

**Orano Mining**

# Corporate Social Responsibility Report

2023 Edition



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Cover picture:  
Lodeve remediated site  
Open-pit and underground mining

For more information on the remediation of former mining sites, see chapter 6.1, p.68 

MESSAGE FROM

# Xavier Saint Martin Tillet

*President of Orano Mining*



In 2023, nuclear energy was at the center of the findings of the 28th Climate Conference of the Parties (COP28), which called for “an acceleration” of nuclear development as a source of low-carbon electricity.

Twenty-two countries, including the United States, France and the United Arab Emirates, issued a joint declaration calling for the tripling of global nuclear capacity by 2050, compared with 2020. Achieving the right balance between countries' energy needs and people's growing expectations for action on climate and health is at the heart of Orano's strategy and purpose.

**Orano Mining, a responsible mining company, committed to the long-term**

In the uranium market, it translates into an increased need for production in the coming decades, in a more buoyant economic context. The sustainability and growth of our mining activity is conditional upon us respecting our commitments as a responsible mining company, so that we are recognized and accepted as such over the long term. These commitments will be reflected in the



**« Our responsibility is to supply our electric utility customers with uranium fuel and thus participate in the fight against global warming. We are convinced that this mission means we must make firm CSR commitments and form trusted long-term partnerships. »**



way we remediate mining sites, operate our current sites and carry out our projects in the future.

These principles especially make sense in Niger, a country with which we have built a partnership lasting more than 50 years. The global partnership agreement signed with the State of Niger in May 2023 made it possible to put in place an ambitious roadmap with a long-term vision on the priorities of: ensuring the continuity of operation of the SOMAÏR mine; the development of the IMOURAREN project; and compliance with our commitments for the remediation of the COMINAK site.

This agreement also includes investment in societal actions, amounting to €40 million by 2030, with several projects under examination, including skills improvement, the education of girls as well as economic development in the field of energy.

Despite the operational difficulties encountered since the events of July 2023, Orano has continued to implement its roadmap.

We believe that this responsible approach gives credibility to the commitments we make for new projects. Its most recent illustration is the signing of a memorandum of understanding with the Mongolian State in October 2023, the culmination of 25 years of continuous activity in the country where we have been able to gain the trust of our partners and stakeholders.

### **The remediation of former mining sites, a condition for building the future of our industry**

To launch new projects, we must be able to demonstrate our expertise over the entire mining cycle and particularly the last phase of remediation and reconversion.

In Canada, the decision to transfer Cluff Lake to the local province, announced in 2023, is a first for a modern uranium mine. It follows more than 20 years of remediation and monitoring work under a far-reaching responsibility policy. This strengthens our position for future mining projects in this country, with which we are celebrating 60 years of partnership in 2024, and where we are developing promising projects.

In France, Orano Mining has been working with photovoltaic project companies for over 10 years

to install solar power plants, where possible, at our former mining sites. In 2023, the fifth and sixth solar parks were put into operation, with the aim of having 13 plants installed by 2025, 130 MW in total, equivalent to the average electricity consumption of around 65,000 homes. We are on the right path.

## **Safety, Performance and Environment, at the heart of our responsible mining strategy**

### **Safety is our priority**

This year, the safety results for our subcontractors and employees (TF1 = 0.3, i.e. 5 lost-time accidents over the year) are a source of pride because they are the best in over 10 years.

I would like to warmly thank our teams who prioritize safety in their daily work in the field. It is really satisfying and is a result of our collective work. We will continue our efforts in 2024, with the objective of improving and continuing to move towards zero accidents.

**Beyond safety, we are in line with our responsible 2025 roadmap on other indicators.** 95% of our CSR roadmap indicators have been achieved or were being achieved in 2023. However, efforts still need to be made in some areas, such as achieving better results on women in management positions.

### **Innovating to improve our operational profitability and reduce our environmental footprint**

Our innovation initiatives aim to improve the profitability of our operations, but also to access new resources and reduce our environmental footprint. For example, our teams use artificial intelligence and collaborate with start-ups on the KATCO site, to optimize the management of well cleaning to guarantee an optimal flow rate. In Canada, teams rely on AI in the search for new deposits.

### **Environment: applying industry best-practices**

By using the ICMM international standard for responsible management of tailings on our sites and by publishing a self-assessment of the Bois-Noirs Limouzat sites (France) and the JEB Tailings

Management Facility (Canada), we are showing our commitment to the safe and transparent management of tailings facilities.

In the environmental field, water resource issues require particular attention. 78% of our sites are classified as 'high water risk' and we carry out in-depth materiality summaries on this risk. In line with ICMM recommendations, we are publishing, for the first time, a water summary specific to the operational sites located in "arid, low water-use" areas with high overall water risk.

Furthermore, for several years, all of our operational and exploration/project sites have been working to identify solutions to limit sampling, avoid losses, and recycle or reuse aqueous flows. For example, the KATCO site has been recycling its drilling muds for several years, and has set up a recycling loop for aqueous flows in the Tortkuduk plant.

### **Women and men: the backbone of our strategy**

To prepare for the future, we must also make our industry attractive to our employees and help communities develop the skills that mines need today and tomorrow.

We continue to focus on the appeal and quality of our industrial relations. In 2023, there were no strikes or lockouts at any of Orano Mining's sites around the world.

### **Listening to people working at sites**

A culture of respect: in 2023, for the first time, we carried out a study across all our sites to assess our maturity level in terms of respect and identify possible weak areas. The full results will be analyzed and action plans established, where necessary, in 2024.

Proud and committed employees: Orano Mining also conducts an annual opinion survey of all its employees. In 2023, 80% of them responded. 82% of our employees say they are proud to work for the company and 74% would recommend the company to family and friends.

Among the main points raised by employees, I noted the attention paid to safety, the efficiency of the organization and autonomy – allowing employees to carry out their work in good conditions – as well as the social and environmental commitment of the Group.

### **One of our commitments is to facilitate access to employment for disadvantaged communities**

A project launched in 2023 in Canada is particularly close to my heart. This is a program that encourages young women, particularly Indigenous Peoples, to choose careers in trades and technology. One million Canadian dollars will be invested in a ten-year partnership with the Saskatchewan Polytechnic. We will carefully monitor its progress.

Finally, as part of the COMINAK remediation, the entrepreneurship project supported around fifty projects carried out by former employees, subcontractors, suppliers and local promoters, of whom 20% are women, and created 240 direct jobs in the Agadez region.

In this report, you will find details on our strategy, our 2023 results, our current projects and our 2025 objectives.

Orano Mining and all its employees will continue to support the development of low-carbon nuclear energy – an essential element in a more responsible, cleaner and more sustainable future – for its customers, partners, suppliers and all its stakeholders.



# Orano Group PROFILE

“Orano, giving nuclear energy its full value.”

**As a recognized international operator in the field of nuclear materials, Orano delivers solutions to address present and future global energy and health challenges.**

Its expertise and mastery of cutting-edge technologies enable Orano to offer its customers high value-added products and services throughout the entire fuel cycle.

Every day, the Orano Group's 17,500 employees draw on their skills, unwavering dedication to safety and constant quest for innovation, to develop know-how in the transformation and control of nuclear materials, for the climate and for a healthy and resource-efficient world, now and tomorrow.

## GOVERNANCE

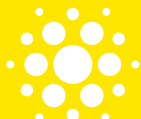
Orano's governance is supported by a Board of Directors, an Executive Committee and four specialised committees that issue opinions and recommendations: the Strategic and Investment Committee, the Audit and Ethics Committee, the Appointments and Compensation Committee, the End of Cycle Obligations Monitoring Committee

The Board of Directors is chaired by Claude Imauven. Nicolas Maes is the Group's Chief Executive Officer.

[More information on Orano annual report](#)



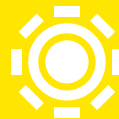
Mining



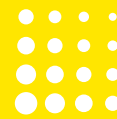
Uranium conversion and enrichment



Used fuel recycling



Nuclear logistics



Dismantling and services



Engineering

# ORANO MINING KEY FIGURES 2023

**1,319 M€**

Revenue  
(28% of Orano revenue)

**4**

sites in production in 3 countries

**3,030**

employees\* around the world

**10 M€**

community investments

**7,146**

tons of uranium

**86%**

of our supplies come  
from the countries  
in which we are based

**TOP 3**

Worldwide in its businesses

**98%**

of our employees  
are from the host country

\* Excluding internship / apprenticeship contract

# Mining activities



The group's mining activities concern the production and commercialization of natural uranium used after enrichment to make fuel for nuclear reactors.

Orano Mining counts among the world's leading producers of uranium with competitive production costs and cutting-edge extraction techniques implemented in mines in operation in Canada, Kazakhstan and Niger.

[More information on Orano Mining innovation](#)



The principal line of operations of the Mining Business Unit follow the lifecycle of a mine, i.e.:

- **Exploration:** search for new deposits
- **Developing mining projects:** detailed studies, procurement and construction
- **Production:** extraction of uranium ore using various mining techniques, and ore processing (concentration of natural uranium by chemical means)
- **Site redevelopment and conversion after operation:** rehabilitation of mining sites in accordance with current environmental standards, followed by environmental monitoring

Committed to its role as a responsible mining company, Orano Mining conducts its mining activities in a manner that fully respects people and the environment and contributes to the economic development of local regions and their populations.

The amount of uranium produced annually by Orano is enough to supply the electricity needs of an industrialized country of about 50 millions inhabitants such as Spain.

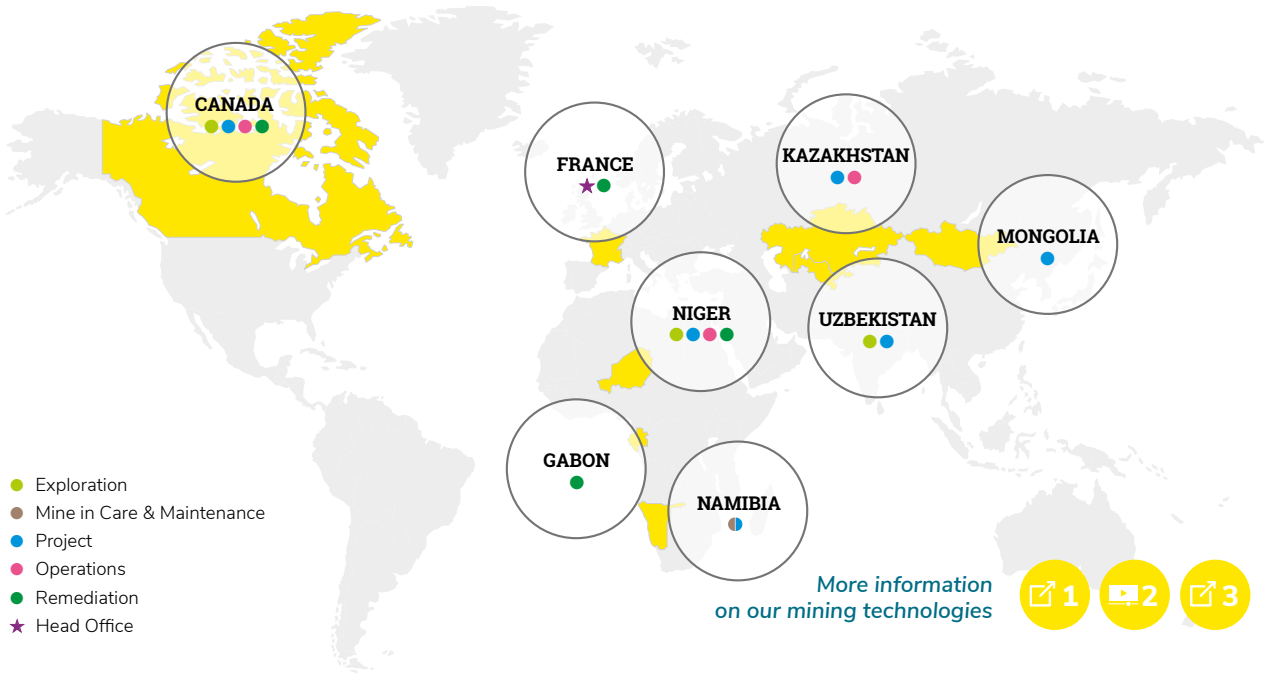
The production of the same amount of electricity from coal would have resulted in the release of 240 million additional tons of GHG.



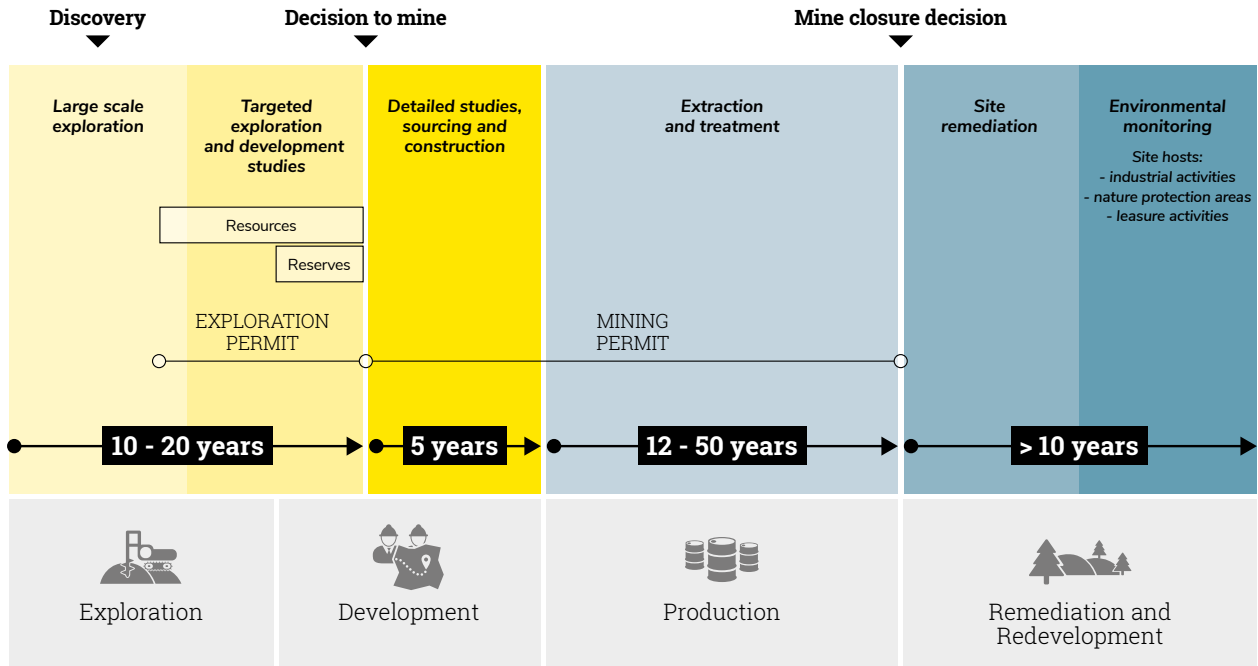
Orano Mining has a diverse portfolio of assets and resources, which constitutes an important security

factor for utilities seeking long-term guarantees with regard to uranium supplies.

**OUR MAIN MINING SITES**



# MINING LIFE CYCLE



## PHASE 1

### EXPLORATION FINDING NEW URANIUM DEPOSITS

Exploration consists of finding uranium ore deposits of sufficient grade to allow mining under acceptable economic, technical, environmental and social conditions. This is an important step in developing the basis for a constructive dialogue with the people living near the potential future mining project and in conducting an initial environmental assessment.

## PHASE 2

### DEVELOPMENT OF FUTURE MINING PROJECTS

Project development follows feasibility studies that have confirmed the possibility of exploiting a deposit.

At this stage the techniques for extracting and processing the ore are selected. This is also the phase in which the new facilities and associated infrastructure are built. These development activities are accompanied by an

environmental impact study presented to the authorities and civil society during public hearings and multi-stakeholder working groups. This is also a time during which the integration of future operations in the regions (development of local socio-economic projects, creation of direct and indirect jobs, etc.) is being prepared.

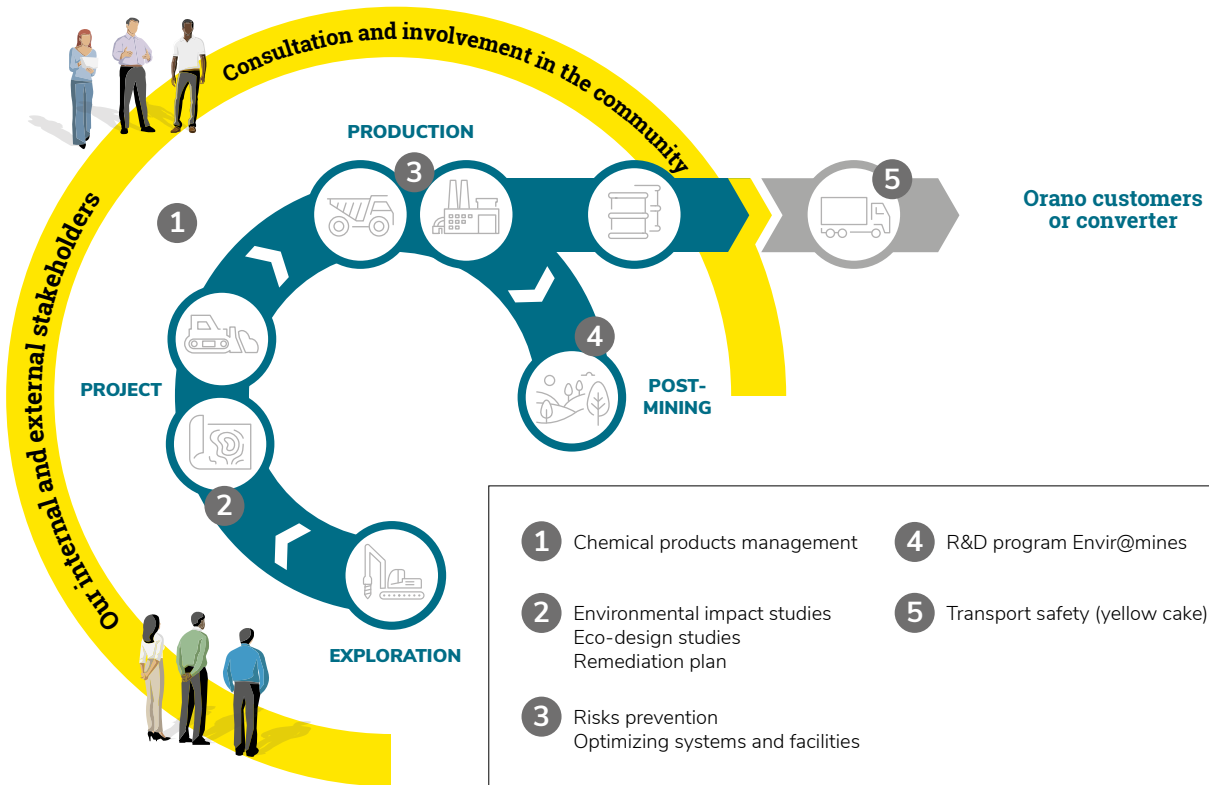
## PHASE 3

### MINING

Mining itself includes the extraction and processing of the ore. Three methods are used to extract uranium ore: open-pit mining, underground mining, and in situ recovery (ISR). These techniques are used depending on the configuration of the deposit and the nature of the ore (depth of the deposit, uranium content, safety conditions and environmental protection, etc.).

The extracted ore is then treated mechanically and chemically according to a process adapted to its intrinsic properties in order to be transformed into uranate concentrate: the "yellow cake". This is the form in which uranium is marketed.

Processing the ore requires the use of chemicals, the transportation, storage and use of which are covered by



our risk prevention and management system. This phase of high industrial activity requires that all necessary measures be put in place to ensure the health and safety of employees and neighboring populations. The impact on the environment must be as low as reasonably possible. This is also an important phase for local socio-economic development, as industrial activities generally last for several decades.

**PHASE 4**

**REMEDIATION OF MINE SITES**

After the production period (and as early as possible), Orano Mining plans the remediation of the mining sites. This involves ensuring public safety and health, reintegrating the landscape, and limiting the residual impact of past activities on the environment and populations.

Orano has developed real expertise in this field, regardless of the type of mine. Since the beginning of the group's mining activities, several hundred million euros have been invested to ensure the remediation and environmental monitoring of former sites in France, Gabon, the United States, Canada, and Niger.

**Orano Mining governance and organization**

The Mining Business Unit includes all of Orano's mining activities "Orano Mining" and its subsidiaries and "mining operations" abroad and in France.

The Mining Business Line is managed by M. Xavier Saint Martin Tillet since July 1, 2023. He chairs the Mining Business Unit Management Committee which includes the operational directors, the directors of support functions involved in mining activities and the directors of the operating subsidiaries (SOMAÏR, KATCO, OCI).

**Orano Mining**

Orano Mining is a Société par Actions Simplifiée with a single shareholder. M. Xavier Saint Martin Tillet was appointed President of the Company during the Board meeting of June 28, 2023.

The President of the Company is appointed for four years by the sole shareholder. He is responsible for the administration and general management of the Company. The Chairman of the Company is vested with

broad general powers to act on behalf of the Company within the limits of the corporate purpose and represents the Company vis-à-vis third parties. The President is not assisted in the performance of his duties by general managers. Each year, the President makes a declaration of conflict of interest in accordance with Orano's internal procedure. M. Xavier Saint Martin Tillet is also a member of Orano's Executive Committee.

The Company's primary mission is to ensure the operational consistency of the mining business in France and abroad.

Orano Mining has a share capital of 25,207,343 euros and is 100% owned by Orano.

The head office of Orano Mining is at Châtillon. (France) Orano Mining has a secondary site at Bessines-sur-Gartempe (Limousin) and two other sites abroad (Niger and Kazakhstan).

## Management Committee

The Mining Business Unit is run according to a decentralized operating model, based around a head office that performs overall management and oversight functions, and structures that carry out mining operations in France and internationally. "Mining operations" covers exploration, project, production, remediation and mine closure monitoring activities.

The Management Committee meets every two weeks in order to study safety, commercial, industrial and financial results as well as to draw up and monitor mining activity action plans.

It also ensures that the Orano Code of Ethics is respected, in addition to the company's commitments to sustainable development, and leads the risk management process for the Mining Business Unit and its subsidiaries.

The Management Committee is made up of directors from the operational departments (Operations, Industrial Projects and Support, Geoscience, Health Safety and Environment, Remediation, Corporate Social Responsibility, Engagement and Communication, Sourcing, Supply & Customer Service (MCE), the functional departments (Human Resources, Finance, Legal, Strategy and Development) and the general directors of its production sites (SOMAÏR, KATCO, OCI) .

In 2023, 2 (13%) out of the 12 members of the Management Committee are represented by women. 75% of the Management Committee members are between the ages 30 to 50 and 25% are over 50.

# Uranium market



**Orano Mining continues to optimize the competitiveness of existing sites and to maintain its project portfolio by conducting the studies necessary for the extension of its production for the years to come, in particular in Mongolia, Uzbekistan or in Niger.**

In this way, Orano Mining aims to consolidate its position of reliable uranium supplier on the long term while remaining competitive.

2023 is a continuation of the gradual restoration of production levels prior to the health crisis for mining operations in a geopolitical and economic context marked by the conflict in Ukraine, tensions in the raw materials supply chain and inflationary pressure.

In 2023, the spot indicator for the natural uranium market remained above 47 USD/lb U<sub>3</sub>O<sub>8</sub> with strong fluctuations throughout 2022 following the Russia-Ukraine crisis.

The rise in the spot indicator for natural uranium has been particularly marked since the second half of 2023, reflecting renewed interest in nuclear power, geopolitical uncertainty and a perceived shortage of available material due to mining producers' difficulties in meeting their production schedules for 2023.

As a result, the spot price rose from 47.7 USD/lb U<sub>3</sub>O<sub>8</sub> at the end of 2022 to reach 91.00 USD/lb U<sub>3</sub>O<sub>8</sub> at the end of 2023 (average of the UxC and TradeTech indicators). This is equivalent to the price levels seen in 2007 and 2008.

The long term indicator also increased to reach 68 USD/lb U<sub>3</sub>O<sub>8</sub> at the end of 2023 (vs. 52 USD/lb U<sub>3</sub>O<sub>8</sub> at the end of 2022).

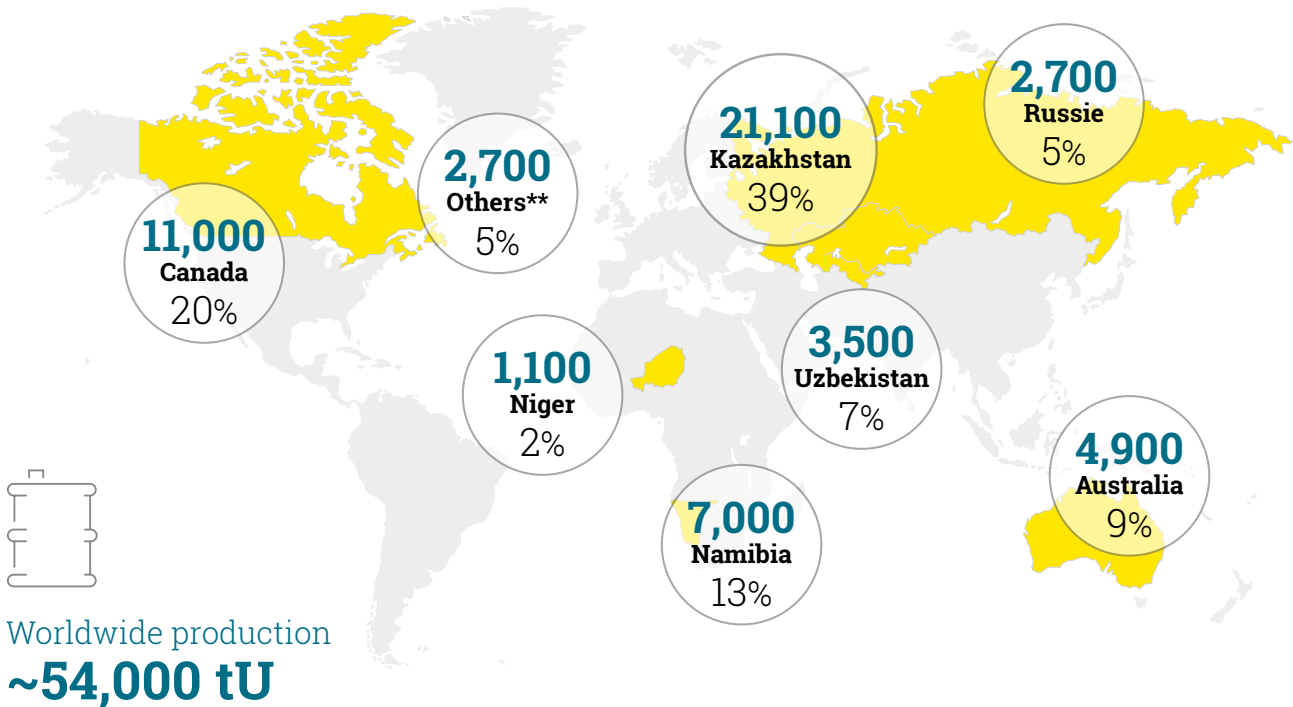
## Demand and supply

Uranium demand stood at approximately 76,000 tU in 2023, increasing from 2022.

Supply worldwide consists of:

- **Mining production**, which amounted to approximately 54,000 tU\*, up from 2022. This was mainly due to the restart of the McArthur mine in Canada in November 2022 after six years of care and maintenance, with 2023 production of 5,180 tU. However, the increase in mine production in 2023 was below expectations due to the following events:
  - The chronic lack of sulphuric acid in Kazakhstan, in view of the tensions on the raw material supply chains and competition from other industries. This limits the country's production capacity and creates uncertainty about the possibility of quickly returning to the nominal production rates

### MAIN URANIUM PRODUCERS IN 2023 (tU)



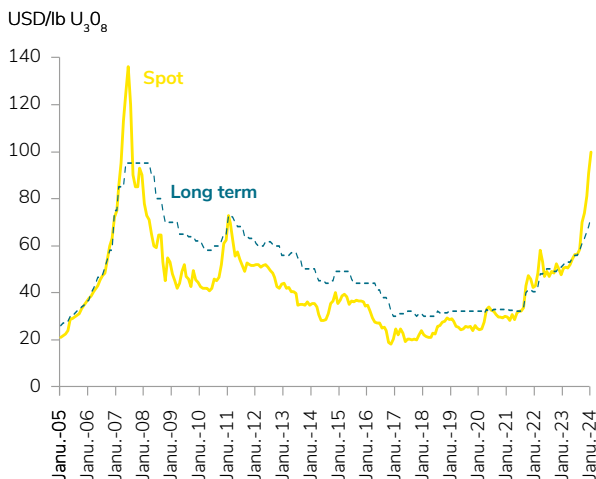
\* Sources : UxC Uranium Market Outlook Q1 2024 and external communication - Figures rounded to the nearest hundred of tU  
 \*\* China, Czech Republic, South Africa, Ukraine, Malawi...

provided for in the contracts for the use of the underground mines.

- The coup d'état in Niger on July 26, 2023 led to production stoppage and maintenance of the SOMAÏR plant, as a result of the sanctions imposed by ECOWAS countries (Economic Community of West African States);
- In Canada, operational difficulties at Cameco's facilities forced the company in September 2023 to downgrade production forecasts at the Cigar Lake and McArthur mines.

- **Secondary resources** estimated at a total of nearly 22,000 tU, from materials not directly derived from mining operations, mainly re-enrichment of depleted uranium, low-enriched uranium and de-stocking by electric utilities.

#### Evolution 2005-2023 of uranium prices indices (In current dollars)



Source: UxC Month-end price indicators

## Backlog

The Orano Mining backlog is diversified among customers in the different uranium-consuming regions.

The uranium sold originates either from the mining resources of companies in which Orano Mining has an equity interest or from uranium bought on the market.

## Customers

Orano Mining is a supplier to nearly 50% of the world's nuclear utilities in Asia, Europe and North America.

## Production of mining sites

In 2023, Orano Mining recorded lower production volumes at its mining sites outside Canada.

In Kazakhstan, tensions over sulfuric acid supplies continued to limit KATCO's production.

In Niger, on July 26, 2023, a coup d'état overthrew the incumbent President and his government. In response, ECOWAS (the Economic Community of West African States) implemented an embargo leading to the closure of the main supply corridor to mining sites via Benin. Against this backdrop, SOMAÏR has implemented a gradual reorganization of its work, anticipating its ore processing plant maintenance activities and maintaining ore extraction activities at the mine for as long as possible.

Nevertheless, thanks in particular to the diversity of its sources of supply, Orano Mining has always been able to ensure the security of supply to its customers.

In addition, good control of production costs and capital expenditure have enabled the Mining business to maintain good operational and financial performance in 2023.

- SOMAÏR produced 1,130 metric tons of uranium (on a 100% basis)
- KATCO produced 2,103 metric tons of uranium (on a 100% basis)
- Cigar Lake - McClean produced 5,807 metric tons of uranium (on a 100% basis)
- McArthur River - Key Lake produced 5,180 metric tons of uranium (on a 100% basis)

#### Orano mines production in 2023 (tU)

Country	Sites	Financial consolidation 2023 tU	Type*
Canada	McArthur River	1,564	UG
	Cigar Lake	2,349	UG
<b>Total Canada</b>		<b>3,913</b>	
Kazakhstan	KATCO	2,103	ISR
<b>Total Kazakhstan</b>		<b>2,103</b>	
Niger	SOMAÏR	1,130	OP
<b>Total Niger</b>		<b>1,130</b>	
<b>TOTAL</b>		<b>7,146</b>	

\* Type of operation: ISR: In-Situ Recovery; OP: Open-Pit, UG: Underground.



# Orano's CSR Approach

## Orano's purpose

Orano's social and environmental commitment was renewed and reshaped in 2020 resulting in an ambitious roadmap which was co-constructed with the Group's extended management and feedback from stakeholders.

On this occasion, Orano and its Board of Directors also set out the company's purpose, as follows:

**« To develop know-how in the transformation and control of nuclear materials for the climate, for a healthy and resource-efficient world, now and tomorrow ».**

Structured around our values and strategic goals, this new roadmap, through a set of 13 objectives, reflects the ways in which Orano wishes to embody its purpose and contribute to the Sustainable Development Goals.

## Orano Mining, proactive in defining Orano's commitments

Orano Mining, along with each of the Business Units, has actively participated in the co-construction of the CSR Engagement approach.

Across our sites, 150 managers took part in some 15 workshops. At the same time, a panel of 130 external stakeholders was interviewed in each country.

On the basis of this feedback and its own CSR approach, and after validation by the Management Committee

and the CSR Committee, Orano Mining identified and reported on the representative issues and specificities of its mining activity.

## A CSR policy anchored in Orano Mining's strategy

In its corporate strategy, Orano Mining states its resolve to be a leader in the industry in terms of health and safety at work, community involvement, and environmental and ethical practices.

As a responsible mining company, we ensure sustainable, concerted and balanced management of resources and meet the social, environmental, societal, technical and economic challenges, at each stage of the mining cycle, in all of the countries where we operate.

Our CSR policy, drawn up in consultation with the various different sites and departments of Orano Mining and approved by the Senior Executive Vice President of the Business Unit, defines the following principles of action:

- Forward planning and prevention
- Consideration of the local context
- Compliance with regulations and international standards
- Information, listening, dialogue and consultation
- Ethics and transparency

It lends a precise framework to our approach to corporate social responsibility and addresses two convergent demands:

- Orano Mining's desire to structure and formalize its corporate responsibility actions
- The determination to apply the principles and best practices advocated in the extractive industries sector and in particular those set out by the ICMM (International Council on Mining and Metals)

It has its own governance system. It is structured as follows:

- **The Corporate Responsibility, Engagement and Communication Department** which oversees implementation and monitoring of policies and standards defined by the Group and makes sure they are consistent with the particularities of the industrial, economic and social contexts of our locations
- **Orano Mining CSR Committee.** This body, set up in 2016, is made up of the Orano Mining management committee, the site directors, along with the Social Responsibility, Engagement and Communication department team. The CSR Committee meets once or twice a year and reviews the main current and future CSR issues for the various subsidiaries. It takes care to ensure the consistency of the actions

undertaken with regard to the Orano Mining CSR policy and validates financial commitments for certain amounts for new projects


- **The Mining Social Committees (CSMs)** of Orano Mining, created in 2013, are tasked, in each country where we operate, with putting social actions into practice at the local level in terms of partnerships and economic development support:
  - Identification of indicators and development of a monitoring system to measure deployment of the CSR policy
  - Highlighting of the value of social commitments both internally and externally
  - Choice of perimeters and topics to be given priority for the deployment of significant and sustainable courses of action
  - Determination of associated budgets (budgets of Subsidiaries and/or central budgets)
  - Supervision of validated financial commitments
  - Reporting on actions taken

These committees meet once or twice a year, chaired by the managing directors of the subsidiaries, and bring together local CSR leaders, and the coordinating and support teams from head office. Frequency of meetings varies depending on the country and on the needs. All Orano Mining locations are covered by CSMs, including Canada, Gabon, Kazakhstan, Uzbekistan, Namibia, Niger, and Mongolia.

## ORANO MINING MATERIALITY

The materiality matrix aims to prioritize the main CSR issues in light of stakeholders' expectations and Orano Mining's priorities. It was updated at the end of 2018 by questioning Orano Mining's management.

Regular stakeholder mapping exercises conducted in the locations where we operate allow us to update our understanding of the expectations of external stakeholders. They are then converted into action plans by the sites and regularly updated to keep pace with the expectations of our stakeholders.

Furthermore, the Group-wide materiality exercise conducted by Orano in early 2020 identified key expectations, risks and opportunities. All of this served as a basis for defining the CSR Engagement approach. The resulting matrix (cf. Orano annual report, chapter 4.2.1, p.104 ) confirms the feedback registered by Orano Mining, its priorities and key issues within its mining scope.

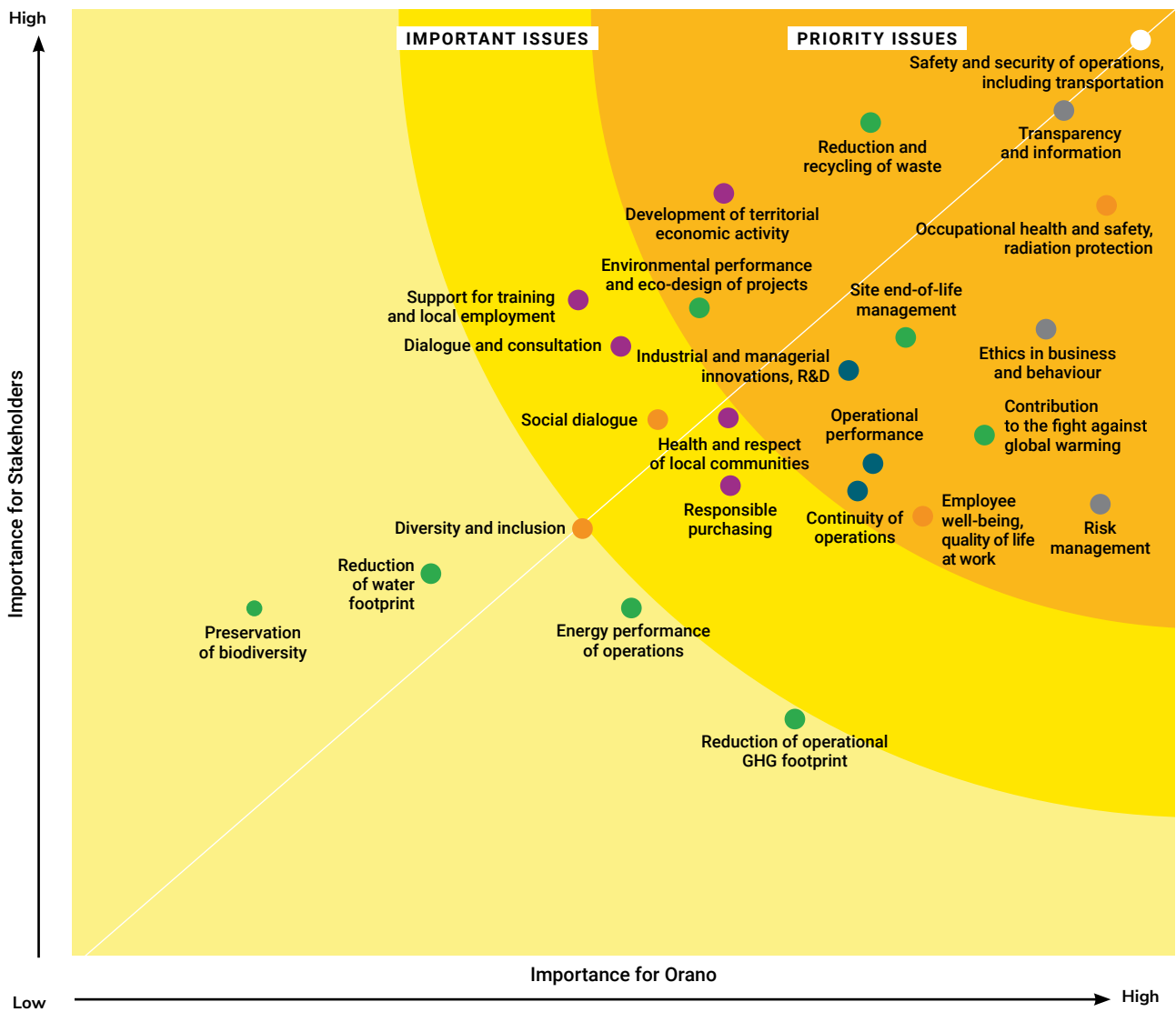
PRIORITIES AREAS SELECTED	MAIN MINING PRINCIPLES
Transparency	1 - 2 - 10

<b>Environmental footprint</b>	6 - 4 - 7 - 8 - 2
<b>Health / Safety</b>	5 - 4
<b>Risk management</b>	2 - 4 - 8
<b>Remediation</b>	6
<b>Community involvement</b>	9 - 10 - 1 - 2
<b>Ethical business</b>	1 - 2 - 3 - 4
<b>Our employees</b>	3

This materiality analysis and the resulting non-financial risks are consistent with the risks detailed in the Group's activity report (see detailed risks in chapter 3.3, p.67 and the list of material issues in chapter 4.2.1, p.104).

At the end of 2023, Orano Mining actively participated in the update of the Orano Group's materiality matrix, in line with the new double materiality guidelines of the Corporate Sustainability Reporting Directive (CSRD). The assessment process will begin at some of our sites from 2024, according to the methodology and sampling defined by the Group. The results will be published by the Group in its 2024 annual report.

**MATERIALITY MATRIX FOR ORANO'S STAKEHOLDER ISSUES**



Legend: ○ Fundamental ● Environment ● Social ● Societal ● Governance ● Economic

Source: Orano

## SUSTAINABLE DEVELOPMENT GOALS (SDGS)

The Sustainable Development Goals are key challenges defined by the United Nations for achieving a better future and they reflect the collective awareness of the need for a sustainable society.

Orano Mining contributes to many of the United Nation's 17 Sustainable Development Goals.

At the end of 2019, the Orano Executive Committee, after consulting 200 Group managers, reaffirmed its wish to contribute to the UN Sustainable-Development Agenda for 2030, and identified the following six SDGs as priorities for the Group.

Two additional goals corresponding to Orano Mining's activities have been added: SDG 6 (Clean water and sanitation) and SDG 16 Peace (justice and strong institutions).

These 8 goals have helped define Orano Mining's CSR roadmap and Commitments to 2030.



[More information on the SDGs](#)



## COMMITMENTS ROADMAP

Orano's Commitments roadmap, which extends to 2030, is structured around five axes:

- **Competencies:** mobilize proud and committed employees who embody our purpose
- **Cash:** operate efficiently by reducing our footprint
- **Climate:** contribute to carbon neutrality and adapt to climate consequences
- **Customer growth:** innovate to preserve resources and protect health
- **Communities:** be engaged and responsible locally in our environment

Orano's Commitments Roadmap was defined collectively, based on 6,000 contributions, and then adapted to each Business Unit.

Within Orano Mining, the goals have been selected and shared with the various departments and set out in the operational Master Plan for each site.

In the interest of transparency and providing information to our stakeholders, the achievement of the 2023 objectives and the objectives set for 2025 are presented throughout the report and summarized in the table below.

The CSR roadmap is the subject of a quarterly status report by Orano Mining's Management Committee.

In 2023, 95% of the targets set have been achieved or are in the process of being achieved. The 5% of the 2023 objectives that were not met relate to "increasing the proportion of women in the TOP 160\* by 10%" and "contributing to national waste reduction policies".

Moreover, the 5% of targets not met in 2023 will be carried over to 2024.

The 2023 objectives have been shared within the BU. They are rolled out and adapted for each site and should enable us to meet our commitments for 2025 and 2030.

\* TOP 160: 160 leading positions in Orano Mining

## Orano Mining's Commitment Roadmap

Our Values		
SAFETY, SECURITY		
2025	2023	
Aim for a long-term TF1 <or = at 1	By improving the safety of activities identified as high risk: drilling, handling, pilot operation. By controlling logging	●
Tend to a TF2 <or = to 3.5	By making the gap identification process mature (pareto). Strengthening safety culture (awareness of PFI and consideration of FOH in HIPO and REX)	●
Maintain Health Observatory in Niger after the closure of COMINAK	Strengthen OSRA's role and missions with stakeholders by taking into account its new governance	●
Towards passive management of tailings storage for new mining sites (2030)	2023 PNGMDR Commitment compliance Stability expertise for Lodève tailings storage	◐
Application of ICMC "dikes and dams" recommendations in proportion to the challenges	Implementation of the Standard Tailings on AMF, Comuf, SOMAIR and OCI	●
Industrial risks: 0 unacceptable scenario according to the MMR matrix	By implementing the Industrial Risks Roadmap - 100% of OCI hazard studies carried out	◐

Our Values		
ETHICS, DIALOGUE AND TRANSPARENCY		
2025	2023	
Contracts published according to the EITI standard whenever authorized by States	Mobilizing our Uzbek stakeholders for entry into the EITI	●
Deployment of the compliance action plan	Grievance mechanism: 100% of complaints managed on time	●
	Duty of Care: procedure implemented in all countries	◐
	Effective deployment of accounting controls on social actions	●

**THE 5C LEVERS**

**COMMUNITY: TO BE COMMITTED AND RESPONSIBLE LOCALLY IN OUR ENVIRONMENT**

2025	2023	
Maintain a high level of local recruitment (95% minimum)	Rate maintenance	●
Promote access to employment for people who are far from it	Launch of the first boarding school projects girls in Niger	●
Taking into account of CSR criteria in the tender documents > 1 M€	Taking into account CSR criteria in tender documents	◐
Maintain the local purchase rate (75% minimum)	Rate maintenance	●
Develop the installation of photovoltaics (+130 MW in France)	Starting of the photovoltaic park on the Baconnière, Ecarpiere and Bernardan 1 sites Beginning of the photovoltaic park construction on Bessines site	●
Responsible closure and redevelopment of COMINAK	100% of 2023 social commitments engaged	◐
Fauna-flora inventory of -10 years for each site in 2025	Launch of updating inventory flora fauna of OCI and SOMAÏR	◐
Moving towards zero net loss biodiversity	Carrying out land use maps at all sites	◐
Eco-design all our major projects > 5 M€ launched from 2021	Integration of the eco-design component for projects Mongolia, Uzbekistan, Niger (Imouraren), France (Bois Noirs and Battery)	●

**THE 5C LEVERS**

**CUSTOMER GROWTH: INNOVATING FOR RESOURCE CONSERVATION AND HEALTH**

2025	2023	
Develop battery recycling (by building industrial facilities capable of processing waste from gigafactories of batteries for start-up in 2025)	By operating industrial pilots and making it a reality partnerships under discussion*	●
Develop external turnover for the CIME (+ 5 M€)	Develop the business of CIME (+ 1 M€ / year + 2 customers)	●

## THE 5C LEVERS

**COMPETENCIES:** MOBILISING PROUD AND COMMITTED EMPLOYEES WHO EMBODY OUR REASON FOR BEING

2025	2023	
Maintain over the period a significant rate of employees who recommend Orano (80% minimum)	Rate maintenance	
Support our employees towards certifying, qualifying or diploma training courses	Finalize ISR training and deploy it in at least 1 country	
Keep the level of social conflict as low as possible according to GRI criteria	Less than 1 week of strike per year per country of operation	
Increase the proportion of women (on the top 160 perimeter): + 50%	10% annual increase	
New partnerships with schools close to our sites in connection with our skills	Leading an analysis gap between existing partnerships schools and the key competencies of the countries concerned	
Supporting our employees to succeed in the digital transformation	By deploying digital projects on an industrial scale, with priority given to: AI in Canada, Canopé in Niger	

## THE 5C LEVERS


**CLIMATE:** CONTRIBUTE TO CARBON NEUTRALITY

2025	2023	
Reduce CO <sub>2</sub> emissions equivalent to carbon on operated activities (-30%)	To target a secure portfolio at 65% of the 2025 objectives by the end of 2023	
Supporting the decarbonation of electricity in our countries of operation	SOMAÏR: securing studies and preparing purchases for production in 2025 – Reliability of the KATCO PPA – Studies of potential PPAs in other countries Work launched on PPA plant in Namibia	
When relevant, increase the share of low carbon energy on our sites in operation	Taking into account the evolution of countries' emission factor in the carbon trajectory	
Carbon Energy Performance Plan (- 10% ref. 2019)	Making the CO <sub>2</sub> trajectory more reliable scope 1/2/3/ Energy of sites in SDI	



\* Nouveau protocole de sondage

Les leviers 5C

**CASH: OPERATING EFFICIENTLY BY REDUCING OUR FOOTPRINT**

2025	2023	
<b>Reduction of water consumption per ton of U produced (-10%)</b>	Implementation of action plans on production site	
<b>Provide each site with water issues with a water management plan shared by stakeholders</b>	Implementation of action plans on production site	
<b>Develop preventive models on natural attenuation for ISR</b>	Finalizing our position on the end state expected post rehabilitation for ISR	
<b>Contribute to national policies for reducing plastic waste in our areas of operation</b>	Conclusions of the recycling benchmark plastic waste at SOMAÏR	
<b>Maintain R&amp;D actions in the optimization of water treatment in stations</b>	Bertholene: Definition treatment of Manganese – Bessines and Ecarpière: APS renovation of the station	
<b>Reduce our production of non-recycled waste (- 25% in 2030)</b>	KATCO: audit of waste management contractors No target in 2023 for OCI and SOMAÏR	
<b>Keep our certifications on our production sites and deploy them on planned sites</b>	OCI: certification ISO 14001 et 45001 renewal	
<b>Operational excellence commitment</b>	€40mIn savings at the end of 2023 – implementation of a model zone per site – Approach on flow optimization and reduction of MUDAs	

Captions

-  Completed
-  In progress
-  Not achieved
-  Not applicable

## OUR 2023 PERFORMANCE:



Ethical business  
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Environmental performance  
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Decision-making  
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Conservation of biodiversity  
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Human rights  
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Responsible production  
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Risk management  
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Social performance  
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Health, Safety and Radiation Protection  
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Stakeholder engagement  
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# Ethical business



## MINING PRINCIPLE

Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development.



## PRINCIPLE 1.1

Establish systems to maintain compliance with applicable law.

This commitment is made at the very highest level by the Board of Directors of Orano. It relies on four specialized committees including the Audit and Ethics Committee.

The mission of the Audit and Ethics Committee includes overseeing the Group's compliance with the best international ethical practices, reviewing the Code of Ethics and Business Conduct and its updates and making recommendations to the Board of Directors.

More specifically, it conducts the review of the annual internal control campaigns after the internal audit assessment, and also the review of the Group's risk mapping and action plans with follow-up, as well as the follow-up of the audits carried out with validation of annual audit plan. It also reviews the payments made to Governments for each fiscal year based on French law over the whole relevant scope by the application of this law and according to the principles of the EITI.

[More information on the EITI report](#)



The role of the Orano Mining Compliance Officer is carried out by the General Counsel for our activities, in conjunction with the local Compliance officers in the countries where we are present. She works together with, the Orano Risks, Compliance, and Internal Audit Director who reports to the Chief Executive Officer of Orano. This organization makes it possible to maintain close relations with mining sites and operational activities whilst benefiting from a single line of reporting. Quarterly meetings are organized

between Orano Mining's Compliance Correspondent and its local correspondents, with the aim of monitoring compliance of activities within the scope of applicable law. When necessary, local correspondents report on legislative changes in their country concerning compliance. In addition, a legal monitoring is implemented locally with the aim of anticipating new regulations and regulatory changes applicable to Orano Mining and its subsidiaries.

Orano Mining, like all the Business Units of the Group, conducts an internal ethical reporting process on the proper application of the Code of Ethics and Business Conduct, if any infringements are observed, action plans are put in place to remedy such breaches, and sanctions are imposed.

[For more information on Orano Code of Ethics and Business Conduct](#)



## PRINCIPLE 1.2

Implement policies and practices to prevent bribery, corruption and to publicly disclose facilitation payments.

In order to ensure compliance with the anti-corruption requirements of the Sapin II Act of December 9, 2016, and in accordance with the recommendations issued at the end of 2017 by the French anti-corruption agency AFA (Agence Française Anticorruption), the Compliance Policy is structured around the following actions:

- **Mapping of risks of corruption and influence peddling** for Orano Mining and its local subsidiaries (updated every year)
- **Implementation of the Anti-Corruption Code of Conduct** (appendix of the Code of Ethics and Business Conduct), its integration in Orano Mining's internal regulations, and its deployment (and providing each employee with the Orano Code of Ethics and Business Conduct)
- **An e-learning course** specifically developed on the basis of the Orano Code of Ethics and Business Conduct and intended for all employees. An illustrated book of the e-learning was created for employees who don't have access to the web
- **A face-to-face dedicated training or remote course** (anti corruption, accounting control) deployed for employees most exposed to risk
- **The systematization of the verification process for third-party compliance** in accordance with a Group procedure (see chapter 4.3.3 of the Orano annual report p.120 )

- Or **the reinforced formalization of certain controls** and in particular relating to accounting transactions, with the implementation of procedures to ensure that accounting books and records are not used to hide acts of corruption or influence

### The pillars of the orano anti-corruption and prevention of influence-peddling program



Since 2018, Orano Mining and its subsidiaries have been identifying and assessing the risks to which they are exposed through a mapping of corruption and influence peddling risks. All of our sites worldwide conduct an annual reassessment or revision of this mapping. These risks are classified in 12 risk sub-families (purchasing, sales activities, intermediaries and/or agents, lobbying, relations with public authorities, partnership/consortium, real estate, M&A – acquisition/transfer of participation, sponsoring – donations and patronage, trading, confidential information, etc.).

Risk mapping is performed based on 12 sub-families of risks defined by the Group. The most significant scenarios for Orano Mining remain linked to 4 risk sub-families:

- Risk in relations with public authorities
  - Principal corruption risk, both active and passive, to obtain a favorable decision: known and relatively controlled
  - Payment of facilitation payments
- Risk as part of purchasing goods and/or services
  - Risk originating from suppliers – active corruption
  - Risk of imposed supplier
- Risk linked to obtaining or disclosing confidential information
- Risk in sponsoring, donation, and patronage
  - Related to local actions => risks common to all countries

Several further measures were set up at the Group level and deployed in subsidiary entities of Orano Mining:

- we issued a policy on gifts and invitations and a SharePoint for declaring them
- we reinforced the Orano ethics-related alerts via an externalized platform, accessible to all Group employees in 9 languages. Using this system, the employees can anonymously report any breaches of applicable regulations or of the Group's internal procedures and rules, in particular breaches linked to the Orano Code of Ethics and Business Conduct. Permanent communication about this system is carried out via the intranet and/or displayed at the sites
- we continued a number of managerial communication campaigns
- we released and circulated an educational booklet: "Ethics and compliance - How to act?"

**Orano has taken a proactive approach in developing its own Code of Ethics and Business Conduct and its anticorruption program and communicating these to all its employees, as well as its industrial and commercial partners.**

### An anti-corruption awareness campaign / conflict of interest implemented in Orano Mining

In June 2023, a campaign to raise awareness and feedback on anti-corruption and conflicts of interest was deployed to all Orano Mining employees at all Orano Mining sites worldwide. Through examples, this campaign reminded employees of the rules and conduct to be observed in different situations.

In 2022, Orano updated its Code of Ethics and Business Conduct. It defines the shared values, consistent with the Group's purpose and its commitment strategy. The Group's Code of Ethics and Business Conduct sets forth the principles and rules for complying with these values on a daily basis. It reflects the Group's culture and its commitments towards all stakeholders, notably to promote sustainable development and compliance with human rights.

It serves as a reference for all employees and directors and presents the expectations and the level of requirement to any person wishing to play a role in its development. It applies to subcontractors and suppliers who must sign a specific sustainable development commitment document.

The Orano Code of Ethics and Business Conduct is accessible to all, in 9 languages, on the website and on the Group's intranet. It is provided to every new



hire who must familiarize themselves with it. They may refer to it in a situation seemingly contrary to the code's principles, whether this involves an issue related to human rights or to other values and principles endorsed by the Group. It is integrated into the internal regulations of the various mining entities, or referenced in the employment contract. Orano has also set up an e-learning training module, "Our Code of Ethics" (30 minutes in several languages), focused on the proper application of the Group's Code of Ethics and Business Conduct, including a knowledge validation test. During their annual interview with their manager, employees formally confirm their commitment to comply with the rules of the Code of Ethics and Business Conduct and participate in the online training (every 2 years).

The Orano Code of Ethics and Business Conduct includes Executive Management's commitment to conducting a process to prevent and detect corruption and influence peddling and the group's "zero tolerance" policy on corruption. It defines the prohibited behaviors that may characterize corruption and influence peddling, based on the risks identified in the risk map, and summarizes the disciplinary measures and consequences in the event that these rules are not followed. In addition, the Orano Risks, Compliance, and Internal Audit Department has published a guide entitled "Ethics and Compliance: How to act?", which illustrates with concrete examples the rules of the Code of Ethics and Business Conduct and identifies the reflexes to be adopted in the various situations with which employees are liable to be confronted, particularly in terms of preventing corruption.

The Compliance Policy specifies how the Code is to be implemented at all levels, across all activities and in all countries; this policy also explains how compliance is organized within the Group.

Orano Mining supports beneficial ownership transparency and is committed to avoid partnering or contracting with companies assessed as high corruption risk that decline to identify their beneficial owners unless appropriate mitigation measures are implemented to reduce corruption risk as per our principles included in our Code of Ethics and business conduct.

## Strengthening the whistleblowing system

Since 2021, the Orano whistleblowing system is opened to all employees of the Group and associates of business partners (suppliers, service providers, subcontractors and customers), as well as to recruitment candidates, in several languages. In addition, specific training sessions on "conducting an internal investigation" were provided for the alert officers, compliance officers and human resources representatives.



[More information in Orano's annual report](#)



It is a reflex and a duty for each of the Group's employees to immediately raise the alert if any blatant incident or breach of a statutory or regulatory obligation or violation of the Code of Ethics and Business Conduct or compliance policies and procedures is observed.

The rules of conduct of the Code of Ethics and Business Conduct deal with the action we take in particular in terms of the following: compliance with international treaties, conflicts of interest, insider trading, corruption, gifts and unfair advantage, influence peddling, payments and relations with third parties, facilitation payments, competition, advocacy and lobbying, political funding, protection of life and property, corporate sponsorship, etc.

Every year, Orano Mining, like all the other Business Units of the Group, conducts an ethical reporting process. Each campaign opens with a letter from the President of Orano Mining, in application of the letter of instruction from the CEO of Orano. This process involves all our directors and their managerial staff in all the countries where we are present (Orano Mining and its sites in France and abroad, as well as its subsidiaries).

All members of Orano Mining's Management Committee and of the management committees of subsidiaries are made aware of the subject and have followed or will be following training in Ethics. A managerial kit has been created to help directors and managers to manage ethics-related alerts.

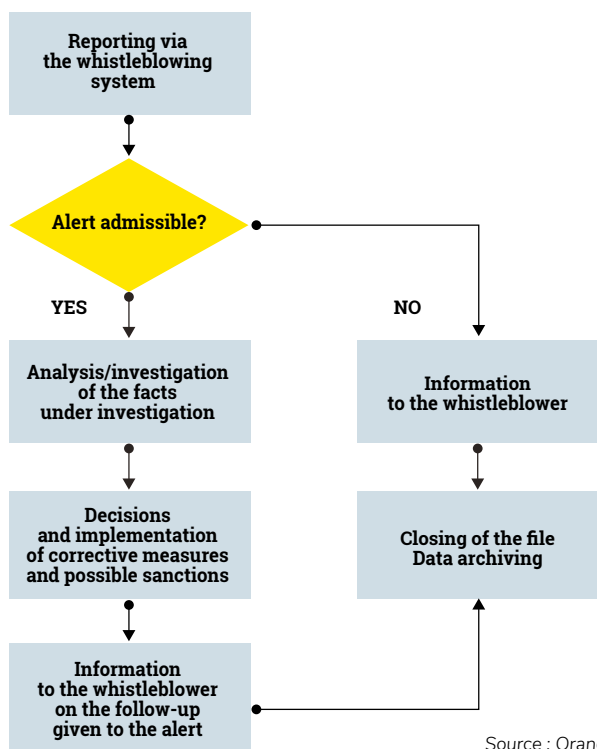
## PROCESS

The ethical reporting process is underpinned by the principle that our employees can report an infringement they have found without repercussion to themselves if the facts are proven (whether the issue is within our own operations or related to the practices of our subcontractors). In the same way, if anyone is given an order that clearly runs contrary to the Orano Code of Ethics and Business Conduct, they are entitled not to

comply, and must report the matter to the Group's Risks, Compliance, and Internal Audit Department immediately.

A system for alerting and issuing complaints in case of discrimination or ethical infringement has been in place for several years. It guarantees the confidentiality and protection of whistleblowers. Since 2019, a dedicated, secure external web platform (available in several languages) for collecting alerts has allowed the system to be further strengthened.

#### Orano process for handling an ethics-related alert



Source : Orano

Consult Orano's annual report



In addition to the ethics alert mechanism available on the platform, every year an ethics report provides information on the various ethics events reported and declared during the course of the previous year, as well as how they were handled and the actions taken or being taken concerning these cases. Reporting is carried out via the managerial chain or alerts raised by partners.

Depending on their severity, disciplinary measures have been taken in some cases, with some even resulting in the dismissal of the offenders.

These events occurring within Orano Mining in France and internationally are classified by family, and reports for 2023 concerned 61 cases related to:

- Interpersonal relations and human rights
- Protecting people and facilities

- Occupational safety, security and environment
- Data protection and privacy
- Quality fraud
- Financial fraud, theft, and false declarations
- Corruption
- Competition

## CONTROLS AND SANCTIONS

The nature of corrective actions and/or sanctions proposed will vary depending on the severity of the failure to comply.

The 61 cases reported in France and internationally, within Orano Mining in 2023, were:

- 5 dismissals
- 12 disciplinary actions, from a simple warning to suspension

In 2023, the ethics alert mechanism was used 3 times within the scope of mining activities. Furthermore, since 2021, a system for the management of claims and complaints in particular concerning any risks of Human rights violations was deployed on all of Orano Mining's sites (See Mining Principle 9.3, p.120 ). In 2023, two cases linked to human rights violations were reported as part of the ethics report exercise (one case of non-compliance with labor regulations by a supplier and one case of unhealthy living conditions involving an off-site subcontractor). Both cases are currently being processed.

## PRINCIPLE 1.3

Implement policies and standards consistent with the ICMM policy framework.

In addition to the Group's Code of Ethics and Business Conduct, Orano Mining is implementing specific policies, the next editions of which will incorporate the Group's social and environmental commitments, in the following areas:

- A Nuclear Safety and Environment policy
- A Health - Safety - Radiation Protection policy
- A Purchasing policy
- Agreements and guidelines in the areas of diversity and inclusion, skills and quality of life at work and social dialogue
- A policy for combating corruption and influence peddling

These policies are validated by the Executive Committee and the Board of Directors. Their appropriation and their application are verified by the Group's Internal



Control bodies, in particular by internal audit or the General Inspectorate. They cover topics relating to duty of vigilance. Other policies (quality, protection, etc.) supplement the action taken by the Group.

These different policies and codes help organize the company's operations in compliance with human rights and in the interest of environmental protection and the laws that govern them.

In its corporate strategy, one of Orano Mining's stated priorities is to be a leader in the industry in terms of health and safety at work, community involvement, environmental and ethical practices. A CSR policy, drawn up in consultation with the various different departments in order to define the principles of action and set out a precise framework for this approach, has been approved by the Management Committee of the BU (See Mining Principle 2.1 - Decision Making p.32 ).

As a responsible mining company, Orano Mining is committed to implementing the Position Statements defined by the ICMM, as well as the 10 mining principles and their performance expectations.

Orano Mining strives to constantly improve its performance in all areas and takes into account the expectations of its stakeholders, whether they are directly or indirectly affected by the Group's activities.

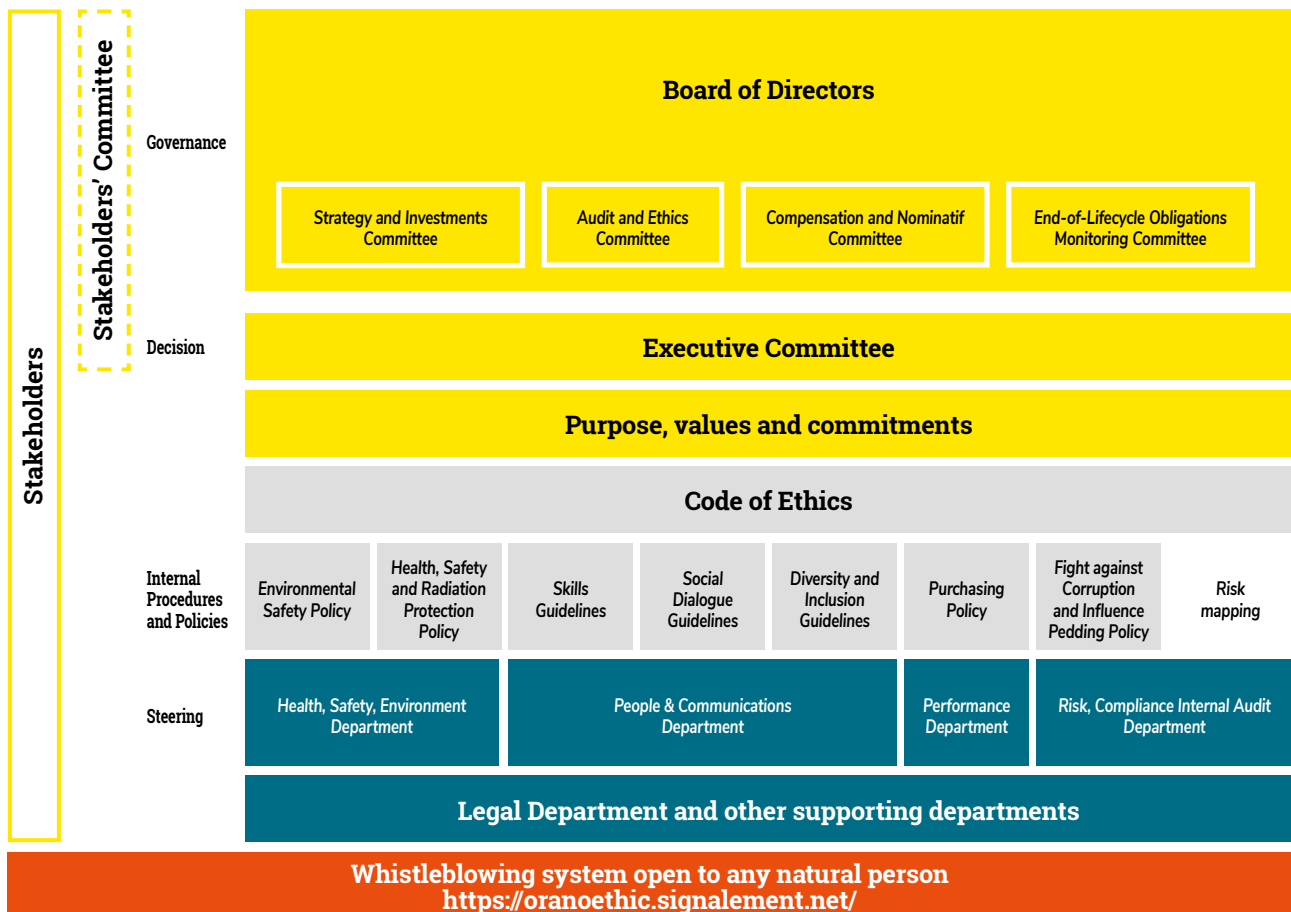
## PRINCIPLE 1.4


**Assign accountability for sustainability performance at the Board and/or Executive Committee level.**

### Non-financial governance of Orano


The Board of Directors of Orano guides and controls the actions of the Group's Committees and its results,

#### Orano's non-financial governance



including in non-financial matters. Environmental, Social and Governance (ESG) matters are managed on an ad-hoc basis by each of the specialized committees of the Board of Directors depending on the topic. An overall progress review of the Commitments roadmap is carried out by the Board of Directors at least once a year (For more information, see Orano annual report, chapter 4.1.3, p.102 .

The Risks, Compliance, and Internal Audit Director, reporting to the Orano Chief Executive Officer, manages the program in the area of ethics and the prevention of corruption and influence peddling. She coordinates an operational network within the Business Units and Central Departments.

Every year, alerts and incidents reported by each Business Unit are summarized and presented to the Executive Committee and to the Audit and Ethics Committee. The trend, in recent years, shows that the area in which the most incidents are reported is "discrimination and harassment" (For more information, see Orano annual report, chapter 4.3.3, p.120 .

## PRINCIPLE 1.5

**Disclose the value and beneficiaries of financial and in-kind political contributions whether directly or through an intermediary.**

**Orano Mining does not favor any political party, group or individual and does not make any direct or indirect payment to political parties or to candidates in any of the countries in which we are present.**



# Decision-making



## MINING PRINCIPLE

Integrate sustainable development in corporate strategy and decision-making processes.

## PRINCIPLE 2.1

**Integrate sustainable development principles into corporate strategy and decision-making processes relating to investments and in the design, operation and closure of facilities.**

Because it is convinced that protection of the climate, resources and health are issues of fundamental importance, Orano has made addressing them central to its purpose and intends to use and develop know-how in the transformation and control of nuclear materials for the climate, for a healthy and resource-efficient world, now and tomorrow.

In 2020, Orano updated its strategic vision incorporating social and environmental commitments put together with managers of the Group and thanks to feedback from stakeholders. Structured around a purpose, values and strategic goals, its 13 objectives reflect the way in which Orano wishes to embody its purpose and contribute to the achievement of Sustainable Development Goals.



As a responsible mining company, we ensure sustainable, concerted and balanced management of resources and of their use, and we address the challenges, whether they be social, environmental, societal, technical or economic, at each stage of the mining cycle in the countries where we operate.

In order to advance and share knowledge and skills in sustainable development, training in understanding global climate issues "The Climate Fresque" was given to Orano Mining's 100 top managers, representing all our locations, at the annual meeting held in June 2023.

[More information on Orano Mining's governance, p.39](#)



Orano Mining is committed to implementing the Position Statements defined by the ICMM (International Council on Mining and Metals), as well as the 10 mining principles and their 39 performance expectations by adopting a continuous improvement approach.

[More information on ICMM Mining principles](#)



## Governance of Orano Mining's approach to CSR

The CSR policy lends a precise framework to our approach to corporate social responsibility and addresses two convergent demands:

- Orano Mining's desire to structure and formalize its action in the area of corporate social responsibility
- The determination to apply the principles and best practices advocated in the extractive industries sector and in particular those set out by the ICMM (International Council on Mining and Metals)

The CSR policy, drawn up in consultation with the various sites and departments of Orano Mining, then approved by the Management Committee and signed by the President of the Business Unit, defines the following principles of action:

- Forward planning and prevention
- Consideration of the local context
- Compliance with regulations and international standards
- Information, listening, dialogue and consultation
- Ethics and transparency

In order to ensure its deployment, a CSR committee was established in 2017 and the Mining Social Committees (CSMs) created in 2013 have evolved to adapt to this new governance.

[For more information, see CSR Approach, p.15](#)





## PRINCIPLE 2.2

**Support the adoption of responsible physical or psychological health and safety, environmental, human rights and labor policies and practices by joint venture partners, suppliers and contractors, based on risk.**

As far as relations with its suppliers and subcontractors are concerned, Orano Mining follows Orano's purchasing policy, which includes social and environmental criteria.

Orano Mining's supply chain works closely with the HSE, Legal, Risks, Internal Audit and Compliance Departments to ensure that suppliers meet compliance requirements, particularly with regard to the prevention of corruption and influence peddling risks.

Suppliers are assessed based on the criteria of quality, conformance, competitiveness, safety and the environment, and on their ability to supply products and services that meet the needs and specified requirements.

Orano Mining has made a point of getting its suppliers to engage in a process of sustainable development. For several years, all Orano Mining contracts have included provisions on the compliance of suppliers with such a commitment.

Under the terms of this commitment, suppliers undertake to promote and safeguard compliance with human rights, labor law (pertaining to labor standards, the prohibition of child labor, the fight against discrimination, compliance with the legal number of working hours, applicable minimum wage) and protection of the environment.

Each supplier also makes a pledge to prevent corruption, and this is a factor in the selection of Orano suppliers.

As an integral part of the contracts signed with suppliers, the General Terms and Conditions of Purchase (T&C) or contractual clauses set out the obligations of the supplier with regard to:

- Hygiene, safety and the protection of health
- Regulated substances (REACH regulations)
- Sustainable development in terms of human rights, health, safety, labor law and the environment

Non-compliance with these provisions may result in termination of the contract or order.

The Terms & Conditions (T&C) or contractual clauses include provisions so that Orano Mining, where applicable, its customer, any third party mandated by Orano Mining or any empowered authority, can access the premises of the supplier, or its subcontractors and suppliers, for the purpose of verifying or auditing all the requirements specified in the order.

The various documents and processes that make up the supply chain management system (Code of Ethics, T&C, Purchasing policy, human rights, social and environmental commitments, etc.) take into account:

- Risk analyses by purchasing market (hazards table) and by country (see Orano's internal procedure "Country Compliance Classification") via a compliance questionnaire
- Supplier performance metrics and required improvement plans
- The ethical and sustainable development aspects of contractual clauses, in accordance with the French Sapin II and Duty of Care laws
- Studies carried out by the Group's business intelligence unit, for all SOC suppliers, when justified by the risk analysis
- The CO<sub>2</sub> emission factors of the most important suppliers

Since the end of April 2019, a systematic assessment process for new suppliers, adapted to the level of risk involved (compliance, corruption, etc.), has been deployed in coordination with the Compliance Department. The completed and approved third party assessment form is a mandatory prerequisite for the creation of a supplier in Orano Mining's ERP.

Depending on the results obtained within the framework of the assessment procedure, and where deemed necessary, a questionnaire is sent to the supplier (containing in particular questions concerning the subsidiaries of the company and existing equity ties), and, where applicable, an investigation by the business intelligence unit is carried out. This business intelligence investigation is carried out systematically for suppliers with a medium or high level of risk, including in Sourcing Opportunity Countries (sourcing from low-cost countries, mainly Niger, Kazakhstan, China and Turkey).

It is the purchasing decision-making committee which takes a decision on the choice of suppliers for contracts over 1 million euros and which takes care to ensure that different criteria, notably those of environmental and social nature, and relating to human rights and safety, are taken into account.

Since December 2, 2021, Orano has also been a signatory of the "Responsible Supplier Relations Charter" (<http://www.rfar.fr/>) and in this respect demonstrates its desire to implement a continuous improvement plan with its

suppliers within a framework of mutual trust and respect for the rights and responsibilities of each individual.

This commitment is supplemented by the appointment of an internal mediator within the company, who can be referred to by the group's suppliers when a dispute has not been resolved through amicable negotiation. The internal mediator will seek a concerted solution that suits both parties, contactable at the following email address: [mediateur@orano.group](mailto:mediateur@orano.group).

In 2022, in order to be in line with the commitment made for 2025, Orano Mining created a working group with representatives from the Legal, Supply Chain, and CSR Departments. The set objective was to improve the mapping of the CSR risks of all suppliers and subcontractors under the scope of Orano Mining. In 2023, this working group was managed by Orano for all its Business Units.

The identification of suppliers and subcontractors posing a risk is based on the three criteria selected by the Orano Group, namely the annual volume of purchases made, the sector of activity, and the geographical location of the activity. Orano Mining's objective is to continue refining its risk mapping model in order to tailor its efforts even more closely to the perimeters at risk, particularly with regard to human rights, the environment, personal health and safety, and fundamental freedoms.

## Regular control of suppliers and subcontractors

The Group's General Terms and Conditions of Purchase include specific provisions allowing Orano Mining, where applicable, its customer, or any third party mandated by Orano or empowered authority, to access the premises of the supplier or of the subcontractor, for the purpose of verifying or auditing all the requirements specified in the contract or the order. Suppliers may be subject to audits. The contracts or orders are then subject to reviews with the suppliers with the registering, where necessary, of grievances and the application of penalties.

Likewise, Orano Mining reserves the right to verify, at any time, that the practices of its suppliers and subcontractors comply with the Code of Ethics and Business Conduct. Where necessary, non-compliance with the provisions set out in the Orano's GTCP and/ or Code of Ethics and Business Conduct may result in termination of the contract or order.

In 2023, our subsidiaries continued to audit their suppliers. SOMAÏR, for example, conducted several CSR audits thanks to the multidisciplinary skills of their



auditors, with a panel of subcontractors presenting the highest risk levels. As a result corrective action plans were requested.

At all its sites, Orano Mining has adopted a system of supervision and control, backed up by practical training for its subcontractors, in order to guarantee that operations are conducted in a professionally and environmentally safe manner.

This principle of reinforced supervision is implemented, for instance, at KATCO in Kazakhstan with subcontractors tasked with drilling and construction operations, at SOMAÏR in Niger for vehicle maintenance activities (workshop) and internal ore transport (from ore storage areas to crusher), and at Orano Canada for exploration and drilling activities, transport of reagents and specific maintenance activities. These are the highest risk activities and represent the majority of subcontractors working on our sites.

## Training of employees and process for the collection and processing of alerts


In addition to raising all employees' awareness of the group's Code of Ethics and Business Conduct, since 2021 Orano Mining has been taking specific actions to raise awareness of the duty of vigilance.

In 2023, specific training was given to supply-chain and legal function employees to raise their awareness around duty of vigilance. This follows on from the sessions delivered for the management of Orano Mining. As part of the "learning program" provided for new recruits, awareness raising on duty of vigilance is also addressed.



Furthermore, in November 2023, Orano Mining carried out an internal Respect@Orano survey of all its employees and subcontractors at its sites worldwide to assess the culture of respect and identify any weak signals in connection with cases of bullying, discrimination, sexual harassment, etc. The findings will be available and analyzed in early 2024, and will lead to the implementation of action plans where necessary.

At all Orano Mining sites worldwide, each and every employee and subcontractor must find a safe and healthy environment in which to work, express themselves and develop. Orano's responsibility as an employer requires us to consider and safeguard the physical and mental health of employees in the same way as we do for safety.

Employees and external stakeholders of Orano were also reminded on a systematic basis of the whistleblowing systems at their disposal (see section 3.4.4.2, Orano report 2023, p.80 

- The whistleblowing system which covers topics from Orano's Code of Ethics and Business Conduct and in particular topics arising from France's Sapin II Act and the law on the duty of vigilance



- The mechanism for processing of grievances deployed by all Orano Mining sites

In 2023, the ethics alert system was used three times within the scope of mining activities. Two cases linked to human rights violations were reported as part of the ethics report exercise (one case of non-compliance with labor regulations by a supplier and one case of unhealthy living conditions involving an off-site subcontractor), which are currently being processed.



## 2023 RESULTS

Duty of vigilance: procedure implemented in all countries



### OBJECTIVE FOR 2025:

**To expand the inclusion of CSR criteria in calls for tender in Orano Mining subsidiaries, depending on the local legislation in force and on the risks.**



# Human rights



## MINING PRINCIPLE

Respect human rights and the interests, cultures, customs and values of workers and communities affected by our activities.


## PRINCIPLE 3.1

Support the UN Guiding Principles on Business and Human Rights by developing a policy commitment to respect human rights, undertaking human rights due diligence and providing for or cooperating in processes to enable the remediation of adverse human rights impacts that members have caused or contributed to.

Orano Mining conducts its business in compliance with the fundamental texts aimed at protecting human rights, namely:

- The Universal Declaration of Human Rights adopted by the UN in 1948
- The fundamental conventions of the International Labour Organization (ILO)
- The Guidelines for Multinational Enterprises issued by the Organization for Economic Co-operation and Development (OECD)

Orano Mining values transparency and dialogue with its stakeholders, in particular on questions relating to human rights raised in these different forums for


exchange such as the Site Monitoring Committees (CSSs) or the Local Information Committees (CLIs). Moreover, the management of grievances plays an essential part in the quality of our relations with our stakeholders. With this in mind, Orano Mining deployed a grievance mechanism on all of its sites in 2020 to resolve complaints at an operational level and to give annual feedback on the complaints received (See Mining Principle 9.3, p.120 ).



### FOCUS ON COMINAK FOLLOWING THE SHUTDOWN OF ITS PRODUCTION ACTIVITIES




To limit the socio-economic impact of the shutdown of COMINAK's production activities, concrete actions and measures were put in place to limit as much as possible the physical or economic relocation of families and populations against their wishes.

In social terms, COMINAK transferred all dwellings not occupied by agents still working to the Nigerien State, with the possibility for outgoing agents to benefit from assistance to acquire their dwellings (see agreement between COMINAK and the Ministry of Urbanism signed on February 8, 2021 ).

More broadly, of the entire social budget, 4 billion CFAF, or 6 million euros, were allocated over 5 years to develop projects that generate revenue for the local population.

In addition, after several workshops between COMINAK, the Nigerien State, and the civil society representatives market gardening was found to have the strongest local development, with significant potential for the economic reconversion of municipalities in the Arlit and Ifrouane regions.

At the same time, an entrepreneurship support program set up at the time of the decision to cease production activities provided financial backing for nearly fifty projects. This program, initially set up for former employees and subcontractors, was also opened up to Arlit residents to encourage economic development in the town.


For more information on COMINAK remediation, see p.76 

## PRINCIPLE 3.2

**Avoid the involuntary physical or economic displacement of families and communities. Where this is not possible apply the mitigation hierarchy and implement actions or remedies that address residual adverse effects to restore or improve livelihoods and standards of living of displaced people.**

As part of its mining activities, Orano Mining has not, to its knowledge, caused the displacement of a population against their wishes.

In Gabon, a project called "Mounana 200" was jointly set up with the government to participate in managing radiologically contaminated buildings. The final work was completed in June 2022.

In Niger, actions were implemented following the shutdown of production activities at the COMINAK site to limit population movements and the socio-economic impact (For more information on COMINAK remediation, see p.76 ).



## PRINCIPLE 3.3

**Implement, based on risk, a human rights and security approach consistent with the Voluntary Principles on Security and Human Rights.**

Orano Mining regularly assesses risks identified with regard to the Voluntary Principles on Security and Human Rights in the countries where it is present, as an essential part of ensuring the safety of personnel, and of local communities.

Our staff and contractors, and any other stakeholders, can use the various alert systems (whistleblowing systems and grievance mechanism) to inform and report to the Group any abuses they may have observed under the Voluntary Principles on Security and Human Rights.

## PRINCIPLE 3.4

**Respect the rights of workers by: not employing child or forced labor; avoiding human trafficking; not assigning hazardous/dangerous work to those under 18; eliminating all forms of harassment and discrimination; respecting freedom of association and collective bargaining and; providing a mechanism to address workers grievances.**

Orano Mining conducts its business in compliance with the fundamental texts aimed at protecting human rights.

It reflects the company's commitment to eliminating child labor and all forms of forced or imposed labor, adherence to free association, privacy, and the right for collective bargaining.

For more information on grievance mechanism, see Mining Principle 1.2, p.27



For more information, see Orano annual report, Chapter 3.4.1, p.77



## Policy


Due to the diversity of the countries in which Orano Mining operates, we work in local communities with different and cosmopolitan cultural, religious and ethnic backgrounds.


As an economic player in these territories, Orano Mining is also a leading employer ambitious to attract, develop and retain talented individuals who will make our projects a success. We propose career paths to our employees




which favor the development of their careers, by offering them a level of remuneration that is competitive on the job market and by fostering quality of life at work and labor relations dialogue.

Orano's Human Resources Policy acts as a framework for all Orano Mining entities, both in France and internationally. Operational entities of Orano Mining apply it in the form of an action plan while ensuring compliance with the regulations in force and international standards.

Orano Mining ensures that its suppliers and subcontractors sign the Group's Code of Ethics and Business Conduct, as well as contractual provisions making the Code of Ethics and Business Conduct an integral part of contractual obligations (For more information, see p.33 )

In addition, Orano's alert system is open to all (employees, suppliers, service providers, customers) so they can report any violation or suspected transgression (For more information, see the ethics chapter, p.24 )

A claim mechanism is also accessible to resolve complaints at the operational level (For more information about the claim mechanism, see p.120 )

## Governance

To respond to the issues in front of us, operational teams are supported by the Human Resources Department, whose director is a member of the Orano Mining Management Committee.

HR teams at central level train, develop and provide their support to HR teams on site: they regularly carry out missions in the field to meet with teams (managers, talents, etc.), conduct participatory safety visits, and give tours allowing for a better understanding of how our facilities operate.

They ensure that HR programs and processes (annual interviews, personnel and salary reviews, etc.) are consistent, make sure that best practices are shared and incorporate all actions into a continuous improvement approach. Dedicated training sessions and seminars are organized on a regular basis to allow local teams to improve their skills.

International HR seminars are thus organized every 18 months or so, bringing together in France human resource teams from various countries. The last seminar took place in November 2022 (the first since the end of the pandemic) in the presence of HR directors and managers from all of our sites. This latest seminar covered several topics; for example: HR master plan results, initial results of the Orano Vox barometer (survey

among employees), and training around a questioning method for recruitment and mobility interviews.

Each entity establishes a human resources management plan adapted to the specific challenges of each site, with an HR team that is present in the field and involved in operational issues. In 2023, in Canada and Kazakhstan, in a very dynamic employment market, teams continued to implement an employee retention plan established in 2022. In Uzbekistan and Mongolia, the focus has been on recruitment to meet the future needs of the subsidiaries.

Finally, in Niger the HR teams continued supporting the reclassification of employees who worked in the COMINAK mine, where production was shut down in 2021.

For more information on COMINAK remediation - social component, see p.79



## Social dialogue, freedom of association and collective bargaining

Discussions are guided by a readiness to listen and consultation, which equally have a key role to play in the smooth running of the company. Staff representative bodies are one of the key categories of stakeholders involved in employee-employer dialogue. Regarding collective bargaining, agreements can be signed with union representatives at Group level, as well as with each of the companies that make up the group, whilst ensuring compliance with the regulations in force. In France, Orano Group agreements have also been signed.

For example, as part of closing the COMINAK site and with support from union representatives and Niger's Administration of Labor, COMINAK implemented a system for its employees that provides for, in addition to the conventional, legal and regulatory system, additional measures for internal and external reclassification along with additional financial compensation.

For more information on COMINAK remediation plan, p.76



Within Orano Mining, 100% of our sites in operation have trade union representation.

The topics covered vary but some such as hygiene, health, safety, remuneration, equality of opportunity, recruitment, quality of life at work are addressed on a systematic basis. Regular discussions are also organized to keep people up-to-date with the latest developments concerning the company, whether via

staff representative bodies (Instances Représentatives du Personnel - IRP) or at informal meetings organized with all of our sites.

Mandatory annual negotiations are organized with the staff representative bodies:

- In France and Niger, 100% of employees are covered by a collective bargaining agreement
- In Canada, workers and other employees are covered by a collective bargaining agreement under the "Canadian Labor Standards Acts". In addition, a three-year collective agreement has been negotiated for the McClean Lake site (June 2022 – May 2025)
- In Central Asia: In Mongolia, an agreement covering all employees has been signed for a period of 2 years (November 2022 - November 2024), while in Kazakhstan, a collective agreement is in place for a period of 3 years (April 2021 - April 2024)



for all employees. And finally, in Uzbekistan, an agreement on work in shift rotation has been in place since 2020

The proportion of employees covered by a collective bargaining agreement is 89% at all our sites.

Employees of Orano Mining Namibia have statutory and contractual benefits. Special committees, made up of members of management and employees, are set up to discuss issues and the effectiveness of pension funds and provident schemes.

A mechanism for the processing of workers' grievances is in place within the company (For more information, see Mining Principle 1.2, p.25 ).

In 2023, no strikes or lock-outs took place on any of Orano Mining's sites worldwide.

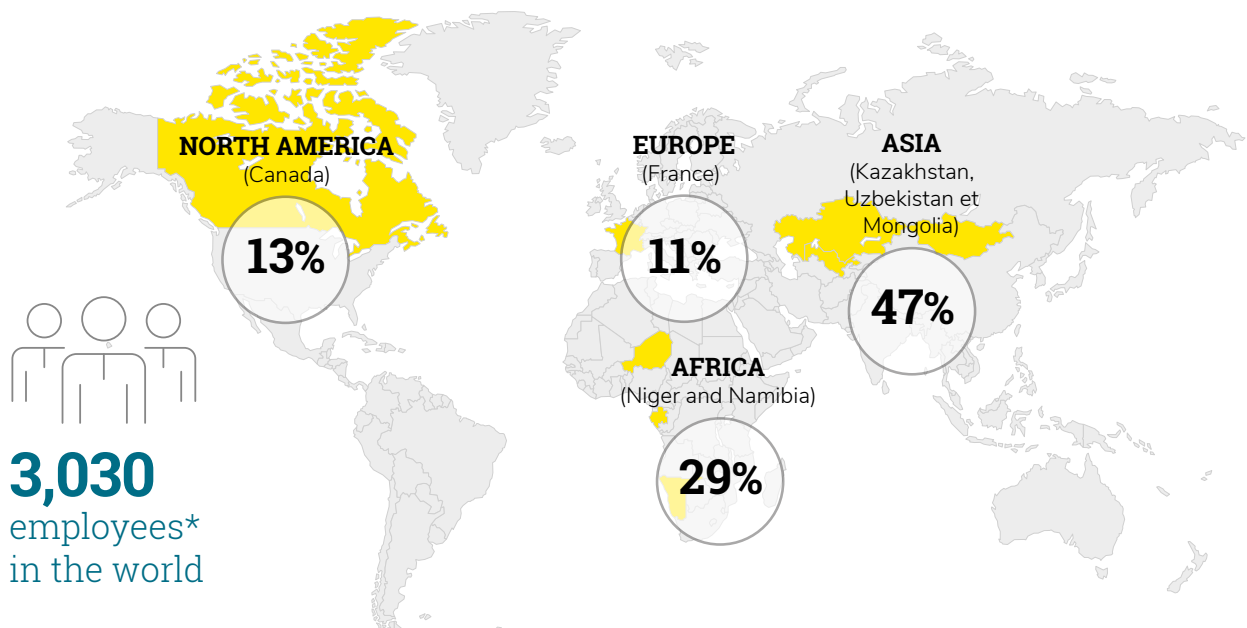
#### Working conditions and decent work

Number of strikes and lock-outs exceeding one week's duration, by country	0
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**Orano Mining has set itself the objective of keeping the level of social conflict as low as possible by 2025.**

Every year, in the main countries where it is based, Orano Mining conducts an annual employee opinion survey - Orano Vox - through an external contractor. This enables the company to gather their opinions and expectations concerning their professional situation and their perception of the company.



\* Including employees with a permanent contract, employees with temporary contracts as well as employees on long term leave. Excluding internship/apprentice contracts



In 2023, of all Orano Mining employees, 80% responded to the survey. The commitment rate measured was 71%. 82% of Orano Mining employees reported that they are proud to work for their company and 74% of them would recommend doing so to their entourage (source: Orano Vox 2023).



## 2023 RESULTS

Maintain a significant rate of employees who recommend Orano (80% minimum)	
Keep the level of social conflict less than 1 week of strike per year per country of operation	

## PRINCIPLE 3.5

Equitably remunerate employees with wages that equal or exceed legal requirements or represent a competitive wage within that job market (whichever is higher) and assign regular and overtime working hours within legally required limits.

Attracting and retaining talented individuals are challenges that we have to meet to enable our employees to develop. It is necessary to strike the right balance to optimize human resources, support employees throughout their professional development and adopt a fair and competitive remuneration policy.

As of December 31, 2023, Orano Mining had 3,030 employees, 94% of whom were on permanent contracts and 6% are temporary contracts.

While the breakdown of the workforce by gender is 16.4% for women and 83.6% for men, it varies significantly from one country to another. In Mongolia and in France, women represent 33% and 39% of the workforce respectively (For more information, see Mining Principle 3.8, p.46 or consult the additional data sheet .

In 2023, Orano Mining and its subsidiaries had a total of 101 interns and 32 work-study students in post over

the year. The Business Unit is covered by an agreement signed at Orano Group level at the end of 2023 aimed at strengthening skills development and training efforts, as well as increasing its attractiveness. The agreement provides for a number of measures to promote work-study schemes, including remuneration above the collectively-agreed thresholds. These measures should help to meet the Group's future needs to develop skills in occupations facing shortages.

## Prioritizing local recruitment

In the countries where we are present, Orano Mining is contributing to the improvement of employment opportunities and to the advancement of social and economic development in local communities.

Orano's social policy expresses a commitment to promoting the local recruitment of employees.

In 2023, 98.3% of our employees on our sites are from the host country; less than 2% are expatriated employees (for more information, see the complementary data sheet .



## Turnover


Orano Mining and its subsidiaries posted a 7.2% turnover rate in 2023, down slightly from 2022 (7.4%).

Turnover at Orano Canada (14.4%) is mainly due to the competitiveness of the local employment market and the new career opportunities available. Turnover in Uzbekistan is also high (20.5%) due to the large number of new hirings in 2023.

For more information, see detailed data sheet

In addition, at all Orano Mining entities, the main subcontractor missions are carried out by local personnel. For example, this includes restaurant services, protection at drilling sites, notably in Central Asia, maintenance and cleaning operations, demolition and construction sites, along with upkeep of green spaces, etc.

## A fair and competitive remuneration policy

The purpose of Orano's remuneration policy, applied within Orano Mining, is to reward the efforts of employees worldwide and also to attract and retain people with skills that are valuable to the Group. It is based on three pillars: remunerate performance, guarantee internal equity, and contribute to Orano's attractiveness on the market for workers and technicians as well as executives and engineers. The general remuneration policy is thus developed at the Group level. However, the policy is applied at the local level based on the specific characteristics of each country (see the Group's report, section 4.4.1, p.129 and 5.2, p.231 )

The majority of employees are covered by legislation guaranteeing minimum pay. Where this is not the case, in particular in Namibia, Orano Mining guarantees a level of remuneration superior to the minimum seen locally.

According to the country and the level of responsibility, remuneration can also include a variable part based on reaching collective and/or individual objectives.

RPV is partially subject to reaching 3 collective objectives. One of them concerns CSR which breaks down into 3 objectives: Carbon, Competencies and Community.

- Reduce the BU's carbon balance (Carbon)
- Balance the distribution of key positions between women and men (Competencies)
- Eco conception of new projects (Community)

In all its subsidiaries, Orano Mining's entry-level salary is higher than the legal minimum.

In Uzbekistan, the figure of 15.66 is attributable to the fact that the Tashkent site (head office) is mainly staffed by managers whose entry-level salaries are higher than the legal minimum.


Internally, fair treatment of employees is ensured by processes of performance assessment (annual interview), conducted by the manager, as well as during the course of people reviews, which bring together managers, HR and compensation managers.

For more information on Orano remuneration policy, chapter 4.4.1, p.129 

For more information on Compensation policy for corporate officers of the Company, see Chapter 5.2, p.231 

Most subsidiaries report ratios showing a greater increase in the median than in the highest compensation. In the case of Canada, despite a ratio of 3.35, it should be noted that the median has increased by 3% between 2022 and 2023.

### Methods to ensure fair and competitive salaries

Orano Mining and its subsidiaries offer fair, market-level salaries by participating in external salary and compensation surveys (outsourced benchmarking) to compare salaries for equivalent positions offered by other companies in the mining and energy sectors. Each subsidiary then defines its own compensation and benefits policy based on the findings gathered (for more information, see detailed data sheet )

## Compliance with legal limits on working hours

All Orano Mining subsidiaries have systems in place to ensure that their employees do not exceed the legal maximum working hours, which vary from 35 to 56 hours a week depending on the country. In the event of overtime, specific compensatory measures, in line with local regulations, are put in place.

In France, Canada, Mongolia and Namibia, employee overtime requests are submitted in advance to managers for approval. All overtime is either paid or recouped.

## Management and development of skills

### Adapting skills to the goals of the sector

Every year, Orano prepares a skills review that covers all the Group's disciplines and trades.

This mapping makes it possible to have a vision of the skills to be maintained and brought on board, as well as to identify professional areas where there may be skills shortages and to report on individual needs. This "Skills 2025" ("Compétences 2025") skills development plan can be broken down into 4 areas:

- The process of skills management
- The recruitment policy

- Training, digitization and transfer of skills
- Development of the pool of experts

Every year, employees have the benefit of an interview conducted to assess their performance and development of skills. During these interviews, their objectives and a development plan for the year to come are established.

In 2023, 77.9% of Orano Mining's employees carried out an annual performance and skills development review, of which 58% via the unique "OPUS" IT tool and 42% on paper, mainly at production sites in Kazakhstan and Canada. Used at Group level, OPUS provides a common, traceable and comparable form, ensuring consistency across all countries.

The performance of workers based in Niger is assessed each month as part of the promotion and advancement process. Employees' training and career development choices are taken into account on request to managers.

## People review

Following these interviews, in all the countries where we are present, meetings between managers and HR are organized every two years to examine the potential and career development prospects of management staff. Action plans make it possible to define training pathways and succession plans for identified "talents" and people in key positions. Action plans and succession plans are reviewed once a year.

Every quarter, "mobility" committees are organized to prepare for future mobility projects. "Major projects" requiring the creation of dedicated teams have their own specific committees.

## Access to training

The training offer is structured around reference pathways and independent modules to meet the expectations of each employee as best as possible and to enhance employees' professional prospects over the long term.

In Kazakhstan, as a result of a new legal requirement to devote 30% of annual training expenditure to a specific, non-employee audience, we have chosen to devote this budget in 2023 to nearly 40 families, children of employees studying or with disabilities.

3,000 training courses are being offered to employees to help them to improve their skills (for more information).

In 2023, Orano Mining recorded a total of 81,702 hours of training at a cost of €1,711,000. Almost 80% of employees received training in 2023, with an average

number of training hours per employee of 29 hours. The number of training hours in 2023 was 35% lower than in 2022, in large part due to the application of a government measure in Kazakhstan, requiring all companies operating in the country to allocate 1/3 of their training budget to workers from outside the company.

On average, women benefited from 1.5 times more expenditure than men (€849 vs. €562), while the average number of hours of training (28 hours) was roughly equal to that of men (29 hours) (for more information, see [detailed data sheet](#) ).

Since 2021, Orano Mining has implemented a mentorship approach. This has resulted in around ten employees undergoing professional development (starting a new position, expatriation, etc.) while receiving support by group mentors, mainly at the level of a business unit management committee. In 2022, this approach was extended to international pairs.



In 2023, the 5th session of the Learning Program took place, bringing together talents from all Orano Mining subsidiaries. Launched in 2018, this week-long training program aims to strengthen participants' knowledge of the entity's activities and projects, meet members of Orano Mining's Board of Directors, and enable them to develop their internal network. These sessions are also an opportunity for participants to develop their intercultural knowledge and skills.

Finally, in addition to internal and external training, Orano Mining offers career transition assistance services. France and the Badrakh Energy subsidiary in Mongolia, for example, offer sabbatical leave with guaranteed return to employment. In addition, in Mongolia, Canada, France, Namibia and Niger (with the exception of COMINAK), assistance with the transition to non-working life, such as training and counselling, is offered to retiring employees.

## SCHOOL OF MANAGEMENT

Orano's Management School ("L'École du Management") offers strategic training programs to develop and support managers in the Group's transformation.

The School encourages the development of skills, as well as simplification and proximity to what is happening in the field. These training sessions are also contributing to build a common managerial culture within Orano in all its entities.

In 2023, the managers of Orano Mining subsidiaries based in Central Asia (Kazakhstan, Mongolia and Uzbekistan) were able to take advantage of a three-day management training course, given in English in Astana, to enable them to strengthen their managerial skills in line with Group standards.

## MINING COLLEGE

The Mining College offers more than thirty training courses in technical areas to employees of Orano Mining and Orano, in France and on our subsidiaries' sites (Canada, Kazakhstan, Mongolia and Niger). These courses are designed and delivered by employees of Orano Mining, and experts and specialists in our activities.

The Mining College supports the maintenance and development of technical skills in our core businesses of mining from exploration to mine closure. It is aimed at engineers, managers and technicians both from technical and support functions.

In 2022, a two-day training module for integrating new hires was created. Organized by the Mining College, this module aims to present Orano Mining's activities and organization.

In 2023, 40 training modules were organized for 347 trainees. One quarter of them took place outside of France.



### 2023 RESULTS

Finalize ISR training and deploy it in at least 1 country



## Expertise

Orano has 800 experts and specialists. A policy is in place to ensure the value of this sector receives due recognition in terms of remuneration and status. In addition to the contribution they make to scientific and

technical excellence, our experts also contribute to the distribution and sharing of knowledge through active participation in networks, mentoring and teaching.

Following the renewal campaign for the expertise sector in 2023, 65 experts and 31 specialists were appointed, up 20% on 2020. The number of women has also risen: 26% in 2023, vs. 21% in 2020. In its subsidiaries, Orano Mining is pursuing its policy of developing expertise, with 44% of experts working in Niger, Kazakhstan, Canada, Mongolia and Uzbekistan.

## Work organization and part-time working

The right to disconnect and to benefit from remote working, flexible hours, and services and advantages for employees is among the actions deployed to promote the best work-life balance, so that everyone can give the best of themselves in an environment that enables them to thrive.

At its various sites in the world, Orano Mining complies with legal provisions with regard to working time.

Various work organizations exist for the group's activities in France. However, all of them result in an annual average of 35 or fewer hours per week, depending on the organization.

In Niger, the main working time is 40 hours per week (8 hours per day, 5 days per week). Shift personnel work according to a cycle of 2 times 9 hours (for mining) or 3 times 8 hours (for the conversion plant).

In Canada, the working time for activities at the headquarters is also 40 hours and 5 days per week. At the mining sites, most of the personnel work by rotating





between two weeks of full-time work involving 11 hours per day, followed by two weeks off from working. In addition, in Canada, management executives benefit from a rotation system known as “Flex,” covering 7 days (4 days on site and 3 days at home) and characterized by flexibility in working days according to operational priorities.

In Kazakhstan, on site, the work rhythm is two weeks full-time, followed by 14 days off.

Employees can choose part-time work; within Orano Mining there are 20 part-time employees in 3 of the countries where we work (France, Canada and Uzbekistan in 2023), including 15 women and 5 men.

## Remote working

The challenges around work organization vary according to the country where Orano Mining is present, and according to the environment in which employees exercise their activity: shift work, rotation system, office work, legislation in force, etc.

In France, Mongolia, Kazakhstan and Canada, support for new working methods, such as remote working, is currently in place to promote work-life balance.

In France, for example, a remote working agreement makes it possible for employees, whose positions are compatible, to benefit from a maximum number of days they can choose to take off annually, up to three days per week.


### PRINCIPLE 3.6

**Respect the rights, interests, aspirations, culture and natural resource-based livelihoods of Indigenous Peoples in project design, development and operation; apply the mitigation hierarchy to address adverse impacts and; deliver sustainable benefits for Indigenous Peoples.**


Orano recognizes a responsibility to Indigenous Peoples in areas in which we have activities and is committed to working in partnership with Indigenous Peoples in the spirit of reconciliation and collaboration. To meet this commitment Orano Canada (OCI) communicates with and provides

**opportunities for two-way sharing of information with Indigenous Peoples and considers all views in order to build consensus. Within OCI, an internal team, itself partly composed of representatives of Indigenous Peoples, is dedicated to dialogue with Indigenous communities.**

From exploration permitting, through licensing and development, then expansion and/or decommissioning, we involve local and elected leaders and community members by offering information, tours, one-on-one meetings and technical presentations.

Orano Canada facilitates access to employment for Indigenous Peoples and favors local suppliers in order to sustainably support the economic development of northern communities, while complying with Orano's Code of Ethics and Business Conduct. In 2023, 37% of Orano Canada's employees self-declared as Indigenous, a figure well above the Canadian industry average of 12%. (cf. Mining principle 9.2, p.119 .

Furthermore, the reported percentage of Indigenous employees working for Orano's long-term contractors (Athabasca Catering LP, Athabasca Basin Security, and Rise Air) comes to more than 82%. We report on our progress to Indigenous Peoples and, more broadly, to our stakeholders.

Since 2020 we also offer a grievance mechanism for transparent dispute resolution to strengthen trust-based relationships with Indigenous Peoples and the sovereign First Nations near our activities (cf. Mining principle 9.3, p.120 .

### PRINCIPLE 3.7

**Work to obtain the free, prior and informed consent of Indigenous Peoples where significant adverse impacts are likely to occur, as a result of relocation, disturbance of lands and territories or of critical cultural heritage, and capture the outcomes of engagement and consent processes in agreements.**

Orano Canada is a partner in the Pinehouse (2012), English River First Nations (2013) and the Ya'thi Néné (2016) Collaboration Agreements and dedicated employees are responsible for monitoring relations with Indigenous Peoples.

Each Collaboration Agreement builds upon the enduring partnership in the development of uranium resources in northern Saskatchewan. They are structured on the five pillars of workforce development, business development, community engagement and environmental stewardship, and community investment.

Through the Collaboration Agreements, various committees and subcommittees have been created. These bring together local representatives appointed by First Nations and industry representatives on a quarterly basis. Although each committee has different responsibilities and mandates, they generally discuss matters related to uranium mining and the community. These matters include environmental protection, health and safety, employment and training opportunities, contracting and business opportunities, and benefits such as wages, scholarships, donations, and sponsorships.

In the cases where Orano's undertakings may have an impact on traditional activities in specific areas, we meet with Indigenous leaders, their communities, and other interested parties to receive their consent and to reach an agreement on how and when we will collaborate with each other, and how the party will be accommodated or compensated.

As an example of dialogue and respect for traditional customs and practices, Orano has, for several years, concluded two agreements with trappers from the Hatchet Lake community, whose activities are located on the McClean Lake perimeter.

In 2023, no cases of violation of the rights of Indigenous People were recorded.



## PRINCIPLE 3.8

**Implement policies and practices to respect the rights and interests of women that reflect gender-informed approaches to work practices and job design, and that protect against all forms of discrimination and harassment, and behaviors that adversely impact on women's successful participation in the workplace.**

### Diversity - equal opportunities

Orano is convinced that diversity is a performance factor, a source of innovation, that diversity enriches exchanges, confronts skills and nourishes reflections. Orano's commitment is recognized by the Diversity Label obtained in 2010 and renewed in April 2023.

The scope of the Diversity Label covers France, but Orano Mining, given its international and multicultural dimension, see itself as a driver for the worldwide expansion of the Diversity policy. After all, it brings together a diverse range of skills from around thirty countries on all continents.


Orano Mining applies the group's policy and our HR teams promote diversity during the course of exercising their functions by taking care to develop employees' skills and career paths in a way that excludes any discrimination related in particular to origin, gender, race, sexual orientation or identity, or even disability.

### Our results

**35% of Orano Mining's workforce in France are women (permanent contracts). We still need to improve the overall numbers of women abroad which now stands at 16.4% in 2023 (+2.4% vs 2022) by ensuring their promotion to all levels of the organization, notably in management committees.**



In 2023, Orano Mining has 2 women out of the 12 members of its Executive Committee, representing 13% of the CODIR. Orano Mining did not reach its objective: +10% women in the TOP 160. Despite women's mobility, the number of employees remained stable



over the period (nearly the same incoming/outgoing employees) (for more information, see detailed data sheet .



## 2023 RESULTS

Every year increase by 10% the proportion of women on the top 160 perimeter	
Maintain a minimum of 95% local recruitment	



### In France, disability is an integral part of our diversity policy

In France, the Orano Group Agreement to promote the employment of people with disabilities for 2021-2023 has set up several actions aimed at strengthening and developing recruitment of people with disabilities, employability and integration into the work group, job retention and associated measures such as training and professional development. The group agreement also includes measures to raise awareness among managers and employees and to develop purchases from the protected and adapted sectors and self-employed disabled contractors. A new agreement was signed in December 2023, for a 4 years period.

In 2023, the rate of employment of people with disabilities within Orano Mining in France was 3.8%.



### Preventing sexual harassment and sexist behavior

In November 2023, Orano Mining carried out an internal Respect@Orano survey of all its employees and subcontractors at its sites worldwide to assess the culture of respect and identify any weak signals in connection with cases of bullying, discrimination, sexual harassment, etc. The participation rate was 46%. The findings will be available and analyzed in early 2024, and will lead to the implementation of action plans where necessary.

Respect@Orano is an integral part of the Group's initiative set in motion more than a year ago, and follows a series of sexism awareness sessions delivered for all Orano Mining Management Committees and a section of our middle management, notably in Kazakhstan in early 2023.

At all Orano Mining sites worldwide, each and every employee and subcontractor must find a safe and healthy environment in which to work, express themselves and develop. Orano's responsibility as an employer requires us to consider and safeguard the physical and mental health of employees in the same way as we do for safety.

### Age diversity

**Maintaining a generational balance within the workforce makes it possible to plan for the renewal of skills and the transfer of knowledge.**

The average age within Orano Mining at December 31, 2023 was 42 years.

### Parental leave

Particular attention is paid in the case of employees taking parental leave where there is such provision in the country.

During their return-from-leave interview, employees may ask for a specific update on their compensation status, professional mobility in relation to the remuneration policy in force within their department during their absence.

Of the 13 women expected to return from parental leave in 2023, 3 returned before the initially planned return date, and 2 left the company at the end of their leave, representing 14 returns and a retention ratio of 108%. The 83% retention rate (78% for women and 83% for men) is explained by the fact that 2 women and 4 men returning from parental leave in 2022 left the company before December 31, 2023.

The population considered includes employees with open-ended contracts, present in the company between January 1, 2023 and December 31, 2023, without interruption, excluding expatriates who benefit from a specific scheme. Remuneration includes base salary, variable portion, allowances, bonuses and premiums. Overtime is excluded from the calculation.

## Employees social benefits

Some subsidiaries offer advantages in addition to those listed in the table above. For example, at KATCO, the number of leave days is above the number of minimum days established by law. In addition, financial aid is made available to eligible employees who request it to pay school fees for their children. Finally, as part of a seniority collective agreement, KATCO pays an allowance in case of marriage, birth or death.



### In France, gender equality index: 87/100 in 2023

The women/men equality index enables assessing differences in remuneration using 100 points.

In 2023, the results for Orano Mining France broke down as follows:

- Women/men remuneration difference: 37/40
- Individual raise distribution difference: 20/20
- Promotion distribution difference: 15/15
- Indicator of percentage of employees who received a raise upon their return from parental leave: 15/15
- Parity among the 10 highest remunerations: 0/10

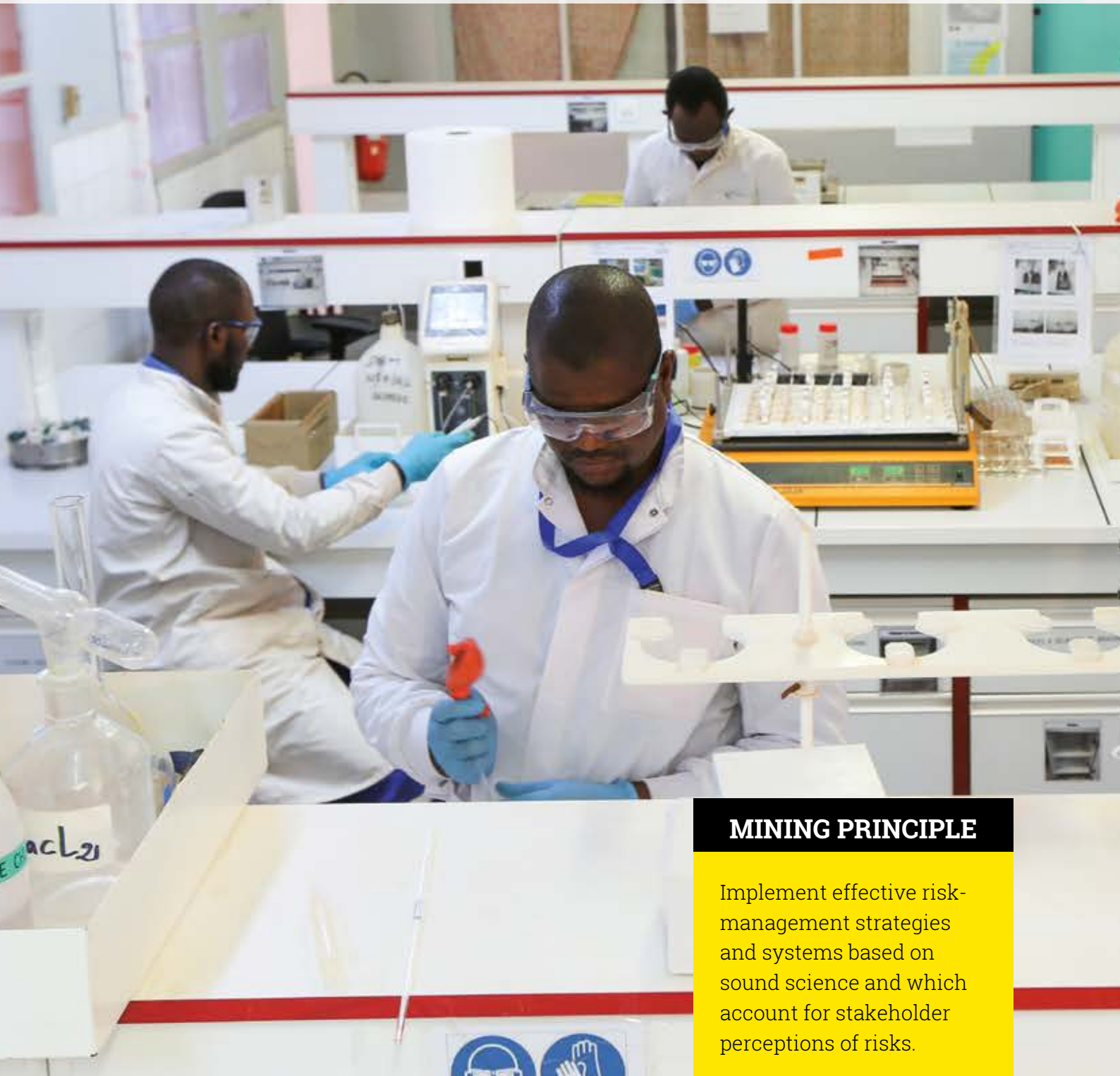
In the firm belief that professional gender diversity is a major asset in the life of the Group and for its development, on May 9, 2023, Orano Group management and its five representative trade unions (CFDT, CFE-CGC, FO, CGT, Unsa), signed an agreement on accelerating gender equality over the period 2023-2027. Its main aim is to further promote women's career development within the company, while closing the residual pay gap that remains between men and women. The text also includes measures to improve the prevention and resolution of harassment in the workplace, and to provide administrative and psychological support for employees undergoing gender reassignment.

For more information, see detailed data sheet





# Risk management



## MINING PRINCIPLE

Implement effective risk-management strategies and systems based on sound science and which account for stakeholder perceptions of risks.

## PRINCIPLE 4.1

Assess the environmental and social risks and opportunities of new projects and of significant changes to existing operations in consultation with the interested and affected stakeholders, and publicly disclose assessment results.

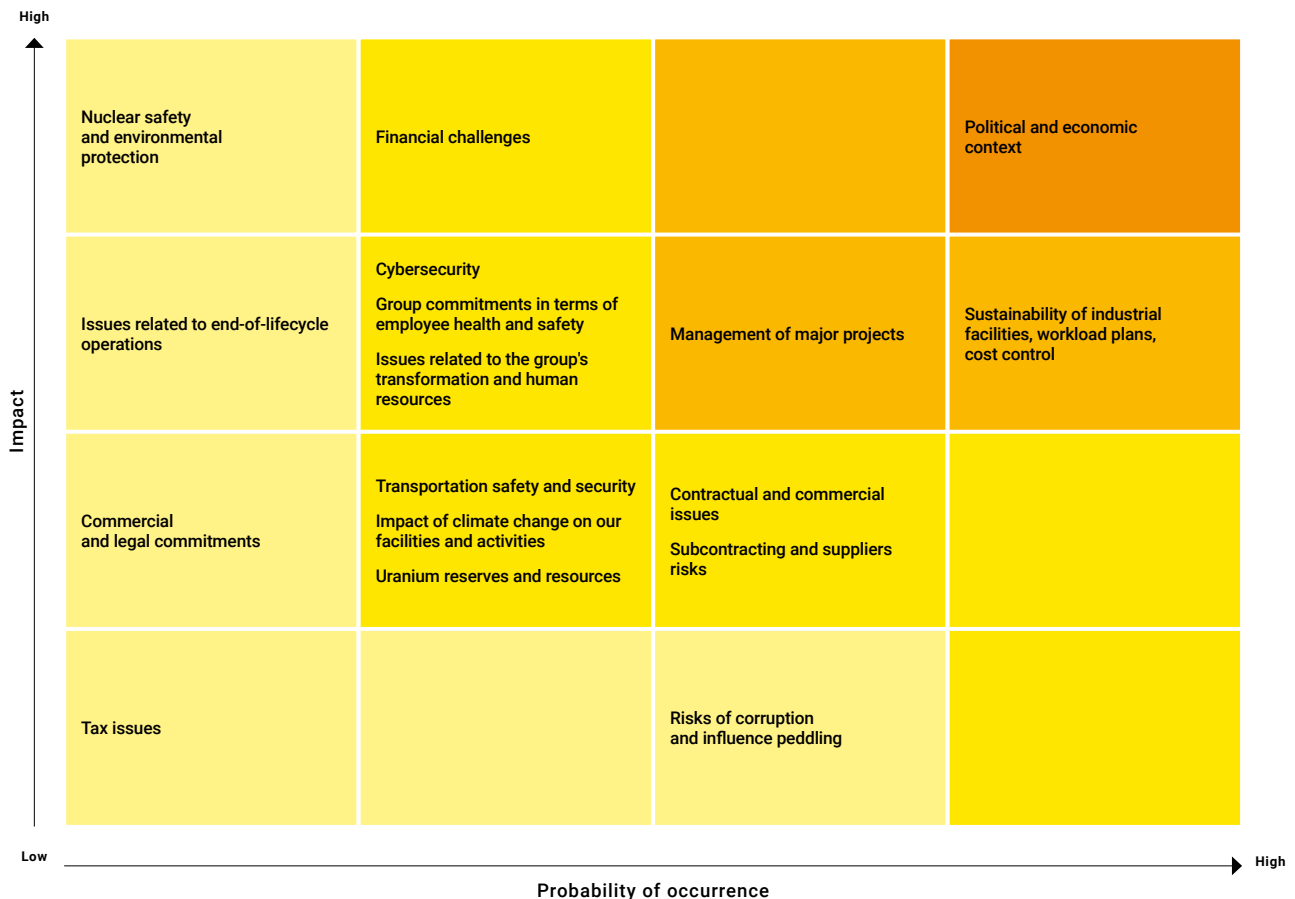
Orano has created a risk management system in keeping with the recommendations of the *Autorité des marchés financiers* (AMF, the French financial market authority), the professional standards of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and the changes in regulations concerning the non-financial performance statement and the corporate duty of vigilance.

Within Orano, a campaign to identify and assess business risks of all kinds is conducted annually using a Business Risk Model (BRM). This is used to adjust and update the action plans put in place to manage the risks.

The BRM lists, within a defined 38 risk families, all foreseeable or unexpected situations or events that could have an impact on the health and safety of the employees, environment, operations, strategy or financial results of the Group, its compliance with current regulations, as well as its reputation and image. The BRM is to be updated on a regular basis with best practices, feedback from experience and regulatory changes.

In all regions where Orano operates, special attention is paid to preventing serious violations of human rights, and to the health and safety of people and the environment, whether in relation to the activities of the parent company or the companies it controls, or activities undertaken by subcontractors or suppliers as part of their contractual relationship with Orano, it is being understood that all these companies are required to comply with local laws.

### Mapping of the main risks




Source : Orano



The annual campaign to identify and assess risks weighs the effect of potential events on the attainment of Orano Mining's strategic and operational goals. Its main objectives are:

- The formal identification of risks of all types
- The characterization of these risks in order to prioritize them
- The establishment and implementation of action plans to control these risks

The list of the Group's risk factors is presented in the Orano annual report (cf. chapter 3, section 3.3, p.66 ). Their order of appearance and the materiality grid below reflect the degree of potential impact that the Orano Group has assigned to its risks.

The duty of vigilance plan, incorporated into the annual risk mapping exercise, is subject to approval by the Board of Directors.

It is drawn up in accordance with the provisions of French Law No. 2017-399 of 27 March 2017 on the duty of care requirements incumbent on parent companies and contracting companies, which transposed into French law the duty of care as defined by international CSR reference frameworks (notably the United Nations Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises).

It is based on various approaches to identifying, reporting and monitoring that have been in place within the group for several years, and contains reasonable duty of vigilance measures.

In order to prevent serious harm to the environment, Orano Mining carries out environmental studies throughout the life of mining and industrial projects.

Environmental impact studies (EIS) are performed for each new mining project and whenever a major modification to our industrial facilities is planned. They meet the regulatory requirements in force, and are submitted for public consultation in order to obtain approval from the local authorities.

The process for conducting and reviewing an impact study is relatively similar under the various applicable regulatory frameworks in the countries where Orano Mining operates.

These studies are used to map the impacts and improve understanding of the associated environment (e.g. biodiversity inventory, socioeconomic status of the region), and identify ahead of time any preventive or mitigating measures to be incorporated into our facilities to reduce risks at the source. These studies also report on the principles of rehabilitation to be deployed at the end of the mine's life, as well as any offset measures and the principles of environmental monitoring of activities.

For example, in 2023, studies were carried out on the Nurlikum Mining site in Uzbekistan as part of the environmental monitoring of the exploration work carried out. These studies are conducted at the beginning, middle and end of the drilling campaign to ensure that the work has no impact. For the launch of the South Djengheldi pilot, an environmental management plan and the associated monitoring program have also been set up.

In Mongolia, the impact assessment process for our Zuuvch Ovoo and Dulan Uul project began in late 2022. It continued through 2023 and should be completed in 2024.

At SOMAÏR in Niger, the impact study for the project to install a photovoltaic power plant has been completed



## INVOLVING AND SHARING OF ENVIRONMENTAL IMPACT STUDIES WITH OUR STAKEHOLDERS

### EXAMPLES

In Niger, a public consultation is held upstream in order to present the impact study project to stakeholders and to gather their opinions and concerns, which will appear in the report. A public hearing is also planned at the end of the impact study in the presence of all stakeholders. As a rule, Niger's National Bureau for Environmental Assessment (BNEE) posts summaries of the impact studies on its website. An announcement of the study may also be published in the Official Journal of the Republic of Niger and indicate where the report can be consulted.

In Canada, stakeholders have many opportunities to contribute to and influence the study throughout the process (before, during, and after the study). The public has an opportunity to intervene during public hearings. The federal environmental assessment office, which is responsible for the environmental assessment process, publishes the final environmental assessment on its website. Orano Canada Inc. also makes the EIS available to the public, if they wish to access it.

and the environmental compliance certificate was issued in January 2023. The impact study for the Grand Artois project (mine extension) was presented at a public hearing in November 2023, and a national assessment workshop was held in December 2023 with the participation of the competent authorities. The latter have submitted observations which are currently being incorporated into an updated study report.

Environmental impact studies (EIS) can also draw on more specific Research & Development work, where relevant, which makes it possible to demonstrate the relevance of remediation solutions over the long term and provide the most suitable ecological offset solutions in the various countries where Orano Mining operates.



For instance, water quality monitoring at the Dulaan Uul and Zuuvch Ovoo pilots in Mongolia has made it possible to study and model the evolution of aquifers after ISR mining, in order to prepare for post-mining remediation. Larger-scale modelling has also been carried out on deposits in Kazakhstan, enabling us to develop tools for predicting the environmental footprint.

## PRINCIPLE 4.2

**Undertake risk-based due diligence on conflict and human rights that aligns with the OECD Due Diligence Guidance on Conflict-Affected and High Risk Areas, when operating in, or sourcing from, a conflict-affected or high-risk area.**

**Orano does not intend to act as an importer of metals as defined in Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017.**

## PRINCIPLE 4.3

**Implement risk-based controls to avoid/prevent, minimise, mitigate and/or remedy physical and psychological health, and environmental impacts to workers, local communities, cultural heritage and the natural environment, based upon a recognised international standard or management system.**

**Nuclear safety is applied across the complete life cycle of facilities, throughout the design, construction, operations, shutdown and decommissioning phases.**

In addition to the Group's Nuclear Safety Charter, the Safety and Environment Policy formally identifies nuclear safety, industrial safety and environmental protection priorities.

This policy has the following objectives:

- Maintain a high level of nuclear safety for our facilities, our products, and our services over the long term
- Strengthen operational discipline and make it, in practice, a matter of a daily concern for operational management and all those involved in conducting operations
- Take into account the priority given to risk prevention and environmental protection in each of the processes that make up our activities

Within Orano Mining, Group requirements are addressed through:

- Prior analysis of industrial risks during the design, construction and operation phases, but also whenever there are significant changes in operating conditions or construction work, by means of studies or ad hoc analyses
- Mapping of major industrial risks encountered on our sites and estimation of the degree to which these risks are controlled via the preventive and protective barriers. Improvement action plans are set up and regularly updated for further risk reduction and continuous improvement of process safety



## A new standard for managing safety and industrial risks

Following several events relating to industrial safety (fire, uncontrolled gas emissions), though without significant impacts on our employees, neighboring residents, or our mining operations, an ambitious action plan was launched for the period 2020-2025 to equip mining sites with a system equivalent to the existing industrial safety management system applied for French high-threshold SEVESO facilities.

In September 2020, Orano Mining published a new industrial safety management standard. Its purpose is to improve and standardize the Process Safety Management at sites and reduce the risk of major accidents.



### LEADERSHIP COMMITMENT

This standard, which will be implemented at McClean Lake in Canada, Katcho in Kazakhstan and SOMAÏR in Niger, describes the requirements regarding the seven elements of a Process Safety Management.

As regards the Bessines site, industrial risks are the subject of particular vigilance in the Hazard Studies carried out for each of its facilities (CIME, U<sub>3</sub>O<sub>8</sub> storage, etc.). These studies are regularly updated in line with the authorities' requests. Regulatory training of employees is assured by centralized management of skills development within the human resources department.

In 2020, the McClean Lake site in Canada, the SOMAÏR site in Niger and the KATCO site in Kazakhstan carried out self-assessments in accordance with the requirements of the industrial safety management standard in order to identify their strengths and areas for improvement.

With the help of the central teams, these sites then drew up their two-year roadmaps and set milestones, in order to consolidate their understanding, strengthen their safety culture and reduce the risks of major accidents.

At the end of 2021, the management committees of the three sites in operation in Niger, Kazakhstan and Canada

were trained in industrial safety management. Progress has been made in reducing the risk of major accidents on site with new risk control measures and concrete actions already implemented. This plan is jointly reviewed every six months by the management of Orano Mining and the HSE Department. In 2022, sessions devoted to industrial safety were held during "safety month", and the Management Committee of Orano Mining (similarly to Orano's Executive Committee) devoted part of its November management seminar to "safety leadership".

In 2023, an industrial risk training module was developed for the Mining College, aimed at Orano Mining managers. An initial training session was held at the Paris headquarters for operations management staff. Deployment of the module will continue to be rolled out at all operational sites.

### Sharing of best practices regarding major incidents or high-potential events.

Events related to industrial risks are regularly monitored and analyzed by the central teams. Whenever an incident or high-potential event occurs, particularly in other industries, feedback is formalized and shared with the dedicated teams. It reminds them of the preventive measures to be implemented and the importance of complying with the management system for industrial safety processes and rules.

At group level, events are fed back via a specific IT application known as "AHEAD". The Orano Group has also developed a severity classification scale for near-events and events, ASSESS, in order to promote operating experience feedback and sharing within the group.

In addition, every quarter, the teams review the progress made and share performance in terms of industrial risks with all Orano Mining employees.

For more information about accidental spills, see Mining principle 6.3, p.91





## 2023 RESULTS

Deploy the Industrial risks roadmap: management of 100% of unacceptable scenarios



### FOCUS

The SOMAÏR site has initiated the process for effectively controlling industrial risk management measures. More specifically, this process involves the implementation of follow-up sheets to ensure, for example, that minimum requirements for safe operation are taken into account, and that maintenance operations are properly prioritized.



## PRINCIPLE 4.4

**Develop, maintain and test emergency response plans. Where risks to external stakeholders are significant, this should be in collaboration with potentially affected stakeholders and consistent with established industry good practice.**

**Within Orano Mining, each operating entity sets up an organization to manage emergency situations.**

Having this organization in each entity provides for strong analytical and decision-making capability so that all necessary measures can be taken in the event of an emergency or crisis situation to make facilities safe, mitigate the impact of the event and communicate information internally and externally. Different levels of drills are conducted on a regular basis to test the effectiveness of this organization, involving external stakeholders such as local and national authorities, the Nuclear Safety Authority, local residents, etc.

We organized more than eighty drills at our sites in 2023 to test the effectiveness of the alert systems and the technical management of accidents and emergency situations. There were no emergencies which involved the headquarters crisis management. Incidents were managed at site level.

Two events led to the activation of the Group's crisis unit:

- On May 11, 2023, further to an alert about a security event in a village located midway between the Malian border and the town of Arlit, the central crisis unit involving local teams and Orano staff was mobilized. Specific measures were put in place to protect personnel and facilities. Following investigations by the Nigerien security forces, the precautionary measures were lifted and the security situation returned to normal.
- The political crisis and embargo that ensued following the military coup in Niger on July 26 led Orano Mining's central crisis unit to be activated. The principal issues and responses from the crisis control center were: maintaining operations in an unstable political context, ensuring the safety of our staff and facilities, and evacuating expatriate staff. A monitoring unit was still active at the end of 2023 to assess the situation on a regular basis.

Training during these exercises prepares Orano Mining staff and other stakeholders to act and to make use of the emergency systems provided. It is also an opportunity to teach all those present within the perimeter of the protected area what to do in the event of an incident.

Responsiveness, the resolution of the incident both technically and operationally, and the management of multiple interfaces are all elements that help to make our business a committed and responsible industrial player.

#### **Different levels of exercise are implemented:**

- Level 1: Local exercises such as fire drills at least once per quarter.
- Level 2: Local exercises with involvement of the subsidiary's general management take place at least every two years.
- Level 3: Local exercises with involvement of the subsidiary's general management and Orano Mining headquarters. Level 3 exercises are performed at least once a year within the Mining BU.



## FOCUS ON THE CRISIS EXERCISE CONDUCTED IN KATCO, KAZAKHSTAN

**On October 24, 2023, a level 3 crisis exercise was conducted at the KATCO site in Kazakhstan.**

The scenario entailed an atmospheric release of ammonia water following a traffic accident involving a supply tanker.



The exercise highlighted a number of strengths and also areas for improvement.

First responders notably demonstrated their ability to react quickly and safely, using the appropriate protective equipment. Evacuation of personnel and the medical intervention for victims were accomplished within a timeframe compatible with the nature of the atmospheric release and the meteorological conditions.

The areas identified for improvement mainly concern coordination between the 3 command posts (the one located on site, the one at the subsidiary's head office and the one at Orano's headquarters).





# Health, Safety and Radiation Protection



## MINING PRINCIPLE

Pursue continual improvement in physical and psychological health and safety performance with the ultimate goal of zero harm.

## PRINCIPLE 5.1

Implement practices aimed at continually improving workplace physical and psychological health and safety, and monitor performance for the elimination of workplace fatalities, serious injuries and prevention of occupational diseases, based upon recognized international standard or management system.

Operating mines involves hazardous activities, which must be identified and managed. Orano Mining employees carry out tasks that may include rock drilling and blasting, the use of heavy machinery or chemical products, work with live equipment, work at height, travel, or exposure to ionizing radiation.

It is Orano Mining's people who make our group strong. Our priority is to protect their health and safety in all the countries where we work. The success of our strategic vision depends on it.

Orano Mining has implemented the Orano Health, Safety and Radiation Protection Policy, with all its actions forming part of a continuous improvement approach.

### Policy and action plan

Orano Mining applies Orano's Health, Safety and Radiation Protection policy with the objective of harmonizing its practices and applying international standards:

- Culture and leadership
- Compliance with fundamentals
- Organization and skills
- Risk prevention

Numerous training and prevention actions are carried out, in order to:

- Guarantee and maintain a high standard of occupational safety
- Prevent severe and fatal accidents
- Work towards zero lost-time occupational accidents and zero impact of our activities on the health and safety of our employees, our subcontractors, our operatives from outside companies, and everyone living in close proximity to our sites

The operational teams and the site's Health, Safety and Environment (HSE) teams are supported by the Health,

Safety, Environment and Remediation Department (DSSER), whose director is a member of the Orano Mining Management Committee.



The Health, Safety and Radiation Protection Policy is implemented by the sites through their management systems, which take into account specific features and regulations in local areas, as well as the requirements of standards ISO 45001 or OHSAS 18001 on the main mining sites of Orano Mining. Operational Health, Safety and Radiation Protection action plans, with measurable results across all our sites, are also drawn up. In line with the Orano Mining Master Plan, they are validated and their progress regularly reviewed with the DSSER teams who provide support, notably during onsite missions.

## Safety

### Our policy

The occupational safety objectives of Orano Mining aim to ensure the prevention and control of all risks related to our activities, for both our employees and our subcontractors.

In practice, this involves:

- Engaging our managers on a day-to-day basis in strengthening the safety culture of our teams
- Deploying applicable safety anchors\* and standards\*\* throughout the Group
- Systematically evaluating risks in all our activities using a common methodology
- Involving all employees in the detection, elimination and control of hazardous and risky situations

- Collecting and exchanging best practices in occupational safety
- Systematically analyzing any events with high severity potential, with the aim of anticipating any accident liable to have serious or fatal consequences
- Sharing the lessons learned from accidents and near-misses with Group entities and our industrial partners



\* The anchors are an integral part of everyone's daily work, applied at all levels with strong involvement from management. They must be complied with to prevent employees and subcontractors from being exposed to severe or fatal risks.

\*\* The standards complement the anchors. They correspond to a rule or best practice, the application of which contributes to risk control and the prevention of accidents.

## Governance

To effectively control our activities and achieve this objective collectively, we follow the guidelines of the Health, Safety and Radiation Protection Policy, which applies to everyone - employees of Orano Mining subsidiaries, subcontractors and visitors.

Within this framework, a new Health, Safety and Radiation Protection governance structure was established in 2023.

It is organized on different levels:

- The Safety Steering Committee (decision-making body), comprising members of Orano Mining's Management Committee, site General Managers, Operations Managers and Orano's

Health, Safety, Environment and Remediation Department (DSSER).

Its role is to prioritize and plan safety actions, and supervise their application, as well as monitor them and ensure continuous improvement in safety results across all sites where Orano Mining operates. A committee meeting was held in mid-2023.

- The "Monthly HSE" meeting organized for each site bringing together the HSE members of the site concerned, to steer the progress of medium-term HSE issues, and share the progress of action plans in relation to objectives and master plans. It is also the forum for submitting issues to DSSER for arbitration, and for sharing HSE support needs. The "Monthly HSE" has been held every two months since October 2023, and follows a set agenda.
- The "Weekly HSE" meeting organized every week with all sites, brings together HSE members from each site to discuss HSE issues and events that have occurred during the week, and to share areas of concern and best practices within the BU and the Group. Since October 2023, each meeting results in the issuance of an immediate report.

In 2023, the following objectives were set and their progress monitored in accordance with the governance arrangements described above:

- Deploy the actions defined by each site for the application of the Orano Mining "Mechanized handling - lifting" standard;
- Establish safety fundamentals for drilling operations to be included in contracts with subcontractors for drilling operations at KATCO;
- Carry out an expert appraisal of LOTO practices at the SOMAIR, Mc Clean, KATCO and Bessines production sites, to further strengthen the embedding of these practices in the Mining BU;
- Educate all employees in the use of Human Performance Tools (HPT's) (in French PFI's), and in the practice of VPM (visual management techniques) by line management, including the Safety Pareto;
- Provide a framework for the analysis of Human and Organizational Factors ("HOF's") for events, with the appointment of HOF correspondents.



### OUR 2023 SAFETY TARGETS – EMPLOYEES AND SUBCONTRACTORS:

- **0 fatal accidents**
- **TF1\* ≤ 1, i.e., no more than 14 lost-time occupational accidents**
- **TF2\*\* ≤ 3.5, i.e., no more than 28 occupational accidents without lost time**

## Our safety results for employees and subcontractors

The total numbers of lost-time accidents (5 accidents) and non-lost-time accidents (12 accidents) have decreased, as shown by the TF1\* and TF2\*\* figures, which are down and in line with objectives.

	2021	2022	2023
<b>Fatal accident</b>	1	2 (1 event 2 victims)	0
<b>TF1*</b>	0,6	0,5	0,3
<b>TF2**</b>	2,2	1,6	1,3

\* TF1: Lost-time accident frequency rate

\*\* TF2: Frequency rate of accidents with and without lost time



### 2023 RESULTS

Aim for a long-term TF1 < or = at 1



Tend to a TF2 < or = to 3.5



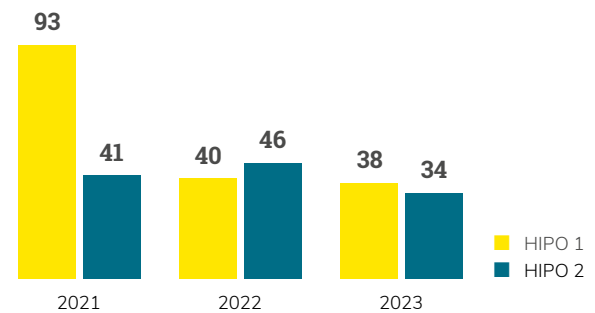
## Identifying accidents with high potential severity

Work to identify deviations on the ground, weak signals, near-misses and high-potential incidents ("HIPO\*\*\*")

continues and is monitored and analyzed in a reporting tool, which is used to categorize and rank these elements.

An analysis of root causes of events with high potential severity is systematically conducted. Action plans and follow-up measures are immediately introduced.

### Monitoring of HIPO 1 and 2



\*\*\* HIPO: A High-Potential incident

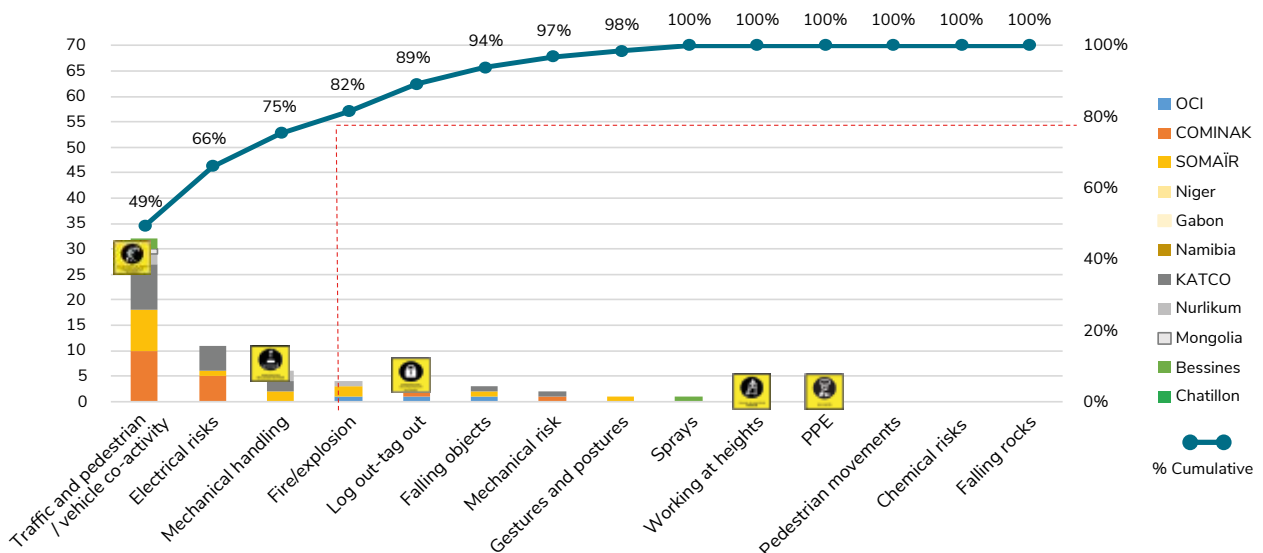
HIPO 1: Could have led to one or more fatal accidents

HIPO 2: Could have led to one or more accidents resulting in lost time and irreversible effects

In 2023, the number of HIPO1 has exceeded that of HIPO2. Action is underway to refine the classification of HIPOs and ensure that by 2024 the number of HIPO1 and HIPO2 is consistent with the Bird pyramid, in order to focus on serious accidents requiring immediate treatment to prevent the occurrence of the serious event.

As shown in the graph below, the distribution of HIPO1 and 2 over 2023 is as follows:

- 49% Traffic and pedestrian/vehicle co-activity
- 16% Electrical risks
- 12% Lock-out
- 8% Mechanized handling



Analysis of 2023 HIPO1 and 2 confirms the preponderance of accident potential due to vehicle-pedestrian traffic and co-activity throughout Orano Mining, justifying the work to be undertaken in 2024 to define minimum requirements for light and heavy vehicles in a standard, including an on-board speed control device (Master Plan 2024).

The predominance of HIPO1 and 2 related to electrical hazards (excavations, presence of electrical cables) can be explained by:

- activities related to COMINAK's dismantling operations. In 2024, the proper application of excavation work permits and the use of appropriate equipment will be verified;
- movement of drilling rigs and the risk of drill masts coming into contact with overhead power cables at KATCO. During the year, it was decided to reinforce the application of the rule relating to the transport of drilling rigs (mast down), and a verification of operational effectiveness is scheduled for 2024.

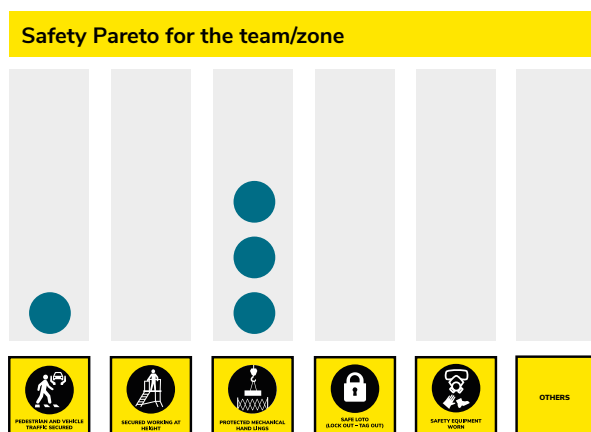
The risks associated with the LOTO anchor were on the rise in 2023, justifying the implementation in 2024 of actions determined following the assessment of the LOTO process at KATCO, Bessines and OCI.

The decrease in HIPO1 and 2 contributed by the "Mechanized handling" anchor in 2023 should continue in 2024 thanks to the implementation of the actions identified following the gap analysis on each site in relation to the BU Mines standard.

## Pareto safety

To identify and process deviations, an additional tool called "Pareto safety" is used during visual performance management (VPM) by the teams to lead their meetings.

**Visual management tool for classifying deviations by category and frequency**



The Pareto principle, also known as the 80/20 law, is based on the observation that 80% of effects are produced by 20% of causes. Based on this principle, the aim is to target risks on which efforts are to be focused (prioritization and efficiency).

The accumulation of reported results highlights the most frequent categories and fosters exchanges between the manager and their team.

The systematic detection of deviations as close to the ground as possible strengthens team engagement and the involvement of each operator. The aim is to improve the prevention of severe and fatal accidents, and the Orano Mining accident figures in general. In 2023, a Pareto maturity self-assessment grid has been proposed to the sites for autonomous deployment, with a view to maintaining the highest level of weak signal reporting and a proactive approach with the teams.

## Health policy

**Orano Mining deploys a health service in all the countries where it works to meet the prerequisites for occupational medicine and healthcare, as well as provide support for medical emergency evacuations for local people and expatriates.**



In the course of our activities, various measures are taken to maintain a high level of occupational health and safety for all employees and subcontractors. Our actions are based on:

- Identifying and assessing risks at workstations
- Medical monitoring
- Preventive healthcare
- Medical care

Employees of our organizations benefit from health services provided by doctors and/or nurses: occupational health, prevention, medical care (injuries, illnesses).

The subcontracted employees who work on our sites are followed up for occupational health by their respective companies, but receive the same care on site, if necessary, as Orano Mining employees.

In case of emergency, employees and subcontractors benefit from the same quality of care (by qualified personnel, with medical equipment that meets international standards), on site or at the hospital if necessary.

## Assessing workstation risks

This is done at each site, and takes into account the risks identified at the workstation, whether these are chemical, physical, biological, ergonomic or psychosocial.

The analysis of these risks allows sites to draw up and implement an action plan incorporating local requirements and regulations, the level of exposure of the personnel to various hazards, and Orano's Health, Safety, Radiation Protection policy.

## Medical monitoring

Occupational medicine at sites complies with the regulations of the relevant country.

For the employees, this comprises:

- A pre-employment medical check-up
- Vaccination monitoring
- First aid training and regular refresher courses
- Periodic medical check-ups in accordance with local regulations

## Preventive healthcare

This takes place through constant health monitoring, regular communications (country health sheets and pathology data, and medical alerts).

Orano Mining applies actions to promote the individual and collective health of its employees in the countries where it works. For example, employees on our international sites receive vaccines that are mandatory according to local legislation and they are also offered additional vaccines related to their activity or the risks specific to the site's location, but also during seasonal epidemics. Public health actions such as awareness raising associated with lifestyle risks (tobacco, alcohol,

drugs, poor diet, etc.) and targeted actions related to risks identified at workstations (noise, chemical products, falls, carrying heavy loads, etc.) are regularly carried out on the sites.

## Occupational health service

Physicians at our sites ensure that periodic medical check-ups are carried out in accordance with local legislation, in coordination with the Human Resources teams.

If pathologies are discovered during these recurring check-ups, the people concerned are offered appropriate, individualized medical care.



## Medical care services and emergency medicine

Each site has its own Health organization based on medical standards. This ensures that every worker can consult a health professional without delay if necessary.

Both the physical and mental health of workers are taken into account at Orano. In 2023, an assessment was made of the arrangements in place at our sites, such as the possibility of benefiting from a listening and support system, screening for stress and anxiety, and training for workers and managers in psychosocial risks. Site-specific action plans will be implemented to reinforce existing provision.

The care pathway is defined via procedures and flow diagrams for medical emergency response plans and medical evacuations (Medical Emergency Response Plan - MERP or equivalent).

Thus, in the event of an illness or accident, employees can receive care on site and, if necessary, be transported to an appropriate hospital facility for further treatment.

## PRINCIPLE 5.2

**Provide workers with training in accordance with their responsibilities for physical and psychological health and safety, and implement health surveillance and risk-based monitoring programs based on occupational exposures.**

### Our main actions

We raise awareness regarding occupational health and safety at all our sites through actions aimed at subcontractors and employees to encourage them to take the initiative.

Awareness-raising campaigns and training modules around health and safety for employees are based on accident experience feedback from Orano Mining and on the Group's regulations and requirements.

Aligned with Orano's policy, they are part of the Orano Mining's Master Plan and the applied safety action plans. Each site adapts the proposed measures and adds to, as necessary, the themes and contents according to its specific subjects.

For example, the analysis of events that have occurred within Orano Mining in recent years shows that most causes have an organizational and human component. This is why our staff receive regular training on HPT's (human performance tools and techniques). In addition, a Human and Organizational Factors (HOF) correspondent was appointed in 2023 at each site to provide support in taking HOF components into account as part of analyses of events (HIPO1, lost-time accidents) and modifications, in order to assess their impact and support change management related to these modifications.

Also, depending on local regulations and site work situations on site, employees are, for example, identified for training on first aid and refresher courses.

Some training modules or awareness-raising campaigns may be designed by Orano Mining's central teams and proposed to various sites for local use and site-oriented and content-specific deployment. The central HSE teams at Orano Mining may thus act as trainers or support staff.

For regulatory or mandatory training modules, the site's dedicated entity supervises their design so that the required renewal or refresher modules are delivered on schedule.

## HEALTH OBSERVATORY IN NIGER

**The Health Observatory of the Region of Agadez (OSRA) was created in 2012 to ensure post-professional monitoring of former SOMAÏR and COMINAK\* employees who might have been exposed to ionizing radiation at work.**



The Health Observatory is a transparent and independent initiative ran on a multi-party basis (involving mining companies, the State and civil society in Niger). If occupational diseases caused by exposure to ionizing radiation were detected, care would be provided by the appropriate national entity or, failing that, by the Health Observatory.

Medical check-ups as part of this post-professional monitoring are organized every two years: they include an appointment with a doctor, and a clinical examination, chest X-ray and blood test. These check-ups are provided by independent physicians assigned to work for the Observatory.

In 2023, 605 check-ups were carried out and represent the sixth phase of post-professional monitoring. They covered the regions of Arlit, Agadez, Tahoua, Niamey and Tillabéri.

In total, since its creation, 6,730 visits and post-professional monitoring check-ups have been performed for former employees of SOMAÏR and COMINAK, and no occupational diseases linked to exposure to ionizing radiation have been reported.

\* After closure of the COMINAK site, former employees continue to benefit from this post-professional monitoring.

In addition, we perform participative safety inspections and share operating experience feedback and best practices through communication actions, which allows us to learn from our successes and our mistakes.

Discussions are organized in the field for employees and subcontractors, and all sites have at least a safety day on each of our sites. This is traditionally held in June and known as Orano's "safety month".

anchors, i.e. rules that save lives in the course of our day-to-day professional activities, are in place and need to be known and complied with by everyone, at all times. Eye-catching posters are used to illustrate occupational safety fundamentals and issues, and form the basis for team discussions, particularly during "Safety days".

In terms of occupational health, the site HSE representatives work closely with the medical and paramedical teams to ensure that the site's medical resources match the identified risks and that prevention actions are conducted in a relevant manner.

Thus, for example, on our SOMAÏR site in Niger, the occupational physician actively monitors workers for hearing problems and makes sure those with the most exposition to noise have suitable hearing protection equipment.



## 2023 RESULTS

Strengthen OSRA's role and missions with stakeholders by taking into account its new governance



# Radiation protection of employees

For the proper conduct of Orano's activities, whether at the Group's facilities or those of its customers, in France and abroad, collective preventive measures are implemented to protect Orano employees and their subcontractors from the risks associated with ionizing radiation. Personnel receive dosimetric monitoring tailored to individual assessments of their exposure to the risks associated with ionizing radiation.

The fundamental principles of radiation protection are observed during operations in radiological environments:

- **Justification of practices:** the use of ionizing radiation can be justified when its benefits are greater than the disadvantages it may bring.
- **Optimization of protection:** the equipment, processes and system for organizing work are designed in order to keep individual and collective exposure as low as reasonably possible, given the technical conditions and economic and societal factors (ALARA principle).
- **Limitation of individual doses:** dose limits that must not be exceeded are set in order to guarantee the absence of deterministic effects, and that the likelihood of stochastic effects appearing remains at an acceptable level given the economic and societal context.

At Orano facilities, measures to reduce exposure to ionizing radiation are incorporated from facility design. These measures aim to maintain an environment that is as "radiologically clean" as possible and protect operators from the ionizing radiation emitted inside facilities.

Protective measures and the level of monitoring of personnel depend on the radiological risks involved. For all workers exposed, the principle of equity is applied. It involves ensuring that individual doses are fairly distributed so as to minimize differences in exposure between workers.



To monitor workers' doses, each Orano Mining site uses an organization or laboratory that certifies its competence through an approval or accreditation, according to the country.

In order to reduce the doses received by workers in controlled areas as much as possible, an in-depth study of the operating conditions and projected doses is performed prior to an operation, leading to measures such as the adaptation of exposure times, the use of protective screens, the integration of the physiological

constraints of personal protective equipment (PPE) and the working environment.

In countries with less stringent legislation, Orano Mining is committed to applying a limit of 20 mSv/yr. (over a rolling 12-month period) for the maximum individual additional dose received by workers exposed to ionizing radiation in its facilities. This is based on ICRP (International Commission on Radiological Protection) recommendations.

Orano Mining remains attentive to doses that exceed the internal alert limit of 14 mSv, in order to ensure that exposure is as low as possible, given the technical conditions, economic factors and the nature of the operation to be carried out, as required by French regulations (ALARA approach). In these situations, a systematic analysis is performed to introduce actions compatible with facility activities, in application of the radiation protection optimization principle.

## IONIZING RADIATION

**Radioactivity is a physical phenomenon related to the structure of material. Certain atoms, such as those of uranium, are unstable and emit ionizing radiation.**

Such radiation is referred to as ionizing radiation as, when it interacts with material, it can result in ionizations, in other words tear away one or more electrons from its atoms.

**French regulations: effective additional dose limit of 20 mSv over a rolling 12-month period**

Over the period of reference\*\*, in 2023, the accumulated dose metrics show that for both Orano Mining employees and subcontractors, the internal alert criterion of 14 mSv for an individual dose over a sliding 12-month period was not reached in 2023, and that annual doses are well below the regulatory limit of 20 mSv.

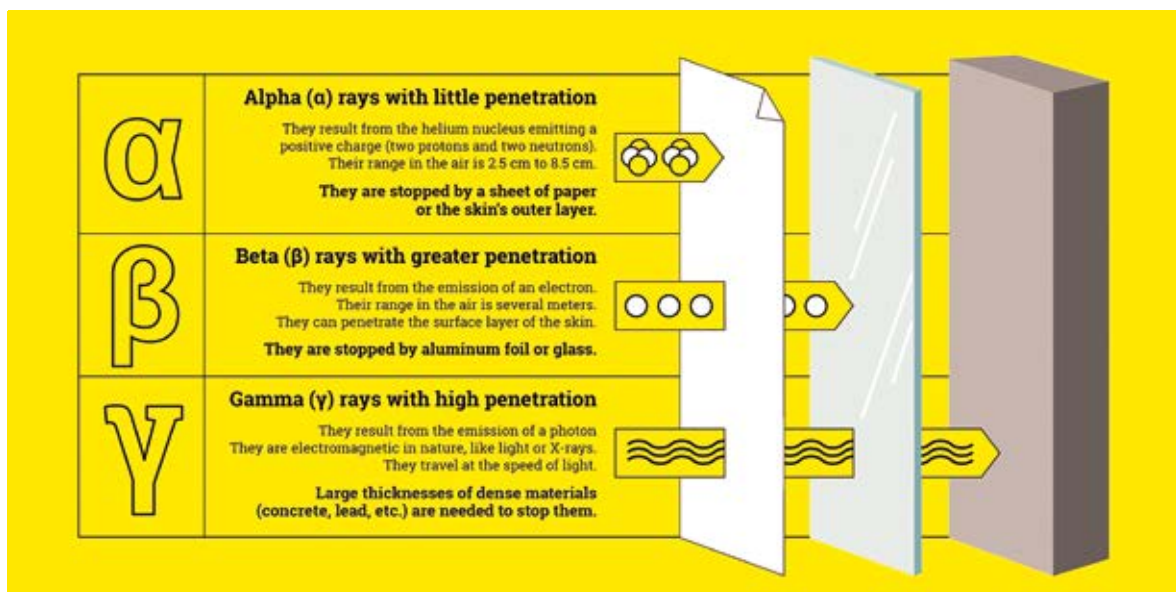
These values are stable compared with the 2022 assessment.

**Our radiation protection results for employees and subcontractors**

	2021	2022	2023
<b>Workers exposed to doses above 20 mSv</b>	0	0	0
<b>Maximum recorded dose (in mSv)*</b>	11.9	8.3	8.2
<b>Average dose of Orano Mining employees</b>	2.1	1.5	1.4
<b>Average subcontractor dose</b>	2.3	1.6	1.9

\* Includes Orano Mining employees and subcontractors

\*\* Reference period of the table data: July of year n-1 – June of year n.





# Environmental performance



## MINING PRINCIPLE

Pursue continuous improvement in environmental performance issues, such as water stewardship, energy use and climate change.

Throughout the life of the mine, the extraction and processing of uranium ore entail a need for raw materials and resources, especially water and energy. Our aim is to optimize our consumption of natural resources and our discharges, find ways to upcycle our waste and protect the ecosystems in which we operate.

**We are convinced that environmental stewardship is key to the acceptability of our activities and our “license to operate” in the countries where we operate.**

Orano Mining is implementing action plans on environmental performance issues such as water management, energy consumption, waste recovery and reduction, and climate change.

## Policy and action plan

Orano's Safety & Environment Policy acts as a framework for all Orano Mining entities, both in France and internationally. As well as ensuring compliance with the regulations in force and international standards, the Orano Mining operational entities apply this Safety & Environment Policy in the form of an action plan to:

- Prevent technological and environmental risks by means of a proactive approach
- Minimize the environmental footprint of their activities
- Improve the management of environmental liabilities
- Coordinate effectively with the Environment and Industrial Risk teams
- Integrate environmental standards at every stage in the mining cycle
- Maintain or implement an environmental management system (ISO 14001 or equivalent)

## Governance

To respond to these issues, the Health, Safety and Environment (HSE) operational teams are supported by the Health, Safety, Environment and Remediation Department (DSSER), whose director is a member of the Orano Mining Management Committee.

At the central level, our teams of specialists train, develop and support our on-site teams and regularly carry out field controls. They ensure that environmental programs are consistent, make sure that best practices are shared and incorporate all actions into a continuous improvement approach.

Each site establishes an environmental management plan adapted to its specific challenges, with an environment team highly focused on field presence and involved in operational issues. The HSE employees are integrated into the operational department teams and provide a link to HSE management, remaining close to teams in the field and being as reactive and proactive as possible.

## Performance measurement

The environmental results of Orano Mining activities are monitored using indicators throughout the life cycle of the mine. These indicators are available in our CSR reports. The environmental management systems at all our production sites have ISO 14001 certification.

The environmental objectives are adjusted according to changes in the mapping of risks, the expectations of stakeholders, internal and external best practices, the results of environmental monitoring and dialogue with operational entities.


Reporting for the various environmental indicators presented in this section is carried out using the Orano Group's dedicated calculation and reporting tool, Tennaxia. Methods used for the calculation of environmental indicators, as well as the associated





procedures, are formally set out in a measurement and reporting protocol. This protocol, which is updated every year, is sent out to everyone involved.

The scope of reporting encompasses all entities for which Orano Mining is the operator.

For this section of the report, by convention and as in previous years, we count 100% of the emissions and consumption at the sites where we operate, regardless of our percentage share or offtake. **The uranium production figure used for calculating the 2023 ratios is 9,040 metric tons** (See *Mining Activities* p.8 )

## Environmental studies

Orano Mining carries out environmental studies throughout the life of mining and industrial projects.

Environmental impact studies (EIS) are performed for each new mining project and whenever a major modification to our industrial facilities is planned. They meet the regulatory requirements in force and are submitted for public consultation before being approved by the local authorities.

The approach for conducting and examining an impact study is similar in the various regulations in force in the countries where Orano Mining operates.

These studies make it possible to identify all possible impacts to better understand the various physical, ecological and socio-economical components of the environment, to assess risks associated with the project and to identify upstream the mitigating measures to incorporate preventively within our facilities to mitigate risks at the source. These studies also report on the principles of remediation to be deployed at the end of the mine's life, as well as any offset measures and the principles of environmental monitoring of activities.

In 2023, studies were conducted at the Nurlikum Mining site in Uzbekistan as part of environmental monitoring of exploration work. These studies are conducted at the beginning, middle and end of the drilling campaign to ensure the absence of impact by the work. As part of the mining project feasibility study, an environmental baseline was initiated (October 2023) on the South Djengeldi license. It will be completed in 2024.

The process of developing the impact study for our Zuuvch Ovoo and Dulan Uul projects in Mongolia was initiated at the end of 2022 and continued throughout 2023. It should be completed in 2024.

At SOMAÏR in Niger, the photovoltaic power plant Environmental and Social Impact Study is now completed

and the environmental certificate of conformity was delivered in January 2023. The impact study for the Grand Artois project (extension of the mine) was presented at a public hearing in November 2023, and a national assessment workshop was held in December 2023 in the presence of competent authorities. The latter made observations which are being incorporated into the update of the study report.

In 2023, the studies conducted by Orano Canada dealt with:

- Trophic transfer of selenium in receiving water bodies potentially affected by effluent discharges; a study initiated in 2018 with the University of Saskatchewan. This study was completed in 2023. The results have been published in peer-reviewed publications and will inform the next Environmental Risks Study. The study concluded that the risk of adverse effects of selenium on aquatic receptor in McClean site was low, allowing validation of Orano's approach to monitoring and modelling selenium risk assessment.
- Assessment of the mitigation potential for Contaminants of Potential Ecological Concern (COPC) in two lakes close to the McClean Lake site, a study initiated in 2021 with the University of Saskatchewan. This study will make it possible to improve understanding of the geochemical characteristics of the receiving environment downstream of tailings storage, while improving the accuracy of the contaminant transport model. The research report is being prepared and will be presented in 2024.
- Soil and vegetation studies for informing the assessment of ecological risks, relative to the potential impact of aqueous discharges in the receiving terrain.
- An update on the presence of historically identified rare plant locations at the McClean Lake and Midwest sites. This study was carried out in June and August 2023 by a qualified botanist. All known historical locations were visited and census searched. In total, 11 rare plants were observed, including one not previously documented in the area. 13 historical rare plant locations were confirmed and 8 others were not (it is unclear whether this is due to changes in vegetation or inaccurate recording of historical data). 6 new rare plant populations were found. No signs of Orano's direct impact on the rare plant populations were observed in any location.

Environmental impact studies (EIS) can also draw on more specific R&D work, where relevant, which makes it possible to demonstrate the relevance of rehabilitation solutions over the long term and provide the most suitable ecological offset solutions in the various countries where Orano works.

For example, monitoring water quality at the Dulaan Uul and Zuuvch Ovoo pilots in Mongolia enabled studying and modeling the change in aquifers after ISR usage to anticipate post-operation remediation. Models on a larger scale were also created for deposits in Kazakhstan and enabled developing tools for predicting the environmental footprint.

## PRINCIPLE 6.1

**Plan and design closures in consultation with relevant authorities and stakeholders concerned, implement measures to address closure-related environmental and social aspects, and make financial provision to enable agreed closure and post-closure commitments to be realized.**

Mining site remediation and management of the post-closure phases of sites are an integral part of the mining cycle. It is our responsibility, as the operator, to limit the impact of former mining sites on the environment and the population.

Orano Mining undertakes to plan and design end-of-life of sites in consultation with the authorities and stakeholders concerned, implement all measures related to respect for the environmental and social challenges and guarantee the financial resources needed to meet commitments made for the closure and remediation of sites.

### Our policy

Mining operations require the development of infrastructures (supply of energy, roads, facilities for the processing of uranium ore, underground and open-pit mines, etc.) which has an impact on the natural environment which has to be assessed, minimized and controlled. In order to anticipate risks, remediation is taken into account right from the exploration and development phases of mining projects. Although some remediation work is carried out while the mine is in operation, and studies are updated throughout the active period, most of the technical work takes place when mining operations cease. The societal and social implications of the closure of a site are taken into account as far upstream as possible in coordination with



the competent authorities and in consultation with all internal and external stakeholders.

Finally, Orano Mining also pays particular attention to reconvert former mining sites to give them a new lease of life. This type of management is essential to maintain the confidence of local communities, authorities and all stakeholders involved. It is key to the long-term acceptability of our activities and our “license to operate” in the communities and in the host countries where we are made welcome.



### 2023 RESULTS

<p><b>Commissioning on the sites of Baconnière (Maine-et-Loire), Écarpière (Loire-Atlantique) and Bernardan 1 (Haute-Vienne)</b></p>	
<p><b>COMINAK: 100% of the 2023 societal commitments undertaken</b> (see dedicated chapter, p.80)</p>	



# The different remediation phases

There are several phases involved in the remediation of a mining site: a study phase, a works phase and a post-works monitoring phase.


## OBJECTIVES OF MINE REMEDIATION



The main objectives of a remediation plan are as follows:

- Ensure long-term stability of structures (dams, underground mine workings, etc.) in terms of public health and safety
- Minimize the residual impact of former activities
- Limit the land surface subject to usage restrictions
- Successfully integrate the site into the landscape of its environment in order to preserve local biodiversity and allow potential reuse of the site depending on the level of easement
- Enable the site to be managed properly from a social and societal perspective in the mine closure phase
- Support the reconversion of the site

All Orano Mining's sites are covered by a specific remediation plan. Since the beginning of its mining activities, Orano Mining has undertaken the dismantling of facilities, as well as the remediation and monitoring of former uranium mining sites in France, Gabon, the United States and Canada.

Orano Mining is currently implementing the remediation and rehabilitation plan for the COMINAK site in Niger, following its closure on March 31, 2021 (See p.76 .

## Studies

The first study consists of defining the remediation strategy best suited to the site by taking into account its specific constraints: location, topography, climate, real estate and regulatory constraints, type of works, requirements from impact studies, environmental

constraints, socio-economic environment, commitments made to different stakeholders (local authorities, residents) and by planning ahead to take into consideration new usages of the land for new agricultural, forestry or artisanal activities, etc.

This involves a detailed inventory of the site before (initial state) and after mining operations, its history, and additional technical studies (hydrogeological, geotechnical, radiological studies, etc.) to prepare a remediation plan and draw up a proposal to be submitted to the Authorities and forming a basis for dialogue with the stakeholders.

Field tests may also be conducted during the operation phase to test out and refine assumptions in the remediation plan.

## Mining remediation works

Safety measures for mining works are determined depending on the nature of the mine and the facilities concerned.


For underground mines, the aim is to ensure the stability of the works and to seal off access to all pit bottom to ground level connecting structures: pits, cross-cuts, ascending and descending shafts. Stability calculations are done for works close to the surface and, depending on their results, reinforcement works may be conducted.

Open-pit mines may be either filled in with available waste rock and tailings or transformed into water features after partial filling-in. Waste rock stockpiles are remodeled and revegetated depending on the local context.

In the case of ISR (in situ recovery) operations, particular attention is paid to the quality of the water table in which the mined deposit is located. In general, regulations require that water quality be restored to a level close to its original level. It is worth noting that the initial quality of these waters (waters that may be naturally saline and radioactive due to the local geological context) is such as to prevent anything other than industrial use. The preferred method is natural attenuation: naturally present or newly-formed minerals "trap" the pollutants by adsorption.

The majority of facilities on the surface are dismantled: processing plants, headframe, loading hoppers, etc. Some buildings (former offices and workshops) may be kept allowing a new activity to be developed on the site.

## Tailings storage

(See Performance chapter 6.3, p.90 .

## DID YOU KNOW?

### 115 kilometers...

This is the total length of fencing installed, monitored and maintained on former French mining sites.

Whether used for security perimeters around areas containing mining hazards, the boundaries of Environmentally Regulated Facilities (ICPE) or the borders of former open-pit mines, this fencing on our former mining sites guarantees the safety of personnel working on site and neighboring residents.

These fences are subject to regular maintenance - vegetation clearance, repairs, improvement and regular checks carried out by our teams to ensure their structural integrity.



## Environmental monitoring

The role of the mining operator is to limit the impact on populations and the environment to a level that is as low as possible and in regulatory compliance and to verify this through systematic and regular monitoring.

This monitoring involves checking the ways in which uranium and its decay products, as well as various other substances related to mining activities, and the local geological context (metals, minerals, etc.), may be transferred at sites and in the surrounding area. The monitoring network established concerns the checking of water (underground and surface water), the atmosphere (dose rate, radon, dust) on site and in its immediate environment, bio-indicators (sediments, aquatic plant life), and the food chain (samples of vegetables, fruits, milk, and fish taken close to sites). If necessary, waters originating from mining works and storage areas are treated to correct one or more of their radiological and chemical characteristics before being released into the surrounding environment.

The results of all these checks allow the added annual effective dose (DEAA) to be assessed annually relative to the local background level (radiological impact) for populations living close to the sites. This dose must be less than 1 mSv/year. Orano Mining applies this principle in all countries where it operates, notably in those where regulations are different or less strict.

### THE FRENCH NATIONAL PLAN FOR THE MANAGEMENT OF RADIOACTIVE MATERIALS AND RADIOACTIVE WASTE APPLIED TO MINING CLOSURE FRANCE

The French national plan for the management of radioactive materials and radioactive waste (Plan National de Gestion des Matières et Déchets Radioactifs - PNGMDR) is a document that assesses existing methods of managing radioactive waste and materials, identifies foreseeable storage and disposal facility requirements and indicates the capacities needed for those facilities and the duration of storage.

It is prepared and updated, every five years, under the supervision of the French Nuclear Safety Authority (Autorité de Sûreté Nucléaire - ASN) and the French General Directorate of Energy and Climate (Direction Générale de l'Énergie et du Climat - DGEC).

Orano Mining has been participating in the PNGMDR since the plan came into existence. Several studies, conducted in response to the proposed program, have been carried out within this framework since the first



of these plans was drawn up in 2007. Our Orano Mining teams actively participate in two work groups focused on water treatment and the stability of tailings storage encircling dike structures. The work group's final report on assessing the resistance of the encircling dike structures for uranium ore tailings storage was published on January 30, 2023. This guide was applied in the context of the Bauzot project.

Orano Mining is committed to continuing its active participation in the work groups concerning it, with a view to ensuring the transparency of its activities. The program is being developed in collaboration with all participants including the French Ministry of the Environment, ASN, IRSN, DREAL and experts.



## EXAMPLES

### **A vision of the long-term future of tailings storage**

Formerly a mining site, Bauzot is now a storage facility for industrial waste and mining tailings. Under the responsibility of the AMF - Mining Closure France Department of Orano Mining, it is checked several times a year to demonstrate the absence of health and environmental impacts.

Varying in height from 1 to 12 meters on sloping ground, the Bauzot storage facility is currently being monitored and maintained. Future hazards such as seismic and climate-related risks must be taken into account as of now to maintain its stability over the very long term.

As a responsible mining company, Orano Mining is therefore anticipating these hazards and started remediation works in 2023. The structure will be improved by reinforcing the cover, reducing the angle of slope around the entire storage facility and creating a system to channel rainwater runoff.

Started in September 2023, the remediation project is expected to be completed in May 2025.

Throughout the operations, Orano Mining employed the services of an ecologist to take the biodiversity of the site into account. As a result, several actions will be implemented to minimize our impact and create an environment on the Bauzot site conducive to the development of local fauna and flora.

On the recommendations of the ecologist, Orano Mining has therefore chosen to modify the different stages of the project and the maintenance of the site.

### **Transparency and dialogue**

As part of its transparency and dialogue policy, Orano Mining organized a consultation process before work started on the storage site: meetings with local residents, presentations to the municipal council and a public information meeting in the town hall of Issy-l'Évêque.

In the latter meeting, residents of the municipality were presented with the history of the site, a description of the storage facility, the former mine and the entire remediation process together with the site monitoring plan. This meeting allowed for constructive dialogue between the different participants.

Following these meetings and in consultation with the municipality, road improvements were made by Orano to improve safety in the village of Issy-l'Évêque where trucks transporting earth will pass through to the Bauzot site. This involved the creation of two road narrowing measures, repair of certain road markings and the installation of two speed indicator devices and mirrors. This equipment will be handed over to the local council once the work is completed.

For more information



## A second life for former mining sites

### Commissioning of the Baconnière photovoltaic power plant (western France).

Located in the municipality of Sèvremoine, formerly Roussay, on the Mauges plateau, the Baconnière site consisted of several open-pit mines and underground mining works operated from 1976 to 1988. Covering an area of 63 ha, the mining works were remediated by filling three of the four pits and retaining water in the remaining one. The underground mining works were made safe, most notably in terms of the ramp and two ascending shafts.

The Baconnière photovoltaic farm, led and financed by the company Neoen and local public-private partnership Mauges Energies, covers an area of almost 14 ha.

With an output of around 13 MWc, the plant powers the equivalent of 5,000 households. Its expected operating life is 30 years.

Two other projects with a total power output of almost 37 MWc will be completed in 2024, in collaboration with the company Neoen, on the sites of Écarpière (Gétigné, western France) and Bessines (southwest-central France). Commissioning is planned for the first half of 2024.

These projects are part of Orano Mining's policy to develop a second life for former mining sites.

## TRANSFER OF THE REMEDIATED CLUFF LAKE SITE TO THE PROVINCE OF SASKATCHEWAN IN CANADA

### Cluff Lake, a former mine remediated by Orano Canada, is the first uranium mine to receive post-remediation authorization of transfer to the province of Saskatchewan.

This decision was made following the Canadian Nuclear Safety Commission's (CNSC) public hearing on March 1, 2023, during which the CNSC approved Orano's application to revoke its license to mine and operate a uranium concentrate mill and to transfer the site to the Province of Saskatchewan under its Institutional Control Program. The transfer will take place at the beginning of 2024.



A monitoring program was deployed, focusing in particular on the quality of groundwater and surface water, and demonstrated the absence of the site's impact on the local population. The fully decommissioned site has been accessible to the public since 2013.

The authorization granted by the CNSC reflects Orano's responsible approach to mining remediation and strengthens our position with a view to obtaining licenses to develop future projects.

#### Cluff Lake

- Site which was mined for 22 years, from 1980 to 2002, located in the Athabasca basin, in the north-west of Saskatchewan province
- Mining by underground mining works (2) and open-pit mines (4), and one ore processing plant
- Production of 28,000 metric tons of uranium and 250 kg of gold
- Main remediation works carried out between 2004 and 2006, in compliance with the conclusions of the impact study completed in 2004 – dismantling of the last facilities in 2014
- Planting of around 500,000 trees and shrubs on the site



# Management of post-mining: **Major challenges of today and tomorrow**



## Planning for the rehabilitation of a mining site in operation for more than 15 years

### EXAMPLE IN KAZAKHSTAN

#### KATCO site

- Creation of joint venture between Orano Mining (51%) and KazAtomProm (49%) in 1996
- 53,300 tU produced in total since 2006
- Mine in operation with production of 2,103 tU in 2023

#### Mine in operation and remediation of the site

- Continuing the R&D program on rehabilitating aquifers by natural attenuation
- In 2021, the remediation estimate was updated to incorporate future operations
- Financing mine closure: progressive development of a liquidation fund



## Planning for the remediation of a mining site in operation for more than 50 years

### EXAMPLE IN NIGER

#### SOMAÏR site

- Open-pit mining of uranium deposits and facilities for ore processing (dynamic and static)
- Cumulative production of 79,610 metric tons of uranium since 1968, with a production of 1,130 tU in 2023
- Planned date of end of operations in 2042

- Updating of the site's remediation study and the associated costs, taking into account the new mining plan in 2023
- Progressive ramp-up of physical uranium disposal facility making it possible to cover the future remediation costs

## Anticipating remediation right from the feasibility study phase

### EXAMPLE IN MONGOLIA

#### Mining project

- Dulaan Uul discovered in 2002 and Zuuvch Ovoo in 2010
- Successful finalization of tests on the pilot (extraction + processing)
- Annual capacity of 2,500 tU/year for 30 years
- Negotiation of the Investment Agreement in progress

#### Remediation plan for the project

- Well field: filling-in of wells, dismantling of the surface facilities and rehabilitation of land
- Industrial facilities: dismantling, demolition and rehabilitation of land
- Water table: restoration by natural mitigation, based on various hydrogeological studies and studies demonstrating the effectiveness of natural mitigation with regard to the aquifers of the areas mined
- Revegetation: plantation of Saxauls (protected local trees) in rehabilitated areas and in neighboring areas as part of an environmental offset project
- Ongoing monitoring of water tables through a network of piezometers





## Conducting monitoring and oversight of remediated sites

### EXAMPLE IN GABON

#### COMUF site

- Deposits in the Haut-Ogooué in Mounana mined from 1958 to 1999
- Open-pit mine and underground mining works with a processing plant
- 7,600,000 metric tons of ore extracted at 3.73 %
- Production of Yellow Cake: 26,600 metric tons

#### Remediation and Monitoring

- Remediation carried out from 1997 to 2004
- Funding the mine's closure via a European fund, SYSMIN (fund to stabilize income from ore product exportation)
- Ensuring environmental monitoring and the safety of the site, which has been closed since 1999

#### Providing a second life for a rehabilitated site

### EXAMPLE IN FRANCE

Successfully remediate the former mining site in an economic context allowing the implementation of new projects.

#### Rehabilitated site of Beaurepaire

The Beaurepaire mining site, rehabilitated since 1991, is currently a photovoltaic farm operated by EDF Renouvelables.



- Located in Vendée (western France) and operated from 1979 to 1980, with remediation completed in 1991
- Open-pit mine
- 420,000 metric tons of extracted ore, 170 metric tons of uranium produced
- Environmental monitoring by the Mining Closure France team
- A passive treatment station for water at the site, with lagooning on limestone drains
- A photovoltaic farm on the former site operated by EDF Renouvelables

Project initiated in 2016 by the town of Beaurepaire, as part of the TEPCV project.

With a surface area of around 12 hectares, it has 14 MWh of power, equivalent to 7,500 households, which corresponds to 300% of the population of Beaurepaire and 25% of the population of the Herbiers federation of towns.



# Closure of the **COMINAK** site



Created on June 12, 1974, the Compagnie Minière d'Akouta (COMINAK) had produced 75,824 tU by end March 2021. Since 1978, it had been mining the Akouta, Akola and Ebba deposits along the western border of the Air mountains in the Agadez region of Niger.



On March 31, 2021, in accordance with the decision made in October 2019 by the COMINAK board of directors, the site stopped its production activities. This decision was taken as a result of exhaustion of resources, the high costs of extraction and the unfavorable context of the uranium market. Since then, the COMINAK mine has launched a global remediation plan.

2023 was marked by geopolitical events (ECOWAS embargo following the coup d'état that took place on July 26 in Niamey) which affected the local economy. Nevertheless, remediation and activities to support the local population continued according to plan.

Major technical milestones have been reached in terms of the ponds and tailings pile.

Noteworthy achievements are the effective launch of market gardening support activities in the 5 municipalities in the Arlit and Iférouane regions and financing of entrepreneurship projects under the economic reconversion program.

## Our commitments

**As part of the remediation project, COMINAK has committed to making the site safe, healthy and non-polluting, in compliance with national regulations and recommendations. It also committed to minimizing the social and societal impact of the mine's closure in the Arlit-Iférouane regions.**

To meet the local issues and expectations identified, a redevelopment plan comprising three components was undertaken:

- **Technical and environmental component:** remediate all the site's source terms;
- **Social component:** support our employees and subcontractors in their career change projects;
- **Societal component:** work to foster a sustainable, long-lasting and useful societal transition for the populations affected.

## Governance

**COMINAK worked closely with national and local authorities, the decentralized administration and local associations to build the remediation program and manage its implementation.**

A multi-stakeholder governance model was set up between the company, government representatives and civil society, making it possible for everyone to work together and stay informed.

### Internal:

- Project team
- External experts
- Control committee

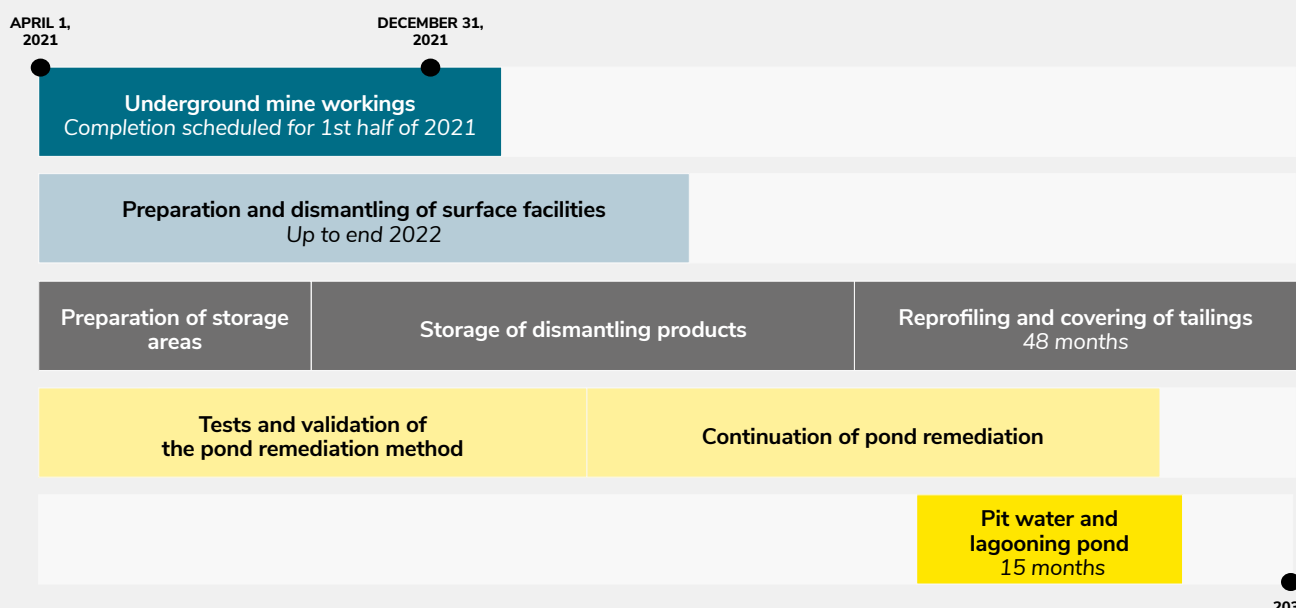
### Mixed (COMINAK + administration):

- Technical committee
- Stakeholders in the administration, elected officials in civil society
- National technical monitoring committee
- Local monitoring committee

### Administrative and political:

- Steering committee
- Nigerian ministry of mining

### Schedule of remediation phases



# Technical and environmental component

All the work aims to ensure long-lasting stability in terms of public health and safety and to reduce the residual impacts and the surface area of the zones subject to use restrictions after remediation.

An ambitious program to use local and national subcontractors and workforce for redevelopment work, with a target of 90% of hours worked by local workforce.

## Monitoring commitments of technical and environmental component

Commitments	Indicators/objectives	Results at the end of 2023
Start redevelopment work as soon as production activities end	03/31/2021	Work continues in accordance with the schedule defined in the APD
Implement a suitable environmental monitoring plan from the start of the remediation project. Monitoring prolonged by an extendable 5 years (if conditions warrant it) after the end of the project	20 inspections/year (water, air and food chain)	The radiological and environmental monitoring plan was maintained in 2023 with more than 20 checks per year
Comply with a total annual added effective dose below or equal to 1 mSv for the public	Less than 1 mSv/year	On 12/31/2023, all checks indicate compliance with limiting to less than 1 mSv
Perform a complete radiological diagnostic on the buildings of the city of Akokan	100% of buildings	As part of the counter plan, 100% of the buildings in Akokan underwent diagnostics in 2021
Treat radiologically marked buildings in Akokan according to the criteria defined as part of the counter plan which received tripartite validation in 2010	100% of buildings	Following the investigation campaigns, 40 locations in total with a projected added dose greater than 0.85 mSv were identified. Eighteen of these locations deemed to be high priority were treated, or 45% of contaminations to date. The treatment of residual contamination is ongoing with an estimated end in 2023
Limit as much as possible the surface areas of marked radiological areas in industrial zones (area work, disposal cells and muck pile remediation)	2 areas with restricted use and access (2 = muck pile and ponds)	Stripping in IZs, reprofiling the muck pile and arranging the disposal zones are underway according to schedule
Guarantee for the mine the stability of remediation works open to the surface		All surface/bottom links have been redeveloped The monitoring procedure for these redeveloped structures is being deployed
Treat and monitor aquifers so that the drinking water supplied to Arlit complies with national and international drinking water standards (WHO)	Zero exceeding of the threshold for drinking water	Zero exceeding of the threshold for the year Aquifers are monitored by water sampling and a network of 150 piezometers installed at the site and in the surrounding area
Implement an ambitious program to use subcontracting and local and national labor for remediation works across the entire project by 2032	90% of worked hours are carried out by local subcontractors	At the end of 2023, almost 100% of hours for all work were carried out by local subcontractors



# Social component

*The social strategy for COMINAK closure aims to minimize the social impact of shutting down production activities and to ensure fair and equitable treatment of all employees.*

The union representatives and the Niger work administration signed a social agreement on November 25, 2020.

This agreement guarantees the fair application of the measures agreed on.

With the support of the union representatives and the Niger work administration, COMINAK set up a system for its employees that provides for additional measures for internal and external reclassification, additional financial compensation, and health insurance for five years.

## Reclassification unit

Consisting of dedicated professionals, the reclassification unit, a unique system in Niger set up by COMINAK, provides for various career change possibilities. Its objective is to support employees in their professional reclassification projects and procedures.

### Monitoring commitments of social component

Commitments	Indicators/objectives	Results at the end of 2023
Advise each employee concerning career change		
Set up support measures adapted to each employee	90% of solutions implemented for all former employees	The reclassification rate was 87.5% at the start of 2023. The residual workforce continues to adapt as the work progresses
Support employees and subcontractors in eligible and viable entrepreneurial projects		
Ensure former employees exposed to ionizing radiation have free post-professional medical monitoring through OSRA (health observatory of the Agadez region)	COMINAK's OSRA budget maintained	100% of former COMINAK employees who have been at a workstation exposed to ionizing radiation are integrated into the OSRA system

## Subcontractors

To go further in reducing the impacts on its subcontractors of ending its activities, COMINAK has voluntarily initiated concrete actions for its subcontractors:

- **Financial contribution:**  
At end of the worksite, COMINAK made a contribution to subcontractor employees. The amount of this contribution (323 Million CFA francs) corresponds to the legal rights in case of termination caused by the employer. This end-of-worksite contribution is exclusively reserved for employees of companies with an effective contract with COMINAK and who have a permanent work contract with these companies as of December 31, 2020. The agreement validating this component was signed on April 21, 2021
  - **The check was given to the prefect of the Arlit region on May 14, 2021**
- **Training for career change:**  
The objective is to provide access to training for obtaining B, C, D or E driver's licenses and access to training for office work:
  - IT training (60 people) and driver's license training (120 people) underway since the month of May 2021

# Societal component

*The objective of the societal component is to take into account and minimize the impacts of the closure on the community by ensuring a sustainable transfer adapted to the needs of local populations.*

An official consultation with all local and national stakeholders as part of the remediation project, conducted in 2019, made it possible to map the societal impacts of the closure and develop the progressive societal transition plan that has been deployed now for several years.

## Societal transition plan

The societal transition plan includes several elements: economic, health and education support and transfer of infrastructure.

The main actions are:

- Transferring critical infrastructure to the Nigerian government:
  - Since 2021, the COMINAK mining town has been transferred to the Ministry in charge of Urban Planning and Housing. The final part of the housing currently occupied by COMINAK personnel working on the remediation project will be transferred at the end of the project
  - Transferring water and electricity systems to the national companies NIGELEC, SPEN and SEEN
  - Progressively (over 5 years) transferring the COMINAK hospital to the Nigerian ministry in charge of public health
- Continuation over several years after the closure of financial support to cultural associations within the framework of the CBO;
- Support for the local education system with a large school scholarship program.

## Entrepreneurial program

COMINAK, through its partner Maison de l'Entreprise, a recognized expert at the national level, initiated in December 2020 a call for entrepreneurial projects among COMINAK employees, inhabitants of Akokan, subcontractors, suppliers and promoters in the Arlit and Iférouane regions.

Following the selection process, 56 projects were chosen out of 1,300 candidates. The selected projects cover a wide range of sectors of activity and reflect the

major priorities of the regional development policy in Arlit and Iférouane.

The beneficiaries were supported from a "technical" point of view by the Maison de l'Entreprise: help with setting up the business plan, business management, help with putting together the bank loan and management file. Of the 56 projects selected, 49 were ultimately successful; and 7 people did not complete the project. The entrepreneurship project created 240 direct jobs.

- 30% of winners are projects led by COMINAK employees
- 20% are COMINAK subcontractors
- The number of subcontractor applications selected is two times greater than the company's commitment
- 80% of projects are located in the Agadez region. The projects outside Agadez are led by COMINAK employees
- Women lead 20% of the projects

## Economic reversion project

Mitigating the socio-economic impacts that ending activities could have is one of COMINAK's main commitments.

COMINAK has put in place financial support amounting to 4 billion CFAF for the economic reversion/revitalization of the departments of Arlit and Iférouane. This involves contributing financially to the emergence and implementation of structuring projects for the economic revitalization of these two departments directly economically impacted by the closure of COMINAK.

Based on the impact mapping carried out by COMINAK and the conclusions of studies conducted by the Nigerian government, notably the impact study funded by the GOLD project, the prefects of the Arlit and Iférouane departments, accompanied by the 5 mayors of the towns, completed a process in July 2022 to prioritize the 20 projects submitted for the call for structural projects launched in April by COMINAK.



The market gardening sector was identified as revenue-generating. The economic reconversion steering committee, which brings together representatives of COMINAK, Orano and the Nigerien Ministry of Mining, validated this prioritization and decided to allocate 90% of the budget for economic reconversion to market gardening. The remaining 10% will be attributed via the pre-selection of the prefectorial committee to some micro-projects.

The first step of this program consists in upgrading the 9 pilot market gardening sites selected by the 5 towns, on a 500 ha perimeter. In 2023, 7 km of Californian network - drip irrigation system - and 111 new wells were drilled to promote water distribution and irrigation of plots. 123 solar kits (pumps and panels) were also installed. In 2024, an additional 500 ha will be developed with the parallel implementation of training on improving agricultural techniques for producers.



The second stage of the program, which will begin in 2024, will concern the financing of micro-projects which will be proposed by the 5 municipalities. Their objective will be to promote local development (crafts, commerce, livestock, etc.) as well as the creation of income-generating activities.



## FOCUS ON SETTING UP SCHOLARSHIPS

**The field of education through support for the school system is one of the major axes of COMINAK's societal transition plan in connection with its commitment to local development. The aim is to maintain and strengthen the quality of Arlit's teaching.**

From the beginning of September 2021 and for a period of 5 years, a scholarship program has been set up for students and high school students in the departments of Arlit and Iférouâne. Four students were selected in September 2021 and 6 in 2022. They will be supported throughout their higher education studies.

In 2023, 5 new scholarship holders (3 girls and 2 boys) were selected, bringing to 15 the number of program beneficiaries who will be supported throughout their higher education.

**165 million CFAF** will be allocated for all aspects of the school education program

An agreement was signed in August 2021 between COMINAK and the Nigerien agency for awarding scholarships (ANAB), representing the Nigerien ministry for higher education. The agreement covers a period of 10 years.

The study areas were chosen to meet the qualification needs in the regions of Arlit and Iférouâne. The double

goal is to help young people in these regions succeed and encourage training in technical and social fields.

To access the program, students must meet the following selection criteria:

- Be a student in one of the establishments in the Arlit or Iférouâne departments
- Hold a general secondary school diploma with a grade of "satisfactory" or above
- Hold a primary school diploma (BEPC) with a minimum grade of "satisfactory"
- Have the best school orientation average as defined by the Nigerien Ministry of Secondary and Tertiary Education, Research and Technology
- Select one of the training programs defined in the agreement:
  - Agriculture/animal husbandry
  - Environment/waste management
  - Healthcare
  - Energy/renewable energies

## Monitoring of commitments of societal component

Commitments	Indicators/objectives	Results at the end of 2023
<b>Involve local stakeholders in the decision-making process upstream of closure and in monitoring the site remediation work</b>	<ul style="list-style-type: none"> <li>- 1 CLI (local information committee)/year</li> <li>- 2 visits of local and national monitoring committees/year</li> </ul>	<ul style="list-style-type: none"> <li>- 1 visit by the national monitoring committee</li> <li>- 9 visits by the local committee</li> <li>- 6 visits by Arlit's Prefecture</li> <li>- 22 visits by the Departmental Division of Mines</li> </ul>
<b>Support the process of continuous and transparent communication</b>	<ul style="list-style-type: none"> <li>- 3 newsletters/year</li> <li>- Dedicated Internet site created</li> </ul>	<ul style="list-style-type: none"> <li>- 2 press visits</li> <li>- Update of the website</li> <li>- TV and radio</li> <li>- CSR report</li> </ul>
<b>Transfer of drinking water system of the compound</b> Transfer the drinking water system of the mining compound to companies in charge of treating and distributing water in Niger	07/31/2021	As of 12/31/22, 100% of housing in the compound had been transferred to companies in charge of water distribution in Niger (SEEN)
<b>Transfer of electrical system of the compound</b> Transfer the electrical systems of the mining compound to companies in charge of electricity distribution in Niger	07/31/2021	As of 12/31/22, 100% of housing in the compound has been transferred to companies in charge of electricity distribution in Niger (NIGELEC)
<b>Administrative transfer of the COMINAK hospital</b> Transfer the COMINAK hospital to the government over 3 to 5 years and ensure support for 5 additional years	07/31/2021	Continued training of civil service medical personnel by COMINAK teams over 3 to 5 years
<b>Transfer the housing and common areas of the mining town to the State</b>	Transfer agreement signed on 01/20/2021	100% of housing not used as part of the remediation project were transferred to the Nigerian government in compliance with the agreement signed with it and validated by the ministry in charge of urban planning and housing. Dilapidated housing presenting an immediate danger was demolished
<b>Limit socio-economic and environmental impacts and participate in developing economic conversion and development projects</b>	<ul style="list-style-type: none"> <li>- Report on the socio-economic impacts of COMINAK's closure and the economic reconversion conducted by the government via the Gold project</li> <li>- Support structural projects in the region of Arlit and Iférouane in the amount of CFAF 4 billion</li> </ul>	<ul style="list-style-type: none"> <li>- Launch of the market gardening project to the tune of CFAF 3 billion</li> <li>- Launch of a micro-project selection study (CFAF 400 million)</li> <li>- Launch of a project study of agricultural processing units</li> </ul>
<b>Support the maintenance and, if possible, the development of market gardening activities in the city of Akokan</b>	3 wells transferred on 12/31/2022	<ul style="list-style-type: none"> <li>- 5 wells transferred to market gardeners</li> <li>- 5 storage tanks</li> <li>- 5 solar installations with a capacity of 155 kW</li> </ul>



Commitments	Indicators/objectives	Results at the end of 2023
<p><b>Promote career change for people economically impacted by the closure via support for entrepreneurship</b></p>	<ul style="list-style-type: none"> <li>- Selection and aid for funding 50 entrepreneurial projects</li> <li>- Establishment of the Chamber of Commerce</li> </ul>	<ul style="list-style-type: none"> <li>- 49 subsidized projects or 240 direct jobs</li> <li>- Disbursement of funds according to the planned schedule</li> <li>- 7 files were unsuccessful (abandonment and documentation not provided)</li> </ul>

# Communication and transparency

In addition to governance bodies, COMINAK has set up various communication media accessible to all, and workshops and thematic meetings to promote exchange and make sure information is understood and shared with local communities.

- Dedicated Internet site
- Information newsletters
- Publi-reports

[Visit the website](#)



## Information office in Akokan

An information office in the urban area of Akokan was opened in 2020 to respond to the questions of local stakeholders and populations. It can host around twenty people in the hall, a place for holding meetings. The office is also used for all COMINAK’s societal activities (meeting with representatives of the population and other ways of providing support to the populations). This office will remain operational throughout the remediation period.

## PRINCIPLE 6.2

**Implement water stewardship practices that provide for strong and transparent water governance, effective and efficient management of water at operations, and collaboration with stakeholders at a catchment level to achieve responsible and sustainable water use.**

# Water

**A precious natural resource, water is essential to the well-being of the communities and environment where Orano Mining operates, as well as to the smooth running of its mining operations.**

Mining activities can have a significant impact on water resources, not only in terms of quantity, but also potentially on their quality.

In order to preserve this resource, the question of water is a subject of constant attention at Orano Mining.

## Policy

As a member of the ICMM (International Council on Mining and Metals), Orano Mining endeavors to implement the requirements listed in the ICMM principles regarding the management of water resources in terms of performance, namely the application of strong, transparent governance and effective management that enables collaboration with stakeholders in order to achieve responsible and sustainable shared use of the resource.

## Our interaction with water

Orano Mining sites use water for their operations, not only for operational needs but also for workers and the use of surrounding populations, as in Niger.

On all Orano Mining sites, the processing of uranium ore is carried out by wet process, which requires a water supply. Groundwater pumping is essential to allow access to the deposits in the open-pit and underground mines in Niger. At ISR (In Situ Recovery) sites, like those

in Kazakhstan, pumping allows to recover dissolved uranium. In addition, water is also used at sites for dust suppression, thereby limiting as much as possible physical, chemical and radiological impacts on the environment and workers.

Last but not least, Orano Mining is committed to providing access to good quality drinking water and appropriate sanitary facilities to all of its employees, but also to their families living close to operating sites.

On all Orano Mining sites, the main mining activities consuming water are:

- Extraction and processing of ore by wet process, via static or dynamic leaching
- Evaporation from production or effluent storage ponds
- Steam production for facilities heating or ore treatment
- Dust control
- Production of drinking and/or sanitary water



The water used for our industrial and mining processes comes from various sources depending on the site: surface water (lakes, rivers, the sea, etc.), groundwater (aquifers), mine drainage water and recycled industrial water. Depending on their needs, sites are likely to use water of three quality levels: drinking water, sanitary water and industrial water. These categories are set in accordance with the regulations and recommendations in force (national, regional or WHO – World Health Organization – regulations) or, failing that, according to their use.

Depending on the location of sites, the classification (natural quality) of the aquifers does not always allow for the natural supply of drinking water. For such sites like in



KATCO (Kazakhstan), Nurlikum Mining (Uzbekistan) and Badrakh Energy (Mongolia), bottled water is provided to employees for drinking water usage.

## Discharges into the environment

At the SOMAÏR site in Niger, effluents produced during ore processing are stored in evaporation ponds and are therefore not discharged into the environment. Only part of the site's domestic wastewater is discharged by the site: this domestic wastewater is treated by filtration and lagooning, and then transferred to market gardeners in the urban area of Arlit for watering crops.

In Kazakhstan, the ISR mining process used by KATCO involves the management of solutions in a closed loop. Effluents do not exist as such: upon leaving the plant, the uranium-free leaching solution is reinjected into the mineralized aquifer and reintegrates the mining process. Domestic wastewater from the site is subjected to biological treatment followed by lagooning and then left to evaporate in dedicated ponds. The KATCO site therefore discharges no effluents into the environment.

At sites where aqueous discharges into the environment occur (former mining sites in France in McClean Lake site in Canada), in addition to rigorous monitoring of water quality, regular internal and third-party studies are carried out to prove that the quantity and quality of aquatic ecosystems are not affected by the activities. These discharges are made in compliance with the regulatory requirements applicable to our sites.


The effluents, receiving bodies of water and receiving ecosystems are subject to dedicated and regular measurement, sampling, and chemical and ecological monitoring, which is reported to the authorities and checked on a regular basis.

At McClean Lake, in Canada, all the effluents are treated by a dedicated unit prior to discharge. Effluents are discharged into the natural environment in batches, ensuring compliance with discharge standards and that their compatibility with the natural environment is checked in advance. Based on environmental modelling studies approved by the authorities, McClean Lake teams have been working since 2021 to optimize tailings and effluent treatment before discharge in response to the trend of increasing arsenic levels in the ore to be treated.

In France, water is also of key importance, and is at the core of the monitoring of former sites and installations. Meteoric water that runs off the surface of rehabilitated sites can be drained, collected and discharged directly into the natural environment unlike waters collected from some decommissioned mine works and/or mine tailings

storage areas at our Environmentally Regulated Facilities (ICPE), for example.

After passing through our water treatment stations, this water is checked and discharged into the natural environment in accordance with the standards imposed by prefectural order.

The AMF teams in France (Mining Closure France), working in collaboration with the Center for Innovation in Extractive Metallurgy (Centre d'Innovation de Métallurgie Extractive - CIME) at Bessines-sur-Gartempe, are conducting numerous studies on how to optimize mining water treatment stations by using fewer chemical reagents, notably thanks to passive filtration systems. These systems make it possible to simultaneously reduce the energy footprint of water treatment stations and minimize the use of chemical reagents, while maintaining treatment effectiveness, which protects the receiving ecosystems (cf. example *Mining principle 6.1*, p.68 .

## Risks and opportunities

The management of water resources is an even bigger challenge given that, out of all our sites, seven are located in arid or desert areas (Niger (three sites), Kazakhstan, Mongolia, Namibia and Uzbekistan).

In this context, with what can be locally decisive issues regarding how this resource is shared, and in areas where climate change risks having major consequences on the environmental and societal balance, the challenges and opportunities associated with water management must be assessed and anticipated.

In Namibia, the Erongo desalination plant operated by Orano Mining Namibia makes it possible for the Trekkopje mining site and local communities to have drinking water produced from sea water, without drawing on the groundwater, a fragile resource. The discharges are to the sea and only consist of brine, which does not impact the underground resource and has a very limited impact on the receiving marine ecosystem. In 2023, production in the desalination plant was increased to meet the demand of communities for drinking water. The plant is ready to support the emerging green hydrogen industry in Namibia.

In Niger, the populations around the SOMAÏR and COMINAK sites are supplied by the network of water operators in Niger (SEEN), which draws on the groundwater of Teloua and Tarat. The Tarat groundwater is also used by the sites to supply drinking water to industrial zones and the urban area of Arlit via dedicated pumping wells. From a chemical and radiological as well as a quantitative viewpoint, groundwater is monitored by dedicated teams and the results are presented to local information committees (CLI), caravans and information meetings organized in the different districts of Arlit and the surrounding area.

To limit withdrawals from these fossil groundwaters, some effluents from treated domestic wastewater are recovered with local communities for watering market gardens.

When the COMINAK site was closed, wells supplying drinking water formerly operated by the mine were transferred to the market gardeners to make up for the lack of treated wastewater for watering the crops due to the end of operations. These pumping wells are electrically supplied using solar panels. Local communities now have additional wells to support their activities over the long term (for more information, see the detailed data sheet [📄](#)).

## Water resource challenges at our sites, summary of material water risks

78% of our sites are at high water risks.

In this context, and regardless of the site, preserving water resource mainly involves maintaining its quality, and, by extension, protecting related ecosystems.

Thus, the main stakes regarding water management for Orano Mining are therefore, in both the short and long term:

- For countries in desert areas with “traditional” mining operations, preservation of the resource in terms of quantity and quality
- For countries in desert areas with ISR mining operations, preservation of the quality of the groundwater outside of the mining licenses
- For countries in low water risk areas, where discharges are made into the environment, preservation of the quality of the water and receiving ecosystems



At the end of 2021, Orano launched a study on the vulnerability of its activities relative to climate change. Our mining sites in operation were thus assessed by a firm specialized in this area. Specific issues for each climate area were identified using IPCC models (scenario RCP 8.5) with 2050 as the target date. In 2023, this study was extended to mining sites in the project phase, still with a 2050 target date, in accordance with the SSP1 (2.6), SSP2 (4.5) and SSP5 (8.5) models.

In Niger, the high identified stakes relate to the intensity of weather events and the increase in average and extreme temperatures, which could lead to higher stress on the drinking water resource. In Kazakhstan, the main issue identified is the increase in the number of high heat days, which could increase drinking water needs. In northern Saskatchewan, no major water issues were identified by this assessment.

This study made it possible to propose adaptation actions, considered necessary in the short, medium or long terms, to respond to the identified vulnerabilities. These adaptation plans will be reviewed and strengthened by the site teams during 2024. For projects, this study will allow appropriate sizing of future installations and good anticipation of future climate risks during the design and construction phases.

## Water management plans: engaging with our stakeholders

Orano Mining is committed to sustainable, transparent and inclusive management through:

- Supplying drinking water to its employees (and to the mining town of Arlit in Niger),
- Setting up programs to increase awareness of water preservation among employees and populations,
- Getting local communities involved in monitoring water quality,
- Favoring water reuse and recycling, both internally and to benefit local populations (supplying market gardens in Niger with water, for example).

At the site level, water resource management is conducted in collaboration with local authorities, based on the needs for local activities. Other stakeholders are kept informed. Multidisciplinary teams including environmental specialists, hydrogeological experts, process engineers, R&D specialists and social responsibility managers are involved in managing this resource.

The management plans for water resources are regularly presented and discussed with stakeholders (administrations, elected officials, associations,



## MONGOLIA



**In order to gain further experience, in April 2018, Badrakh Energy joined the “South Gobi Water & Mining Industry Roundtable” working group. This group brings together nearly 15 companies from the Gobi region who want to optimize their water management and sharing practices for all regional activities.**

This group initiated and supported by the IFC (International Finance Corporation of the World Bank) is also promoted by the ICMM (International Council on Mining and Metals).

The objective is to assess and offer solutions for managing risks related to water resources in the area where mining activities are conducted.

Coordinated by three companies from the region, one of which is Badrakh Energy, this working group meets on average four times a year to share its knowledge on water use by mining companies, best practices in water management and as far as possible to respond to the expectations of local government authorities and the population. It also offers training and awareness raising on water resource management and preservation for the local population and members of the local authorities.

employees, families of employees, etc.) during site monitoring committee (CSS) meetings, management committee meetings and, for some sites, via participative monitoring.

Orano Mining systematically looks for new levers to minimize water consumption at its sites, especially of high-quality water. Since 2021, a cross-disciplinary group involving site and central teams has been conducting a collective study using consumption diagnostics and is now working to identify new ways of reducing water consumption, notably through reusing and recycling water at the sites.

As part of a holistic ecodesign approach, the solutions studied, and those to come, aim to reduce not only water consumption, but also energy and reagent consumption, as well as greenhouse gas emissions.

Orano Mining is setting up management plans integrated into the strategy of its sites to:

- Minimize and optimize water consumption, especially for sites in areas of high and extremely high water risk,
- Ensure protection of water quality,

- Facilitate water access initiatives for local populations.

The trajectory of water consumption by production sites is reassessed every year by the teams and presented to Orano Mining and Orano during the review of the Strategic Action Plan. In this way, each site establishes its water resource management plan, taking account of its specific issues, risks and regulatory requirements, and sets suitable objectives that are compatible with the objectives set by Orano Mining (see performance/commitments: -20% of global consumption and -10%/tU in 2025).

## Performance monitoring

To monitor performance, Orano Mining uses two slightly different reference bases: that of Orano, based on the definitions of FAO\* and OECD, and that of ICMM, jointly developed between members and more specific to the mining sector. Three types of indicators are monitored: withdrawn water, discharged water and consumed water.

For more information, see the ICMM water reporting good practice guide



## VOLUME OF WITHDRAWN WATER

The “volume of withdrawn water” indicator is monitored regularly at the sites, but also by Orano Mining. If this indicator deviates, the cause is immediately sought to correct the deviation.

Quantities of water withdrawn are measured by flowmeters. However, some collection points (run-off water, intermittent pumps, etc.) cannot be equipped with measuring devices, and in this case, the quantity is estimated or modelled.

## VOLUME OF DIVERTED WATER

Diverted water is water that got withdrawn and then discharged, and whose physical-chemical characteristics have not been degraded. On Orano Mining sites, the only diversions in recent years involved returning water to the environment during pumping tests for projects in Niger, which did not degrade the resource itself. No diversion water was recorded on Orano sites in 2023.

## VOLUME OF DISCHARGED WATER

The volume of discharged wastewater has been monitored in Orano's reporting since 2023. This is the quantity of water that gets discharged into surface water

\* FAO: "Food and Agriculture Organization of the United Nations"

or groundwater (whether it is treated or not), or that gets sent to a third party for treatment following a specific use related to the needs of the site (process, sanitary water, etc.). In accordance with ICMM recommendations, evaporations, infiltrations, and various process losses are not taken account of in this indicator but are counted as consumed water.

## VOLUME OF CONSUMED WATER (COMMON GOOD) – SPECIFIC TO ORANO

The “consumed water (Common Good)” indicator corresponds to the quantity of water specifically consumed for the site’s needs, which implies a quantitative reduction of the resource (consumption during the process and entrainment in the final product, consumption by employees, other losses) and/or a qualitative modification (physical-chemical degradation). This definition is based on FAO and OECD definitions and is common across Orano. In this definition, the volumes of water used in the process and treated prior to discharge, regardless of the treatment method, should be counted as consumed water.

This indicator helps to reflect the sites' dependence on water resources for their activities.

## VOLUME OF CONSUMED WATER (MATERIAL FLOW)


Different from the Orano “volume of consumed water (Common Good)” indicator, consumed water according to ICMM is the total volume of water that is removed from the environment by evaporation, entrainment (in products or waste) or other losses, and that is not discharged in surface water, groundwater, sea water or to third parties.

This indicator can be used to account for water resources made unavailable to surrounding ecosystems. The volume of consumed water (Material Flow) is thus less than the consumed water (Common Good) because discharges to the environment are subtracted from it.

All groundwater and surface water pumping operations during the remediation phases, for draining and treatment with immediate discharge to the environment (without consumption), are not counted in either of these two reference bases.

For several years now, all our operational and exploration/project sites have been working to identify solutions to limit water intakes, particularly of good quality water, to avoid losses, and to recycle or reuse water flows. For example, the KATCO site has been recycling its drilling muds for several years, and has set up a recycling loop for water flows in the Tortkuduk plant.

In 2023, our sites continued their research into water performance initiatives, such as:

- At SOMAÏR, some effluents from the solvent workshops are reused in various ore processing sections, saving more than 1 Mm<sup>3</sup> of water from being withdrawn
- Also at SOMAÏR, the site is working on improving the recycling of water used to clean the filtration screens via a dedicated working group and potential material investments
- At KATCO, improvements in consumption measurement continued in 2023, with investment in new meters to single out major consumers and identify relevant areas of leverage.
- On the McClean Lake site, a condensate reuse initiative was implemented in May 2022, demonstrating water and propane consumption savings in 2023. However, this had to be temporarily suspended following detrimental side effects in the effluent treatment process (for more information, see the additional data sheet .

## SITES LOCATED IN WATER STRESSED AREAS




None of Orano Mining's sites are currently located in areas of high water stress according to the classification proposed by the Acqueduct tool.

However, this assessment is carried out at watershed scale, while issues may be greater at local scale. In practice, local assessment of issues and the expectations of stakeholders encourage us to consider that our sites located in an “arid context with low water use” should be even more transparent and proactive in their use of water resources.

In accordance with ICMM recommendations, for the first year we are publishing a water summary specific to operational sites located in “arid and low water use” areas with high overall water risk.

These figures summarize the aggregated footprints of the KATCO (Kazakhstan) and SOMAÏR (Niger) sites.

In accordance with ICMM requirements, the same exercise will be expanded to calculate Orano Mining's total footprint. Work to standardize and collect the relevant indicators will be carried out in 2024 (for more information, see the additional data sheet .



## DESALINATION PLANT WATER VOLUMES

The Erongo desalination plant (Namibia) abstracts seawater to make it potable using a reverse osmosis process. The only discharges to the environment are brine which is released into the sea. Almost all of the potable water is sold to the Namibian water company NamWater, once the drinking water needs of the Trekkopje site have been met (for more information, see the additional data sheet [📄](#)).



## VOLUME OF WATER MOBILIZED BY ISR

The deposits mined by Orano with the ISR technique are located in deep aquifers. The quality of the water, generally very saline and naturally high in uranium and other metals, rules out its usage by the local population.

When preparing a block before it is mined, the volume of water present in the pores of the ore body is pumped to be acidified. It is then reinjected into the ore body at the level of this same block. This process is repeated in a loop until a pH is obtained that enables selective uranium dissolution. This water is central to the ISR process and is not reported under the indicator of "consumed water."

Orano Mining nonetheless decided to calculate the annual volume of acidified water required for uranium mining using ISR.

Currently, the KATCO site (Kazakhstan) is the major contributor to this indicator, but the extraction pilots

of the Zuuvch Ovoo (Mongolia) and South Djengeldi (Uzbekistan) sites are also accounted for when they are brought into production.

In 2023, the volume of water acidified for the operating needs of ISR was 1.4 million m<sup>3</sup>.

## Our results

**In 2023, the "water consumption (Common Good)" indicator fell 14% compared to 2022.**

The ratio of water consumption at all Orano Mining sites per metric ton of uranium produced was 552 m<sup>3</sup>/tU in 2023, up 9.6% compared to 2022. Compared to 2019, the total water consumption (Common Good) in 2023 decreased by 42%, and the consumption ratio decreased by 23%.

Due to anticipated maintenance activities at the SOMAÏR facilities following the political events taking place in Niger in July 2023 (see production chapter, p.109 [📄](#)), mining dewatering was maintained at a minimal level. Water consumption was down 17% compared to 2022.

The McClean Lake site (Canada) also decreased its water consumption in 2023 compared to 2022 following a reduction in ore supplies from the CAMECO Cigar Lake mine. This drop in activity resulted in lower total consumption figures. The ratio of consumption per ton of U produced also improved at McClean Lake.

The improvement in the ratio and decrease in total consumption since 2019 can be explained largely by the closure of the COMINAK mine at the end of the first quarter of 2021. During its operational phase, COMINAK consumed groundwater extracted during the dewatering of underground mining works, and reused almost all of it for ore processing and dust suppression. Drinking water was also provided to workers and to certain sections of the plant requiring pure water. The cessation of COMINAK mining operations alone represented a reduction in consumption of 2.5 Mm<sup>3</sup> between 2019 and 2023.

For more information, see the additional fact sheet [📄](#)



## Orano Mining commitments for 2025



- Reduce water consumed per metric ton of U produced by 10%\*
- Reduce overall water consumption by 20%\*


\* 2019 as reference year


- Provide each site with high water stakes with a water management plan shared with its stakeholders
- Develop predictive models regarding natural attenuation for ISR through dedicated R&D
- Maintain R&D actions on passive water treatment

In 2023, the Orano Mining Water working group continued actions to reduce and optimize water consumption, while working to ensure compliance with the ICMM reporting standard for the year 2024.



## 2023 RESULTS

Deployment of action plans on operational sites to reduce by 10% our water consumption per ton of uranium produced 

Deployment of action plans on operational sites with water issues to provide them with a management plan shared by stakeholders 

## PRINCIPLE 6.3

Design, construct, operate, monitor and decommission tailings disposal / storage facilities using comprehensive, risk-based management and governance practices in line with internationally recognized good practice, to minimize the risk of catastrophic failure.



# Monitoring of Orano Mining structures

Launched in August 2020, the Global Industry Standard on Tailings Management developed by the United Nations Environment Program (UNEP), the Principles for Responsible Investment (an investor network supported by the United Nations) and the International Council on Mining and Metals (ICMM) following the tragic Brumadinho tailings facility collapse in Brazil aims to achieve the ultimate ambition of zero harm to people and the environment.

Underpinned by an integrated approach to tailings management, this standard aims to prevent catastrophic failure and enhance the safety of mine tailings facilities across the globe. It represents a radical change in terms of transparency, responsibility and the protection of the rights of people affected and involved in projects.

The standard has six topic areas:

- Affected communities
- Integrated knowledge base
- Design, construction, operation and monitoring of the tailings facility
- Management and governance
- Emergency response and long-term recovery
- Public disclosure and access to information

These topics contain 15 principles and 77 specific auditable requirements with which operators must comply.

This Global Industry Standard is directed at operators and applies to mining tailings management facilities, both existing and planned.

As of August 5, 2020, all ICMM members including Orano Mining are committed to implementing the Global Industry Standard on Tailings Management.

Orano Mining manages 2 tailings storage sites respectively classified as having “extreme” and “very high” potential consequences according to the classification in the standard: the Bois Noirs Limouzat (“BNL”) site in France which ceased operations in 1980 and the JEB Tailings Management Facility in Canada which is currently undergoing expansion. Orano Mining is working to implement the requirements of the standard on its tailings facilities and to disclose the results by August 2025 for all facilities.



Orano Mining has also adopted a policy to manage storage of ore processing tailings and industrial effluents. Signed by all members of the Orano Mining Management Committee, the policy applies to all of its sites.

For more information,  
see the additional data sheet



For more information, see our website  
Uranium tailing facilities dams



## Tailings storage facilities

### IN FRANCE


Nine of the 17 tailings storage sites, all of which have been redeveloped, have structures measuring from 15 to 65 m in height and 110 to 1,700 m in length, but only one has a water cover (Bois Noirs Limouzat site).

The tailings storage structures are constructed using sand from the cycloning of tailings, or mining waste rock. Only the Bois Noirs structure (max. height: 42 m, length: 508 m) is considered under French regulations to be a class A dam subject to internal monitoring and regulatory monitoring. Under the regulations, the other structures in France are subject to internal monitoring by Orano Mining and are inspected by an external expert every five years.

The results of structure monitoring show that they are in a satisfactory state as far as their stability is concerned.

In addition, a work group was created as part of the National Plan for the Management of Radioactive Materials and Waste (PNGMDR). It is led by the French



Ministry of Ecological Transition and the Nuclear Safety Authority (see p.70 ) , and brings together various experts including Orano Mining experts and those of associations. In 2022, this group continued its work and the final report on assessing the resistance of the encircling dike structures for uranium ore tailings storage was published on January 30, 2023.

The methodology for assessing long-term stability is based on 2 main assumptions: the structure is in normal operation (i.e. maintained), and it is in degraded operation (i.e. abandoned).


In addition, there are accidental scenarios such as earthquakes and floods.

### INTERNATIONALLY

In Gabon, Canada and Niger, the structures made of waste rock from mining are lower in height. Only the structure in Gabon, which is a remediated site, has a water cover. All of these structures meet regulatory requirements and are subject to internal monitoring by the Group, with some of them undergoing inspection by an external expert.

### Effluent storage ponds

Industrial effluent ponds are constructed either as superstructures, or partially buried. They are subject to regular monitoring, on a daily or weekly basis, depending on the case:

- KATCO: Eight ponds are in operation to manage drilling mud; these are built out of sand, sourced on the site itself, and are 5 m high
- SOMAÏR: Six ponds are in operation, constructed out of waste rock and measuring around 7 m in height
- COMINAK: Storage of effluents in the COMINAK ponds stopped in spring 2021. At the end of 2023, 2 ponds had already been remediated and covered, and 9 ponds are currently being drained and remediated (see COMINAK chapter, p.76 ) .

## Orano mining commitments for 2030



- Shift towards passive management of mining tailings storage at new mining sites
- Bring all ore processing tailings storage facilities into compliance with the GISTM standard, and from August 2025, disclose annual compliance reports with the standard for each site.

## Accidental spills

Preventing accidental spills is a major subject the Orano Mining teams have been working on for several years.

Thanks to these efforts and the sharing of experience, such spills are limited and handled very swiftly and safely.

In order to prevent accidental spills, we encourage our operational teams to:

- Adopt a proactive approach (from the design and construction phases through to the monitoring and operation of the facilities)
- Analyze and share lessons learned from potentially significant accidents to ensure that they do not occur again
- Conduct rigorous monitoring of facilities

Environmental events are fed back at Group level via a dedicated internal digital platform named AHEAD. The Orano Group has also developed a severity classification scale for environmental near-misses and events, ASSESS, in order to promote operating experience feedback and sharing within the Group.

Each site has an internal procedure governing actions to be taken immediately and in the short term in the event of leak detection (cleaning up the area, checking for contamination and analyzing the causes of the leak).

Two events took place in the KATCO mine in Kazakhstan:

- In April 2023, a sulfuric acid leak occurred near an acidification module, impacting a 600 m<sup>2</sup> area. Cleaning and rehabilitation operations were carried out. Laboratory analyses confirmed a return to normal conditions. As a result of this event, KATCO paid a fine of €21,300 to the Kazakh government.



- In November 2023, a break in a pipeline carrying a production solution resulted in radiological contamination over a 150 m<sup>2</sup> area (activity higher than 1Bq/g). Decontamination and soil cleaning operations were immediately taken and part of the waste was sent to a low-level radioactive waste storage site. This event did not result in a fine from the Kazakh authorities.

**In 2023, no other events were recorded with a significant impact on the environment or which led to a fine or prosecution in connection with the environmental regulations in force.**



### 2023 RESULTS

Implementation of the Standard Tailings on AMF, Comuf, SOMAÏR and OCI



## PRINCIPLE 6.4

**Apply the mitigation hierarchy to prevent pollution, manage releases and waste, and address potential impacts on human health and the environment.**

# Waste management and the circular economy

Mining activities generate waste. This waste needs to be managed effectively, both to comply with environmental regulations and minimize any impacts, and to meet the expectations of society which are aligned with the values of the Group.

## Policy

Orano Mining assumes responsibility for its own waste and manages it effectively, in accordance with the regulations, whether it is radioactive or conventional waste. The volume of waste and its treatment varies

from one site to another. It is identified, classified and stored before being recycled where possible, in line with national regulations. Our site teams ensure that waste is traceable all the way through to final disposal or recovery. This is part of their environmental management plan (ISO 14001 or equivalent).

We apply the P3R waste management hierarchy (prevention, reuse, recycling, recovery) to prevent pollution, manage discharges and waste, and respond to potential impacts on human health and the environment.

## Governance

Our central and operational teams regularly examine ways to reduce the quantity of waste produced and optimize its reuse, recovery and recycling, as part of a continuous improvement approach. They also discuss the best practices in use, monitor regulatory changes and ensure the coherence of programs introduced.

## Performance

Our waste is divided into conventional waste and radioactive waste, with conventional waste being all waste other than radioactive waste. On Orano Mining sites, radioactive waste only contains naturally occurring radioactive materials.

### CONVENTIONAL WASTE

Conventional waste is divided into two categories, set according to the national regulations of the countries in which we work:

- Hazardous waste, such as batteries and packaging for toxic substances, electronic waste, used oil, etc.
- Non-hazardous waste, such as household waste, rubble, scrap metal, tires, etc.

Our teams make sure that waste is collected and disposed of in conditions that do not present any risk of harm to our employees, neighboring populations or the environment. Facilities for the storage and disposal of waste, and hazardous materials more generally, undergo periodic reassessment as part of the review of the HSE risk management plan for our sites. A prior risk assessment is performed for each hazardous waste storage or disposal facility to determine the most suitable and safest management method.

In 2021, to reduce the quantity of non-recycled conventional waste, working groups were set up at each site in operation to find solutions and levers to reduce waste production and develop our recovery practices. In

2022, the action plans defined were implemented and continued into 2023, most notably at KATCO.

For all the mining activities where Orano Mining is the operator, the tonnage of conventional waste globally increased between 2022 and 2023. This was mainly connected with the dismantling of the COMINAK plant and former offices.



The percentage of recovered waste was 3%. This result is linked to the dismantling of COMINAK in Niger, a country where waste recycling channels are not widely developed.


### RADIOACTIVE WASTE


Our mining waste (excluding tailings from ore processing) only contains naturally occurring radionuclides. In accordance with the IAEA designation (SSG-60) it is defined as NORM (Naturally Occurring Radioactive Material), and classified as having very low radioactivity.

This NORM waste is either put into specific surface storage, or possibly, after processing and inspection, rendered safe for disposal via conventional channels, when it is below the release thresholds defined by national regulations (if applicable).

Directives are sent out by the central teams to each of the operational units likely to produce radioactive waste to remind them of the objectives and specify the resources to be deployed in terms of organization and performance, in order to ensure this type of waste is managed safely.

These directives are in particular based on local regulations, supplemented where necessary by IAEA (International Atomic Energy Agency) guides and standards. Sites apply them in the form of operational procedures adapted to their own context.

At our sites in countries where there is no centralized disposal route for radioactive waste, the waste is stored directly at the sites under conditions of safety and security that comply with the regulations in force (see [additional data sheet](#) )

In 2023, 1,432 metric tons of radioactive waste were produced by mining entities where Orano is the operator. This increase compared to previous years is mainly linked to the dismantling and construction work of operational structures at KATCO, and to the soil cleaning operations carried out following the accidental leak that took place at KATCO (see [chapter 6.3, 90](#) )

## Orano Mining commitments for 2025



- **Contribute to policies to reduce plastic waste in the areas where we are based**
- **Reduce our production of non-recycled waste (-25% by 2030 compared to 2019)**

## 2023 Achievements



In 2021, a cross-disciplinary group involving site and central teams conducted a collective diagnosis of conventional waste production. It is now working to identify new ways of reducing the quantity of non-recycled waste.

## DID YOU KNOW?

### A key aim of the waste management program is to encourage the P3Rs hierarchy - Prevent, Reuse, Recycle, Recover - to minimize the quantity of waste thrown away

**Waste must be sorted at the source by the waste producer before being transported to specific areas for appropriate elimination.**

Before starting the program, a set of operating instructions is drawn up. This specifies how to collect and dispose of the waste. These documents are updated in line with regulatory changes, the development of waste management routes and any internal operational modifications. Site personnel are trained to follow the recommendations and any updates.



To facilitate waste identification and sorting, the following categories have been established:

- Domestic waste
- Industrial waste
- Hazardous waste
- Low-level radioactive waste

For each waste type, the following information is specified:

- Waste description and characterization (chemical, physical, quantity, etc.)
- Waste classification according to local and international regulations
- Waste inspection and monitoring procedures
- Mitigation measures used to prevent the waste having a negative impact on the environment
- Collection, storage, transportation and disposal measures



In accordance with the action plan developed by the KATCO teams in this working group, the HSE teams set up on Katco site an optimized waste sorting system, and delivered awareness-raising sessions not only for employees but also subcontractors. This series of initiatives contributed to the positive development of methods to improve recovery of non-hazardous waste.

In Canada, a mulching campaign took place to manage the land clearing waste produced during outdoors maintenance work. However, due to the costs and environmental impacts associated with transporting waste over very long distances, the McClean Lake site has abandoned the option of sorting and recovering metal waste for the time being.



### 2023 RESULTS

KATCO: audit of waste management contractors	●
Conclusions of the recycling benchmark plastic waste at SOMAïR	○

## KAZAKHSTAN

### Food waste recovery



On the basis of actions led by the site's Environment teams:

- Develop an optimized waste management system
- Provide dedicated trash containers for recycling waste (color coding)
- Improve employee and subcontractor awareness of recycling practices
- Incorporate new recycling channels
- Check what happens to our waste in treatment and recycling channels

## PRINCIPLE 6.5

Implement measures to improve energy efficiency and contribute to a low-carbon future, and report the outcomes based on internationally recognized protocols for measuring CO<sub>2</sub> equivalent (GHG) emissions.

## Climate

### Greenhouse gases (GHGs)

The nuclear industry regularly carries out life cycle analysis studies. Emissions associated with the fuel cycle, and in particular its procurement, are one of the largest contributors to the industry's carbon impact. Decarbonizing the nuclear cycle activities is therefore a major issue in terms of ensuring compatibility with the Paris Agreements and leading by example.

Convinced of the role nuclear energy can play in the energy transition to low-carbon electricity, Orano has been involved since 2004 in a program to reduce its own emissions in order to contribute to the collective effort to reach the objectives of the Paris Agreement and to reach carbon neutrality by 2050.



## Contributing to carbon neutrality by 2050

The European Union has set the objective of carbon neutrality by 2050, and France is contributing by aiming to decarbonize energy production by 2050. Orano Mining, as Orano, is committed to contributing to carbon neutrality, with a short-term objective of reducing its direct and indirect (scope 1 and 2) GHG emissions by 25% by 2025\*. This objective was raised in 2023.

In the medium term, Orano and Orano Mining have set an objective to reduce by 20% their total emissions for scopes 1, 2 and 3 by 2030 compared to 2019. To reach this objective, our teams are working in parallel on scopes 1 and 2 and on scope 3. Scope 3 assessment and reliability enhancement started in 2020. In 2023, this made it possible not only to better quantify and characterize its measurement, but also to embark on a positive trajectory.

The objective of “net zero emissions,” scopes 1+2, by 2050 was reaffirmed in October by the collective

commitment of the members of ICMM, including Orano Mining. This commitment to protection of the climate and carbon neutrality is integral to the Orano Group’s corporate mission and is one of the 5 goals in its strategic vision. It is the long-term objective of the group.

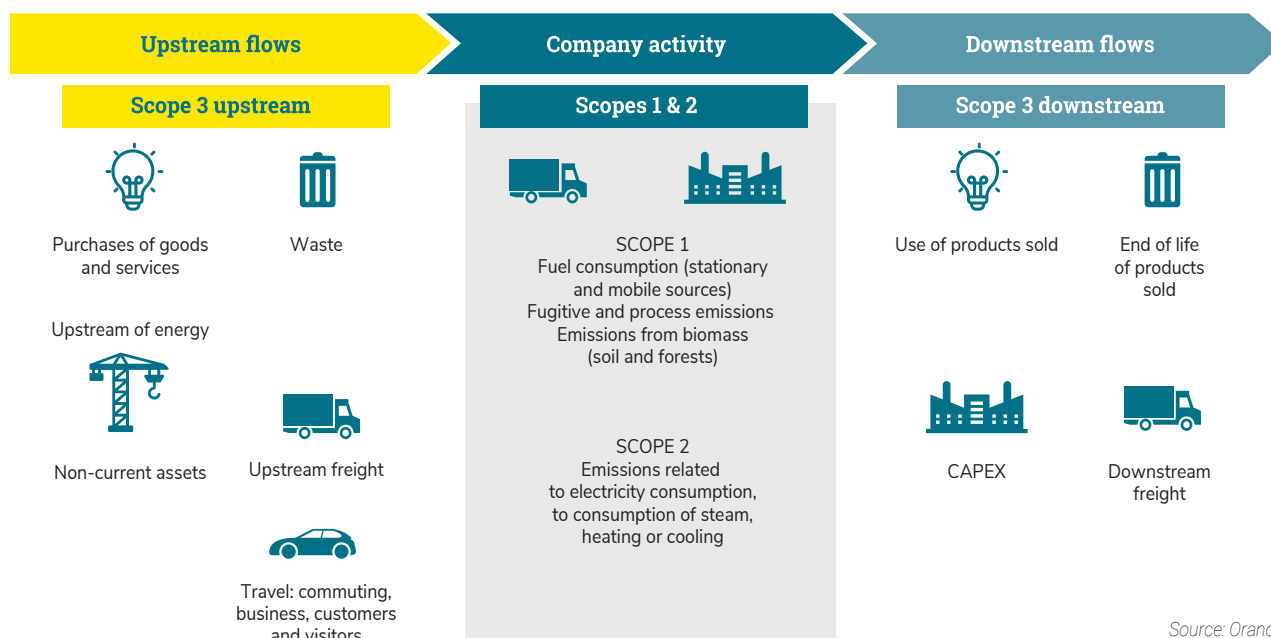
## Governance

Orano’s decarbonization objectives are included in the “Climate” component of the Group’s strategic vision and roadmap, approved by the Board of Directors in December 2020. The carbon footprint assessment is being standardized for investment and acquisition projects as well as new activities in order to evaluate their potential impact.

Trajectories are presented to the Executive Committee and Board of Directors at the end of the annual Strategic Action Plan exercise. The subject of climate vulnerability has also been presented regularly since 2021.

Enhancing the reliability of the assets portfolio so as to reach decarbonization objectives is the subject of an

### Breakdown of the accounting for greenhouse gases according to the 3 scopes



#### Greenhouse gas emissions scope (according to the GHG protocol)

**Scope 1:** direct emissions resulting from the combustion of fossil fuels (gas, oil, coal), direct emissions of refrigerant gases, direct emissions of CO<sub>2</sub> not resulting from combustion.

**Scope 2:** indirect emissions related to the consumption of electricity, heating, or steam required for the activity.

**Scope 3:** other emissions not resulting from the items described above.

\* Reference year: 2019



annual analysis during the updating of the Industrial Master Plans of the sites. This process has been approved for scopes 1 and 2.



These objectives and this governance are applied within Orano Mining and our sites. Sites in production are organized into work groups structured around an energy/carbon lead who meets regularly with the Orano Mining energy/carbon lead to review initiatives and share challenges and best practices. All new projects, from exploration through to remediation of mining sites, as well as changes in existing facilities, are assessed in terms of potential GHG impact, and are subject to ecodesign studies to anticipate and minimize this impact. Orano Mining's carbon trajectory is regularly reassessed by teams on site and the Central BU, and all progress areas, whether around energy, processes, or organization, or linked to the value chain, are studied.

In addition, as a member of ICMM, Orano Mining is committed to implementing the requirements set forth in the climate change principles and in the performance expectations.

This includes having a system of governance; publishing the results on our GHG emissions (scope 1, 2 and 3) every year and having them audited; ensuring for this purpose a robust reference base that is aligned with the recommendations of the TCFD (Task-Force on Climate-Related Financial Disclosures); setting objectives to reduce emissions (scopes 1&2) at the corporate level by targeting in particular those activities with the highest emissions; and implementing adaptation and attenuation solutions at our sites, while taking account of local opportunities and challenges and of the future consequences of climate change.

We are working on our value chain by measuring our GHG emissions (scope 3), by mapping emissions hotspots and by working together with our partners to reduce the carbon footprint of our activities.

We are also working to improve the environmental performance of our sites by monitoring global emissions related to the metric ton produced, but in terms of climate impact, total emissions are what count. We will thus concentrate our efforts on reducing our global GHG footprint.

## Performance measurement

Energy-consuming mining activities are generally located on isolated sites in countries where the energy mix is sometimes very reliant on fossil energy sources.

To reduce its GHG emissions, Orano Mining prioritizes action on its main sources, which chiefly come from:

- Consuming electricity supplied on national grids in countries where we work; the equivalent footprint is calculated from site consumption and consumption factors of the concerned countries, regions and power companies.
- Burning fossil fuels: the quantities of GHGs emitted are calculated from the quantities of fuel consumed and the corresponding CO<sub>2</sub> equivalent emission factors
- Decarbonization during phases involving the chemical leaching of ore using acid, and reagents (including carbonates) put into contact with acid solutions. The quantities of CO<sub>2</sub> emitted are then calculated based on the carbonate contents of the processed ore and quantities of reagents used
- Processing methods used (emission of nitrogen oxides, mainly) and the management of waste (methane and CO<sub>2</sub>). The GHG emissions are deduced from the quantities of waste produced, from the monitoring of emissions for nitrogen oxides, and from their associated GWPs (Global Warming Potential)
- Emissions of halogen compounds (electrical insulating materials), and of coolant, refrigerant and fire-retardant fluids used on industrial sites. The GHG emissions are deduced from the quantities of the different refrigerating fluids consumed and their associated GWPs (Global Warming Potential)
- Change in the impact on soils and the related disappearance of carbon storage capacities. These emissions are calculated by assigning the surface areas annually cleared by each site to carbon storage equivalence factors relative to each subregion, supplied by the Orano Group
- Scope 3 emissions items (for more information, see the additional data sheet [\[7\]](#)).

## Focus on scope 3

Since 2020, a working group across Orano's business units has been working on the quantification and characterization of GHG emissions under scope 3, starting from the reference year of 2019. Since 2021, a significant effort has been made to enhance the reliability of this accounting and to ramp up the skills of the teams. It will continue in 2024 because scope 3 represents more than 75% of the total GHG footprint of Orano Mining.

Enhancing the reliability of the scope 3 emissions mapping and identifying drivers are a primordial challenge given the significance of the scope 3 footprint. The main emission items for Orano Mining include firstly purchases of goods and services (and in particular the supply of chemical reagents and the footprints of the stakes in JVs with CAMECO), the use and end of life of products sold (nuclear fuel cycle), the upstream energy supply, upstream freight, and fixed assets.

### KAZAKHSTAN

**In June 2023, KATCO teams took part in the decarbonization day organized by the French-Kazakh Chamber of Commerce and Industry in Astana.**



During this day, major industrial companies and public institutions were able to debate and exchange views on the measures to be implemented to fight against climate change.

KATCO presented its initiatives to reduce electricity consumption in its extraction activities, thereby contributing to the Group's target of a -20% reduction in tCO<sub>2</sub>e scopes 1, 2 and 3 compared to 2019.



Orano Mining is analyzing its emissions in order to identify the potential actions required to reduce scope 3.

For this purpose, since 2020, several work areas have been organized and will continue into the years to come:

- Continue to make progress on emissions linked to scope 3 by improving the collection of specific emission factors of our major suppliers and by collecting physical rather than monetary data whenever possible
- Train our buyers and specifiers and work jointly with our partners to minimize the footprint of their activities, notably via the use of contractual GHG criteria or support partnerships with our energy suppliers
- Anticipate the footprint of future projects and implement ecodesign
- Participate in internal and external work groups and carry out regulatory and technological watch on this subject

In 2023, Orano trained supply chain operators on the challenges of climate change and the importance of reducing the scope 3 footprint. The main suppliers contributing to this footprint were identified, and meetings were held to discuss Orano Mining's objectives as well as the decarbonization trajectories and actions of suppliers. These discussions will continue in 2024 with other major contributing suppliers in order to both improve understanding of the source of GHG emissions (in particular by accessing specific emission factors when available), and to facilitate sharing on issues linked to climate change and the commitments of the parties involved.

Significant work will also be required in coming years to minimize the scope 3 footprint of future projects through the use of ecodesign. Several avenues of work are being studied, in particular related to treatment processes and choice of suppliers.

## Performance/results

To meet our GHG reduction targets, we act on several levers simultaneously, such as the replacement of equipment with better-performing technology that does not use refrigerating fluids containing hydrofluorocarbons, the optimization of fossil fuel consumption, and programs to raise awareness among our employees and partners. We are studying alternative possibilities for extracting and processing ore while minimizing consumption of energy, reagents and raw materials in general.


Regarding scope 1 emissions, although it remains difficult to act on emissions related to decarbonization of ore, which are dependent on the geology of mined areas, Orano Mining is conducting innovative studies to limit



GHG emissions associated with ore processing. Studies are underway at SOMAÏR to refine calculation of the decarbonization rate for static and dynamic processing, and ultimately, to better manage the allocation of ore batches with the highest carbonates content in order to limit associated emissions. The gradual replacement of cooling fluids by fluids with lower global warming potential will ensure that the percentage of associated emissions is reduced each year.

A particularly significant challenge for our sites is access to low-carbon energy since most of them are located in countries where the electricity mix is carbon intensive. We are focusing our efforts on scope 2, because by working on the electricity mix, and then on a greater electrification of our facilities, we can act on our scopes 1 and 2 at the same time.

Our work areas for decarbonizing our footprint include:

- Improving energy performance (see p.101 

Currently, two major projects are underway to decarbonize our activities and contribute to low-carbon electricity: an 8 MWc photovoltaic power plant that will cover part of the electricity needs of the SOMAÏR mining site (Niger), and a 4.6 MWc photovoltaic power plant that will supply the Erongo desalination plant near Trekkopje (Namibia), construction of which started in August 2023.

A small 80 kW photovoltaic power plant was also installed and commissioned in September 2023 on the Trekkopje site to supply the Orano Mining Namibia offices with electricity during the day. In 2023, this facility generated 39 MWh of renewable electricity for on-site consumption.

Since the challenge of a low-carbon electricity supply is particularly strong on mines using ISR, studies are underway at the KATCO site (Kazakhstan) to try and optimize the electrical consumption of well field pumps via not only the choice of pumps, but also better hydraulic

control. Technical options focusing on the uranium dissolution process are also being studied. In the medium term, discussions are underway to develop Orano Mining's future ISR projects with the lowest-carbon supply options possible. As an example, the Badrakh Energy mining project (Mongolia) is currently planning for electrical self-consumption via a cogeneration unit at the site's future acid plant. The planned sites will draw on analyses carried out on operational sites to identify areas of leverage most appropriate to their different contexts.

The emission factors for electricity production vary according to the location and the activities of each site. As set out in the Orano reporting protocol, they are now mostly taken from the 2023 update of the International Energy Agency (IEA) database, which was assessed as being more representative than the previous benchmark (ADEME) for international sites. For the sake of consistency, the emission factors have also been changed retroactively since 2019, which has resulted in changes to Orano Mining's previous GHG balance sheets.

The factors applied by Orano Mining to calculate GHG emissions in 2023 are detailed in the appendix. They are provided by Orano and applied automatically when entered in the Tennaxia calculation tool. Retroactive correction is also automatic.

Scope 2 presented below is calculated using the "Location based" hypothesis, therefore reflecting the average electricity mix of the country or region where a facility is located.

Orano is not affected by the "franchises" and "leasing" items in scope 3. Emissions from previous years, including the 2019 reference year, have been updated to include corrections of the emission model on purchases (emission factor corrections), corrections of double counting, and corrections of outliers subsequently identified. The scope has also been completed by the items "Use of products sold" and "End of life of products sold".

In 2023, Orano Mining's scope 1 and scope 2 emissions both decreased. This reduction is mainly linked to the sharp slowdown in activity imposed on the SOMAÏR site from August 2023 by the political crisis in Niger, as well as more marginally to reduced production at the McClean Lake plant (as a result of production issues at the Cigar Lake mine in 2023) compared to 2022.

These reduced emissions in Niger and Canada are slightly offset by an increase in emissions resulting from construction work at South Tortkuduk on the KATCO site (earthworks, construction and installation of utilities). Started at the end of 2022, this work impacts both KATCO's balance sheet for scope 1 (land use changed) and scope 3 (materials, subcontracting).

Orano Mining's overall activity generated total GHG emissions (scopes 1+2) of 233,788 tCO<sub>2</sub>eq in 2023,

down 8% compared to 2022, and 31% compared to 2019. The major contributor to this reduction since 2019 is the closure of the COMINAK mining site, which operated by underground mining between 1978 and the first quarter of 2021.

These figures bring the intensity ratio of scope 1 and 2 GHG emissions to 25.86 tCO<sub>2</sub> equivalent per metric ton of uranium produced, an increase compared to the 2022 ratio. This can be explained by the sharp drop in uranium production this year due to long maintenance phases. As maintenance operations result in GHG emissions but not production, the ratio deteriorates.

The reduction observed for scope 3 emissions between 2019 and 2022 is mainly explained by the termination of COMINAK's operations in 2021 and by the production shutdown related to the COVID-19 pandemic on the Canadian Cigar Lake (CAMECO) and McClean Lake sites (fewer reagents purchased, lower investment footprint), for 2021.

The order of magnitude of Orano Mining scope 3 emissions was around 810,000 tCO<sub>2</sub>e in 2023. Emissions were up in 2023 compared to 2022 due to construction work on the South Tortkuduk project in Kazakhstan which began in 2023 ("Fixed assets" item), the increase in the volume of waste at COMINAK resulting from dismantling of the factory ("Waste" item) and the increased use of air freight in SOMAïR due to the closure of land borders ("Upstream goods transport" item).

For more information, see detailed data sheet



## Orano Mining commitments for 2025



- Reduce the emissions of GHG in scope 1 and 2 (-25%)\*
- Work to decarbonate our electricity supply where relevant to increase the share of low-carbon energy at our operating sites (SOMAïR: 8MWp of solar installed)

\* 2019: Orano's reference year for environmental performance

## Anticipating and adapting to changes related to climate change

At the end of 2021, Orano launched a study on the vulnerability of its activities to the consequences of

climate change, as recommended by the Task Force on Climate-Change Financial Disclosures (TCFD). Orano Mining's operating mine sites have been assessed by a firm specialized in the subject. Specific issues for each climate zone were identified using IPCC models (RCP 8.5 scenario), with a target date of 2050.

The main physical risks identified on the mining sites are the risk of a sharp increase in extreme heat peaks, as well as the risk of an increase in intensity of extreme precipitation events, especially in the Mediterranean region and in West Africa. The consequences for operations would be risks of reduced production or temporary shutdowns, which could be coupled with logistical difficulties in the supply of raw materials leading to potential reductions in production.

On the mining sites, the analysis of these physical risks shows that the vulnerability of Orano Mining's activities is moderate, but the weaknesses identified require the definition and development of an adaptation plan. In 2022, an adaptation plan was co-developed for the following sites: SOMAïR (Niger), KATCO (Kazakhstan) and McClean Lake (Canada), and for the remediated sites in France. They each include objectives for the short and longer terms, to take into account the priorities, the maturity level of the solutions and the investments to be made. These adaptation plans will be subject to an in-depth review by the management of Orano Mining and Orano in 2024.

Mining projects prepare the future of Orano Mining's activities, which is why it is necessary to start anticipating future climates in project design, going beyond simple climate experience feedback. In 2023, Orano Mining extended the analysis of climate risks to its mining projects in Central Asia (Mongolia and Uzbekistan). The aim of this study was to analyze the exposure of sites





to risks associated with climate change, to quantify climatic extremes to inform the sizing of future facilities, and to contribute to Orano Mining's internal project design standards. These projections therefore allow the company to anticipate areas of concern for each project, and to adapt the design of facilities accordingly.

The methodology proposed by our partner Axionable for this study is a downscaling of the climate model to a local scale (grid <100km depending on the hazard in question), via the Climate Score tool developed by Jupiter, for SSP1 (2.6), SSP2 (4.5) and SSP5 (8.5) scenarios, with 2030 and 2050 timeframes.

The main hazards identified are increased exposure to drought (mainly in Mongolia), increased exposure to intense heatwaves (mainly in Uzbekistan), and to a certain extent, a slight increase in exposure to extreme precipitation events in Mongolia. In both these countries, exposure to extreme periods of cold is expected to decrease. The extent of exposure to these hazards increases with the intensity of the scenario in question.

The site adaptation plans will also be supplemented and integrated into site risk models.

## Energy

**To ensure the continuity and safety of our activities, it is essential for Orano Mining sites to secure their energy supply while continuing to optimize their consumption and reduce their carbon footprint.**

Whether it originates from fossil fuels or renewable sources, the energy consumed by the Orano Mining sites is monitored on a constant basis.

## Policy

Since 2015, Orano Mining has been operating an energy efficiency program with the objective of reducing consumption. Diagnostics were performed on our sites in France and internationally, and performance indicators were set up to identify the units with the highest consumption. Action plans are then implemented and low-consumption operating procedures incorporated into our sites' strategies.

Orano Mining participates in a dedicated work group led by the Orano Group, in which the energy referents from each BU share the results of diagnostics, best practices and operating experience feedback, and draw inspiration from industrial examples that are tried and

tested, or which show promise for application at our sites.

All the identified areas for action are also studied from the perspective of environmental performance in general, and from the specific perspective of equivalent CO<sub>2</sub> emissions.

At the scale of Orano Mining, a work group focused on sobriety and energy efficiency was set up. It draws on energy specialists at each site in operation, who coordinate with operational teams, projects and HSE to establish energy trajectories for the sites, contribute to the energy performance action plan, and anticipate impacts and opportunities for future projects.

Each year, the energy trajectory of the sites is reviewed at the central level of Orano Mining and by Orano during strategic reviews and in industrial master plans. These reviews make it possible to integrate the energy challenge (and GHG) in Orano Mining's strategy and to make decisions.

## Performance

An energy efficiency project was launched at Orano Mining at the end of 2015, with the objective of reducing consumption on our mining sites. To achieve this, energy efficiency assessments were carried out in 2015 at the Bessines (France) and KATCO (Kazakhstan) sites, then in 2016 and 2017 at the McClean Lake (Canada), and SOMAÏR and COMINAK (Niger) sites.

Continuing on this path, a review was performed in 2020 to assess the maturity of energy performance at production sites, taking into consideration the extent to which the following were integrated:

- Energy performance measurement
- An initiative to identify energy losses
- Optimization of energy performance
- Management of energy performance

The results of these assessments were not only shared among the sites concerned, but also at Orano Group level, so that best practices could be pooled and areas for improvement identified for each site.

The maturity summary was used as a basis to launch a review of the leads identified during diagnostics, return to certain progress actions that had become more relevant, and reflect on new actions. Thanks to these new leads, the Orano Mining sites are able to continuously improve their energy performance, with the aim of making significant energy savings.

The main levers for action lie in:

- Investing in new equipment that consumes less energy and is more efficient

- Reconfiguring certain networks to favor energy recovery
- Changing the operating mode of the workstations that consume the most energy
- Raising awareness among operators

New actions across the Group, focused on the energy performance of equipment and consumption management, were initiated in 2022 for production sites. They should supplement Orano's efforts to reach its energy consumption reduction objectives (10% reduction by 2025 compared to 2019) (see Orano's annual report, chapter 4.1.2, p.100 [📄](#)).

Finding the right drivers requires understanding the sources of consumption. Among these cross-cutting actions, a significant effort was thus made to improve the mapping of energy flows and their measurement. For 2023, some sites in production planned to launch the deployment of energy performance software, called EMSs (Energy Management Systems) on part of their scope. A new energy audit was carried out at the McClean Lake site at the end of 2023, which should lead to recommendations for the implementation of an EMS for the plant. When site conditions permit, a new energy audit focusing on hydrocarbon consumption at the mine will be undertaken at SOMAÏR. This audit was originally scheduled for 2023, but had to be postponed. KATCO is working to model electrical flows on its well fields (current deposits or those in the project phase). Alternative methods for ore processing that consume less energy are also under study.

For future ISR projects, hydrodynamic modeling of future well fields can also be used to predict electricity consumption profiles in order to minimize their scale, optimize processes, and more generally contribute to the ecodesign strategy.

The amount of energy consumed by all of Orano Mining's sites in 2023 was 527,552 MWh, down 6.3% compared to 2022, and 22.6% compared to reference

year 2019. This takes the intensity ratio of energy consumed to 58.4 MWh per metric ton of U produced by Orano Mining (compared to 52 MWh/tU in 2019).

Electricity consumption in 2023 was up compared to 2022, largely due to greater demand at KATCO, the ramp-up of industrial pilots in Bessines (battery project) and higher levels of drinking water production at the Erongo desalination plant (Namibia).

In 2023, overall energy performance was impacted primarily by lower production rates at SOMAÏR in Niger and by production issues at the Cigar Lake mine which supplies ore to our McClean Lake processing plant in Canada. This had a negative effect on the ratio of energy consumed per metric ton of uranium produced.

The KATCO site also continued construction work on the South Tortkuduk project, thus increasing the site's energy consumption.



Energy (MWh)	2021	2022	2023	Delta 2023 vs 2022
<b>Energy consumed</b>	576,936	562,728	527,552	-6.3%
<b>Fossil energy consumed (diesel, gasoline, propane)</b>	315,976	315,588	271,909	-13.8%
<b>Electricity consumed</b>	260,961	247,140	255,643	+3.4%
Electricity from non-renewable sources consumed	260,955	247,138	255,642	-5.3%
Electricity from renewable sources self-consumed by sites	6	7	46	+555.7%
<b>Ratio of energy consumed (MWh/tU)</b>	58.5	48.8	58.4	+19.5%



The resumption of normal activities in Niger and continuing energy performance initiatives (energy audits, implementation of an EMS, process actions) should allow the company to return to satisfactory performance ratios, and then improve them.

The attainment of energy consumption reduction targets in 2025 compared to 2019 is on track. The main explanation for this decrease in total energy consumption and in the ratio of energy consumed per metric ton of uranium is the closure of the COMINAK site at the end of the first quarter of 2021. In 2019, this site still represented nearly 20% of Orano Mining’s energy consumption, with a high proportion linked to ventilation and dewatering, making it the most energy-intensive site per metric ton of U produced.

Operational sites have also made significant energy savings since 2019, allowing the company to offset the ramp-up of certain exploration projects (Mongolia, Uzbekistan).

All our mining sites are located in isolated areas in which no energy supply networks based on heat, cold or steam are available. The consumption of heat, cold or steam externally sourced by Orano Mining is therefore zero.

However, our sites have developed renewable energy own-consumption projects, such as solar panels powering lighting, radio antennas, and more recently, the offices at Trekkopje. These solutions will be further developed in the ecodesign of future Orano Mining projects.



## 2023 RESULTS

Securing a portfolio at 65% of the 2025 objectives by the end of 2023	●
Taking into account the evolution of countries' emission factor in the carbon trajectory	●
Carbon Energy Performance Plan (- 10% ref. 2019)	●

# Environmental Monitoring

**Environmental monitoring takes place at each mining site and the surrounding area. Thanks to this approach, Orano Mining ensures that the impact of its mining activities is controlled, and that there are no associated risks for local populations and the surrounding ecosystems.**



Orano Mining maintains or implements an environmental management system at its sites in line with the standard ISO 14001 or equivalent.

The basic principles of monitoring are recommended in the impact studies. On the strength of several years of sharing their experience, an annual environmental monitoring program is drawn up by the teams of each site. These programs are validated by the supervisory authorities.

Inspections or audits carried out by a third party, required by the authorities or initiated on a voluntary basis, are conducted periodically to ensure the transparency of our results.

In addition, in order to keep our local stakeholders informed and involve them more closely, we also conduct participatory monitoring, particularly in Mongolia and in Canada.

Multiple physical, chemical and radiological parameters are checked, in the air, the water, the soil, the vegetation and the food chain, with the objective of ensuring that impacts of the activity on the environment are properly managed and being ready to respond to even the slightest alert.

## Air monitoring

Air monitoring chiefly consists in measuring exposure to ambient radioactivity, but gas discharges from ore processing operations are also monitored. Measurements are taken, depending on the site, of concentrations of gas in the air, in the environment or at the outlet of chimney stacks (e.g.: SOx). Radioactivity measurements are taken continuously, both at the site and in the nearby area, using specific dosimeters.

According to the recommendations of impact studies, measurements of dust and fine particles (PM) may also be taken in particular during construction or remediation phases or where heavy traffic is planned to happen near residential areas or work sites.



## Water monitoring

Campaigns to monitor the quality and quantity of aquifers and surface water, and sampling of surface water is carried out using a piezometric monitoring system installed upstream and downstream of our activities. Results are forwarded to the authorities.

Hydrogeological and hydrochemical studies are performed at all sites, well before mining operations begin.

These studies allow a better understanding of the groundwater and surface water, and their quality, so that we can adapt our projects accordingly. At all sites where it is necessary, discharged water is first sent through a treatment station in order to comply with the environmental and health standards in force.

## Monitoring of the food chain

Sampling and analyses are regularly carried out in the food chain and on plants, including aquatic flora and fauna, and fruit and vegetables produced in gardens.

## Soil monitoring

Soil monitoring allows any contaminated zones to be identified. If such zones are pinpointed, soil decontamination measures are applied to restore the zone to levels which comply with regulations or to the original values.

## Monitoring of flora and fauna

Mining activities are likely to modify and disturb natural habitats.

Biodiversity inventories or studies of biological indices are performed regularly at our different sites to monitor the potential impact of Orano Mining's activities on local flora and fauna.

It also enables us to check on the efficiency of the measures that are implemented.

For more information,  
see biodiversity chapter p.105





# Conservation of biodiversity



## MINING PRINCIPLE

Contributing to the conservation of biodiversity and integrated approaches to land-use planning.

## PRINCIPLE 7.1

**Neither explore nor develop new mines in World Heritage sites, respect legally designated protected areas, and design and operate any new operations or changes to existing operations to be compatible with the value for which such areas were designated.**

By their nature, our mining activities can be located in sensitive natural environments and may disturb ecosystems. Aware of this issue, Orano Mining takes biodiversity and ecosystems into account from the exploration stage in order to minimize its impact.

This proactive approach to management is essential to maintain the acceptability of our activities in the countries where we work.

### Policy

As regards to biodiversity, Orano pays great attention to ensuring its preservation and includes it as a crucial issue for the compatibility of its activities with their environment.

Orano Mining undertakes to:

- Avoid prospecting or developing new mines in areas classified as World Heritage Sites by UNESCO
- Respect areas recognized as "protected areas" by legislation, design and operate all new developments or modify existing mines so that they are compatible and do not adversely affect the value attached to these areas
- Identify, assess and mitigate risks and impacts on biodiversity and ecosystem services by applying the mitigation hierarchy with the aim of moving towards zero net loss of biodiversity

Orano Mining's approach is fully in line with the recommendations of the IFC (International Finance Corporation) Performance Standard 6 on "Biodiversity Conservation and Sustainable Management of Living Natural Resources". At the heart of this approach, the protection of biodiversity, the maintenance of ecosystem services and the sustainable management of living natural resources remain among the priorities for ensuring the sustainable development of our activities.

In 2021, Orano Mining published its biodiversity strategy founded on 4 pillars:

- Respecting protected areas
- Knowledge and understanding of the initial state
- Applying the mitigation hierarchy to protect biodiversity in all mining phases
- Promoting biodiversity: enhancing the value of our actions - raising awareness and sharing actions and knowledge

### Our commitments



- **Since 2021, all new remediation plans include a biodiversity component**
- **Each operating site will have a fauna-flora inventory dating back less than 10 years by 2025**
- **A suitable assessment of actions in favor of biodiversity will be set up at each site by 2030 at the latest**

The application of the principles is controlled and monitored during the relevant steering committees.

In 2022, Orano has deployed a Group-wide biodiversity strategy, based on an approach commensurate with the challenges associated with the various activities. This initiative serves to reinforce the Group's engagement for the protection of biodiversity;

Building on this continuity and with a view to continuous improvement, in 2022, Orano Mining has decided to significantly expand the scope of reporting by:

- Broadening its reporting frameworks and including protected areas as classified by the IUCN
- Targeting a survey of UNESCO sites around our sites over a distance consistent with our operations



Orano Mining strives to identify the total number of threatened species on the global Red List of the IUCN (International Union for the Conservation of Nature in areas affected by its activities. Their classification on the IUCN Red List of Threatened Species or a local equivalent is also checked.

The identification aims at assessing the potential impact of our activities on certain plant and animal species or on classified sites and take the necessary measures to avoid harming them and prevent their degradation.

IUCN (Dudley, N. (2008) - Guidelines for applying protected area management categories. Gland, Switzerland: IUCN, 96pp) defines protected areas as any clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.



In the context of new projects, biodiversity studies are systematically carried out on key areas.

The UNESCO World Heritage Sites around our mining operations are listed within a 100 km radius of our sites. There are 25 in total: 24 in France and one internationally.

**IUCN categories for the Red list**

Extirpated species	Species threatened with extinction	Other categories
<b>EX:</b> Extinct worldwide	<b>CR:</b> Critically endangered	<b>NT:</b> Near threatened (species close to threshold of threatened species or which could be threatened if specific conservation measures are not taken)
<b>EW:</b> Extinct in the wild	<b>EN:</b> Endangered	<b>LC:</b> Least concern (species for which the risk of extinction is low)
<b>RE:</b> Regionally extirpated	<b>VU:</b> Vulnerable	<b>DD:</b> Data deficient (species for which evaluation could not be carried out due to insufficient data)

More information, see the additional data sheet



For more information, visit the UNESCO website



For more information, read the IUCN report



## PRINCIPLE 7.2

**Assess and address the risks and impacts to biodiversity and ecosystem services by implementing the mitigation hierarchy, with the ambition of achieving no-net-loss of biodiversity.**

Our central and operational teams work together to “avoid - minimize - remediate/restore - offset” and preserve ecosystems. Specific actions are taken at each site in accordance with regulatory requirements and local practices. To do so, they rely on the recommendations of recognized experts in the field, but also on internal expertise and operating experience feedback.

They share best practices used by mining companies that are members of the ICMM.

This approach is integrated beginning with the impact study which is performed by multidisciplinary teams of experts who assess the impacts and propose actions to avoid, minimize, restore, and – where necessary - offset.

Steps have also been taken to raise awareness among employees regarding biodiversity and the associated issues. It includes trees plantation in rural and central areas.

**IUCN protected area management categories**

IUCN categories	Management
<b>Category I</b>	1a Nature Reserve
	1b Wilderness Area
<b>Category II</b>	Ecosystem conservation and protection
<b>Category III</b>	Ecosystem conservation and protection
<b>Category IV</b>	Conservation through active management
<b>Category V</b>	Landscape/seascape conservation and recreation
<b>Category VI</b>	Sustainable use of natural ecosystems

## TAKING ACTION TO PROTECT BIODIVERSITY

Some mining sites are located close to zones which are rich in biodiversity. In 2023, we continue to conduct dedicated studies and the implementation of actions to preserve sensitive zones with third parties, such as local communities, consulting firms, university specialists or nature conservation bodies.

In 2023, Orano also carried out an assessment of its global biodiversity footprint using the GBS tool developed by the « Caisse des Dépôts et Consignations Biodiversité ». The Group's overall results, as well as those specific to Orano Mining, will be analyzed in 2024 and should serve to identify the main levers for action.



### EXAMPLES

At our Mining Closure France sites, many inventories of flora and fauna have been drawn up or updated, as well as Global Biological Index (IBG) estimates. Former mining sites now provide special habitats for certain

rare animal species, while in others rare plant species have been replanted. These sites undergo ecological monitoring by independent bodies and associations, with an annual inventory taken of flora and fauna.

In France, at a former uranium mining site in the Cantal region, the preparatory steps to bring a former gallery into a safe configuration revealed the presence of bat (Chiroptera) hibernation roosts. The decision was thus made to make the access point safe by installing a reinforced grid, while allowing the bats to pass through so that this gallery could be preserved as a roost.

Our Canadian teams have also started a long-term study of benthic sediments and invertebrates present in the McClean Lake site, and the sediments present in Fox Lake and Pat Lake, to check whether industrial activities have had an impact on the invertebrates and their habitat.

At our sites in Central Asia, which have the distinctive feature of saxaul forests, the region's iconic shrubs, Orano Mining is funding a thesis on compensation using an eco-systemic approach, in conjunction with the Centre de coopération Internationale en Recherche Agronomique pour le Développement (CIRAD). This work has also led to a detailed inventory and description of the vegetation in the area. Some species had never been officially inventoried (with published results) in the region by local scientists. All the samples are now kept at the CIRAD Herbarium in Montpellier (referenced Index Herbariorum), and duplicates have been sent to the Herbariums of Mongolia and Kazakhstan. As part of the Open Science approach, the digitized sample plates will be integrated into a national database (RecoltNat) for knowledge sharing.

For more information, see the detailed data sheet



## 2023 RESULTS

Land use mapping for all sites





# Responsible production

## MINING PRINCIPLE

Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals.



## PRINCIPLE 8.1


**In project design, operation and de-commissioning, implement cost-effective measures for the recovery, re-use or recycling of energy, natural resources and materials.**

Orano Mining is in line with the group's policy to take better account of environmental issues in the company's activities.

### Governance

Extracting uranium ore and producing uranium concentrate are activities that consume raw materials and energy, as do the infrastructure construction, dismantling and remediation phases. It is therefore important, from both an economic and environmental point of view, to limit the consumption of natural resources.

On its production sites, Orano Mining is working to reduce its consumption of water and electrical power, as well as of hydrocarbons, by taking action to improve performance, raise awareness and use new processes where possible. Examples of these actions are available in Sections 6.2 (Water) and 6.5 (Energy) (see p.84  and p.101 .

During project planning, the prior impact and feasibility studies assess the natural resource consumption necessary. This phase of the study then allows Orano Mining teams to optimize the project in order to minimize the consumption of resources and energy (see 4.1 environmental impact studies paragraph p.51 , in particular through eco-design sessions.

At Orano Mining, eco-design is the subject of a cross-disciplinary reflection involving employees from different departments, covering all environmental impacts, with a systematic focus on greenhouse gas emissions, waste, water, energy and raw materials consumption for all projects costing over €5 million. It is updated as the project progresses and during dedicated reviews.

Orano is leading a dedicated working group to share best practices and monitor the progress and maturity of the process. An "Eco-design" training course developed by the Group has been made available as an e-learning for employees who wish to follow it, and awareness-raising sessions are held at each project start-up.

During the dismantling and remediation phases, options for reusing and recovering materials and infrastructure are studied. This was the case when we organized the dismantling of the COMINAK site. Opportunities for reusing ore processing equipment, machinery and vehicles have been assessed for each type of equipment. In this way, after washing and radiological inspection, working machinery, uncontaminated scrap metal, furnishings and light tools were sold to third parties, and some of the plant's equipment was recovered by SOMAÏR. Several studies have been carried out to assess the feasibility of recovering metals from process effluents. Stocks classified by COMINAK as mine tailings were transferred to the SOMAÏR site, which was able to process these volumes was able to ecoomically.



### Challenges

During the extraction and processing of ore, sites are likely to use nitrates (explosives for extraction, oxidants for processing), sulfur or sulfuric acid, lime, sodium hydroxide, carbonates, and iron and manganese oxides.

The procurement of these reagents represents a significant operational cost, and the environmental footprint varies depending on their geographical origin, the type of product and the quantities used.

The Orano Mining sites constantly strive to optimize their procurement and rationalize their consumption, while ensuring that their processes remain effective.

Where possible, these reagents are regenerated during processing. This is the case, for example, with nitric acid in the impregnators at the SOMAÏR site.

At the SOMAÏR site, some of the carbonates were replaced by sodium hydroxide, enabling to limit the CO<sub>2</sub> emissions associated with ore processing. This approach also requires less water for the preparation of the reagents.

At drilling sites, Orano Mining is working to introduce the recycling of drilling mud, which will help limit the consumption of both water and clays. In addition, this process reduces the safety risks and environmental footprint.

Where possible, metal waste (such as drums or batteries) is reused on site or recycled internally or externally. Although this does not concern Very Low-Level Waste (VLLW), a radiological inspection is carried out before the external recovery of metal waste.

At the SOMAÏR open-pit mines, products from stripping operations (during mining) may be used either as mining backfill, or as construction or reinforcement materials for infrastructure (the base of dikes or superstructures, rock pile remodeling, infill, etc.) during remediation.

The production of sulfuric acid (used in the extraction and processing of ore) generates a lot of heat. On our new projects, we systematically study the possibility of recovering this fatal heat to produce electricity and power our sites.

Lastly, the dismantling sites themselves also undergo prior studies so that as much inert mineral waste can be recovered as possible, in accordance with the applicable regulations and health, environmental and radiation protection standards.

These practices are dictated by regulatory requirements (construction waste), production cost considerations (mineral inputs), safety issues (avoiding substances that are carcinogenic, mutagenic or toxic for reproduction - CMR substances, ensuring that storage and handling activities are safe for operators, etc.) and environmental considerations, and implemented with a view to contributing to the local economy.

Orano Mining has set itself the target of reducing its non-recycled waste by 25% by 2030 in comparison to 2019, which will notably be achieved by reducing the production of waste at the source and prioritizing the use of recyclable or reusable materials. This objective is fully in line with the Group's commitments and *raison d'être* to preserve resources and integrates eco-design.

Furthermore, Orano Mining, which is engaged in the development of the battery recycling process, has announced the commissioning of its two industrial pilots at the Bessines site in November 2023. They will enable us to test our process for recycling the materials contained in electric vehicle batteries.

The Orano recycling process consists of two main steps: pre-processing with the purpose of obtaining a mixture in powder form known as "active material", followed by the hydrometallurgy step which completes the recovery of the metals contained in the batteries.

Orano is thus generating its own active material, from its innovative process that allows the materials of interest to be preserved and salts of nickel, cobalt, manganese, and lithium of a very high level of purity to be generated, which can be re-used in new battery components. The active material output by the pre-processing stage is purified in the existing hydrometallurgy pilot. All the recycling steps are integrated into the two pilots, with the capacity to recycle the equivalent of two to three electric vehicles a day.

A Memorandum of Understanding has also been signed between Orano and Stellantis with a view to setting up a joint venture specializing in the recycling of end-of-life electric vehicle batteries and production scrap from gigafactories in Europe and North America.

Through both these examples, Orano is asserting its commitment to developing a low-carbon economy with the recycling of strategic materials in the name of energy transition and the circular economy.



## 2023 RESULTS

100% of projects worth + €5M  
eco-designed



## PRINCIPLE 8.2

**Assess the hazards of the products of mining according to UN's Globally Harmonized System of Hazard Classification and Labelling or equivalent relevant regulatory systems and communicate through safety data sheets and labelling as appropriate.**

**In line with our group procedures, our operating sites comply with international and national requirements regarding the classification and labeling of the chemical products used and/or produced. The products purchased are sourced from approved vendors and are delivered with the appropriate labeling and safety data sheets.**

As soon as they arrive on our sites, all hazardous materials are inventoried, labeled appropriately and stored correctly. Safety data sheets are systematically available and regularly checked. The regular review and

management of these products and the integration of risk assessments into site HSE management plans is governed by the site integrated management systems, ISO 45001, ISO 14001 for operation sites or the AMF (Mining Closure France) or equivalent system for project sites equivalent. Once used, the waste is categorized, sorted and stored in dedicated cells according to its hazard level. It is recycled and recovered whenever appropriate channels exist.

**For more information on waste management,  
Mining principle 6.4, p.92**



Based on operating experience feedback from the fire at the Lubrizol warehouses in France in 2019, Orano has issued several procedures in 2022 to strengthen the monitoring of stored materials. The management guidelines for chemical products to prevent accidental chemical risks are based on reference texts such as the European Union directives on the classification and labeling of hazardous substances and preparations, the regulations in place in the United States applicable to workplaces, consumers and pesticides, the Canadian regulations applicable to workplaces, consumers and pesticides, etc.

Orano Mining's sites have carried out their compliance analyses in relation to the hazardous materials register procedure and, where necessary, have built action plans to comply with it. The status of stored materials is monitored by the HSE officers of the sites. During site visits and inspections, a verification of chemical products is made by the Orano Mining's HSE teams.

Risk assessments are done during the design phase of the Orano Projects to minimize the risk of accidents involving hazardous substances through a safe design. Such assessments are updated on regular basis and/or when there are significant changes.

For big projects e.g., new pilot site or major engineering improvements to a facility, the risk assessments are done by external experts with the involvement of the internal subject matter experts in accordance to the Orano and/or each site's risk assessment procedures.

For smaller work scopes, such assessments are done internally. Each site has their own risk assessment procedure. There are also Orano Group guidelines for conduct risk assessment for large projects.

No cases of non-compliance with regulations were reported in 2023.



# Social performance



## MINING PRINCIPLE

Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities

## PRINCIPLE 9.1

**Implement inclusive approaches with local communities to identify their development priorities and support activities that contribute to their lasting social and economic wellbeing, in partnership with government, civil society and development agencies, as appropriate.**

Orano Mining is fulfilling its commitment to integration by working to improve the attractiveness and support the economic development of the countries in which it operates.



To do so, Orano Mining deploys mapping. These maps aim to identify stakeholders, their impact and expectations at national and local level, in order to know their perception of Orano, the project at national and local level, and to determine how they perceive Orano, the project, etc. It makes it possible to establish strategic priorities on environmental, labor relations, social, economic and governance-related questions, and define an action plan associated with results.

This consists first of a preparatory phase, with the validation of the method with internal stakeholders, the creation of information gathering tools (interview guide), the delimitation of the area and of stakeholders: state and local structures, NGOs/Associations, Suppliers, and

the Media. This is then followed by what is known as the information gathering phase, including the conducting of interviews and documentary research. The third step is that of data processing and analysis, and the preparation of the plan of action. The exercise concludes with the phase of feedback to stakeholders and of deployment of the action plan.

Stakeholder mappings are carried out regularly. In 2023, KATCO initiated a partial update of its stakeholder mapping, which will be completed in early 2024 with interviews on material impacts. A materiality analysis will also be carried out by Orano Canada in 2024.

Orano is a committed member of trade associations in its field, including:



[Consult Orano annual report](#)



Orano supports:

**EITI**

Initiative pour la Transparence dans les Industries Extractives (ITIE)

## Be involved in local structures and social projects

Orano Mining is involved in the life of the communities near its operations in France and abroad.

Orano Mining main industrial sites work proactively to make their areas of intervention part of the local industrial fabric. Their senior management are active members of local and regional administrative and economic bodies.

Our stakeholders' expectations are taken into account in our projects in particular in the form of regular discussions with local players allowing us to interact with them on how they see the challenges associated with our activities.

[More information about the remediation of COMINAK, p.76](#)

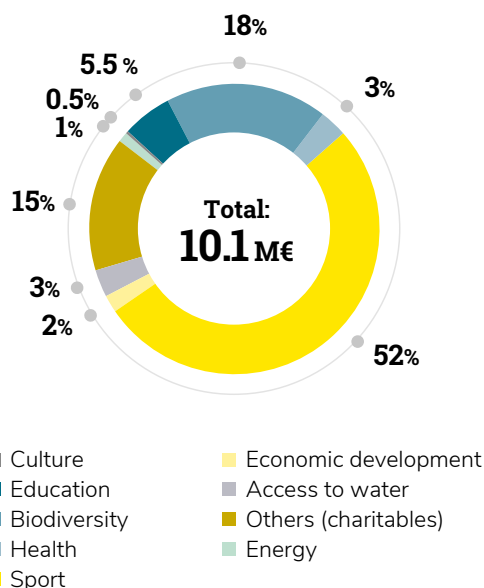


**Evolution of the societal expenses 2021 – 2023  
(Canadian collaboration agreements included)**

Year	2021	2022	2023
<b>Total amount (M€)</b>	5.1	12.6	10.1

The amount of societal expenditure for 2023 has slightly decreased compared to 2022. Although Orano Mining has continued to support local communities in the countries where it operates, events in Niger have hampered the full completion of the societal projects initially scheduled for the end of 2023. This situation was compounded by administrative difficulties linked to the 2nd phase of the "Green Belt" project in Kazakhstan, which have not allowed the investments considered.

**Breakdown of 2023 expenditures on social actions**



The amount devoted to economic development support includes:

- Expenses related to cooperation agreements with Indigenous Peoples in Northern Saskatchewan (Canada)
- Expenditure linked to obligations under the subsoil law for the development and maintenance of infrastructure in the region (Kazakhstan)
- In Niger, this concerns investments linked to the Irhazer project

Since investments linked to COMINAK's economic conversion program in 2023 primarily concern water access initiatives, they have been classified under this heading. In 2022, they were classified under economic development, as the projects mainly supported entrepreneurship and business start-ups.

**FOCUS ON EDUCATION**

In 2023, Orano Mining supported 44 education projects worldwide, at each of its sites. A total of 5,600 direct and indirect beneficiaries were thus able to benefit from the projects and actions developed.

Whether through scholarships, literacy programs, tutoring, adult education or the purchase of school materials and equipment, Orano Mining is committed to promoting education in all its forms. We are convinced that education is crucial to the long-term economic development of our stakeholders, whatever their country of origin.

Through the educational programs we support, we seek to provide skills that will enable young people and adults to realize their full potential, to become men and women actively involved in their communities.



**Examples of projects supported by Orano Mining and its subsidiaries in 2023**

**CANADA**

**Collaboration Agreements**

Orano Canada is a signatory, alongside Cameco Corporation, of three Collaboration Agreements - Pinehouse (2012), English River First Nation (2013), and the Athabasca Basin Ya'thi Néné (2016). Built around 4 pillars - workforce development, business development, community engagement and environmental stewardship and community investment. these agreements contribute to improving health and well-being of Indigenous Peoples (First Nations and Métis), to promote their culture, the preservation of the environment, and their economic development.

In addition to the Collaboration Agreements, Orano Canada strives to contribute to the social and economic wellbeing of communities throughout northern Saskatchewan.

## EXAMPLES OF COMMUNITY INVESTMENTS

### Women in trades and technology powered by Orano

In February 2023, Orano Canada announced its \$1 million Canadian Dollars donation to Saskatchewan Polytechnic, the province's primary public institution for post-secondary technical education and skills training.

This donation is being disbursed over the next ten years and helps to promote training opportunities for women in the trades across Saskatchewan by expanding the accessibility of WITT programming. This will include additional programs, workshops and events in rural and northern communities aimed at breaking down barriers and promoting gender diversity in the mining industry.

In 2023, nearly 300 young women from the ages of 10 to 26 participated in these camps and workshops that taught them valuable technical and professional skills, how to work safely and how to think about different career options to address barriers that may limit women in trades and technologies.

Orano Canada is also funding university scholarships. These will enable three students to take part in the WITT program.

### Wanuskewin, a park dedicated to Indigenous Peoples' culture and biodiversity

Orano Canada supports the Wanuskewin archaeological site for three years, dedicated to the promotion of native culture and biodiversity. Through their actions, the park's teams will eliminate invasive species, restore Indian meadows and reintroduce bison to help preserve biodiversity and ecosystems, and protect the environment.

Listed as a National Heritage Site of Canada, this exceptional site whose history goes back over 6,000 years is in the running to be classified as a UNESCO World Heritage Site in 2025. Through this support, Orano Canada reaffirms its commitment to promoting the culture of Indigenous Peoples and the biodiversity of flora and fauna.

### Athabasca student awards

Orano Canada has partnered with Cameco, Ya'thi Néné Lands and Resources, and the Athabasca Denesuline Education Authority to reinstate the Athabasca Student Awards. The announcement was made in-person by Orano Canada staff to an assembly of students in June 2023.

This partnership aims to address the importance of supporting the Athabasca Basin's youth and has goals to

increase academic achievement and student attendance. In total, twenty awards were given out with prizes to youth in grades 7 to 12 which are students from the Collaboration Agreement communities of Black Lake, Fond du Lac, Hatchet Lake, Stony Rapids and Uranium City. The scholarships were awarded at a ceremony held in October 2023.

## MONGOLIA

### Providing a water truck

Ulaanbadrakh, a remote village in the Gobi desert, has a very limited water supply infrastructure. The 500 inhabitants of the village center, mainly the elderly and young, have to carry water from nearby wells to their homes every day.

In 2023, Badrakh Energy financed the purchase of a 5-ton tanker truck with a range of functions to supply water to households, water planting areas, cut down dust, clean water and fight fires.



### Wells rehabilitation

In remote areas of the soum, the number of wells is insufficient to water livestock, whose numbers have increased by 250% since the 1970s. At the same time, due to lack of maintenance and desertification, the number of water points has fallen by 37%.

Since 2014, Badrakh Energy, in collaboration with local communities, has renovated more than 70 water wells.

In 2023, Badrakh Energy and local authorities tested new engineering methods on 3 disused water points. The conclusive results have doubled the water supply and improved its quality and flow.

## A bus for the children

In September 2023, Badrakh Energy financed the purchase of a school bus for the Ulaanbadrakh school to make it easier for children to get around and allow them to take part in cultural and sporting events, as well as regional and national competitions.

Attendance at these events has risen by 15% compared with 2022, and the school has won the title of "Top Middle School of Dornogobi 2023" in recognition of its efforts.

Badrakh Energy has also provided sports equipment for the local population. These will improve the quality of the facilities and increase the number of participants in sports activities.

## Scholarships

In 2023, 27 students - including 17 from Zuunbayan and 10 from Ulaanbadrakh - benefited from a scholarship funded by Badrakh Energy. As 6 students graduated in 2023, they were replaced by 6 new beneficiaries who joined the program. 81% of scholarship recipients are women.

After having completed their studies, students commit to returning to work in their local communities for 3 to 5 years. This enables them to share their experience and skills to help the community as a whole move forward.

This scholarship program, which was set up in 2010, aims to support the development of the local community and train qualified and competent leaders. To date, 79 young people have benefited from scholarships funded by Badrakh Energy.

## Support for the cultural center

Ulaanbadrakh's cultural center is a meeting place for its 1,500 inhabitants. Since 2022, Badrakh Energy has been contributing to its renovation and supporting the organization of cultural events. In 2023, new audio equipment was purchased and used on numerous occasions. This year, more than 25 events involving a total of 2,200 people took place in the center.

## KAZAKHSTAN

### Scholarship program for vulnerable students

In September 2023, KATCO launched a scholarship program enabling young people from vulnerable families to access secondary education. 8 girls and 4 boys from the Sozak district were able to start their studies in 2

high schools and 1 university. Selected on the basis of their academic and family background, these 12 young people will benefit from financial support covering scholarships and related tuition fees over a four-year period. At the same time, 10 scholarships for the children of employees in difficulty have been awarded for 2023.

### Invataxi: facilitating transport for people with disabilities

In collaboration with the Sozak District Department of Social Work, KATCO financed the design of Invataxi, a vehicle able to transport children with disabilities. In connection with the special educational rehabilitation and training program for disabled children, 40 disabled children and 20 children benefiting from psychological follow-up are thus transported to their school or hospital to attend classes or receive medical care.

## NIGER

### IRHAZER project

The IRHAZER project contributes to sustainable food security in Niger. Initiated in 2011 between Orano and the State of Niger, this project is part of the "Nigeriens nourrissent les Nigériens" (Nigeriens feed Nigeriens) initiative and will contribute to the "Zero Hunger" program objective by 2035, set by the government. With a total budget of 17 million euros, this is the largest social project supported by Orano internationally.



The initial project covers 3 distinct zones: Irhazer (Ingall municipality), Air (municipalities of Agadez, Tchirozerine, Dabaga, Tabelot, Timia, Iferouane and Gougaram) and Tamesna (municipalities of Dannet and Arlit).

Currently, on the 750 hectares of the initial project, 482 hectares of agricultural land have been exploited, 445 of which are farmed and divided between community and private farms. More than 4,200 tons of cereals and vegetables have been produced in 2023. 300 market gardeners are working in the area to produce cereals and vegetables or to raise their herds.

In 2023, 2 additional irrigation points were built to meet the growing demand for water, bringing the total to 43 water points compared to the 20 initially planned. 3 additional solar pumping stations have been installed for the herders. At the same time, in accordance with the initial plan, all the community farms spread over 164 ha have been transferred to ONAHA (Office National des Aménagements Hydro-Agricoles), which is now in charge of ensuring the actions' continuity undertaken within the framework of the project.

Halfway through the year, a study was carried out to measure the impact of the introduction of market garden solar pumping on employment and yields. Based on a sample of 25 private farmers, the study revealed that surface area and production had increased by at least a factor of 2, and that the number of people working on a farm had risen from 2 to 4 for permanent staff and from 3 to 7 for temporary staff.

In the city of Arlit, the project's 10 ha extension has seen its first 2 harvests. Benefiting from a drip irrigation network, harvests have lived up to expectations, and the installation of a greenhouse to optimize sowing is planned for 2024. The income from this activity enables the 20 producers in the area to pay their irrigation water bills and improve their purchasing power.

In April 2023, the Irhazer project received the Global Gold Award in the Corporate Social Responsibility category at the Green World Awards. Organized by The Green Organisation, an independent, non-profit, non-political environmental organization, the Green World Awards have been recognizing the world's best environmental practices since 1994.

### **Renewal of partnership with "Les Puits du Désert"**

In March 2023, Orano Mining renewed its partnership with the association "Les Puits du Désert", to fight against the marginalization of women living in the northern part of Agadez. Living in villages on the outskirts of our areas of operation, the out-of-school women and girls from the 8 cooperatives already trained in 2022 have been able to continue their learning in literacy and micro-entrepreneurship.

Given the late start of the school year due to the political context in Niger, the literacy training sessions could not be completed this year; they will continue until the first

quarter of 2024. Ultimately, 200 women will benefit from this program.

[For more information on Puits du Désert](#)



### **Photovoltaic training for adults**

In December 2023, the University of Agadez provided the second training session in maintenance and installation of photovoltaic systems. 19 men and 1 woman were selected to follow a 10-day training course in solar panel installation and repair.

This training, the result of a 3-year partnership between Orano Mining and the University of Agadez, should enable 20 people who are far from employment to obtain a qualification and subsequently start a professional activity.

In all, 40 people from the communities surrounding our sites have benefited from this vocational training.

## **UZBEKISTAN**

### **Financing the first football ground meant for the local youth**

On October 11, 2023, Nurlikum Mining celebrated the opening of the Ayakkuduk village football ground, located close to the living base. This project, supported by the local stakeholder committee and funded by Nurlikum Mining, will enable young people from the village and neighboring communities to play sports and organize soccer championships. A tournament between local teams and the Nurlikum team took place on this occasion. In conjunction with the event, a meeting bringing together representatives of local stakeholders and villagers was held at the Ayakkuduk town hall to present and discuss Nurlikum's activities.





## NAMIBIA

### Craft projects for adults

The adult training project funded by Orano Namibia and the COSDEF Arts & Craft Center came to an end in December 2023. Twenty unemployed people benefited from training in various skills including crafts, marketing and customer relationship management. Designed to help fighting the marginalization of adults in rural areas, the training provided helps to improve living conditions for the community as a whole through the development of income-generating activities. This program will be renewed in 2024.

### Environmental awareness program for schools in the Erongo region (NaDEET)

Orano Namibia continued to support the Namibian Environmental Education Trust (NaDEET), an organization specializing in environmental education for children. 1,000 children from the Erongo region were able to benefit from 4 days of training on biodiversity, sustainable development and environmental protection at the Urban Sustainability Centre, the organization's training center.

## PRINCIPLE 9.2

**Enable access by local enterprises to procurement and contracting opportunities across the project life-cycle, both directly and by encouraging larger contractors and suppliers, and also by supporting initiatives to enhance economic opportunities for local communities.**

*The fact that preference is given - providing skill levels are comparable - to local suppliers during the bidding process enables the creation of a network of companies and numerous jobs in the region around each mining site.*

By 2025, Orano Mining has committed to maintain a rate of local purchasing of at least 75%.

In 2023, 86% of our purchasing volume came from the countries where Orano Mining operates. This result is stable compared with 2022.

How the idea of "local" is to be understood varies depending on the country, its stage of economic development and the population density around the site.

COUNTRIES	SITES	% of goods purchased in the country	% of goods purchased in the region
Niger	All sites combined	60%	30%
	SOMAÏR	56%	25%
	COMINAK	100%	74%
	IMOURAREN	76%	-
Canada	OCI	98%	71%
Kazakhstan	KATCO	98%	19%
France	Bessines	70%	22%
Mongolia	Badrakh Energy	89%	-
Uzbekistan	Nurlikum	100%	-
<b>TOTAL LOCAL GOODS</b>		<b>86%</b>	<b>30%</b>

Specific purchasing policies have been implemented in the countries where mining sites are located.

Orano Mining is thus setting itself the following rules:

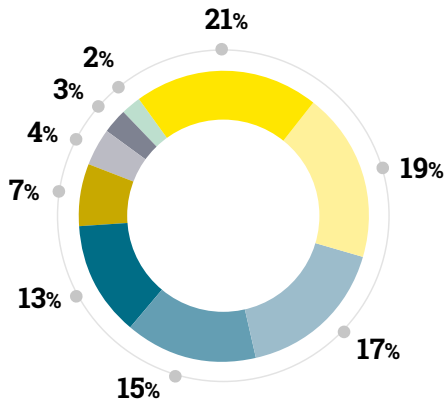
- Pay attention to include local suppliers in calls for tenders
- Prefer, all other capacities being equal, a local supplier whose proximity ultimately constitutes an advantage over its competitors
- Always be vigilant to ensure local suppliers adapt to standards (safety, transparency, human rights etc.)
- Support local suppliers with their development

In 2023, Orano Mining placed orders with approximately 2,000 suppliers.

Orano Mining contracts with its suppliers in three ways:

1. The simple order, where the General Purchasing Conditions (GPC) of Orano or the subsidiary are applicable, for recurrent and "simple" purchase.
2. The one-off purchase contract, governed by the amended and/or supplemented GPC, for complex purchases or services. It applies for projects for example.
3. The multi-year purchase contract, for recurring and complex purchases. Long-term services or continuous supplies are often purchased within this framework. The GPC are amended and/or supplemented. These contracts do not exceed 4 years.

2023 Goods purchase split by type



- Services
- Raw materials and semi-finished products
- Intellectual services
- Civil engineering, finishing work stages
- Logistics, handling and storage
- Equipment, components, mechanical supplies
- Drilling, industrial boiler making, piping, welding
- Electricity, electronics, instrumentation
- Others



## 2023 RESULTS

Maintain the local purchase rate (75% minimum)



In Canada, for similar contract bids, preference is systematically given to "local" northern suppliers, as per their status under provincial legislation in Saskatchewan.

A company has "local" northern status if it belongs to or operates within a community situated in northern Saskatchewan.

Contracts for services such as site catering or site security, which represent a significant number of jobs, have, for example, been awarded to the suppliers in this region.

## PRINCIPLE 9.3

**Conduct stakeholder engagement based upon an analysis of the local context and provide local stakeholders with access to appropriate and effective mechanisms for seeking resolution of grievances related to the company and its activities.**

Orano Mining complies with international best practices in the extractive industries and values transparency and dialogue with its stakeholders. The management of grievances plays an essential part in the quality of our relations with our stakeholders.

Orano Mining deployed a grievance mechanism on all of its sites in 2020 to resolve complaints expressed by third parties impacted by our activities at an operational level. The purpose of this procedure is to process a complaint, a request for an explanation on a specific issue, or a remark about one of the company's activities. The process is managed by Corporate Social Responsibility (CSR) teams but may also include contributions from other company departments.

The aim is to respond to grievances within a reasonable timeframe and to keep the complainant informed throughout the process.

## Grievance mechanism

Each site has carried out a survey of grievances or complaints received during the year 2022. The process makes it possible to trace the entirety of the request (date, type of stakeholder, subject, nature, etc.) and to list it in a standard document, deployed on all our sites in France and abroad.



To optimize the process, feedback has also been integrated into our internal Integrated Management System and shared with the health, safety and environment teams.

## Communication

Information campaigns at local information committees or public hearings for internal and external stakeholders at our sites took place during the year. During these meetings, a systematic presentation of the current year's results was made and the solutions implemented indicated. This mechanism, in place since 2020, is now well established at our sites and with our stakeholders.

However, to improve its effectiveness in Uzbekistan, two mailboxes have been set up in front of the town hall and the entrance to our base camp for easy access. In addition, the local population was reminded of the existence of this mechanism during on-site stakeholder committees.

At each site, in accordance with the ICMM definition, the name of the mechanism has also been adapted to the culture of the country. The terms grievances, suggestions or requests are now used by our different sites, allowing a better appropriation of the mechanism by our stakeholders and communities.

## Processing of grievances

Keeping track of and responding to the grievances and complaints of our stakeholders is important.

However, not all complaints are related to our activities. Indeed, some of our stakeholders use this mechanism to make remarks or issue requests on subjects that do not meet the conditions for registration and consideration (personal requests, partnerships requests, etc.).

In 2023, 100% of eligible complaints were handled within three months, in accordance with our procedure.

### 2023 RESULTS

- In 2023, 30 complaints were identified and reported:
- 4 were treated as proven related complaints with our activities and integrated into reporting.
  - 26 were treated but were not taken in account because they did not meet the eligibility criteria

### Themes of complaints issued

Themes	Number
Governance	1

Education	1
Economic development	1
Access to water	1

Since the mechanism was set up in 2020, 83 complaints (grievances, claims, suggestions) have been reported, 19 of which are eligible.



## 2023 RESULTS

Grievance mechanism: 100% of complaints managed on time



## PRINCIPE 9.4

**Collaborate with government, where appropriate, to support improvements in environmental and social practices of local artisanal and small-scale mining (ASM).**

Artisanal and Small-Scale Mining (ASM) is an important means of subsistence and source of income for over 40 million people in 80 countries.

It is estimated that ASM accounts for 15-20% of global non-fuel mineral production. It employs predominantly poverty affected populations, including children, is labor intensive, and is minimally mechanized.

ASM often exposes workers to significant safety, human rights and environmental risks. This activity is generally practiced illegally and is not governed by laws or regulations.

In Niger, ASM has existed since 1984 and has intensified since 2014 with the multiplication of sites. It employs approximately 450,000 people\* directly who extract gold mainly in the Tillabéry, Liptako, Djado, Tafassasset and Air regions. Mining methods have also evolved with the use of excavators, explosives, chemicals (cyanide and mercury) and tunnel mining.

Faced with this multiplication of sites and actors, the Ministry in charge of mining in Niger has worked to organize and supervise this activity, notably by adopting a law on small-scale mining in 2017. An activity that processes ore from Niger's gold mining

regions has developed in Arlit and near Orano Mining's sites. The State wishes to structure certain practices related to working conditions there with the installation of a counter to simplify administrative procedures and provide equipment (crushing, grinding, cleaning, waste management). It has already placed surveillance teams on the most important sites and is helping to train artisanal miners. It is supported in these initiatives by the World Bank and Swiss investors in the framework of the Better Gold project.

Orano Mining has long been explicitly opposed to the practices of certain artisanal mines, particularly those that practice gold panning, because of the health, environmental and human rights problems encountered.

Although, to our knowledge, artisanal and small-scale mining does not involve uranium in the vicinity of the SOMAÏR and COMINAK sites in Arlit and more generally in Niger, as a responsible miner, Orano Mining has decided to support, in conjunction with the authorities who implement them, training and awareness-raising modules on the control of safety, health and environmental risks. In 2021, 20 people were able to follow this module, developed by the Arlit Regional Mining Department. In 2023, none of the mining companies - SOMAÏR, COMINAK, or Orano Mining - were asked by the administration in Niger to intervene or support training on artisanal mining.

\* Source World Bank: report "extractive industries governance project for local development & Covid-19 Response"



# Stakeholder engagement



## MINING PRINCIPLE

Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance.



## PRINCIPLE 10.1


**Identify and engage with key corporate-level external stakeholders on sustainable development issues in an open and transparent manner.**

To ensure the acceptability and sustainability of its business activities, Orano Mining is committed to a process of dialogue, consultation and sharing with its stakeholders.

Various frameworks and tools enable Orano Mining to identify our stakeholders expectations:

- Regulations in force, whether national or international. These may designate, depending on the type of mining project, the stakeholders to be consulted as part of a clearly established dialogue and consultation process
- Mining agreements, specific partnership agreements or special provisions in our contracts, may lay down a framework for investments and dialogue for the benefit of communities or other local players with a view to socio-economic development.
- Frameworks and standards set by professional organizations in the sector and bodies in charge of voluntary transparency and responsibility initiatives
- "Stakeholder mapping" are done on a regular basis and specific actions plans are then defined
- Risk management exercises (e.g. the Business Risk Model). These are internal methodological principles. These systems help our teams identify and analyze the commitments to be made with

regard to groups impacted by our mining and industrial projects

- The materiality exercise that helps us to identify the main expectations of our stakeholders (See CSR Approach, p.15 .
- Local bodies for dialogue with stakeholders. Bodies such as the Bilateral steering committee (CBO - Conseil Bilatéral d'Orientation, Niger), which bring together local elected officials, relevant authorities and civil society, alongside Orano Mining Niger and our subsidiaries SOMAïR and COMINAK, serve to elicit local stakeholder expectations

Within Orano Mining, dialogue and consultation with our stakeholders are among the fundamentals. Our teams at headquarters and/or on site are their primary contact for deploying our dialogue approach.

These formal exchanges may take the form of face-to-face discussions, public meetings, or communication in writing and are adapted to the environment in each of the countries in which we are based. The topics most frequently addressed are those relating to the environment and the economy. The dialogue frequency depends, among other things, on the results of regular stakeholder mappings.

## Dedicated dialogue bodies are in place throughout the mining lifecycle from exploration to mine closure, on all our sites

### CANADA

**In Canada, several committees are set up to ensure dialogue with stakeholders because of the size of the territory and the diversity of the communities.**

#### **Athabasca Joint Engagement and Environmental Committee (AJES)**

Since its creation in 1993, this body has been made up of representatives of the mining companies Orano Canada Inc. and Cameco Corporation and seven signatories: 3 First Nations and 4 communities in northern Saskatchewan, commonly referred to as the Athabasca Basin Communities. For Orano Canada, the focus of this body is primarily to discuss the McClean Lake Operation and our exploration projects in or near the communities' Traditional Territories. This forum for dialogue meets quarterly.

In 2023, the subjects most frequently broached with our stakeholders were related to managing the environment, developing labor, the SABRE mining method and regulatory approval processes.

To learn more about SABRE



## Community Based Environmental Monitoring Program (CBEMP)

The Community Based Environmental Monitoring Program (CBEMP) was developed to provide confidence to Athabasca Basin Communities that their traditional foods remain safe to eat today and into the future. It brings together Orano Canada, Cameco Corporation, 4 locals appointed by First Nations and municipalities in northern Saskatchewan, and the executive director of the non-profit organization owned by the Athabasca Basin Communities.

If the monitoring program demonstrates that an adverse impact on traditional Indigenous food sources has resulted from the mining operations in the area, Cameco and Orano Canada will seek the feedback of AJES on appropriate measures to mitigate potential impacts on the communities.

The CBEMP takes a collaborative approach and aims to be a co-learning process that promotes shared knowledge, skills, and engagement with the community. Conducted by a third-party, it provides an opportunity for community members to become involved in the program by participating in interviews and sampling traditional foods that they consume for testing.

The CBEMP is evaluated by AJES to ensure that the program is meeting the objectives of the parties. In addition to other factors, the evaluation will consider:

- Program design
- Sample selection locations
- Sample types
- Indigenous knowledge

The Uranium City and Camsell Portage Traditional Foods Study, published in July 2023, showed the results of the 2021-2023 program which indicated that chemicals in traditional foods were generally low and within the range for the region, and are not of concern for the communities involved.

Communities of the Athabasca Basin have extensive knowledge and experience pertaining to the region and the northern environment. The CBEMP is founded on their shared knowledge and engagement. The traditional food dietary surveys and harvest mapping allowed community interviewers to identify areas that are highly valued by community members and where research should focus.

The 2023-2024 CBEMP program will be completed for Stony Rapids and Black Lake by Canada North Environmental Services in collaboration with the Ya'thi Néné Land and Resource Office.

In total, four CBEMP studies have been carried out since the beginning of the YTN collaboration agreement. They have all demonstrated that the region's foods remain safe to eat.

## Athabasca Education, Employment and Development Committee (AEEDC Committee)

The purpose of this Committee is to liaise with the management and the Ya'thi Néné teams in charge of lands and resources in order to collaborate on opportunities in the fields of education, employment and development in the region.

Through discussion forums, the AEEDC identifies, coordinates and promotes the needs of the various groups. Orano Canada participates in this committee, listening to their feedback and bringing training opportunity forward for promotion within the Basin. This allows information to flow well, avoids duplicating initiatives and combines them to act in the interest and as close as possible to the needs and the expectations of the communities of the Athabasca Basin.

## FRANCE

**235 former mines sites are under the responsibility of Orano Mining.**

## Site Monitoring Committees (CSS) and specific consultation

Set up on the initiative of local Prefects (government representatives), Site Monitoring Committees are bodies to promote dialogue and consultation between the operator and local stakeholders (residents, employees, elected officials, NGOs, etc.). Their aim is to inform the people on and around our sites about the effects of activities relating to tailings storage facilities, on public health and the environment.


The Prefect can set up a CSS for each environmentally classified facility subject to authorization.


In the Limousin region, the prefectures have chosen to create CSSs covering all sites in the same departments : Corrèze, Creuse and Haute-Vienne.

Through these Committees, Orano Mining presents the different environmental outcomes and the work to be carried out to improve monitoring of former mining sites.

In 2023:

- Orano Mining took part in 6 Site Monitoring Committees in the region
- 53 site visits and gatherings were organized for a diverse public (elected representatives, associations, students, administration, journalists, local residents, etc.)

Since 2019, Orano Mining has also made generally available an interactive mapping application for accessing relevant data relating to the old uranium mines for which it is responsible in France, how they are monitored environmentally and how they are redeveloped. The interactive map gives access to a wealth of data on the sustainable management of former sites, and thus forms part of our approach of overall transparency, making clear our commitments as a responsible mining company (see *Mining Principle 6.1*, p.68 .

In the case of specific projects, a dedicated consultation is implemented. In the Saône-et-Loire region, for example, a number of initiatives have been undertaken with local residents of the Bauzot site and the municipality of Issy-l'Évêque: meetings with private individuals, presentations to the town council, public meetings open to all residents of Issy-l'Éveque, etc. (for more information, see *Chapter 6.1, Bauzot project*, p.71 .

This consultation process has enabled Orano to work with elected representatives and local residents on the details of the work to be carried out.

[For more information](#)



## MONGOLIA

### Strengthening dialogue and cooperation agreements

The numerous site visits organized in 2023 have allowed us to demonstrate and explain our mining project in a transparent way to our stakeholders: 188 visits to herding operations thus took place and more than 670 visitors, including 332 students, were able to visit the pilot site. These visits to the facilities and the camp made it possible to strengthen dialogue and communication with local populations, authorities, NGOs, and media outlets.

Furthermore, the three Local Information Commissions (Commissions Locales d'Information - CLI) organized in 2023 enabled Badrakh Energy teams to communicate on the social projects implemented as well as the studies carried around our site.

The Cooperation Agreement, signed in 2018, defines the framework of dialogue and exchange between

the Badrakh Energy teams and the communities. The contribution to social projects allocation is planned for the full duration of the agreement and is structured around seven pillars: access to water, human health, animal health, education, culture, access to energy, and economic development.

In 2023, the Cooperation Agreement was renegotiated and signed by the authorities of Ulaanbadrakh and Zunbayan for a two-year period.

The "Implementation Committee" and the "Relationship Committee", which exchange information on completed projects and validate societal projects with local authorities and representatives, met 4 times in 2023, in Ulaanbadrakh and Zunbayan respectively, as well as in Sainshand. These two governance bodies are an integral part of the Cooperation Agreement.

## KAZAKHSTAN

### Close relations with stakeholders


KATCO has maintained its regular visits and exchanges in the communities surrounding its sites, while welcoming numerous visitors to its facilities. Around 15 visits were organized in the summer for groups of students from nearby universities, and 21 pupils and 2 teachers from schools in the district were welcomed at the site's open days in October 2023.

Workshops and seminars were also held on site, bringing together authorities, stakeholders and experts.

In the Sozak District (villages of Tasty, Shu, Sholakorgan, and Taukent), 4 informational meetings were organized between April and October with the Human Resources and the Health, Safety, and Environment departments. The site's activities were presented to the representatives of local populations as well as the changes to the complaint





suggestion mechanism deployed by KATCO (to learn more, see *Mining Principle 9.3*, p.120 )

Meetings with local populations and associations representing people and women, for example, were also initiated by KATCO.

At the same time, several meetings were held with the governor of the Turkistan region and the Akimat of the Sozak district to discuss governance and future societal projects to be financed by KATCO. KATCO's CSR team is committed to informing and intervening on key issues in order to best meet the expectations of its local stakeholders. Thus, in September 2023, KATCO was able to participate in one of the quarterly meetings between the Akimat and local populations, enabling it to reaffirm its social commitments.

## NIGER

### Dialogue and awareness-raising with local populations

In May 2023, the signing of the Global Partnership Agreement further strengthened cooperation between Orano and the State of Niger, reinforcing our ties and actions in favor of our stakeholders.

Starting in April, numerous visits and discussions with elected officials, youth and women's associations, and market gardeners took place in Arlit and Akokan. The goal of these meetings was to inform local populations about our site activities, and to strengthen dialogue, trust and transparency. The technical, social and societal progress of the COMINAK site's rehabilitation continued to be the subject of regular updates with local stakeholders, monitoring committees and authorities. Foreign delegations were also received to visit the site and exchange best practices related to redevelopment.

For the Imouraren project, the preparation of the information meeting (caravane) took place in May, bringing together elected representatives and local populations, as well as group and tribal leaders. The purpose of this meeting was to define the organization and scope of the caravan before the start of hydrological studies linked to the feasibility's assessment of developing the mine using the ISR technology.

Throughout the year, site teams maintained a constant dialogue with local populations, reaffirming Orano's social commitments. Site visits and meetings with civil society and the various local stakeholders were maintained, enabling the new authorities to view and learn about all the projects in progress.

To learn more about the remediation at COMINAK, see p.76 

## UZBEKISTAN

### Setting up the local stakeholder council

In the summer of 2023, the Ayakkuduk Village Local Stakeholder Council met. Based on Orano Mining's governance principles, this committee brings together Ayakkuduk village councillors, youth and women's representatives and Nurlikum teams. The aim of the committee is to strengthen dialogue with the local population, involve them in the decision-making process and respond to their questions and/or expectations. The monthly meeting is held at the village hall and is a tool for sharing information and promoting the acceptability of ongoing activities. This formalized approach is a first in the region.

## PRINCIPLE 10.2

**Publicly support the implementation of the Extractive Industries Transparency Initiative (EITI) and compile information on all material payments, at the appropriate levels of government.**

### Transparency of revenue in the extractive sector

Orano Mining is committed to transparency and supports the EITI (Extractive Industries Transparency Initiative) framework since its creation in 2003.

Orano Mining publishes its earnings from mining.

[More information on Orano Mining income](#) 

[Report on payments made to governments](#) 

### Contracts transparency

Since January 2021, you can visit our website to review the publication of mining contracts and licenses of our subsidiaries engaged in exploration, development and production activities concluded with local governments, insofar as these are not subject to legal, regulatory or contractual confidentiality obligations.

True to our values of continuous progress and integrity, we are committed to pursuing work with our partners and the governments of the countries in which we operate to encourage them in the disclosure of contracts, in accordance with the EITI principles.

Orano Mining supports beneficial ownership transparency and is committed to avoid partnering or contracting with companies assessed as high corruption risk that decline to identify their beneficial owners unless appropriate mitigation measures are implemented to reduce corruption risk as per our principles included in our Code of Ethics and business conduct.

[See Orano Mining contracts and licenses list](#)



## 2023 RESULTS

Publish our extractives payments and contracts according to the EITI standard whenever authorized by States



## Public financial assistance

Within the framework of their mining activities, neither Orano Mining SA nor any of its subsidiaries included in the financial consolidation scope have received public financial assistance for the financial year 2023, except for SOMAÏR and COMINAK in Niger.

Items not considered as public assistance for the purposes of this statement include incentives, in particular financial incentives, automatically applied to all mining operators, as expressly provided for by the legislation, including mining legislation, of the countries concerned.

In 2023, SOMAÏR and COMINAK benefited from safeguard measures in the form of tax exemptions and/or reliefs for an estimated amount of M CFAF 1.3 granted because of the need to maintain activity in Northern Niger, a constrained uranium market, and the end-of-life financial situation of these entities.

Mining activities include exploration, development, mining projects, production of uranium concentrates, and remediation of mining sites. In 2022, they extended over the following geographical areas: France, Gabon, Niger, Namibia, Kazakhstan, Mongolia, Canada, and Uzbekistan.

As part of the RECYVABAT (recycling and reuse of batteries) project, in 2023, Orano Mining received grants from Bpifrance for a net amount of 2,286,124 euros in respect of its share. In addition, Orano Mining has repaid to the consortium partners 1,892,288 euros of the 4,865,319 euros grant received from the European Union in 2022, corresponding to their share in the consortium.

As of December 31, 2023, Orano Mining was 100%-owned by Orano SA, which is itself 90%-owned by French State.

In addition, the following subsidiaries have stock held by a state other than the French state or by companies

Subsidiary	Country	State or State-owned entity	Share percentage
KATCO	Kazakhstan	KAZATOMPROM company (75% owned by the Kazakh State)	49%
SOMAÏR	Niger	SOPAMIN company (100% owned by the State of Niger)	36.6%
COMINAK	Niger	SOPAMIN company (100% owned by the State of Niger)	31%
IMOURAREN SA	Niger	SOPAMIN company (100% owned by the State of Niger)	23.35%
		State of Niger	10%
COMUF	Gabon	State of Gabon	24.75%
Badrakh Energy LLC	Mongolia	MONATOM company (100% owned by the Mongolian State)	34%
Nurlikum Mining	Uzbekistan	State of Uzbekistan	49%



controlled by a State other than the French state (as at December 31, 2023).

## PRINCIPLE 10.3

**Report annually on economic, social and environmental performance at the corporate level using the GRI Sustainability Reporting Standards.**

### Scope of the report

The preparation of this annual report, the Corporate Social Responsibility Report, driven by the Social Responsibility, Engagement and Communication Department of Orano Mining, is the result of the mobilization of all our teams at our headquarters and our sites.

### Reporting period

The 2023 corporate social responsibility report is the thirteenth edition of this annual exercise. The previous reports are still available as downloads at Orano's internet site, "Report Archives".

The 2023 social responsibility report is framed as follows:

- It covers the performance of our responsible commitments for 2023. The reporting periods for the information reused in this report ran up to December 31, 2023
- It is based on the orientations of the materiality exercise performed at the end of 2018

Within the scope of 2023 mining activities, our teams have applied the guidelines set out in the Standards version of the Global Reporting Initiative (GRI) as well as the Mining and Metals Sector Supplement (SSMM).

### Scope of information

The CSR Policy section sets out our underpinning commitments.

The data given cover, as did the previous CSR Report, the assets for which Orano Mining acts as operator in uranium mining activities: exploration, project development, production, and remediation.

The consolidated data target the activities present in France, Canada, Niger, Kazakhstan, Mongolia, Namibia, and Uzbekistan. When the scope only covers one given country, this is specifically mentioned.

There are no issues identified outside the organization as relevant.

As the application of Orano's strategy and policies and the priorities provided by our materiality matrix., this reports serves to present the performance related to the main issues around the responsibilities of mining activities according to the 10 main mining principles of the ICMM.

[Learn more about the ICMM's principles](#)



In addition, Orano Mining undertook self-assessments at all its sites in operation (SOMAÏR in Niger, KATCO in Kazakhstan, Orano Canada Inc. in Canada) to check the conformity with the requirements of the International Council on Mining and Metals (ICMM). The methodological note and the result of these self-assessments can be consulted on Orano's website.

[To learn more, consult the methodological note](#)



[To learn more, consult the results of the self-assessments](#)



### Reporting protocol

For environmental, social, economic and ethical issues, internal technical protocols have been developed over several years. They enable us to respond to several indicators proposed in the GRI guidelines.

French regulatory constraints do not allow us to report on categories of diversity-related indicators for which other national regulations do. Finally, as far as possible, for all themes for which we do not possess or are updating technical protocols, we endeavor to consider the GRI approach when it is relevant and applicable to the scope of our activities.

The indicators published in this report measure the main social, environmental and societal impacts and issues related to Orano Mining's activities.

Developed by a group of experts representing the group's various functions and businesses, they have been built according to the regulatory framework of articles R. 225-105, R. 225-105 1, L. 225-102-1 and L. 22-10-36 of the French Commercial Code, and applicable international standards such as the Global Reporting Initiative (GRI) and the GHG Protocol.

During the current campaign, errors identified in previous years' reports are corrected. Changes in published

values are mentioned and commented on in case of significant in case of significant variation.

For more information on the methodology, see Orano Annual Report, Chapter 4.9.1, p.189



For all requests for information, please contact:  
**G-MN-RSE@orano.group**

## PRINCIPLE 10.4

Each year, conduct independent assurance of sustainability performance following the ICMM guidance on assuring and verifying membership requirements.

We therefore meet the commitments made as part of our involvement in the International Council on Mining and Metals (ICMM). This process is being carried out in accordance with the Grenelle 2 environment law which lays down regulations with regard to the topics to be dealt with in non-financial reporting by companies.

Once again this year, we have performed an independent verification of the contents of this report in compliance with the ICMM audit procedure and the AA1000 ethical auditing principles.

The assurance statement issued by the auditing firm is available [here](#) as a download (in french).

Each year the Orano Group audits a sample of extra-financial indicators as part of the independent verification of the Annual Report. As such, a number of our mining sites may be selected for the review of these indicators. KATCO, in Kazakhstan, was audited in 2024.

# GRI STANDARDS AND DUTY OF VIGILANCE

The Orano Mining's CSR Report 2023 has been prepared in accordance with the GRI Standards guidelines. The Mining and Metals Sector Supplement (MMSS) has also been used.

More information on ICMM Mining principles



Statement of use	Orano Mining has reported in accordance with the GRI Standards for the period 1 <sup>st</sup> January to 31 <sup>st</sup> December 2023
GRI 1 used	GRI 1: Fondation 2021
Applicable GRI Sector Standard(s)	GRI G4 Mining and metals

## MESSAGE FROM XAVIER SAINT MARTIN TILLET, PROFILE AND CSR APPROACH

	GRI Standard
Organizational details	GRI 2-1
Activities, value chain and other business relationships	GRI 2-6
Governance structure and composition	GRI 2-9
Nomination and selection of the highest governance body	GRI 2-10
Chair of the highest governance body	GRI 2-11
Communication of critical concerns	GRI 2-16
Collective knowledge of the highest governance body	GRI 2-17
Evaluation of the performance of the highest governance body	GRI 2-18
Statement on sustainable development strategy	GRI 2-22
Process to determine material topics	GRI 3-1
List of material topics	GRI 3-2

## Concordance table ICMM Mining principles, GRI Standards, and Duty of vigilance



### MINING PRINCIPLE 1 - ETHICAL BUSINESS

Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development

GRI STANDARD		DUTY OF VIGILANCE
1.1	GRI 2-23 Policy commitments	✓
	GRI 2-24 Embedding policy commitments	
1.2	GRI 2-24 Embedding policy commitments	
	GRI 205-1 Operations assessed for risks related to corruption	✓
	GRI 205-2 Communication and training about anti-corruption policies and procedures	
1.3	GRI 2-24 Embedding policy commitments	
	GRI 2-23 Policy commitments	✓
1.4	GRI 2-24 Embedding policy commitments	
	GRI 2-12 Role of the highest governance body in overseeing the management of impacts	
	GRI 2-13 Delegation of responsibility for managing impacts	✓
	GRI 2-14 Role of the highest governance body in sustainability reporting	
1.5	GRI 415-1 Political contributions	



### MINING PRINCIPLE 2 - DECISION-MAKING

Integrate sustainable development in corporate strategy and decision-making processes

GRI STANDARD		DUTY OF VIGILANCE
2.1	GRI 2-14 Role of the highest governance body in sustainability reporting	✓
2.2	GRI 2-24 Embedding policy commitments	✓
	GRI 2-23 Policy commitments	✓
	GRI 205-2 Communication and training about anti-corruption policies and procedures	



### MINING PRINCIPLE 3 - HUMAN RIGHTS

Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities

GRI STANDARD		DUTY OF VIGILANCE
3.1	Support the UN Guiding Principles on Business and Human Rights	
3.2	MM9 Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	

3.3	Human rights	✓
3.4	GRI 2-30 Collective bargaining agreements	✓
	MM4 Number of strikes and lock-outs exceeding one week, by country	
3.5	GRI 2-7 Employees	✓
	GRI 2-19 Remuneration policies	
	GRI 2-20 Process to determine remuneration	
	GRI 2-21 Annual total compensation ratio	
	GRI 401-1 New employee hires and employee turnover	
	GRI 404-1 Average hours of training per year per employee	
	GRI 404-3 Percentage of employees receiving regular performance and career development reviews	
3.6	Indigenous Peoples Rights	
3.7	GRI 411-1 Incidents of violations involving rights of indigenous peoples	
3.8	GRI 401-2 Benefits provided to full-time employees that are not provided to temporary or parttime employees	✓
	GRI 401-3 Parental leave	
	GRI 402-1 Minimum notice periods regarding operational changes	
	GRI 405-1 Diversity of governance bodies and employees	



**MINING PRINCIPLE 4 - RISK MANAGEMENT**

ICMM company members commit to implement effective risk-management strategies and systems based on sound science, and which account for stakeholder perceptions of risk

GRI STANDARD		DUTY OF VIGILANCE
4.1	Risk assessment	✓
4.2	GRI 2-23 Policy commitments	✓
4.3	Risks controls – Management systems	✓
4.4	Crisis management	✓



**MINING PRINCIPLE 5 - HEALTH, SAFETY**

Pursue continual improvement in physical and psychological health and safety performance with the ultimate goal of zero harm

GRI STANDARD		DUTY OF VIGILANCE
5.1	GRI 403-1 Occupational health and safety management system	✓
	GRI 403-2 Hazard identification, risk assessment, and incident investigation	
5.2	GRI 403-3 Occupational health services	✓



### MINING PRINCIPLE 6 - ENVIRONMENTAL PERFORMANCE

Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change

GRI STANDARD		DUTY OF VIGILANCE
6.1	MM 10 Number and percentage of operations with closure plans	✓
6.2	Water	✓
6.3	MM 3 Total amounts of overburden, rock, tailings, and sludges and their associated risks	✓
6.4	Waste	✓
6.5	GRI 302-1 Energy consumption within the organization	✓
	GRI 302-3 Energy intensity	
	GRI 305-1 Direct (Scope 1) GHG emissions	
	GRI 305-2 Energy indirect (Scope 2) GHG emissions	
	GRI 305-4 GHG emissions intensity	



### MINING PRINCIPLE 7 - CONSERVATION OF BIODIVERSITY

Contribute to the conservation of biodiversity and integrated approaches to land-use planning

GRI STANDARD		DUTY OF VIGILANCE
7.1	GRI 304-1 Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	✓
7.2	GRI 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	✓



### MINING PRINCIPLE 8 - RESPONSIBLE PRODUCTION

Facilitate and support the knowledge base and systems for the responsible design, use, re-use, recycling and disposal of products containing metals and minerals

GRI STANDARD		DUTY OF VIGILANCE
8.1	Eco-design	✓
8.2	GRI 417-1 Requirements for product and service information and labeling	✓
	GRI 417-2 Incidents of non-compliance concerning product and service information and labeling	



### MINING PRINCIPLE 9 - SOCIAL PERFORMANCE

Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities

GRI STANDARD		DUTY OF VIGILANCE
9.1	GRI 2-28 Membership associations	
	GRI 203-1 Infrastructure investments and services supported	

9.2	GRI 204-1 Proportion of spending on local suppliers	✓
9.3	GRI 2-26 Mechanisms for seeking advice and raising concerns	
	GRI 2-29 Approach to stakeholder engagement	
9.4	Not applicable	



**MINING PRINCIPLE 10 - STAKEHOLDER ENGAGEMENT**

Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner, effectively report and independently verify progress and performance

GRI STANDARD		DUTY OF VIGILANCE
10.1	GRI 2-29 Approach to stakeholder engagement	✓
10.2	GRI 201-4 Financial assistance received from government	✓
10.3	GRI 2-2 Entities included in the organization's sustainability reporting	✓
	GRI 2-3 Reporting period, frequency and contact point	
	GRI 2-4 Restatements of information	
	GRI 2-5 External assurance	✓

Orano Mining, RSE Direction  
June 2024

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Conception & Realisation: BCerise

As a recognized international operator in the field of nuclear materials, Orano delivers solutions to address present and future global energy and health challenges.

Its expertise and mastery of cutting-edge technologies enable Orano to offer its customers high value-added products and services throughout the entire fuel cycle.

Every day, the Orano Group's 17,500 employees draw on their skills, unwavering dedication to safety and constant quest for innovation, with the commitment to develop know-how in the transformation and control of nuclear materials, for the climate and for a healthy and resource-efficient world, now and tomorrow.

Orano, giving nuclear energy its full value.

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Energy is our future, don't waste it!

