

# Nuclear Safety and Environment Policy 2021-2023



After more than 30 years of safe operation, the GB1 plant is being dismantled and replaced by a new technology that will require 50 times less energy. The team is focused on maximizing the opportunities for recycling plant materials.



## Message from **Philippe Knoche**

Chief Executive Officer of Orano

The Environmental and Nuclear Safety Policy demonstrates the commitment of Management and the Executive Committee to prioritize our ability to control risks and impacts of group installations and activities. It revolves around 8 commitments to achieve the best standards of safety and environmental protection.

The policy is built on the continuous improvement process, on the basis of lessons learned.

This Policy formalizes the action priorities in terms of nuclear safety, process safety and protection of the environment, for the period 2021 to 2023. It is the result of work that mobilized around one hundred employees of the operations and the HSE sectors at all the group entities.

As part of our transformation to operational excellence, and with our societal commitments in mind, our objectives include:

- sustainably ensure the highest level of nuclear safety for our facilities, product and services
- strengthen our leadership in nuclear safety and our expertise in process safety,
- consistently demonstrate operational excellence, and shared vigilance (with employees and contractors),
- promote further resource efficiency and actively contribute to reducing our footprint.

The Policy is applicable to all the entities in France and internationally, in the form of action plans which are monitored at the group level. The goal is to ensure the relevance and effectiveness of our procedures by relying on representative performance indicators.



## Vision of **Laurence Gazagnes**

HSE Senior Vice  
President

« Mastering the transformation of nuclear materials is Orano's DNA, safety is our top value, reducing our footprint a priority.»

# Nuclear Safety and Environment Policy 2021-2023

Orano is a major player in the nuclear industry whose purpose is to develop know-how in the transformation and control of nuclear materials for the climate, for a healthy and for a resource-efficient world, now and tomorrow.

In line with its values and its objective of achieving the best standards in nuclear safety and environmental protection, Orano is committed to:

- operate its facilities safely,
- strengthen the performance of nuclear safety management,
- develop its leadership in nuclear safety and its skills in process safety,
- maintain a dialogue of trust and reasonable commitment with regulatory authorities,
- fight against global warming, and anticipate the impact on its activities,
- build a responsible and committed future,
- control its discharges and protect the environment from any significant impact from its activities,
- reduce its environmental footprint

## OUR COMMITMENT

### As an Orano employee, I take ownership of this Policy.

In my daily tasks, I will work safely and diligently to minimize the impact of my actions on the environment.

I adopt both a questioning attitude and responsible behavior.

I will immediately report any incident or abnormal situation.

### As an Orano manager, I am fully committed to this Policy.

During my presence in the field, I ensure that it is adhered to by everyone, including external stakeholders.

I personally encourage safe practices and behaviors.

I encourage employees to report any deviation or abnormal situation.



# Achieving the best **standards of nuclear safety and environmental protection**

## Our values



Safety security



Ethics, Transparency And dialogue



Customer satisfaction



Respect and develop people



Continuous improvement



Cohesion and team spirit

## Strategic areas



### Communities

Be engaged and responsible locally in our environment



### Climate

Contribute to carbon neutrality



### Competencies

Mobilize proud and committed employees, who embody our purpose



### Customer growth

Innovate to preserve resources and protect health



### Cash

Operate efficiently and reduce our footprint

## Nuclear Safety and Environment Commitments

- Operate our facilities safely
- Control our discharges and guarantee the absence of significant impact of our activities on the environment
- Fight against climate change and anticipate its impact on our activities
- Strengthen the performance of safety management
- Develop our leadership in nuclear safety and our expertise in process safety
- Build a responsible and committed future
- Maintain a dialogue of trust and reasonable commitment with our regulators
- Reduce our environmental footprint

## Markers for 2023

A continuous compliance –facility ageing management process for each nuclear site in France  
An up-to-date inventory of stored material by operating site  
An appropriate protection of biodiversity around our sites

Reduce by 2025 the carbon « equivalent » footprint of our activity by 30% on scopes 1 & 2 (vs. 2019)

A safety culture self assessment for each operational entity  
100 employees each year trained in HSE leadership (group module)  
1 to 2 qualified specialist in process safety at each industrial site and relevant services

Assess and mitigate the technological risks of the planned industrial diversification

Meet milestones and deliver the projects on time related to major commitments  
Strengthen the compliance to waste zoning practices  
Reduce our energy and water consumption by 10% by 2025 (vs. 2019)  
Reduce our production of non-recycled waste by 10% by 2025 (vs. 2019)

# Our priorities

## Nuclear Safety area

### COMMITMENTS

DEFINING WITH THE AUTHORITIES COMMITMENTS APPROPRIATE TO THE ISSUES

### PRIORITIES OF ACTIONS

- Improve control over the planning of projects associated with our commitments to major SE issues, and maintain a dialogue of trust with the Authorities.
- Consolidate the safety requirements in safety and operating manuals and ensure robust monitoring by identifying key milestones and monitoring surveillance.

### COMMITMENTS

DEVELOP OUR LEADERSHIP IN SAFETY AND OUR EXPERTISE IN PROCESS SAFETY

### PRIORITIES OF ACTIONS

- Implement appropriate training requirements and strengthen the safety leadership of facility managers, project managers, shift managers and safety engineers.
- Develop the professionalism and field expertise of supervisory officers.
- Develop process safety expertise for industrial sites and the group.

### COMMITMENTS

OPERATING OUR FACILITIES SAFELY

### PRIORITIES OF ACTIONS

- Strengthen our document control: carry out verification and digitization procedures for safety and operating standards : ensure a solid application of AIP / EIP / ED \* in operational documentation.
- Deploy monitoring processes of ageing facilities: capitalize on the maintenance and operation process.
- Integrate Lubrizol return of experience (REX) : ensure the robustness of crisis management and fire risk and chemical risk controls.

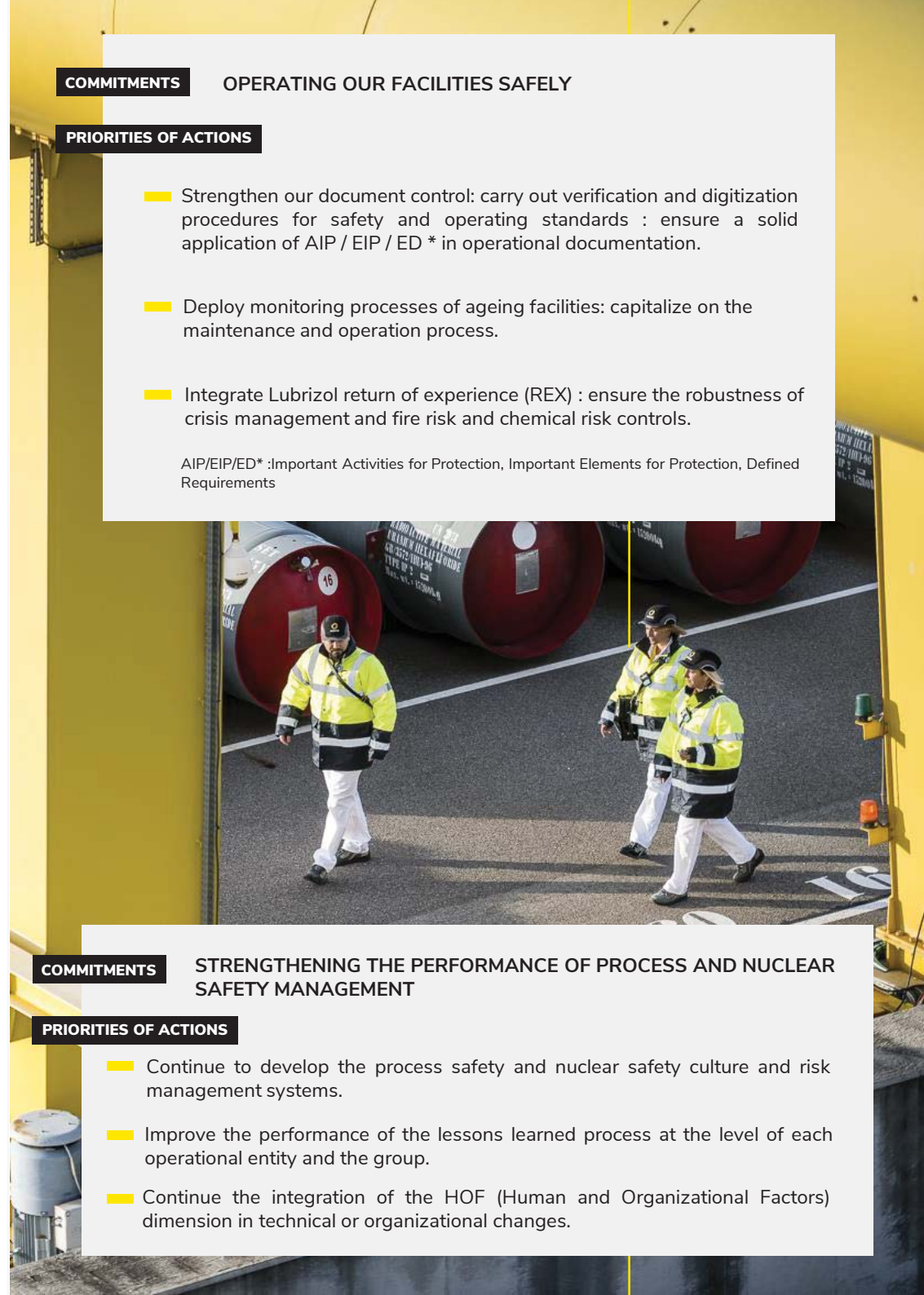
AIP/EIP/ED\* : Important Activities for Protection, Important Elements for Protection, Defined Requirements

### COMMITMENTS

STRENGTHENING THE PERFORMANCE OF PROCESS AND NUCLEAR SAFETY MANAGEMENT

### PRIORITIES OF ACTIONS

- Continue to develop the process safety and nuclear safety culture and risk management systems.
- Improve the performance of the lessons learned process at the level of each operational entity and the group.
- Continue the integration of the HOF (Human and Organizational Factors) dimension in technical or organizational changes.



# Our priorities

## Environment area

### COMMITMENTS CONTROLLING OUR DISCHARGES AND GUARANTEEING THE ABSENCE OF SIGNIFICANT IMPACT FROM OUR ACTIVITIES

#### PRIORITIES OF ACTIONS

- Ensure compliance with the discharge guidelines and authorizations governing our activities, by being vigilant on the annual forecasts for nuclear facilities and by using a BAT analysis (Best Available Techniques).
- Ensure the absence of significant impact from our activities by regular monitoring of the environment by appropriate monitoring of biodiversity around our sites, by reinforced implementation of the ARC sequence (Avoid, Reduce, Compensate) in impact studies.
- Finalize the soil characterization of nuclear sites in France and continue to develop methods for selecting scenarios for the treatment of liabilities.
- Improve the consideration of eco-design in projects.

### COMMITMENTS FIGHTING AGAINST CLIMATE CHANGE AND ANTICIPATE ITS IMPACT ON OUR ACTIVITIES

#### PRIORITIES OF ACTIONS

- Identify the group's direct and indirect GHG (greenhouse gas) emissions, with the aim of reducing them by 30% by 2030.
- Ensure the impact of global warming is taken into consideration in our new design methods and studies.

### COMMITMENTS REDUCING OUR ENVIRONMENTAL FOOTPRINT

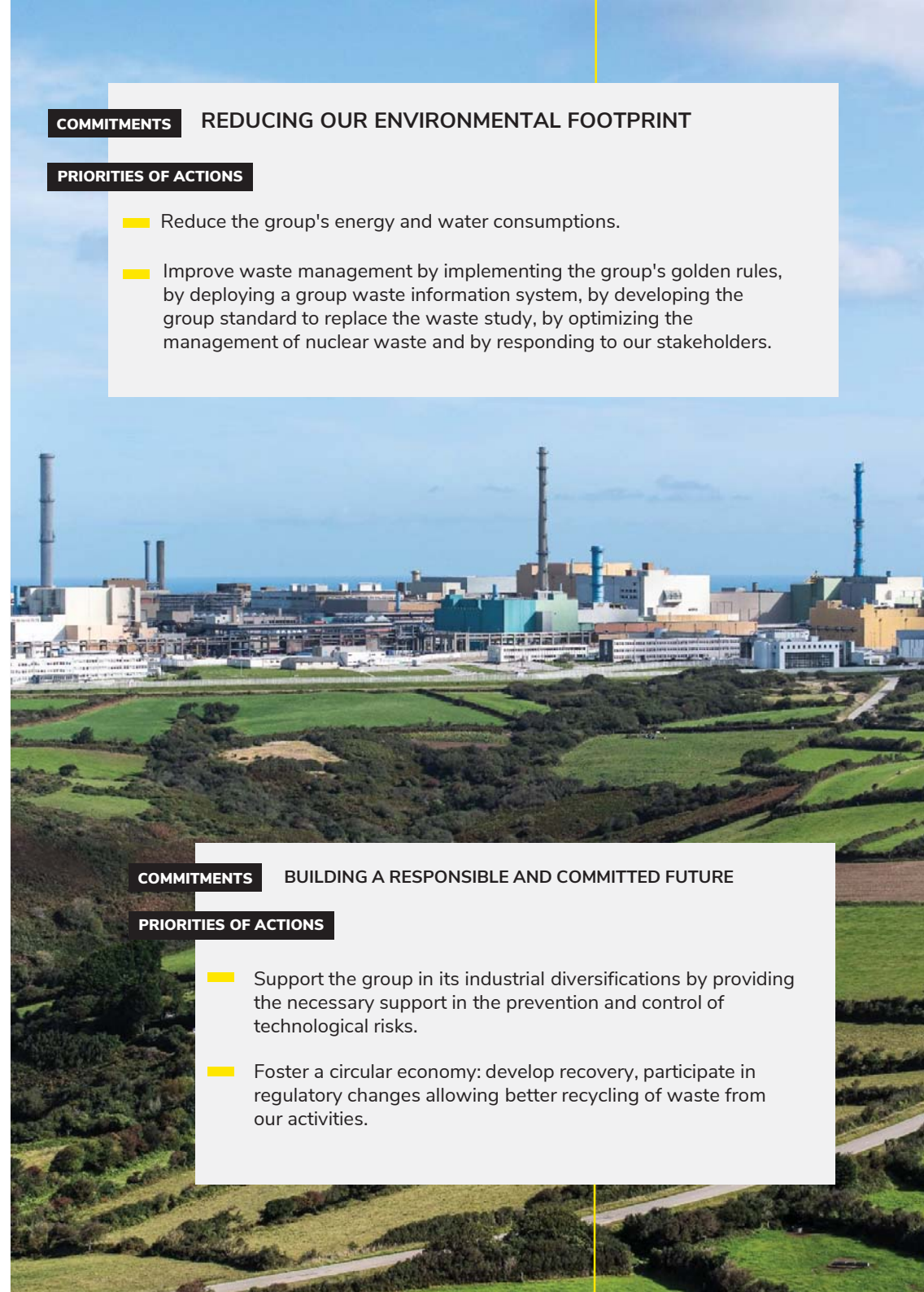
#### PRIORITIES OF ACTIONS

- Reduce the group's energy and water consumptions.
- Improve waste management by implementing the group's golden rules, by deploying a group waste information system, by developing the group standard to replace the waste study, by optimizing the management of nuclear waste and by responding to our stakeholders.

### COMMITMENTS BUILDING A RESPONSIBLE AND COMMITTED FUTURE

#### PRIORITIES OF ACTIONS

- Support the group in its industrial diversifications by providing the necessary support in the prevention and control of technological risks.
- Foster a circular economy: develop recovery, participate in regulatory changes allowing better recycling of waste from our activities.



# Performance Indicators of the Policy

## NUCLEAR SAFETY AREA

**75%**

Of fulfilled regulatory milestones for the project related to major safety – environment commitments

**<5% (2023)**

Of level A request related to an unsatisfactory implementation of the French INB decree concerning the safety requirements, following an ASN inspection (French nuclear authority)

**100% (2022)**

An up to date and accessible inventory of stored materials for the French sites by January 1<sup>st</sup> 2022, and for the international operating sites by December 31<sup>st</sup> 2022

**100 employees/year**

Trained to the HSE leadership module of Orano group

**75% (2022)**

Of supervisory officers successfully completed the group module « Fundamentals of the surveillance and observation techniques»

**100% (2023)**

Of operational entities complete a safety culture self assessment

**80%**

Of organizational changes to be reported to the ASN giving rise to an HOF study

## MACRO-OBJECTIVES SAFETY - ENVIRONMENT

### Nuclear safety – Process safety – Environment

### Markers (targets)

No INES event (nuclear) of level 2 or higher  
 No industrial event ASSESS of level 3 or higher  
 Improve the nuclear event prevention  
 Improve the industrial events prevention

**Zero INES 2**  
**Zero ASSESS\* 3**  
**TPE\* < 0,1**  
**TPE RI\* < 0,1**

\*ASSESS : Advanced Severity Scale for Events and Soft Signals  
 \*TPE : Prevention rate  
 \* RI : Industrial Risks

## ENVIRONMENT AREA

**-25% vs 2019 (2023)**

Of reportable discharges to authorities (liquid and gaz) by year

**100%**

Of impact study with the AMC sequence (Avoid, Mitigate, Compensate)

**-10% vs 2019 (2025)**

Of energy and water consumptions within Orano group

**≤ 10/year**

Of level A request related to a waste zoning following an ASN inspection

**-10% vs 2019 (2025)**

Of non-recycled wastes

**-30% vs 2019 (2025)**

Of GHG emissions on scopes 1 and 2

Orano transforms nuclear materials so that they can be used to support the development of society, first and foremost in the field of energy.

The group offers products and services with high added value throughout the entire nuclear fuel cycle, from raw materials to waste treatment. Its activities, from mining to dismantling, as well as in conversion, enrichment, recycling, logistics and engineering, contribute to the production of low-carbon electricity.

Orano and its 16,000 employees bring to bear their expertise and their mastery of cutting-edge technology, as well as their permanent search for innovation and unwavering dedication to safety, to serve their customers in France and abroad.

Orano, giving nuclear energy its full value.

**[www.orano.group](http://www.orano.group)**

To keep up with our news or take part in the dialog, follow us on



Energy is our future, don't waste it!



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