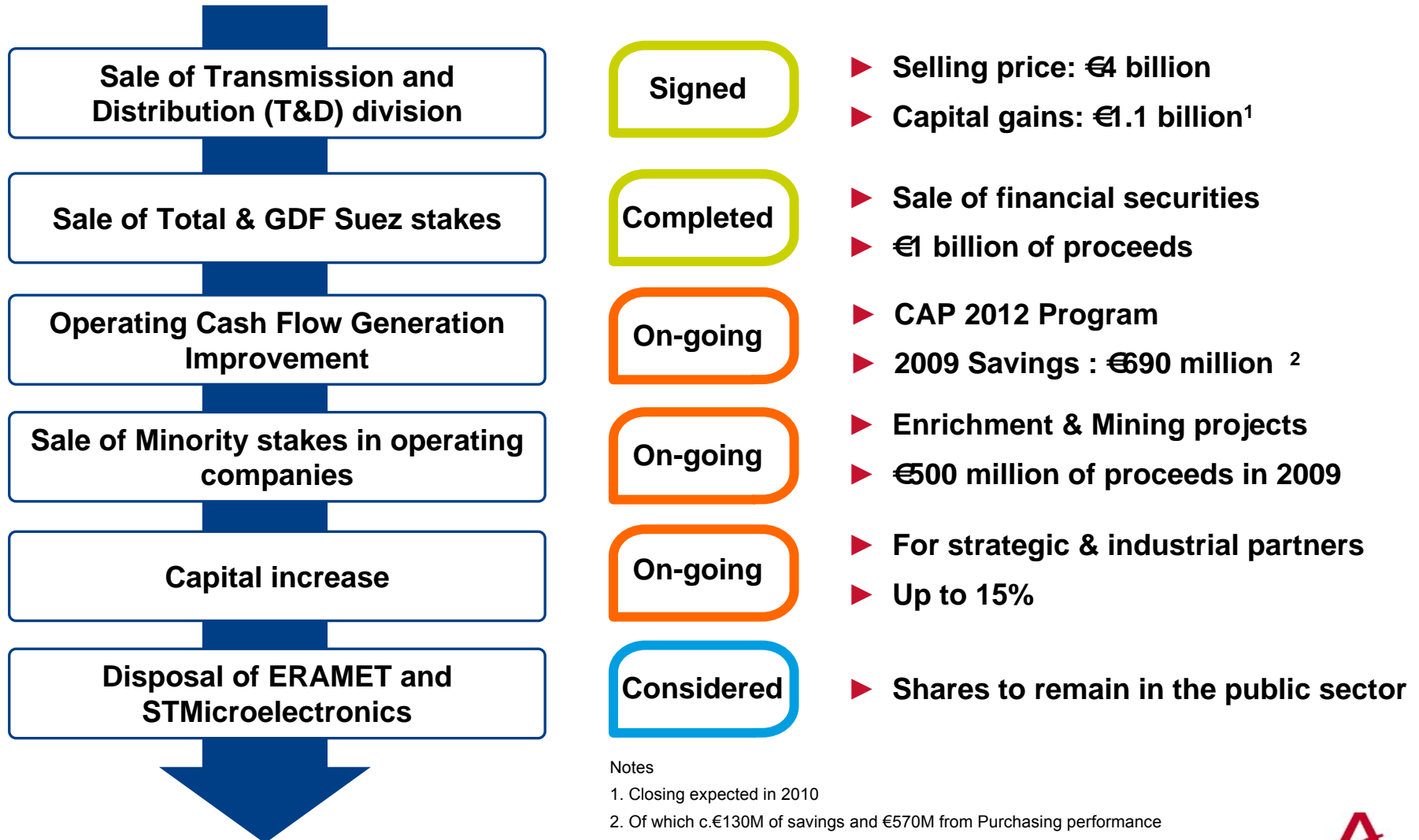
- ◆ Securing access to uranium
- ◆ Upgrading, renewing and increasing production of key facilities (conversion with CX II; Enrichment with GB II, Eagle Rock ; Equipments facilities)
- ◆ Completing development and licensing of reactors

Renewable Energies



- Development of existing assets (like Multibrid and Ausra)
- “Opportunistic” approach for external growth on selected markets

AREVA secures resources to finance its development





▶ Introduction to AREVA

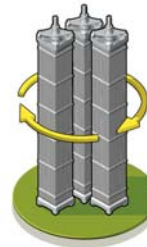
▶ **Overview of the Back-end Business Group**

▶ La Hague site presentation

Back-End BG positioning within AREVA

- ➤ **€1,637M sales (2009)**
19% of AREVA group sales
- ➤ **11,082 people (2009)**
23% of AREVA group workforce

Back End



- Recycling
- Logistics
- Nuclear Site Value Development
- Clean-up

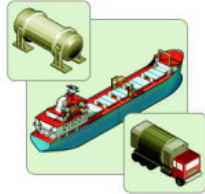
Back End Business segments overview

RECYCLING



- ♦ A full service of fuel recycling, including Mixed Oxide fuel and Reprocessed Uranium fuel production
- ♦ Recycling technology and know-how support/assistance

LOGISTICS



- ♦ A global offering including:
 - ♦ Design and supply of casks for the transportation and storage of radioactive materials
 - ♦ Safe and secure transportation and logistics services

NUCLEAR SITE VALUE DEVELOPMENT



- ♦ Performance-based project management for Dismantling and Decommissioning (D&D) programs
- ♦ Development of integrated and innovative solutions for both AREVA and external customers

CLEAN UP

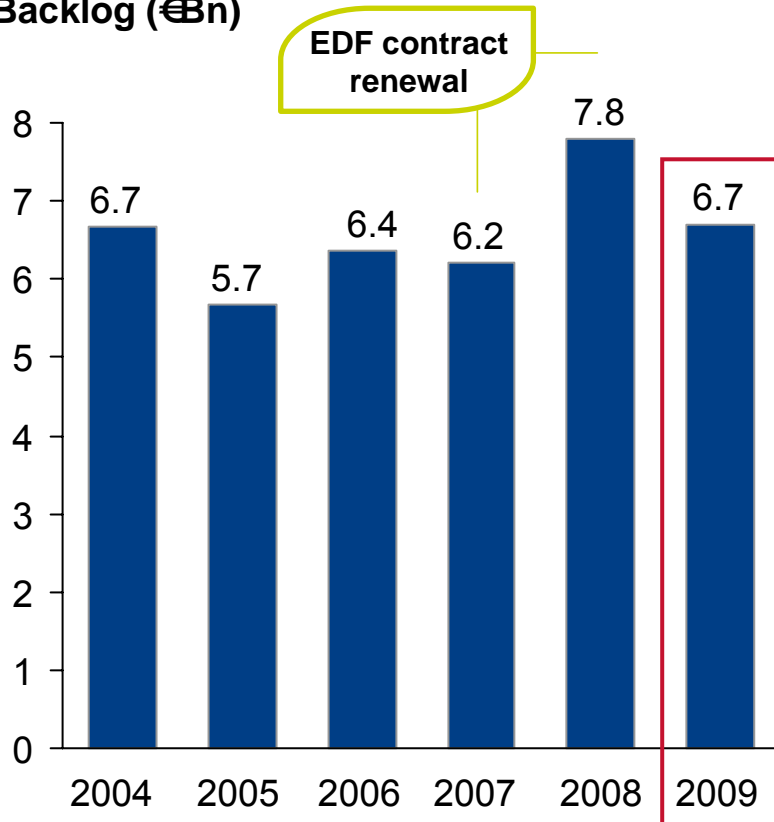


- ♦ Operation of dismantling and waste processing facilities
- ♦ Specialized nuclear maintenance
- ♦ Logistical support for NPPs during operation and outages
- ♦ Human radioactive protection and monitoring services

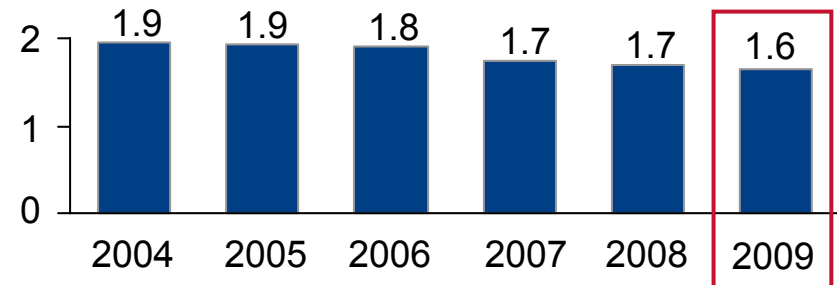
Back-End Business: Visibility and Predictability



Backlog (€Bn)



Revenue (€Bn)



Key financials

<i>in millions of euros</i>	2006	2007	2008	2009
Backlog	6,375	6,202	7,784	6,685
Revenues	1,908	1,738	1,692	1,637
Operating income	272	203	261	235
% Sales	14%	12%	15%	14%
Net Investments	(77)	(81)	(88)	(128)
Op. FCF before tax	156	172	422	288

>> The Back End division has shown strong and durable profitability, with an operating margin stable around 15%

A strong industrial base

Plant dismantling

► **La Hague**
First generation
plant dismantling

► **Marcoule**
UP1 Treatment
plant dismantling

► **Cadarache**
MOX plant dismantling

Recycling

► **La Hague**
Fuel treatment

► **MELOX**
MOX fuel fabrication

► **Romans**
RepU fuel fabrication

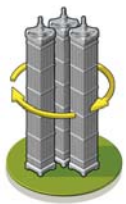
► **Tricastin**
RepU* Enrichment
and Conversion

**Fabrication
performed
by Front
End with
recycled
uranium
supplied by
Back End**

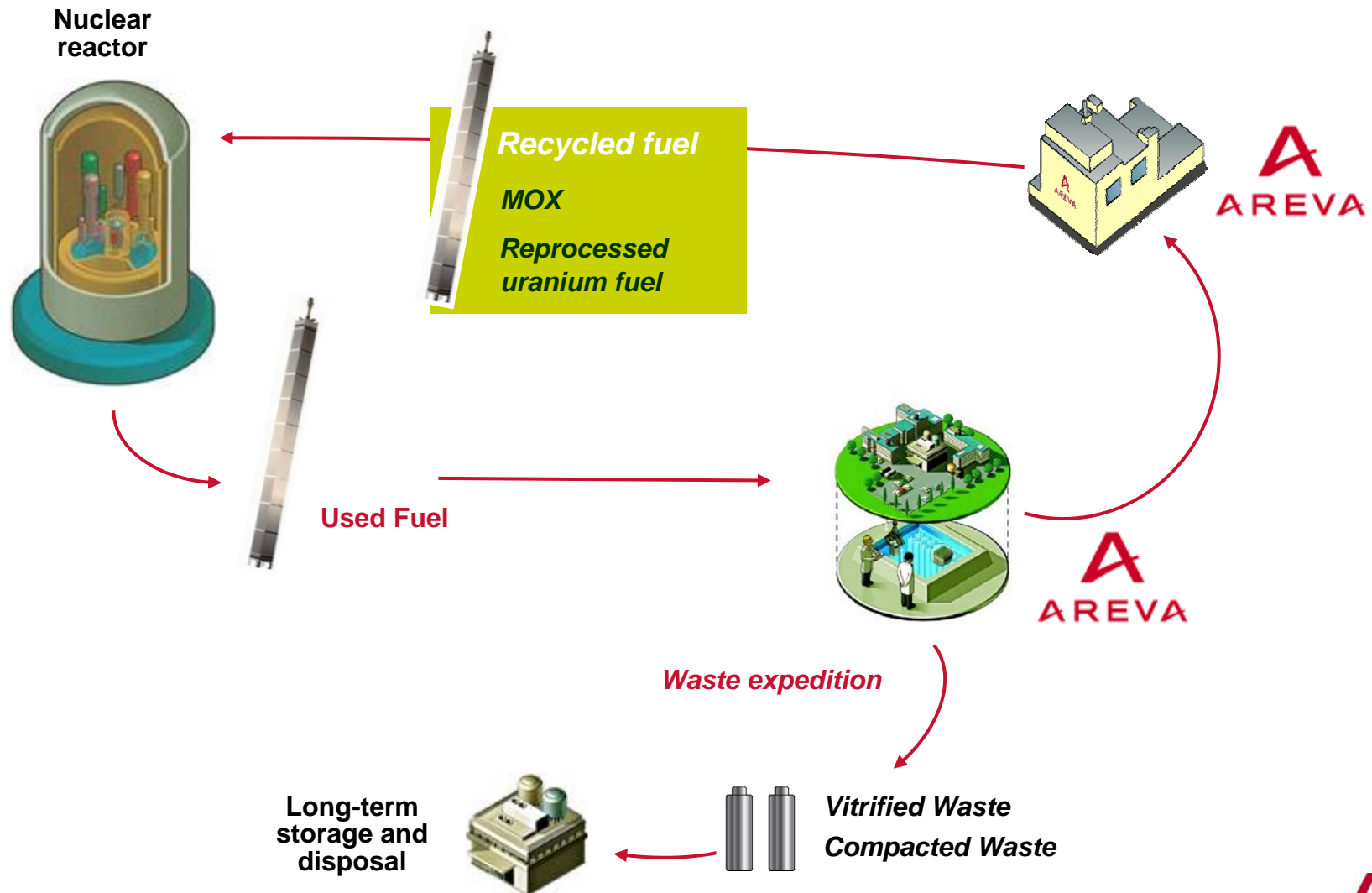
Logistics

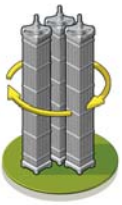


* Recycled uranium from the treatment of used fuel



Overview of recycling process





96% of a used fuel assembly is recyclable

► Composition of used light water reactor fuel

- ◆ 1 LWR = 500 kg uranium before irradiation in the reactor

Recyclable materials

Waste



After irradiation*

Uranium
475 to 480 kg
(94 to 96%)

Plutonium
5 kg
(1%)

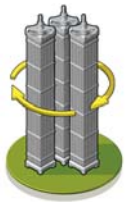
Fission Products
15 to 20 kg
(3 to 5%)

UOX
Fuel

MOX
Fuel

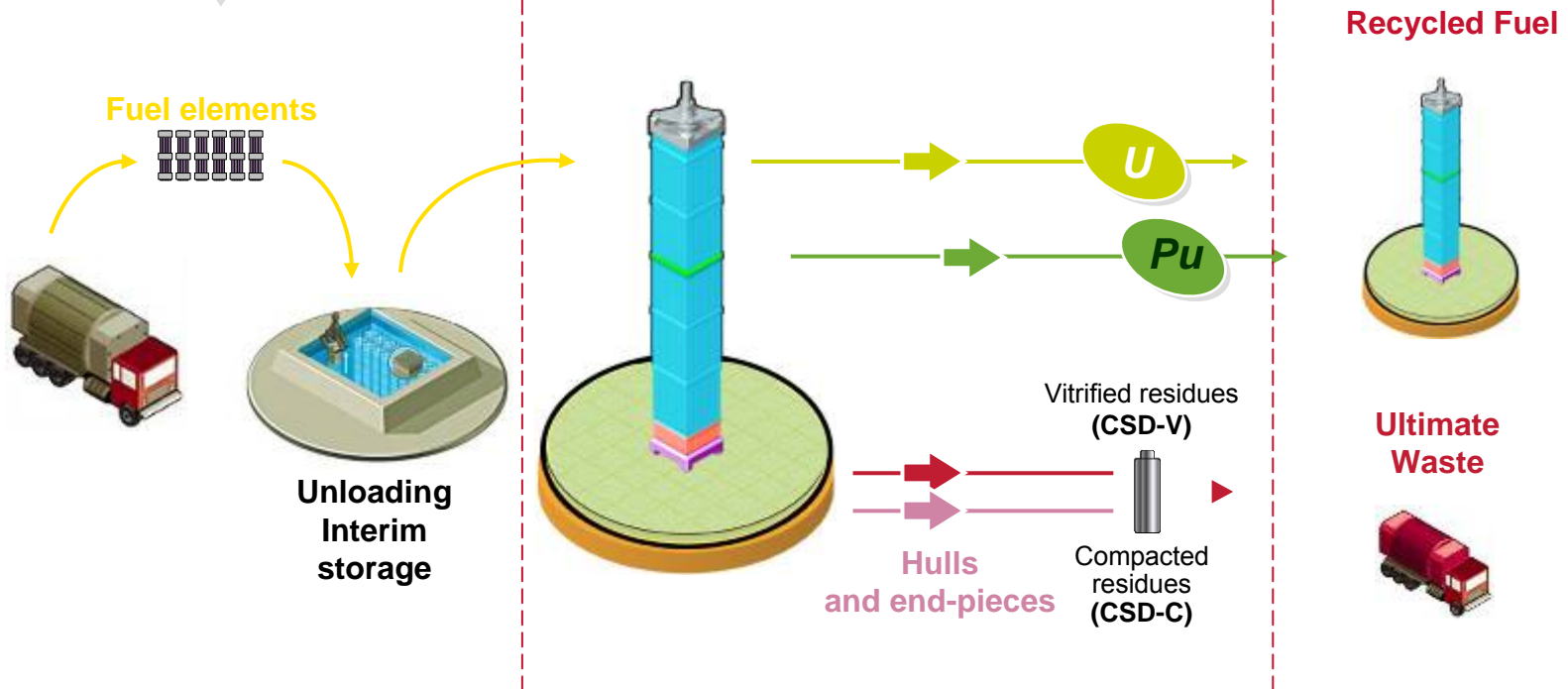
Final
Waste

* Partly dependant on the burn-up rate

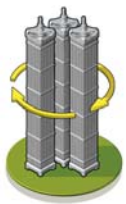


The main stages in recycling

Treatment operations
(shearing - dissolution - separation - purification)



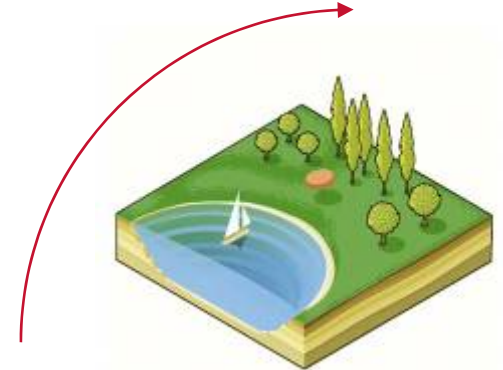
At each stage of the process, nuclear material is accounted for under EURATOM and IAEA safeguards



Recycling, a responsible solution (1/2)

► Savings in natural resources

- ◆ **96%** of recyclable material is recovered
- ◆ Savings of up to **25%** in natural uranium

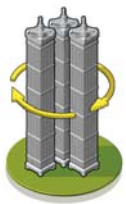


► Recycling creates available energy reserves

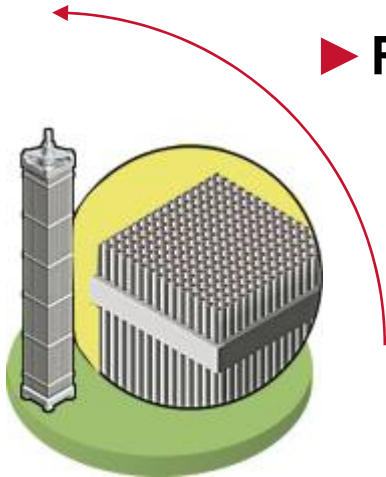
- ◆ **1 gram** of plutonium or
- ◆ **100 grams** of uranium

are the equivalent of more than **1 ton** of oil

► Using recovered Plutonium to produce electricity, recycling used fuel contributes to non-proliferation



Recycling, a responsible solution (2/2)



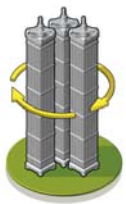
► **Recycling doesn't weigh down the nuclear bill**

- ◆ In France, the recycling process accounts for only **6%** of the cost of the kWh
- ◆ The uranium price hike makes recycling a more interesting proposition: the price of uranium oxide rose from **\$20/lb** in January 2005 to **\$40/lb** in January 2010
- ◆ Proven competitiveness compared to direct disposal

► **Waste is easier to manage**

- ◆ The volume of highly radioactive waste is reduced by **5**
- ◆ The toxicity of highly radioactive waste is reduced by **10**

All the while protecting mankind and the environment

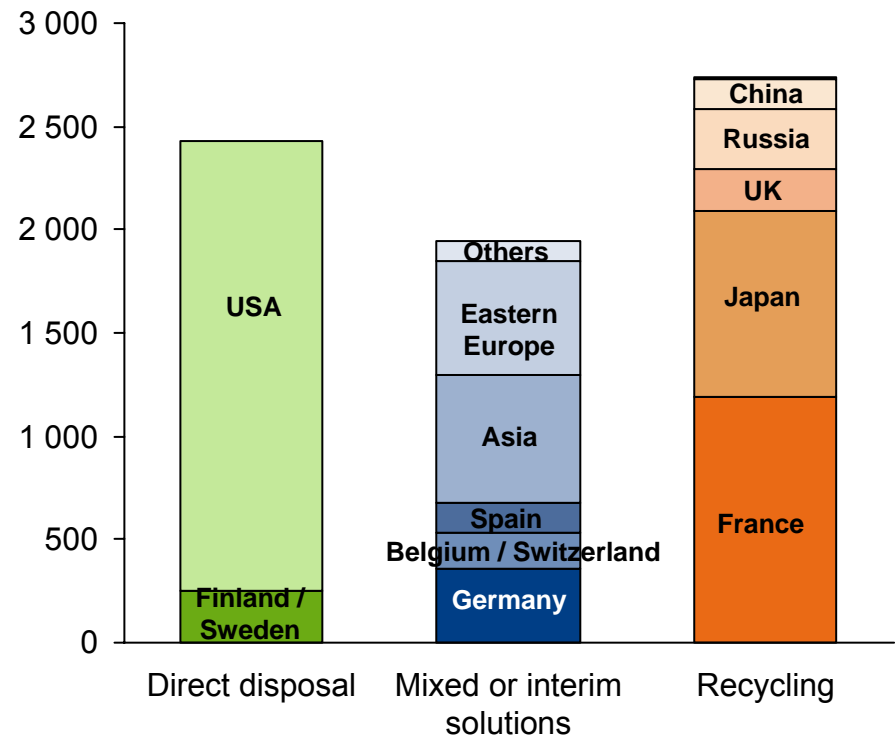


Recycling of LWR nuclear fuel: Main market figures as of 2009

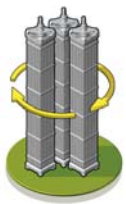
Estimated used fuel inventory and annual unloadings by region in 2009

Region	Current Inventory (tons)	Annual unloadings
America	60,000	~ 2,200
Europe and South Africa	46,200	~ 2,700
Russia / CIS	7,300	~ 600
Asia	23,500	~ 1,600
Total	137,000	~ 7,000

Treatment option of used fuel in nuclear countries in 2009 (Tons)

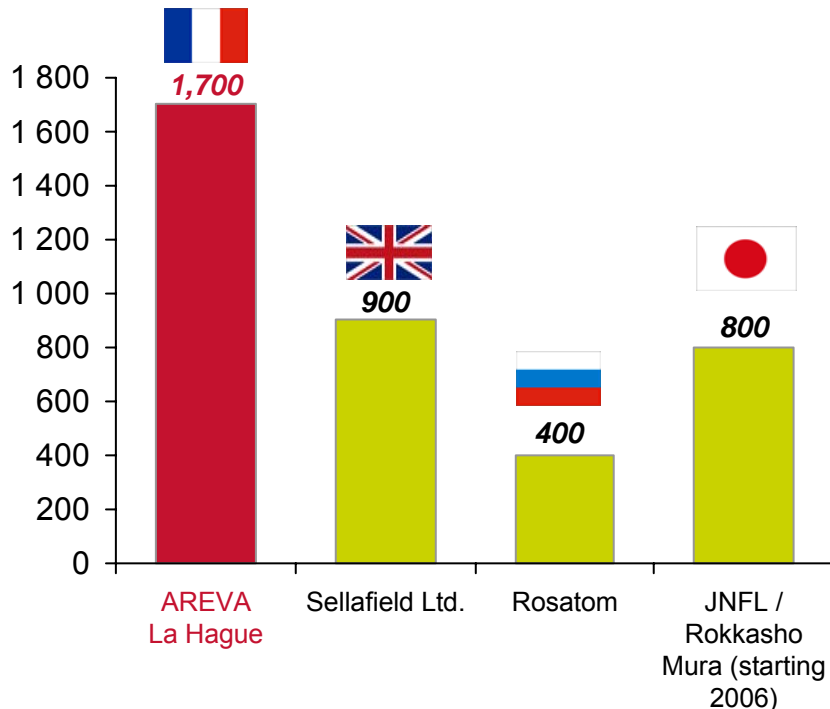


Note: tons refer to metric tons of Heavy Metal

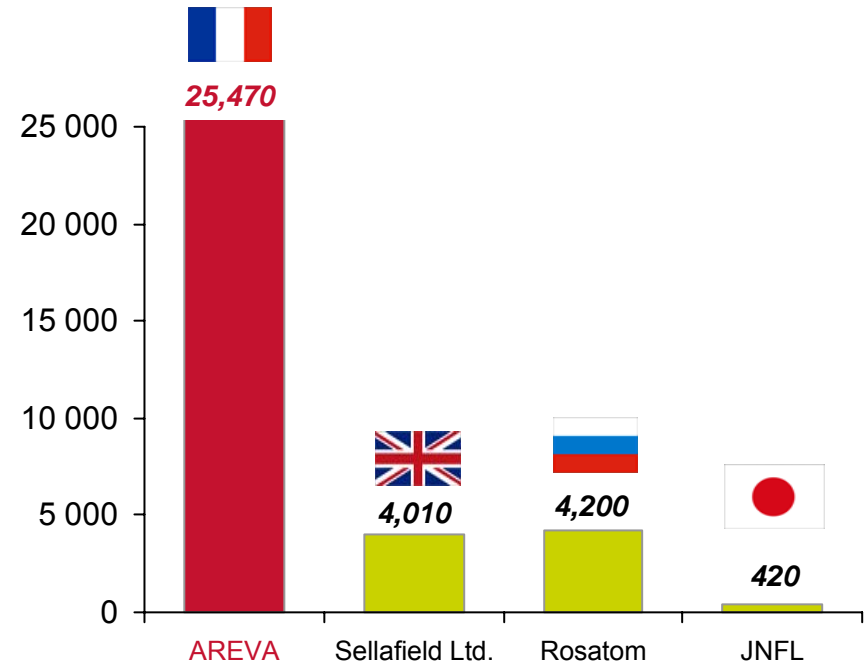


AREVA: N°1 worldwide in treatment of nuclear fuel

Treatment capacity for light water reactors fuel (tons/year)

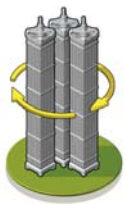


Cumulative production, as of dec. 2009 (tons/year)



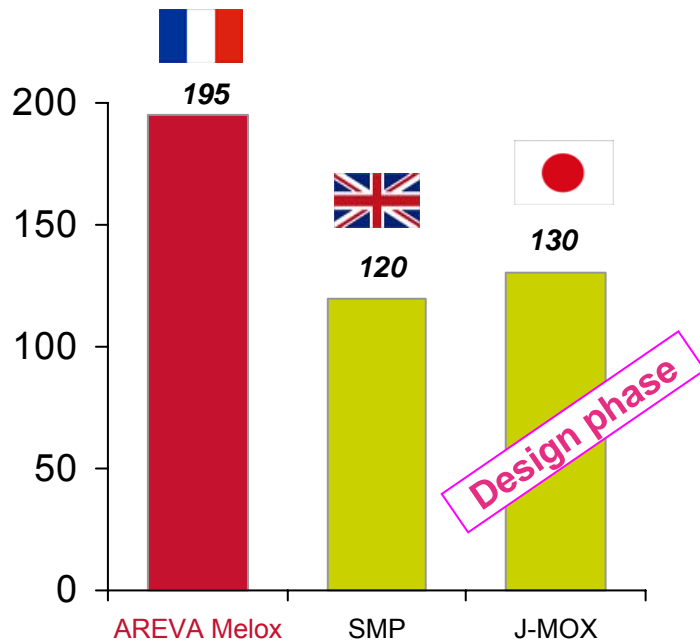
As of today, AREVA treated ~75% of the fuel worldwide, i.e 25 470 tons out of 33 170 tons

Source: AREVA, World Nuclear Association

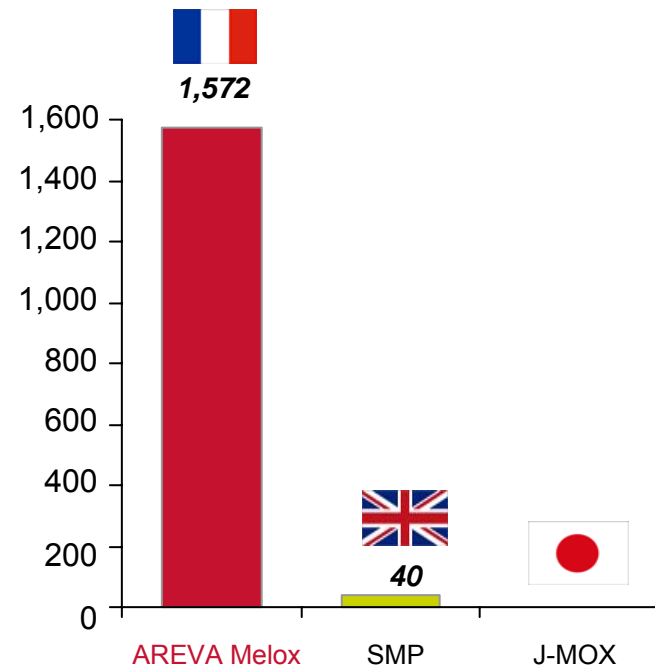


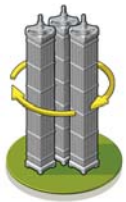
AREVA: N°1 worldwide in MOX fuel fabrication

MOX fuel production capacity
(tons of MOX)



Cumulative production, as of dec. 2009
(tons of MOX)





A unique presence in key recycling projects worldwide

M&O of the Savannah River vitrification facility



- ▶ AREVA-URS-Bechtel consortium
- ▶ \$400m / yr*

Sellafield site M&O



- ▶ AREVA-URS-AMEC consortium
- ▶ £1.3bn / yr*

On-going construction of a MOX Fuel Fabrication Facility



- ▶ AREVA-Shaw consortium
- ▶ \$5bn*

Rokkasho-Mura partnership



- ▶ Technology and know-how transfer for the reprocessing plant
- ▶ J-MOX plant design

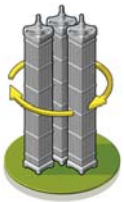


Management and Operations

Engineering Project Construction



Note : *Total M&O or Investment cost of the facility



International projects perspectives for AREVA

United Kingdom

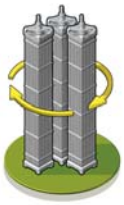
- ▶ Civilian Plutonium stockpile (100 T) has become a priority for Her Majesty Government
- ▶ Existing MOX plant under severe constraints
- ▶ Paving the way for a new MOX plant at Sellafield

United States

- ▶ Recycling increasingly considered, reversing a 30-year old direct disposal policy
- ▶ Joint effort/lobbying with US utilities
 - ◆ New NRC regulatory framework
 - ◆ Legislative change

China

- ▶ Long standing fuel recycling policy
- ▶ Integrated recycling plant project
- ▶ Intergovernmental framework being finalized between China and France

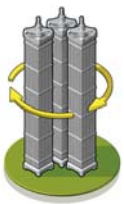


R&D and Continuous Improvement (1/4)



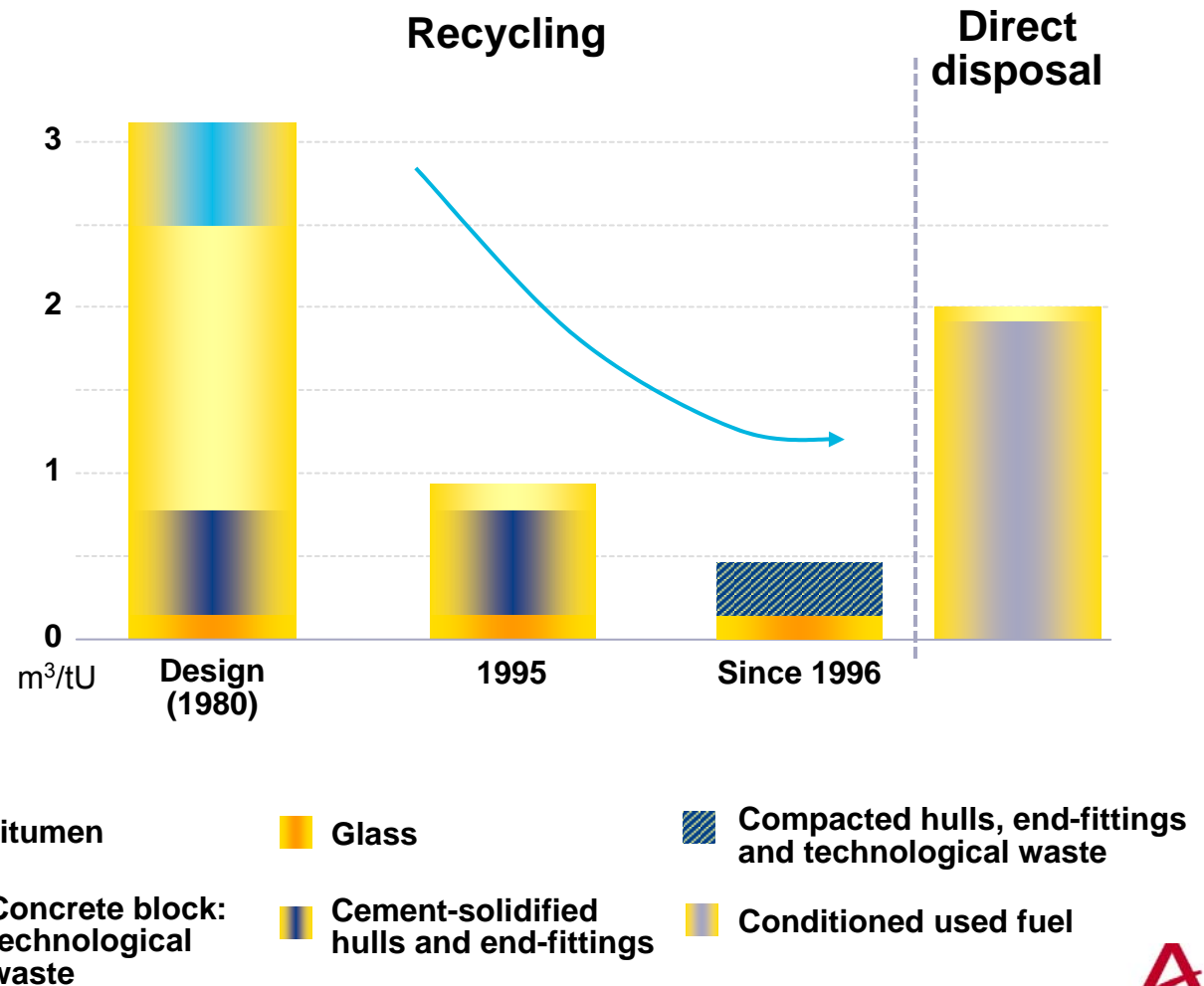
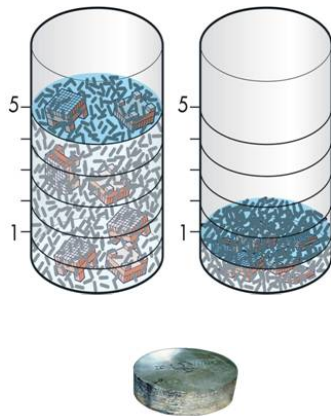
► AREVA is continuously improving its processes and technologies

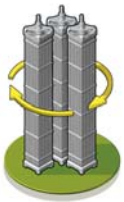
- ◆ **To reduce the amount of primary and secondary waste**
 - Ex: large effort at La Hague to suppress low and intermediate level effluent processing and associated waste packages (all liquid waste now goes to the glass)
- ◆ **To segregate the waste at the source, further reducing expensive treatment and disposal**
- ◆ **To simplify customer's waste handling**
 - Ex: standardization of HLW canisters
- ◆ **To reduce occupational exposure by extensive use of remote maintenance**
- ◆ **To increase cost effectiveness**
 - Ex: adaptation to the continuous increase of fuel burnup



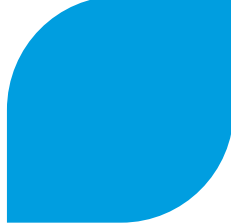
R&D and Continuous Improvement (2/4)

Ex : Continuous Volume Reduction Over Time





R&D and Continuous Improvement (3/4)



► AREVA has established a long time partnership with R&D

- ◆ Cooperation with CEA (Atomic Energy Commission) to develop the new processes and prepare the future
 - AREVA invests 100 M€ in R&D every year
- ◆ Work through integrated team between R&D, Engineering and Operations from day one on critical projects

► COEX™: U and Pu Co-Management (*since mid 90's*)

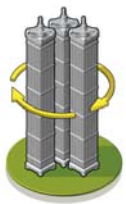
- ◆ Almost perfect (U-Pu)O₂ powder, further enhancing MOX characteristics
- ◆ Enhanced non proliferation resistance
- ◆ Evolutionary process

► The Cold Crucible Induction Melter (*since mid 80's*)

- ◆ Enlarge acceptance spectrum of vitrification process
Used fuel burnup increase
- ◆ Legacy waste
- ◆ Vitrification capacity increase

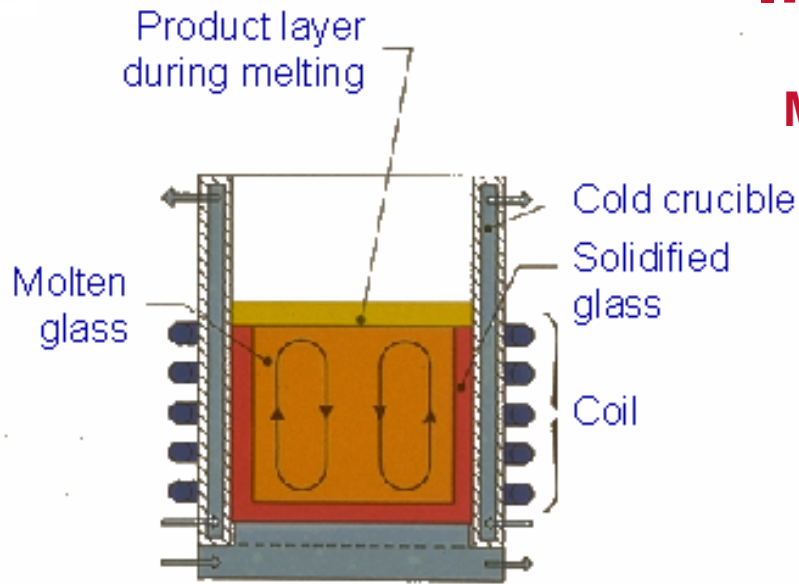
Two examples



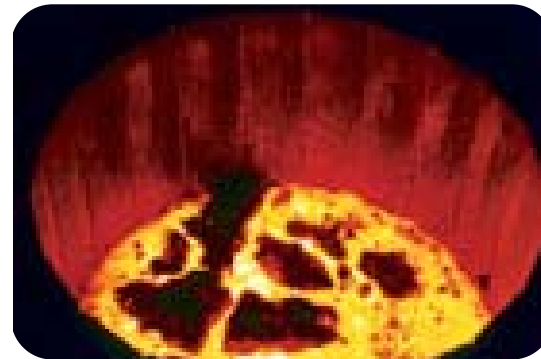
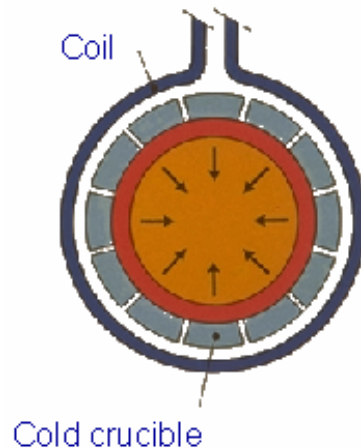


R&D and Continuous Improvement (4/4)

Cold Crucible Melter Main Technological Features



- ◆ Induction Heating Principle
- ◆ Water-cooled Structures
- ◆ High Operating Temperatures



Implementation at La Hague R7 in 2010



Nuclear site value development market



- ▶ **The emerging French market is the exclusive short-term target**
 - ◆ 30 G€ of financial provisions for nuclear power plants and fuel cycle facilities dismantling & decommissioning
 - ◆ Annual average market size for the next 10 years: 400 M€/y

- ▶ **60% market share targeted through the project & site management of all the major fuel cycle facilities**
 - ◆ 100% of AREVA nuclear sites
 - ◆ Reference partner for CEA's main legacy sites

- ▶ **A unique set of experience, on a still emerging market, giving a high development potential for future international markets**

Drivers of the Clean-up market

- ▶ **Clean-up has become an important component of a sustainable nuclear energy**
 - ◆ Demonstrating the reversibility of nuclear sites and therefore enhancing nuclear acceptance
 - ◆ Nuclear sites have become very valuable assets that must be fully utilized (in particular as main candidates for new-build reactor locations)

- ▶ **Significant economic drivers**
 - ◆ Controlling the cost and duration of Clean-up operations for both AREVA and its external clients

- ▶ **A significant growth potential**
 - ◆ Nuclear Renaissance context

Summary of strategic objectives

Back End



- 1 Develop our relations with customers (existing and new) in the recycling business to increase level of activity at the La Hague and Melox facilities
- 2 Confirm AREVA's position as a leading partner for the construction and operation of recycling plants in the main nuclear countries
- 3 Dismantle facilities safely and in a cost-effective manner
- 4 Provide highly safe and secure logistics and operations solutions for the whole nuclear fuel cycle, be it for internal or external customers
- 5 Become a worldwide benchmark in management culture and practices



► Introduction to AREVA

► Overview of the Back-end Business Group

► **La Hague site presentation**



La Hague : a recycling site

La Hague site

The largest reprocessing-recycling plant in the world



► Two production units with the same output

- ◆ UP3, commissioned in 1990
- ◆ UP2 800, commissioned in 1994
- ◆ Two adjoining plants
- ◆ A total annual capacity of 1700 tons of used fuel

► The original production unit will be decommissioned



A flexible, high-performance industrial tool
An appropriate organizational structure

- Surface area : **300 hectares**
- Direct jobs : **3100 direct jobs**
+ sub-contractors (5000 in all)
- The largest employer in North-Cotentin area

- Purchasing : around **€350 Million**
invested each year in local economy
- Taxes and duties : **€175 Million per year**
- Investment : **€90 million in 2010**

More than 25,000 tons of used fuel treated at la Hague plant

At 1st January 2010

	Tons treated
EDF <i>France</i>	15,110
<i>German</i> utilities	5,479
<i>Japanese</i> utilities	2,944
<i>Swiss</i> utilities	771
Synatom (<i>Belgium</i>)	672
EPZ (<i>The Netherlands</i>)	336
SOGIN (<i>Italy</i>)	161





Nuclear Safety : our top priority

Safety without compromise

► The safety of a reprocessing plant is based on :

- ◆ Design bases
- ◆ Operating procedures

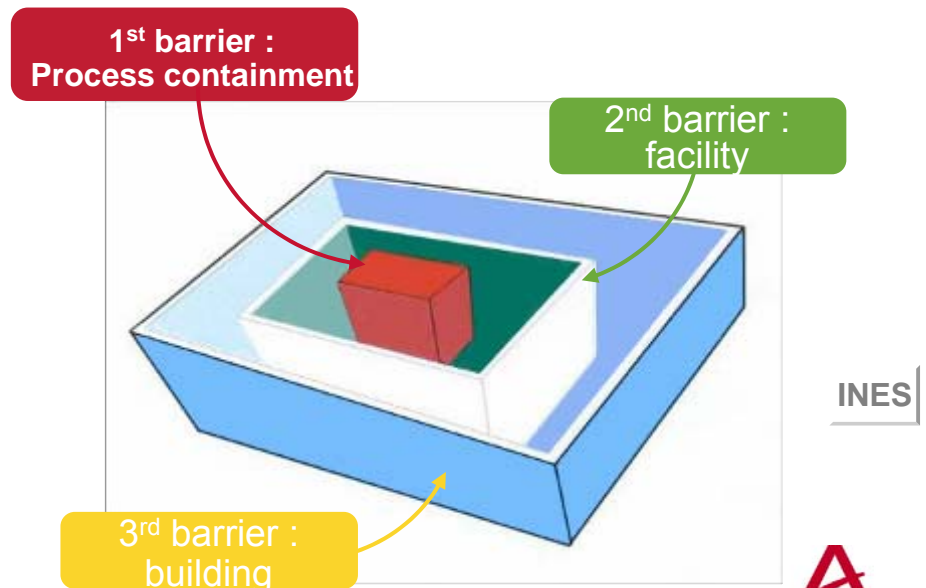
Facilities
designed to be
2/3 underground



The plant is highly automated

► There are two predominant safety features:

- ◆ Containment (three barriers)
- ◆ Cooling

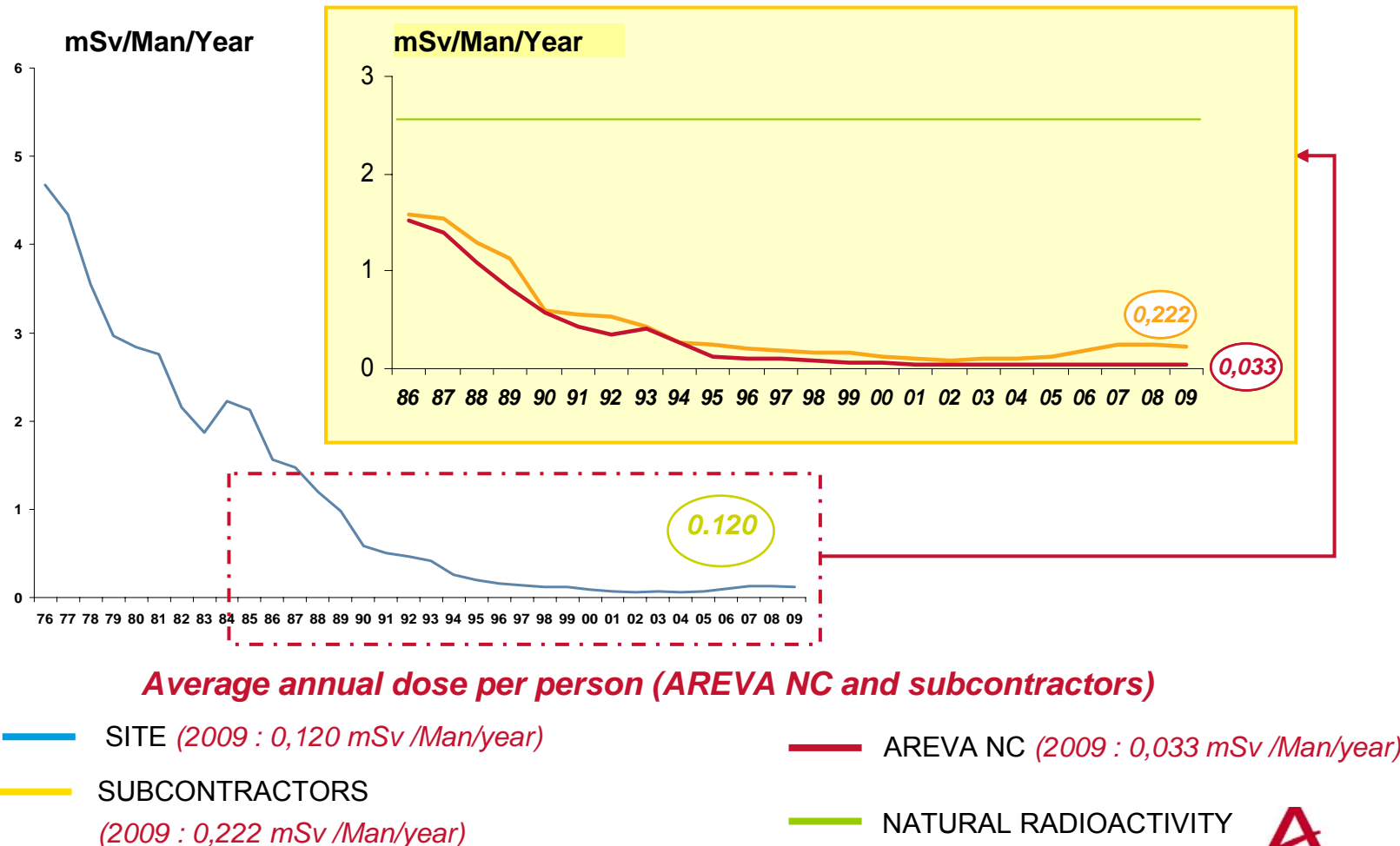




A completely controlled impact on health and the environment

A high priority : employees

- Taking radioprotection into account from the original design has allowed us to achieve extremely low personnel exposure levels



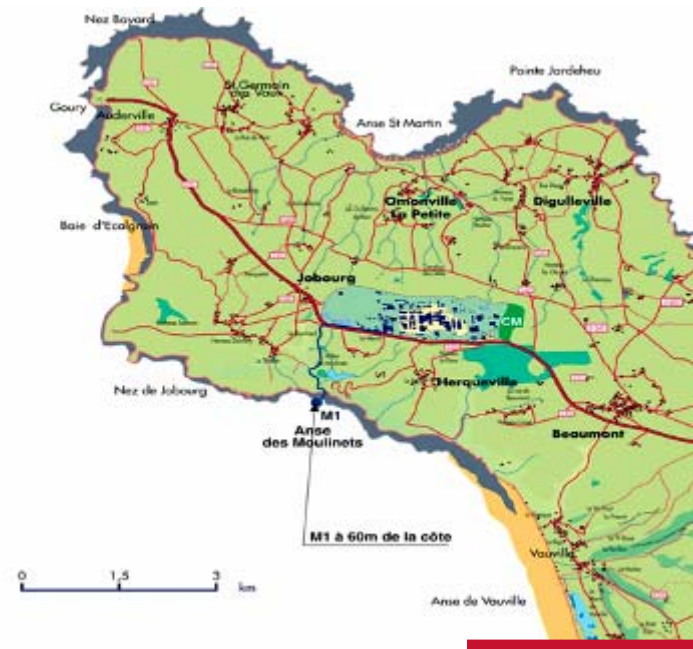
No impact on health

- From a radioecological perspective, the impact of the site is 100 times lower than natural exposure

Natural Exposure
2.4 mSv / year



Areva La Hague
< 0.02 mSv / year



Impact calculated since 2004 using a model produced by the GRNC, making allowance for the results of the AREVA NC public enquiry (1998), for a reference group: population likely to be the most highly exposed due to its position and lifestyle.

mSv

Comparison of approximate annual doses



◆ Average natural exposure in France :	2.4 mSv per person
◆ Natural exposure in Limousin :	6 mSv per person
◆ A medical X-ray of the abdomen :	1 mSv
◆ A medical X-ray of the lungs :	0.1 mSv
◆ Consumption of one litre of mineral water per day during one year	0.03 mSv
◆ A Transatlantic flight from Paris :	0.02 mSv
◆ A 400-meter increase in altitude :	0.02 mSv
◆ Consumption of 200 grams of mussels:	0.02 mSv



***AREVA
La Hague
in video***



Your health, your security are our priorities

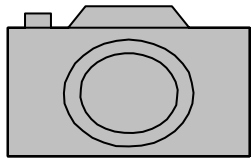
Welcome to the AREVA La Hague Plant.

Here are our rules...

which during your visit should be yours !



- ▶ **Follow your guide at all times**
- ▶ **Hold on to the handrail**
- ▶ **Use the pedestrian walkways**



- ▶ **Cameras, video cameras and computers are subject to authorisation**

Appendices

Key Figures in 2009

Nuclear and Renewable Energy scope

<i>In millions of euros</i>	2008	2009	Δ 09/08
Backlog	42,531	43,302	+1,8%
Revenue	8,089	8,529	+5,4%
Operating income before OL3	606	647	+6,8%
Additional OL3 provisions	(749)	(550)	
Operating income	(143)	97	+€240 M
Net Earnings of discontinued operations (T&D)	371	267	€(104) M
Net income attributable to equity holders of the parent	589	552	€(37)M
Operating cash flow before investments	230	375	+€145M
Free operating cash flow (*)	(900)	(919)	€(19)M
Net debt	5,499	6,193	+€694M
Proforma net debt post sale of T&D (**)	5 499	3 022	€(2 477)M
Dividend per share (in euros per share)	€7.05	*** €7.06	-
Pay-out ratio (%)	42%	45%	-

* EBITDA +/- proceeds from sale of capital assets and dilution +/- variation in operating WCR - operating capex net of disposals

** Proforma net debt 31/12/2009: Net debt at 31/12/2009 - T&D selling price (value of the T&D shareholders' equity + redemption of T&D's net debt financed by AREVA i.e. internal debt)

*** Pending decision by the Annual General Meeting of Shareholders of 29 April 2010

Income Statement

<i>In millions of euros</i>	31 December 2009	31 December 2008
Revenue	8 529	8 089
Other business income	61	28
Cost of products and services sold	(7,508)	(7,221)
Gross Margin	1 082	896
Research and development expenses	(346)	(303)
Marketing and sales expenses	(286)	(258)
General and administrative expenses	(620)	(635)
Other operating income and expenses	266	157
Operating Income	97	(143)
Income from cash and cash equivalents	14	36
Gross cost of financial debt	(128)	(105)
Net cost of debt capital	(113)	(69)
Other financial income and expenses	301	75
Financial Income	187	6
Income tax	138	109
Net income for all consolidated companies	422	(28)
Share in Income of Associated Companies	(152)	156
Net income from continuing activities	270	127
Net income from discontinued operations	267	371
<i>Net income for the period</i>	<i>537</i>	<i>498</i>
<i>including minority interests</i>	<i>(15)</i>	<i>(91)</i>
Net income attributable to equity holders of the parent	552	589

Non-Operating Components

<i>In millions of euros</i>	2008	2009	Δ 09/08
Operating Income	(143)	97	+€240M
Net financial income	6	187	+€181M
Share in net income of equity associates	156	(152)	€(308)M
Taxes	109	138	+€29M
<i>Effective tax rate</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Minority Interests	91	15	€(76)M
Income from Discontinued Operations activities (T&D)	371	267	€(104)M
Net income (attributable to equity holders of the parent)	589	552	€(37)M
<i>Net earnings per share (euros per share)</i>	<i>€16.62</i>	<i>€15.59</i>	<i>€(1.03)</i>

Financial Income

<i>In millions of euros</i>	2008	2009	Δ 09/08
End-of-life-cycle operations	(57)	10	+€67M
<i>including:</i>			
<i>Income from the earmarked financial portfolio</i>	87	62	€(25)M
<i>Income from receivables and from discount reversal on earmarked end-of-life-cycle assets</i>	183	122	€(61M)
<i>Discounting reversal expenses</i>	(327)	(174)	+€153M
Cost of debt capital	(69)	(113)	€(44)M
Income from disposal of securities	347	381	+€34M
Discount reversal on retirement and benefits	(60)	(79)	€(19)M
Other income and expenses	(154)	(12)	+€142M
Financial Income	6	187	€181M

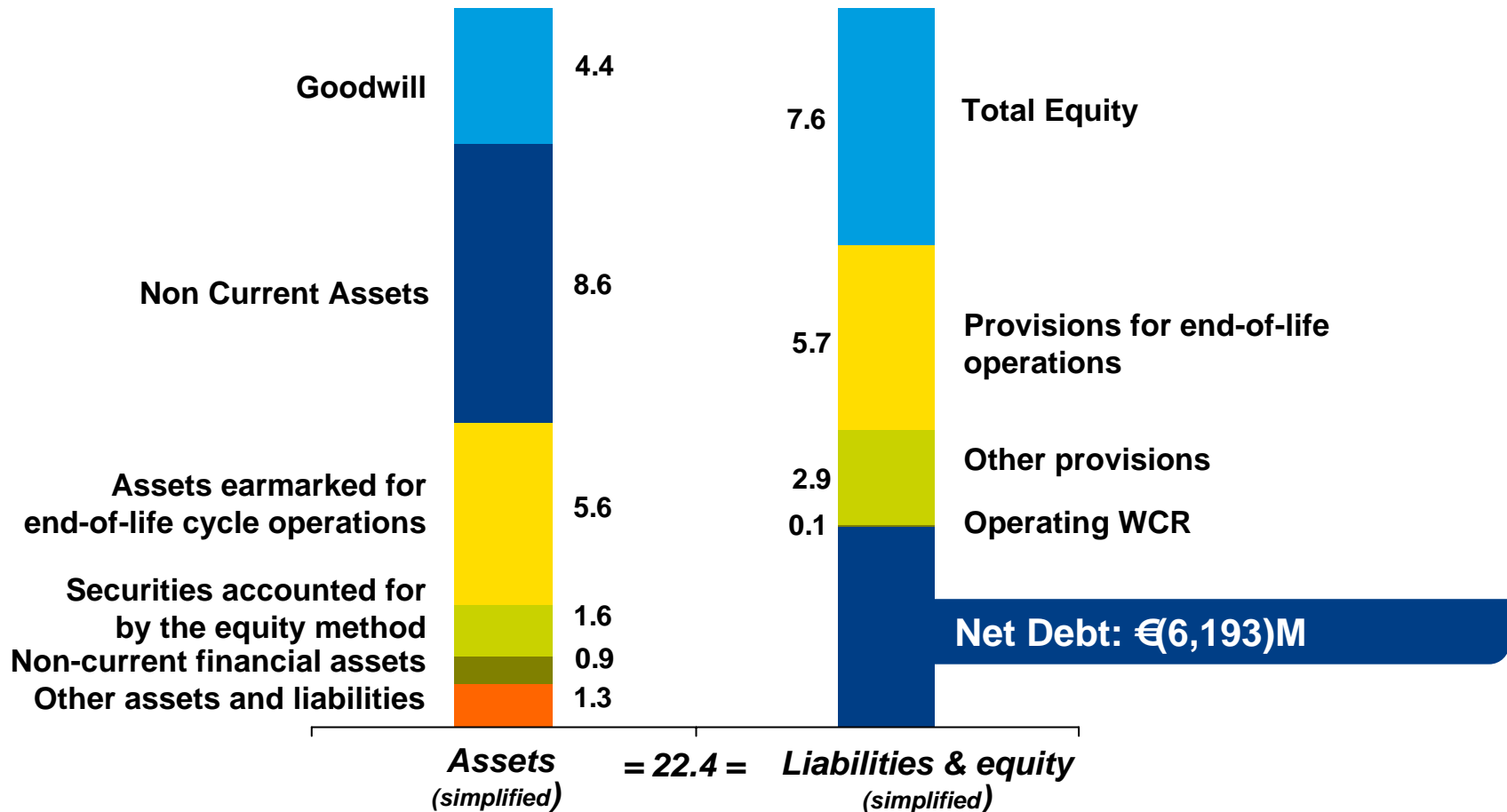
Change in Net Debt

<i>In millions of euros</i>	2008	2009
Operating EBITDA (excl. end-of-life-cycle costs)	593	584
<i>% of revenue</i>	7.3 %	6.9%
Income from disposal of operating assets	(190)	(314)
Change in operating WCR	(173)	105
Net operating capex.	(1,130)	(1,294)
Free operating cash flow before tax	(900)	(919)
End-of-life-cycle obligations	(115)	(124)
Dividends paid	(315)	(309)
Change in net debt from activities held for sale*	(177)	(351)
Other (net financial investment, taxes, non-operating WCR, etc.)	11	1,009
Change in net cash & cash equiv. (debt)	(1,496)	(694)
Net debt (31.12)	(5,499)	(6,193)

* Including dividends paid by AREVA T&D to AREVA SA

Simplified Balance Sheet at 31.12.09

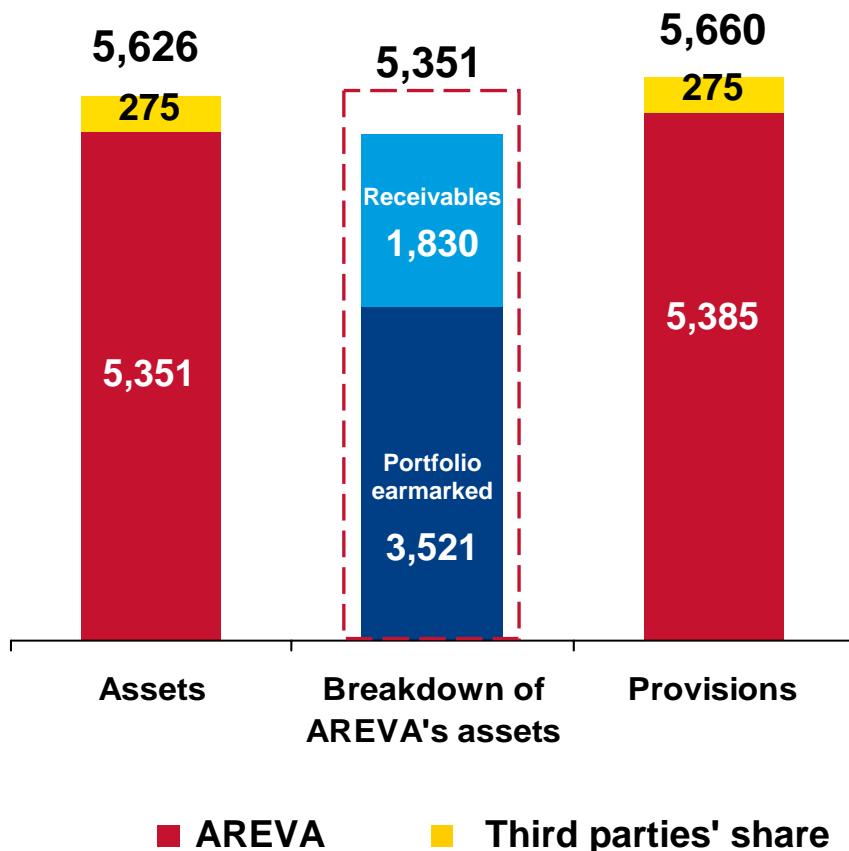
In billion of euros



* Net debt including the SIEMENS debt at its 2007 value, i.e. 2,049 million euros, plus interest accrued

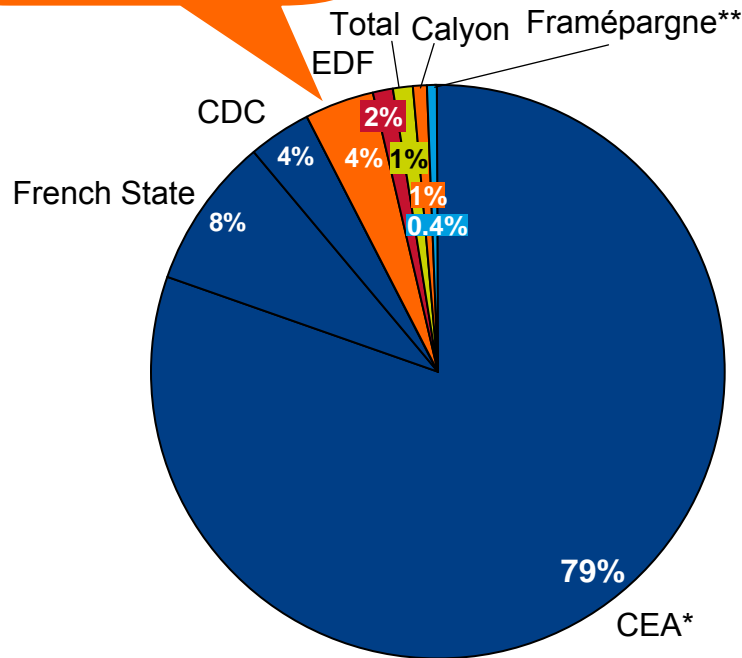
Balance Sheet at 31.12.09 - End-of-Life Cycle Operations

End-of-life Cycle Operations at 31.12.09 (€M)



- ▶ The law of June 28, 2006 on the sustainable management of radioactive materials and waste requires dedicated assets to fully cover end-of-life-cycle liabilities (**100% coverage ratio**) by **June 28, 2011**
- ▶ At 31/12/2009, on the basis of the scope laid down by the Law of 28/06/2006, the coverage ratio was **101.3%**
- ▶ On the full scope of end-of-life-cycle liabilities, the Group's coverage ratio was **99.4%**

AREVA current ownership structure



Total French State: 92%

CEA
79%

- ▶ French Atomic Energy Research Organization, public body established in 1945
- ▶ Active in three main fields : Energy, information and health technologies, defense and national security
- ▶ By law, CEA must retain the majority of AREVA's capital
- ▶ €3.4Bn annual spending (2007)

CDC
4%

- ▶ French financial organization created in 1816, part of the Government institutions under the control of the Parliament
- ▶ Invests in long-term projects to serve France's public interests and economic development; supports public policies, companies and local authorities
- ▶ AAA/Aaa with a consolidated balance sheet of €21Bn

Note: Shareholding structure as at 29/10/2009

1. CEA owns all of the voting rights certificates

2. Employees' shareholding in AREVA