2019 Annual Activity Report

orano

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This free translation into English of the "Rapport Annuel d'Activité – 2019" written in French is provided solely for the convenience of English speaking users. In the event of any inconsistency or difference of interpretation, the French version shall prevail.

This Annual Activity Report of Orano for 2019 includes:

- the management report of the Company's Board of Directors including the management report of Orano, including:
    - the group's vigilance plan and the report on its implementation (Article L. 225-102-4 of the French Commercial Code),
    - the statement of non-financial performance (Article L. 225-102-1 of the French Commercial Code),

      A cross-reference table of the data required in the statement of non-financial performance and the data required by the French Duty of Care Act is provided in Appendix 8.9,
    - the report of the Board of Directors on corporate governance (Article L. 225-37 of the French Commercial Code); and
- the Board of Directors' report on the principles and criteria for determining, distributing and allocating the fixed, variable and exceptional components of the total compensation and benefits of any kind attributable to the corporate officers of the Company.

COMPANY PROFILE

Orano's business card

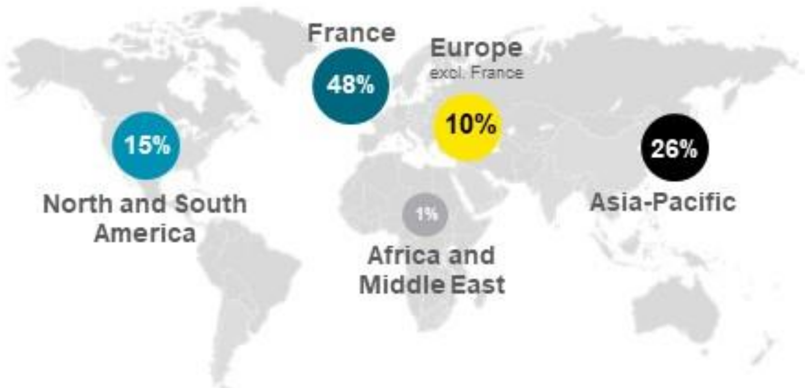
€29.9bn
Order backlog i.e. nearly 8 years of revenue

€3,787 M
in revenue

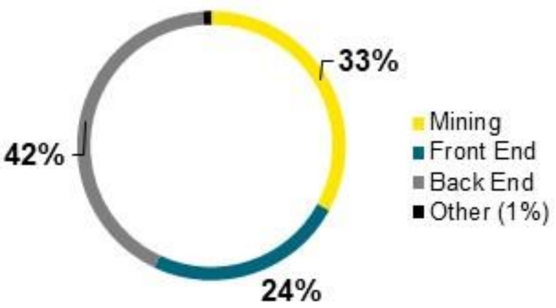
16,000
employees across the world

Top 3
worldwide in our key activities

Breakdown of 2019 revenue by region



Breakdown of 2019 revenue by business



More than
1,000
new hires on permanent contracts in 2019

5.2%
Water consumption reduced in 2019

1.8
Accident frequency rate with lost time in 2019

Business model

UNDDERLYING TREND

- A need to achieve carbon neutrality by 2050
- Demand for power doubling by 2050
- 40% of CO_2 emissions worldwide come from power generation

Nuclear power, through 450 reactors in operation worldwide, is a low-carbon, competitive, and continuously operated power generation technology

Nuclear is a key energy for limiting climate change

&

- **Environmental issues and increased scarcity of resources**
- **Need for sustainable industrial presence in the regions**
- **Digital transformation et Industry 4.0**

ASSETS AND RESOURCES

Orano offers products, technologies and services in mining, chemistry of uranium, enrichment, recycling used fuel,

HUMAN CAPITAL

- **16,000** employees worldwide
- **21.7 %** of women
- **5.7 %** of disabled people
- **2** training schools: the Business School and
- the Management School
- ~ **850** employees trained in compliance and ethics in 2019

INTELLECTUAL CAPITAL

- ~**€100 M** overall R&D effort
- **+40 years** of collaboration with the CEA
- **10** collaborations with universities, with integration of new skills such as **Design**
- **470** recognized multidisciplinary experts

INDUSTRIAL & ENVIRONNEMENTAL CAPITAL

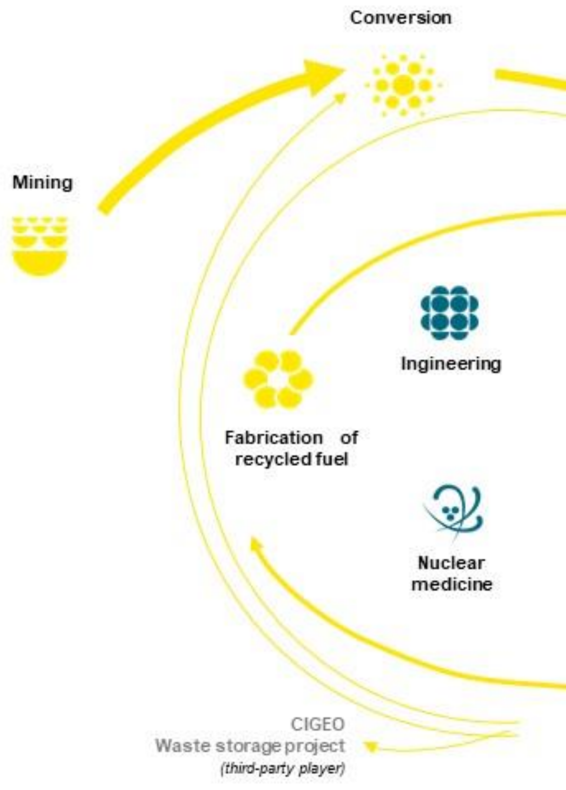
- Regional influence on **4** continents
- **3** major industrial platforms in France (la Hague, Tricastin, Melox)
- **€550 M** average of industrial investments per year

SOCIETAL CAPITAL

- **+50 years** of presence in Niger: a long-term commitment close to our regions
- **1** framework agreement for revitalization of areas near Orano sites in France

ECONOMIC CAPITAL AND GOVERNANCE

- +¾ of the share capital held by the State guaranteeing stable governance
- Backlog of **8 years** of revenue



OUR STRATEGIC FOUNDATIONS

MOVING TOWARDS CARBON NEUTRALITY

REINFORCING THE GROWTH OF OUR BUSINESSES

OUR MISSION

Orano transforms nuclear materials so that they contribute to the development of society, firstly in the field of energy.

OUR PRIORITIES

1. **Be a creator of value** for our customers by offering them competitive products, technologies and services that meet their current and future needs
2. Put **operational excellence** as the core of our day-to-day management
3. **Promote innovation** in every area

OUR MPERATIVE

A culture of uncompromising security and safety

- **Number of INES events:**

- **Frequency rate of workplace accidents with lost time:**

1.8 vs. ~6 in the industry

logistics, engineering and dismantling.

The group also develops activities in the nuclear medicine sector.

ACHIEVEMENTS AND RESULTS

HUMAN CAPITAL

- **+1,000** hires on permanent (CDI) contracts in 2019
- **+700** interns in 2019
- **+33 hours/year** training per employee in France
- **89/100** Gender equality index in 2019

INTELLECTUAL CAPITAL

- **+20** innovative technological solutions deployed on the sites and
- **+30** on-going Proof of Concepts (POC)
- **20** on-going business innovation explorations
- **+170** collaborations with start-ups to meet the energy challenges of tomorrow

INDUSTRIAL & ENVIRONNEMENTAL CAPITAL

- **10%** of French nuclear electricity production from the recycling of used fuel
- A major low-carbon transition player that can offer, thanks to its contribution, one of the lowest-carbon emitting technologies (**12 gCO2/KWh**)

SOCIETAL CAPITAL

- **€4.5 M** invested in the regions by the Mining activity for healthcare, access to water, training and economic development
- **1,122** jobs created as part of the French regional revitalization plan between 2017 and 2019

ECONOMIC CAPITAL AND GOVERNANCE

- A structured governance with **4** specialized committees comprising experts recognized in their fields
- Responsible business management: **€8 Bn** in assets dedicated to covering all of the future dismantling obligations for our sites

BEING ENGAGED AND RESPONSIBLE LOCALLY

SYSTEMATIZING OPERATIONAL EXCELLENCE

HARNESSING THE SKILLS OF OUR TEAMS

The purpose of this report is to present the situation of Orano and its subsidiaries during the financial year running from January 1 to December 31, 2019.

The terms “group” or “Orano” refer to the group of companies formed by Orano and its subsidiaries and interests, both direct and indirect.

A French law public limited company entitled to issue financial securities admitted for trading on a regulated market, the Company is subject to the obligation to draw up a management report including the information stipulated by the French Commercial Code, as well as the specific information required of a company issuing debt instruments listed for trading on a regulated market.

1 Highlights of the financial year

1.1 Highlights of the financial year

1.1.1 Relocation of the head office of Orano SA

Since September 15, 2019, the head office of Orano SA has been situated at 125 avenue de Paris in Châtillon, Hauts-de-Seine, France.

1.1.2 Funding

On April 9, 2019, Orano successfully issued a maiden 750 million euro 7-year bond (maturity 2026) bearing an annual coupon of 3.375% (yield of 3.50% on issue).

In parallel with this issue, Orano launched a partial redemption offer on the 2023 and 2024 bonds issued by Areva and contributed to Orano in 2016. The maximum amount of acceptance of redeemed securities was 250 million euros, allocated entirely to the 2024 bond.

With these transactions, Orano was able to strengthen the group’s liquidity position, renew its long-term funding and as such optimize its borrowing profile.

1.2 Other highlights of the financial year

1.2.1 Mining

- Following a steady decline in the first half of 2019, the spot price of uranium rose slightly in the second half of 2019 to 24.9 US dollars/lb at the end of 2019 (compared with 28.50 US dollars/lb at the end of 2018), while the long-term indicator remained stable at 32 US dollars/lb at the end of 2019 (compared with 32 US dollars/lb at the end of 2018).

- In July, the U.S. President decided not to act on the recommendations of the two U.S. mining companies which had launched a petition (Section 232 Petition) to restrict foreign uranium imports and protect U.S. national interests. The petition called for 25% of uranium requirements in the U.S. to be met by domestic production (versus the current 5%). The President instead set up a special body to make recommendations for reviving and increasing U.S. uranium production. Orano's teams always endeavor to limit its exposure to possible future taxes or quotas, both for current and future contracts.

- In September, the foundation stone was laid at the new Innovation Center for Extractive Metallurgy (CIME) in Bessines-sur-Gartempe (France). The CIME will transform the group's production plant by bringing the current teams and facilities of the Research, Processes and Analyses Department (SEPA) together under one roof. The new 8,300 m² building will enable the group to continue developing its end-to-end solution, from technical studies to the industrial pilot, in a state-of-the-art environment. The construction of the new center represents an investment of 30 million euros and is expected to be completed in 2021.

- In October, the Board of Directors of Compagnie Minière d'Akouta (Cominak) set the date for the end of production at the Akouta site at March 31, 2021. The decision was made considering the exhaustion of reserves.

- In December, Orano Mining cemented a partnership with the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan by forming the joint venture, Nurlikum Mining LLC, controlled by Orano. The agreement formalizes the desire of both parties to work together on uranium mining projects in Uzbekistan, particularly in the Navoiy region in a desert area at the heart of the uranium-rich province of Kyzylkum. Once exploration permits have been granted, Nurlikum Mining LLC will carry out surveys to improve the classification level of the resources already identified by the Uzbek partner and to identify new uranium reserves.

- The McArthur River mine (69.8% held by Cameco and 30.2% by Orano) and the Key Lake processing plant (83.3% owned by Cameco and 16.7% by Orano) remain mothballed indefinitely.

1.2.2 Front End

- After falling in 2018 to their lowest levels since 2004, the indicators for the enrichment market began to recover in 2019. This was mainly due to the uncertainties and concerns of industry players over (i) the implications of the direction taken by U.S. foreign policy, and (ii) the need, in the medium term, to update some of the installed enrichment capacity, which can only be done at market prices that justify such major investments. The benchmark spot price published by UxC rose from 39 US dollars per SWU at the end of 2018 to 47 US dollars per SWU at the end of 2019. The long-term price of the SWU rose from 41 US dollars at the end of 2018 to 49 US dollars at the end of 2019.

  On the conversion market, the supply continued to tighten following the mothballing of the Converdyn plant at the end of 2017 and the transition from Comurhex I to Philippe Coste. This accentuated the price recovery in 2019 and accelerated the outsourcing of the conversion service by several electricity companies whose short- and medium-term needs were not fully covered. The spot price rose from 13.75 US dollars per kgU at the end of 2018 to 22 US dollars at the end of 2019 (the European conversion price published by UxC), while the long-term price rose from 15.50 US dollars/kgU at the end of 2018 to 18.00 US dollars at the end of 2019.

- The ramping up of the Philippe Coste plant was disrupted by a technical fault in the crystallizers, one of the main components of the facility. These act as a heat exchanger for crystallizing or liquefying the material produced by the process before transfer into transport packaging.

  The swift response of the teams cushioned the impact on the ramping up of the plant and demonstrated the capacity of the other parts of the facility to operate at their nominal production point. The UF_6 (uranium hexafluoride) produced by the Philippe Coste plant has been certified (ASTM standard) and has begun to supply the Georges Besse II enrichment plant. The replacement of the crystallizers with new versions is planned for the first half of 2020.

  The plant's ramp-up continues in 2020, with the connection and start-up of a new electrolysis unit that will double the installed UF_6 production capacity to an annualized rate 15,000 metric tons of UF_6.

- Following the “Sunset review” process which began in 2018, the U.S. Department of Commerce (DoC) published its findings in the Federal Register on March 15, 2019. Since no U.S. stakeholder had expressed an interest in conducting a review of the subject before the deadline, the DoC confirmed that it would be revoking the anti-dumping order imposed on enriched uranium from France in 2002.

1.2.3 Back End

Recycling

- MOX Services, 30% owned by Orano, was notified on October 10, 2018 by the National Nuclear Safety Administration (NNSA) of a request for termination for convenience of the contract for the construction of the Savannah River recycling plant (South Carolina). The plant, known as the MOX Fuel Fabrication Facility (MFFF), was to contribute to the nuclear disarmament program by recycling 34 metric tons of military plutonium into fuel to produce electricity for the U.S. grid. Orano, a minority partner of the MOX Services consortium in charge of building the plant, was in charge of supplying recycling equipment.
  The mediation procedure requested by the U.S. Department of Justice (DoJ) in June 2019 concluded with an agreement signed in November 2019 terminating the contract and requiring both parties to discontinue proceedings and NNSA to pay MOX Services a sum in full and final settlement.
- On July 31, 2019, Orano signed a method agreement with the CEA on the next stages in outsourcing the treatment of particular fuels.
- In 2019, the production of the two industrial recycling platforms was marked by various events.
  In January 2019, the Melox plant launched a production improvement plan based on three major projects: the upgrading of the machinery and refurbishment of the premises; the upskilling of employees through innovative training; the adoption of standards whose form and content were revised to make them easier to use.
  The La Hague plant achieved a high level of production due to the completion of scheduled maintenance shutdowns on time and active involvement of the teams. In addition, the replacement of the dissolver wheel in the shearing workshop, which separates the fissile powder from the metal sheaths of the used fuels, was carried out within a short time, enabling the production targets to be reached.

Nuclear Packages and Services

- On January 1, 2019, the subsidiary CHT merged with the parent company TN Americas.
- In 2019, Orano won contracts worth several hundred million euros on the European and Japanese markets for the transportation and dismantling of packaging. On the U.S. market, it signed a contract worth tens of millions of dollars for the dry storage of spent fuel with its customer Xcel Energy.
- In 2019, Orano lost market share in the United States to its competitor Holtec, losing customers such as NextEra Energy Resources and Talen Energy for whom Orano had been the incumbent provider.
- In line with its 2019 growth and diversification plan, Orano increased its transportation of rare earths by threefold in 2019, although this still remains modest. It also secured a contract with its Finnish customer TVO for the transportation of used fuels using reusable transport packaging.

Dismantling and Services (DS)

- The Dismantling and Services business has grown internationally, with a cooperation agreement put in place and new contracts signed, for example with the German electricity company RWE for the dismantling of the reactor cores of the nuclear power plants at Mülheim-Kärlich (Rhineland-Palatinate) and Biblis (Hessen). In September, Orano undertook to provide the Japanese operator TEPCO with its technical expertise in dismantling and waste management at the damaged Fukushima plant.
- Commercially, Dismantling and Services has won several major contracts with French nuclear operators. In July, Orano DS was awarded a contract for almost 100 million euros following EDF’s call for bids for the provision of services in support of the operation of the Paluel (Seine-Maritime), Civaux (Vienne) and Gravelines (Nord) nuclear power plants until 2024, with an additional two-year option. A few weeks later, the CEA awarded DS a contract for the turnkey supply and operation of a processing and packaging unit for legacy nuclear fuels at its Cadarache site (Bouches-du-Rhône).
- In September, TRIHOM, the leading French training provider for the nuclear industry and a subsidiary of Orano DS, unveiled its new 2,200 m² facility in the Centre-Val de Loire region of France. The site is home to its new head office, three new training workshops and a unique center for the advancement of professional skills, open to French industry as a whole and the welding and plumbing trades in particular. This new investment completes the 7 million euro development plan which TRIHOM launched in 2015 to refurbish or build new training centers across France.

- Operationally, dismantling projects are continuing to be carried out by the DS teams at Orano's facilities, with dismantling of the former nuclear facilities of the UP2-400 plant at the la Hague site (Manche, France) now 32% complete. The activities of Dismantling and Services are expanding across all businesses, with net growth in the workforce of around 450 employees in 2019 and identical prospects for 2020.

Engineering

- In February, Orano Projets, in conjunction with Orano's Dismantling and Waste Contracting Department (DM2D), signed a contract with the French national radioactive waste management agency (ANDRA) for a feasibility study to be carried out on the direct storage of used fuels at CIGEO (Industrial Center for Geological Storage) without reprocessing.
- In November, during the visit to China by the President of the French Republic, Emmanuel Macron, representatives from the French Alternative Energies and Atomic Energy Commission (CEA) and the China Atomic Energy Authority (CAEA) signed, in the presence of the French and Chinese presidents, a memorandum recalling the importance of recycling for the sustainable development of nuclear energy and affirming the commitment of both countries to completing the construction of a nuclear fuel recycling plant in China. The two heads of state called on the industry to continue trade talks with a view to reaching an agreement as soon as possible.
- In December, Orano Projets announced the signing of a 40 million euro contract with ECP, a subsidiary of the Russian Rosatom Group. Under the terms of the agreement, Orano Projets will supply equipment for the construction of a new depleted uranium defluorination facility at the Zelenogorsk site in Russia, as well as technical support for the installation of the equipment and the start-up of the plant. The project is to run until 2022, the date of delivery of the equipment, and will involve around 20 people from the group's engineering department.

1.2.4 Other activities

Nuclear Medicine

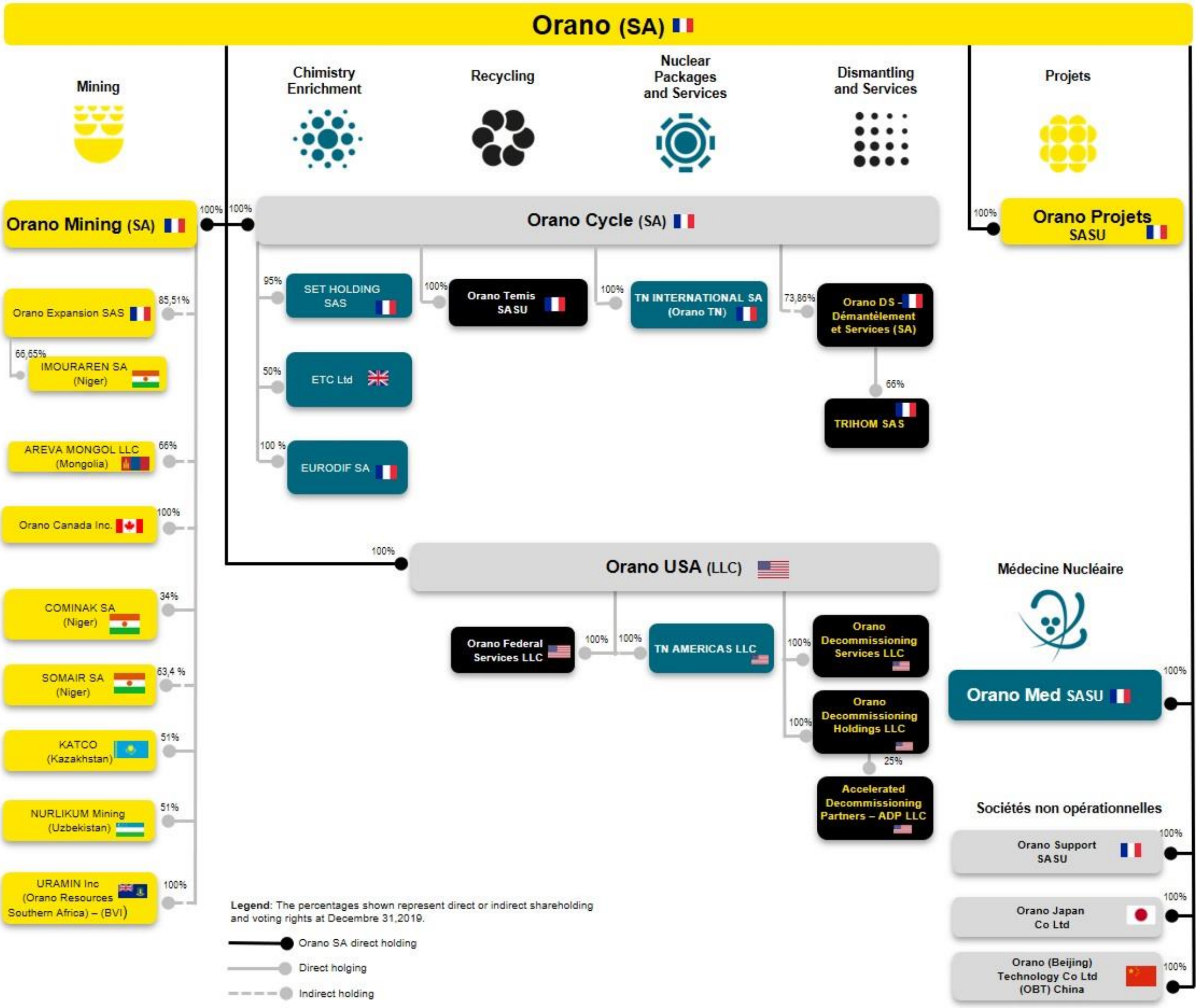
- In 2019, Orano Med expanded its production capacity in France and the United States to accelerate the development of therapeutic solutions with the installation of the Orano group's first clean rooms:
  - work is under way to extend the Maurice Tubiana Laboratory (LMT) in Bessines-sur-Gartempe (France), with delivery scheduled for mid-2020;
  - work is under way to extend the Domestic Distribution & Purification Unit (DPU) in Plano (Texas, USA), with delivery scheduled for early 2020.
- Progress has been made in cancer research with the continuation of phase I clinical trials for the development of treatment of neuroendocrine tumors (NETs), in partnership with Radiomedix. The results from the last cohort treated are positive and encouraging after the administration of two cycles of lead-212 (^{212}Pb) in combination with DOTAMTATE.

Please refer to Section 2.6 of this report for the highlights since the date of closing.

2 Situation and activities of the Company and its subsidiaries during the past financial year

2.1 Simplified organization chart of the group – Subsidiaries, interests and branch offices

2.1.1 Simplified organization chart of the group at December 31, 2019



2.1.2 Acquisitions of equity interests and takeovers during the past financial year

Acquisitions of equity interests

Pursuant to Article L. 233-6 of the French Commercial Code, Orano made no investments in companies headquartered in the French Republic that represent more than a twentieth, a tenth, a fifth, a third or a half of the equity in such a company.

Takeovers

Pursuant to Article L. 233-6 of the French Commercial Code, Orano has not taken controlling interests in companies headquartered in the French Republic that represent more than a twentieth, a tenth, a fifth, a third or a half of the equity in such a company.

2.1.3 Branch offices and representation offices

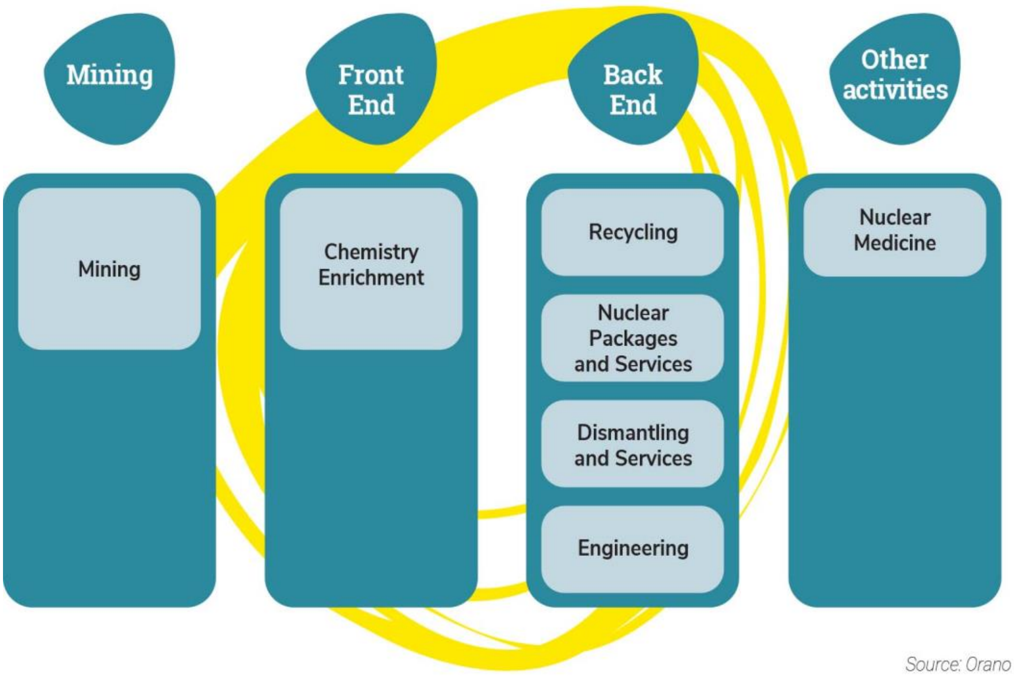
In accordance with the provisions of Article L. 232-1 II of the French Commercial Code, please note that the Company has a liaison office in Turkey and a representation office in Belgium.

Following a decision of the Board of Directors on December 18, 2019, the Company decided to close its liaison office in Turkey. The legal formalities were carried out at the end of 2019.

2.2 The group’s businesses

Refocused on nuclear fuel cycle operations, Orano operates in Mining, at the Front End and the Back End of the cycle, and in other activities.

SCOPE OF ORANO OPERATIONS AT DECEMBER 31, 2019



Source: Orano

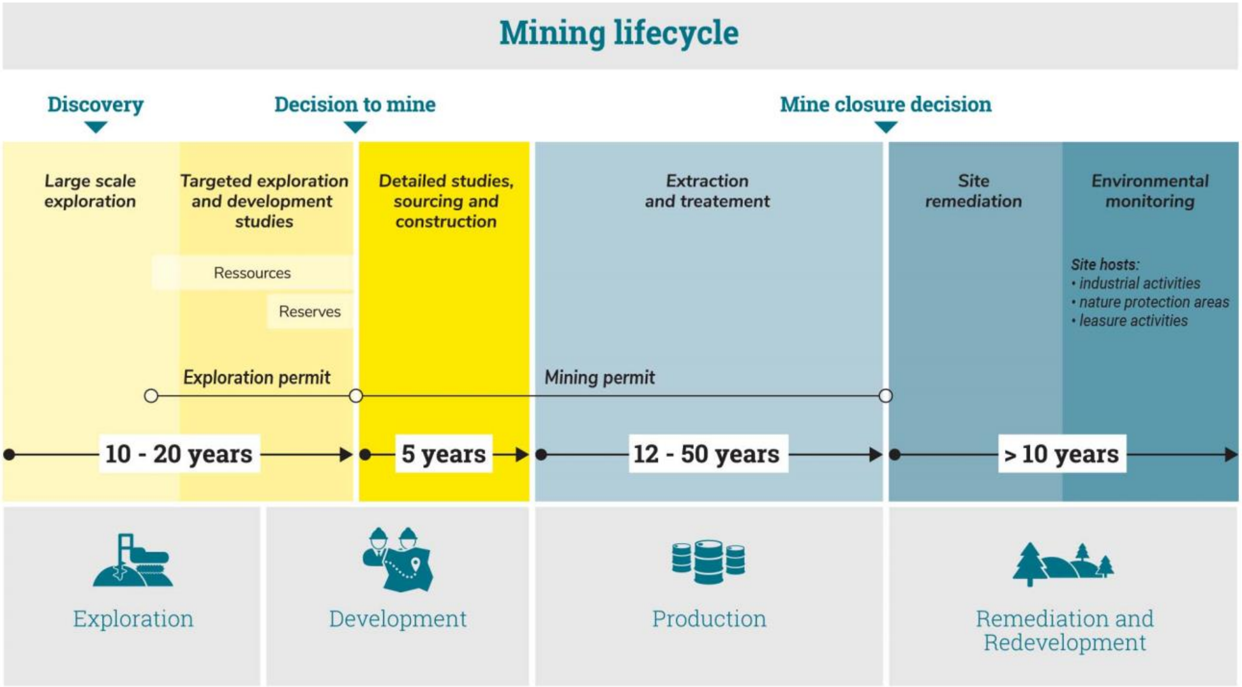
2.2.1 Mining

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

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

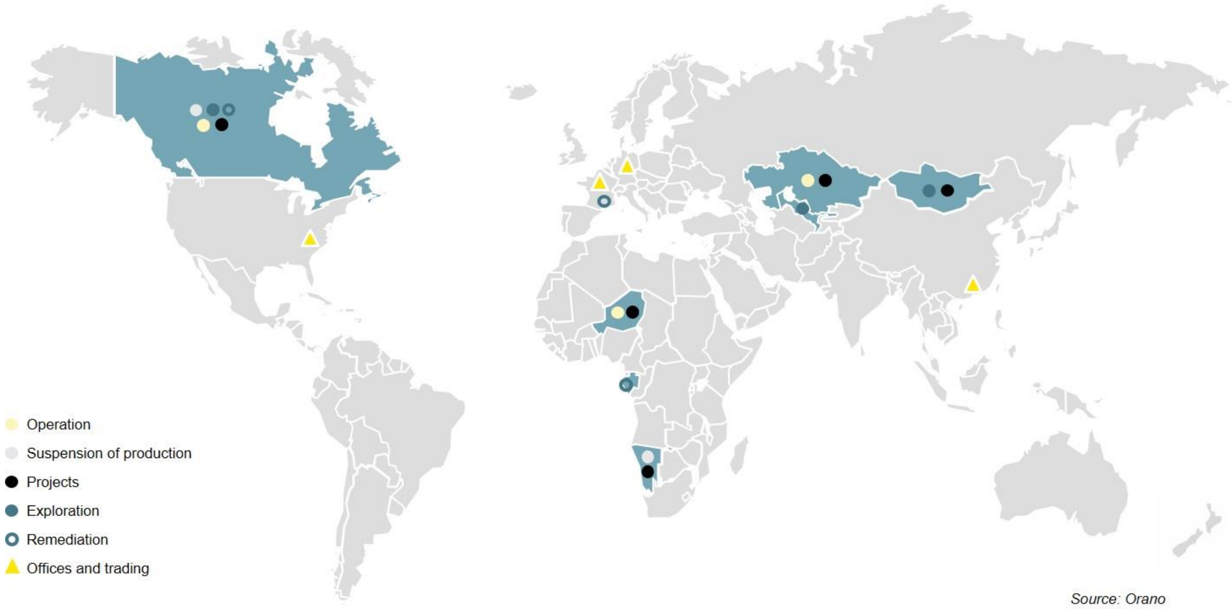
- exploration: search for new deposits;
- developing mining projects: detailed studies, procurement and construction;
- production: extraction of uranium ore using various mining techniques, and ore processing (concentration of natural uranium by chemical means); and
- site rehabilitation after operations: restoration of mining sites in accordance with environmental standards followed by environmental monitoring.

The lifecycle of a mine is shown in the graph below.



Source: Orano

MAIN SITES OF THE MINING BUSINESS UNIT



Source: Orano

Orano’s diversified portfolio of mining assets and resources is a big source of security for utilities seeking long-term guarantees of uranium supply.

91% percent of the Mining workforce is located outside of France, and 98% work in their country of origin. The main uranium production sites are located in three countries: Canada, Niger and Kazakhstan.

Orano conducts its mining activities responsibly, following the principles of the International Council on Mining and Metals (ICMM) and its own CSR policies. Orano also supports the Extractive Industries Transparency Initiative (EITI), and specifically the new standard which will require member countries to publish their contracts and licenses from 2021.

Canada

Orano has operated in Canada through its different mining operations for more than 50 years.

Canadian production comes from the McArthur River and Cigar Lake mines operated by Cameco. These sites are located approximately 700 kilometers north of Saskatoon in Saskatchewan Province. The group is conducting a major exploration program and holds majority interests in several deposits. Additional studies are required to determine the development schedules for these deposits, which will depend on uranium market conditions.

McArthur River is owned by a joint venture between Cameco Corporation (69.805%) and Orano (30.195%). The McArthur ore is processed in the KeyLake mill (83.3% owned by Cameco and 16.7% by Orano), which has a capacity of approximately 6,900 metric tons per year. Since late January 2018, at the request of its majority shareholder, operations at the McArthur mine and the Key Lakemill have been suspended indefinitely due to the market conditions for uranium.

The Cigar Lake mine is owned by a joint venture consisting of Cameco Corporation (50.025%), Orano (37.1%), Idemitsu Uranium Exploration Canada Ltd (7.875%) and Tepco Resources Inc. (5%). This deposit, the richest in the world, is mined by Cameco. The ore is processed in the McClean Lake mill operated by Orano. The McClean Lake mill is 70% owned by Orano alongside Denison Mines Ltd (22.5%) and Overseas Uranium Resources Development Company Ltd of Japan (OURD, 7.5%). The mill, which is operated by Orano, is designed to process very high-grade ore (>15%) and processes all of the ore from Cigar Lake. The Cigar Lake mine and the McClean mill reached full capacity in 2017, recording annual production of around 7,000 metric tons of uranium (18 million pounds of U_3O_8).

Located in the province of Saskatchewan, Orano has signed several partnership agreements with local communities, in particular to establish educational, health and cultural programs. In 2019, more than 1.5 million Canadian dollars were invested in societal projects. Orano's corporate citizenship also involves managing and redeveloping rehabilitated sites. In 2019, the license for the decommissioning project at the former Cluff Lake mining site was renewed for a further five years. This represents a milestone in the transfer of the site to the provincial government in Saskatchewan and is a testament to the site's solid environmental performance.

Niger

Exploration teams from the CEA detected the presence of uranium in Niger at the end of the 1950s. The uraniferous area is located west of the Aïr granitic body near the city of Arlit. Orano is present on three sites, namely Somaïr, Cominak and Imouraren.

Somaïr and Cominak have delivered uranium to their customers without interruption since operations began in the 1970s.

Close to 1,400 people, and as many subcontractors, work at Somaïr and Cominak. Along with jobs, the operating companies provide health, social and educational services to the local communities in this isolated area.

Somaïr (*Société des mines de l'Aïr*) was established in 1968. Orano, the operator, holds 63.4% of the shares; the remaining 36.6% is held by SOPAMIN (*Société du Patrimoine des Mines du Niger)*. Given the current characteristics of the processed ore, the production capacity is in the region of 2,000 metric tons per year (2019 production: 1,912 metric tons of uranium).

Cominak (*Compagnie Minière d'Akouta*) is 34% owned by Orano, which operates it. The other shareholders are SOPAMIN (31%), OURD (Overseas Uranium Resources Development Company Ltd, Japan, 25%), and ENUSA (Enusa Industrias Avanzadas SA, Spain, 10%). The ore is extracted underground and then processed in the site's mill, with a capacity, considering the current characteristics of the ore processed, of approximately 1,000 metric tons of uranium per year (2.6 million pounds of U_3O_8) (2019 production: 1,070 metric tons of uranium). Since Cominak's resources and reserves have now run out, Cominak's Board of Directors, at an extraordinary meeting of the Board of Directors held on October 23, decided by unanimous vote of the shareholders present that production at the Akouta site would cease on March 31, 2021. Orano, as a responsible actor, is committed to ensuring that the Cominak mine is shut down in the best possible conditions. Site remediation activities will commence following the mine's closure to make the site safe, clean and pollution-free. A support plan will be put in place for each employee in consultation with the employee representatives, including additional measures to the legal requirements and proposals for redeployment in other companies. Lastly, as Orano is a major player in northern Niger, societal initiatives will also be carried out to support the transition and the transfer to the government of services currently provided by Cominak to the local community. In 2019, the societal impacts were mapped and insights into stakeholder expectations meant that a priority action plan could be established.

Imouraren SA is 66.65% owned by Orano Expansion, 10% by the Republic of the Niger and 23.35% by SOPAMIN. It holds the operating license for the Imouraren deposit (174,196 metric tons of uranium of reserves – 100% share – at December 31, 2019, after application of the ore yield with an average grade of 0.070%). In view of market conditions, production startup work was suspended in 2014. The project will restart when uranium prices permit. Project optimization studies are underway.

Every year, the mining companies and Orano take on social projects in the Arlit region and nationally. In 2019, 2.6 million euros were invested in this way, including for example the IRHAZER hydro-agricultural and livestock improvement project in North Niger.

Just in terms of mining companies, the undertaking by the Bilateral Orientation Council (a decision-making body for social projects that includes the mining companies, the local authorities and stakeholders surrounding the mining sites) since its creation in 2006 has been 5.2 billion CFA francs (equivalent to 8 million euros), primarily for access to water, healthcare and education.

Kazakhstan

Katco was established in 1997 to develop and mine the Muyunkum and Tortkuduk deposits in southern Kazakhstan, approximately 250 kilometers north of Shymkent.

Its shareholders are Orano Mining (51%) and KazAtomProm (49%), Kazakhstan's national natural uranium producer. Katco's annual capacity is around 4,000 metric tons of uranium per year (2019 production: 3,252 metric tons of uranium).

In April 2017, Orano and KazAtomProm signed a strategic agreement aimed at strengthening their long-standing cooperation in the uranium mining sector in Kazakhstan including the development of the South Tortkuduk project, which will ensure its production over the next two decades. In July 2017, the Kazakh Geology Board validated the registration of the extent of the South Torkuduk reserves. Project development is still under way following the award of the mining license for the South Tortkuduk deposit in January 2018. It is hoped that the land permit will be granted soon so that exploitation of the deposit can commence. The Kanjugan land permit obtained on November 29, 2019 extends the exploitation of the Muyunkum deposit and ensures the transition to the South Tortkuduk deposit.

Katco is the largest ISR (In-Situ Recovery) uranium mine in the world. While the safety of employees and subcontractors is paramount, the environment is also a priority for Katco. In 2019, the Research and Development efforts were boosted by end-to-end modeling from production through to remediation and a better understanding of the environmental impact of operations.

Keen to gain an insight into stakeholder expectations, Katco also produced its first stakeholder map which will be used to develop the appropriate action plan.

Namibia

In Namibia, Orano owns the entire Trekkopje deposit in the Swakopmund region, as well as a water desalination plant, purpose-built for the deposit, with a capacity of 20 million cubic meters per year. The deterioration of uranium market conditions prompted Orano to mothball the Trekkopje project in October 2012. The desalination plant is operating at 56% of its capacity and sells its production to Namwater, the Namibian water company, for mines and local communities. The environmental impact assessment for the plant was updated in 2019.

Mongolia

In June 2017, in accordance with the Atomic Energy Act, Mongolia, through the state-owned company Mon-Atom, acquired a 34% stake in Badrakh Energy LLC (formerly AREVA Mines LLC). The remaining 66% is held by AREVA Mongol LLC. The latter company is jointly owned with Mitsubishi Corporation, which owns 34% of it.

Badrakh Energy LLC houses the mining licenses awarded in July 2016 for the Dulaan Uul and Zuuvch Ovoo deposits in the Sainshand basin, discovered by Orano. A pilot plant was built in 2018 to confirm and optimize the technical and economic characteristics of a future operation. All administrative formalities were completed in 2019 with a view to obtaining the permit authorizing the launch of the pilot plant.

In 2018, the signing of a Community Development Agreement (CDA) marked a milestone in stakeholder relations in that it formalizes the approach to governance and the commitments of the Badrakh Energy subsidiary in terms of support to local communities during the pilot period.

In 2019, through its subsidiary Badrakh Energy, Orano continued to support the development of local communities in accordance with this agreement. Efforts have focused in particular on access to education and the arts by renovating a school and crèche and handing out scholarships. Orano has also renewed its support for the NGO François-Xavier Bagnoud (FXB) and the FXB Village Dornogobi in Mongolia for another three years. This community development program benefits 100 families and simultaneously addresses five main causes of poverty: malnutrition, disease, lack of education, unsafe housing and lack of income.

In addition, prior to the launch of the pilot, detailed technical analyses were carried out by the teams to ensure that the industrial risk prevention measures were suitable and fitting.

Uzbekistan

The partnership agreement signed on September 4, 2019 between Orano and the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan (GoscomGeology) led to the creation, on December 4, 2019, of the company Nurlikum Mining LLC, 51% owned by Orano and 49% by GoscomGeology. Once exploration permits have been granted, initial exploration work is expected to begin in the first half of 2020, mainly in the Djengeldi region in the heart of the uranium-rich province of Kyzylkum.

Reserves and resources *[2019 figures available after the Resources and Reserves Committee meeting on 04/03/2020]*

The mineral reserves in Orano's deposits amounted to 196,362 metric tons of uraniumat December 31, 2019 (Orano's equity share), compared with 187,060 metric tons of uranium at December 31, 2018.

The volume of the best-known resources (measured and indicated resources) was 157,937 metric tons of uranium at December 31, 2019 (Orano Group's equity share), compared with 142,552 metric tons of uranium at December 31, 2018. The volume of inferred resources was 152,061 metric tons of uranium at December 31, 2019 (Orano's equity share), compared with 158,999 metric tons of uranium at December 31, 2018.

Estimating methods

The estimates of the group's resources and reserves are based on internal work by the Mining Business Unit or from external reports audited by the business's internal experts. The estimates are based on the NI 43101 standard.

Orano will henceforth publish the content of its resources and reserves in per cent, unlike previous publications which were in per mil. It decided to change this unit of measurement following discussions with its external stakeholders. The change will mean that Orano is aligned with the standard practices and units used in mining.

The mission of the Resources and Reserves Committee, which reports to Management, is to validate the schedule for updating resources and reserves; to validate the resources and reserves reported by Orano each year; and to ensure that the means, organization, and internal and external estimating methods enable a comprehensive and objective estimate of resources and reserves, in accordance with international practices.

MINERAL RESERVES IN THE GROUND IN METRIC TONS OF URANIUM (MTU) (YEAR-END 2019 ESTIMATES)

	Proven reserves			Probable reserves			Total reserves		
DEPOSIT	Ore (KT)	Grade (%)	Metal (MTU)	Ore (KT)	Grade (%)	Metal (MTU)	Metal (MTU)	Recovery (%)	Orano's equity share (MTU)
CIGAR LAKE	262	13.14	34,426	271	11,79	31,918	66,344	98.5%	24,244
KEY LAKE	61	0.44	270	0	0,00	0	270	98.7%	44
McARTHUR	2,034	6.05	123,149	538	5,12	27,578	150,726	98.7%	44,920
McCLEAN	90	0.31	275	0	0,00	0	275	96,0%	185
Total CANADA	**2,447**	**6.46**	**158,120**	**809**	**7,35**	**59,496**	**217,616**	**98.6%**	**69,394**
KATCO	0	0.00	0	26,146	0,10	25,340	25,340	88.6%	11,433
Total KAZAKHSTAN	**0**	**0.00**	**0**	**26,146**	**0,10**	**25,340**	**25,340**	**88.6%**	**11,433**
COMINAK	149	0.41	611	60	0,42	255	866	92.5%	272
IMOURAREN	0	0.00	0	306,048	0,07	213,722	213,722	81.5%	110,614 *
SOMAÏR	195	0.65	126	7,884	1,09	8,608	8,735	83.9%	4,648
Total NIGER	**343**	**0.21**	**738**	**313,993**	**0,07**	**222,585**	**223,323**	**81.6%**	**115,534**
TOTAL	**2,790**	**5.69**	**158,857**	**340,948**	**0,09**	**307,420**	**466,278**	**89.9%**	**196,362**

** Increase over reserves JV portion of 12/31/2018 after Orano Expansion capital increase.*

MINERAL RESOURCES IN THE GROUND IN METRIC TONS OF URANIUM (MTU) (YEAR-END 2019 ESTIMATES)

	Measured resources			Indicated resources			Total measured + indicated resources	
DEPOSIT	Ore (KT)	Grade (%)	Metal (MTU)	Ore (KT)	Grade (%)	Metal (MTU)	Metal (MTU)	Orano's equity share (MTU)
CIGAR LAKE	12	7.27	843	307	12.43	38,187	39,030	14,480
DAWN LAKE	0	0.00	0	184	3.75	6,886	6,886	1,590
KIGGAVIK	0	0.00	0	10,418	0.47	48,953	48,953	32,391
McARTHUR	98	2.18	2,130	85	1.80	1,527	3,657	1,104
McCLEAN	82	3.02	2,479	242	1.41	3,424	5,903	4,132
MIDWEST	0	0.00	0	1,060	1.85	19,652	19,652	13,591
READ LAKE	0	0.00	0	0	0.00	0	0	0
SHEA CREEK	0	0.00	0	526	2.67	14,014	14,014	7,133
Total CANADA	**191**	**2.85**	**5,452**	**12,772**	**1.03**	**132,642**	**138,095**	**74,422**
BAGOMBE	0	0.00	0	0	0.00	0	0	0
Total GABON	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0**
KATCO	0	0.00	0	6,750	0.10	6,750	6,750	3,442
Total KAZAKHSTAN	**0**	**0.00**	**0**	**6,750**	**0.10**	**6,750**	**6,750**	**3,442**
ZUUVCHOVOO	0	0.00	0	148,297	0.02	34,469	34,469	15,015
Total MONGOLIA	**0**	**0.00**	**0**	**148,297**	**0.02**	**34,469**	**34,469**	**15,015**
TREKKOPJE	0	0.00	0	60,100	0.01	7,320	7,320	7,320
Total NAMIBIA	**0**	**0.00**	**0**	**60,100**	**0.01**	**7,320**	**7,320**	**7,320**
ARLIT CONCESSION	0	0.00	0	0	0.00	0	0	0
COMINAK	813	0.29	2,377	374	0.25	945	3,322	1,129
IMOURAREN	0	0.00	0	108,668	0.06	62,584	62,584	39,741 *
SOMAÏR	0	0.00	0	16,778	0.16	26,606	26,606	16,868
Total NIGER	**813**	**0.29**	**2,377**	**125,821**	**0.07**	**90,134**	**92,512**	**57,738**
BAKOUMA	0	0.00	0	0	0.00	0	0	0
Total CAR	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0**
TOTAL	**1,005**	**0.78**	**7,830**	**353,789**	**0.08**	**271,316**	**279,145**	**157,937**

** Increase over reserves JV portion of 12/31/2018 after Orano Expansion capital increase.*

	Inferred resources			Total inferred resources
DEPOSIT	Ore (KT)	Grade (%)	Metal (MTU)	Orano's equity share (MTU)
CIGAR LAKE	182	5.02	9,139	3,390
DAWN LAKE	46	0.87	396	91
KIGGAVIK	731	0.28	2,059	1,362
McARTHUR	41	2.41	988	298
McCLEAN	38	1.01	382	267
MIDWEST	831	0.84	6,983	4,829
READ LAKE	387	6.77	26,195	5,700
SHEA CREEK	631	2.25	14,185	7,220
Total CANADA	**2,886**	**2.09**	**60,327**	**23,160**
BAGOMBE	2,000	0.27	5,420	5,420
Total GABON	**2,000**	**0.27**	**5,420**	**5,20**
KATCO	34,229	0.10	34,362	17,525
Total KAZAKHSTAN	**34,229**	**0.10**	**34,362**	**17,525**
ZUUVCH OVOO	174,727	0.02	39,280	17,110
Total MONGOLIA	**174,727**	**0.02**	**39,280**	**17,110**
TREKKOPJE	114,100	0.01	12,682	12,682
Total NAMIBIA	**114,100**	**0.01**	**12,682**	**12,682**
ARLIT CONCESSION	12,845	0.16	20,403	20,403
COMINAK	90	0.36	319	108
IMOURAREN	4,394	0.07	2,879	1,828 *
SOMAÏR	17,319	0.16	27,366	17,350
Total NIGER	**34,467**	**0.15**	**50,967**	**39,690**
BAKOUMA	17,974	0.20	36,475	36,475
Total CAR	**17,974**	**0.20**	**36,475**	**36,475**
TOTAL	**380,564**	**0.06**	**239,513**	**152,061**

** Increase over reserves JV portion of 12/31/2018 after Orano Expansion capital increase.*

2.2.2 Front End

Nuclear fuel cycle front-end operations occur after extraction and processing of the natural uranium ore. They include uranium conversion and enrichment services, which are steps prior to manufacturing the fuel assemblies that will go in the nuclear reactors.

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

Conversion is a key step that gives the uranium the purity required and the form of a gaseous chemical (uranium hexafluoride or UF_6) that is suited to enrichment processes.

The uranium concentrate is converted in a two-stage process:

- The Malvési plant in Aude (France) purifies and transforms the uranium mine concentrate into uranium tetrafluoride (UF_4). The annual capacity is approximately 15,000 metric tons;
- The Philippe Coste plant in Tricastin (France) then transforms the UF_4 into uranium hexafluoride (UF_6) through the addition of two more fluorine atoms. The fluorine used in this process is produced through electrolysis of anhydrous hydrofluoric acid.

  The reference period for UF6 production over more than five days was carried out in July 2019. The capacity of the plant will be 15,000 metric tons from 2020, compared with a global market of about 65,000 metric tons.

Orano is the only converter in the West to have invested massively in upgrading its conversion capacity, which was done to the latest standards in terms of safety, technology and the environment. This investment strengthens Orano's competitive position by guaranteeing its customers a competitively priced, reliable, long-term security of supply.

This new production plant includes such environmental innovations as the recycling of chemical reagents (up to 75% in the case of ammonia) and a 90% reduction in water consumption through the use of closed loops.

Enrichment of natural uranium in uranium-235

Enrichment, which is done in the Georges Besse II plant in Tricastin, France, consists of increasing the U^{235} content of the natural uranium from its initial 0.7% in the uranium ore up to a level specified by its electric utility customers, ranging from 3% to 5% depending on the type and operating mode of the reactor. Molecules of gaseous uranium hexafluoride (UF_6) undergo isotopic separation to achieve the desired enrichment assay. Orano provides the enrichment service to its customers, which generally retain ownership of their material.

Located on the Tricastin site, the Georges Besse II plant of Société d'Enrichissement du Tricastin (SET), indirectly 95% owned by Orano, has an annual capacity of approximately 7.5 million SWU, for a worldwide market of about 50 million SWU. This nominal capacity was reached at the end of 2016, and the plant's production has since matched expectations. Since 2016, the plant has been operating at its nominal capacity.

Other operations related to uranium chemistry

Specializing in uranium chemistry, the Chemistry-Enrichment Business Unit also has deflorination facilities (Plant W in Tricastin, France) for depleted uranium coming out of the enrichment process and denitration facilities (Plant TU5 in Tricastin, France) for reprocessed uranium from the la Hague plant in Manche, France.

2.2.3 Back End

The Back End operations of the fuel cycle consist of the Recycling, Nuclear Packages and Services, Dismantling and Services, and Engineering Business Units.

Recycling

The Recycling business uses processes allowing its customers to recycle used fuel into fresh fuel and to package final waste in standardized containers in a safe and stable manner.

The Recycling business makes use worldwide of the technical and industrial expertise developed in its facilities at the sites of the group and of its French customers. In particular, it supports the development of new recycling plants in the framework of international partnerships with countries seeking to acquire their own production plants.

This activity's principal base consists of the industrial platforms of la Hague and Melox, respectively located in the Manche and Gard departments of France. These two sites represented close to 6,000 employees and subcontractors in 2019.

The installed capacity of the la Hague and Melox plants along with the group's cumulative experience make the group number one worldwide in recycling:

- The la Hague site handles the first stage of the recycling operations: first the separation of the recyclable materials and waste obtained from the used fuels originating from French and foreign power plants and research reactors, and then the packaging of the recyclable materials and ultimate waste in a safe and stable form. The plant has two production lines, UP2 800 and UP3, which have a combined licensed capacity of 1,700 metric tons of used fuel per year, corresponding to the generation of 600 TWh per year of electricity;
- Melox is the leading site worldwide for the fabrication of MOX recycled nuclear fuel, with a workload of 150 metric tons per year. Made from a mixture of uranium and plutonium oxides, MOX fuel makes possible to recycle plutonium from the used fuel recycling process at la Hague. In France, 10% of nuclear power is produced from MOX.

The Recycling business also draws on the skills of Orano Temis, which develops and offers a selection of technical skills and know-how for all high value-added industrial projects, mainly nuclear. In particular, the company provides automated systems, designs and manufactures mechanical equipment in specialty metals, and produces fiber-reinforced concrete containers.

Nuclear Packages and Services

Working in both the front and back ends of the nuclear cycle, for industry and reactors and research labs, Nuclear Packages and Services, whose commercial name is Orano TN, has two main lines of business:

- designing and manufacturing storage containers for the transportation and/or dry storage of nuclear materials; and
- organizing and carrying out the transportation of nuclear material. Orano TN carries out 5,000 transportation operations each year. It is also tasked with the supervision of the transportation operations of the group and its customers, ensuring that they meet the highest safety levels.

Nuclear Packages and Services operates in the key markets of the nuclear industry:

- in Europe, TN International is responsible for the design, approval and manufacture of storage containers via a network of subcontractors, as well as transport commissioning. In this area, it calls on LMC, its specialized nuclear transportation subsidiary, and approved subcontractors;
- in the United States, TN Americas and its production facility (TNF) design and manufacture dry storage containers for U.S. nuclear power plants. Orano TN is one of the main players in the U.S. market. The entity also operates transportation at the front end of the cycle;
- in Asia, Transnuclear Ltd carries out engineering studies and transportation, as well as container maintenance work for the Japanese market. Orano TN also has teams in China and South Korea;
- lastly, TN International operates in Niger, as part of Orano's mining activities.

Nuclear Packages and Services has a fleet of transportation equipment, including casks and road and rail resources, and it operates road, rail and sea terminals.

To accomplish its mission of supervising the group's transportation operations, the business has an organization that manages risks and sets up appropriate action plans to manage any emergency at any location, in liaison with the public authorities. Its real-time transportation tracking center gives it a continuous stream of information on transportation operations.

Dismantling and Services (DS)

The Dismantling and Services business offers customers a broad range of services covering three main types of operations:

- dismantling of nuclear facilities throughout the value chain, from designing intervention scenarios to actualizing them on the ground: technical studies, radiological characterization of the facilities to be dismantled, cleanup, deconstruction of the nuclear process, operation of facilities during dismantling and of the support facilities, and redevelopment of the land and buildings.

  Numerous facilities built in the 1950s and 1960s have reached the end of their operating period. Their dismantling and the rehabilitation of their host sites, in particular to allow new projects to be located there, represent a major industrial challenge. The Dismantling and Services business (DS) is a managing contractor for facilities that have been shut down, provides dismantling studies and project management, and carries out dismantling operations.

  DS is also responsible for dismantling the former group facilities at the Tricastin, Malvési and la Hague sites, including the UP2-400 used fuel processing plant. The entity offers its skills and resources to its customers CEA and EDF;
- waste management operations, whether the waste comes from the production and operation of nuclear facilities, from dismantling operations, or from major maintenance operations. The Dismantling & Services business also contributes to major projects for the retrieval and packaging of legacy waste stored at the sites pending the availability of other storage channels;
- services to nuclear operators: nuclear logistics and project support, facility maintenance, radiological safety of workers and facility operations. These operations mostly involve nuclear facilities currently in production, which must ensure the best nuclear safety performance at all times, preserve assets, plan for the future and control costs. The Dismantling and Services business also has a subsidiary dedicated to training in the nuclear business and personal development, TRIHOM, a reference player in its sector in France.

The Dismantling and Services business provides services to practically all of the French nuclear sites operated by Orano, CEA, EDF and ANDRA. It also has operational counterparts abroad, whether through the group's subsidiaries (Orano GmbH and Orano DSR in Germany, Orano LLC in the United States) or partnerships forged with local entities.

Engineering

The engineering business provides nuclear fuel cycle engineering expertise for the group's facilities and for external customers. Services range from operator support engineering to full engineering, procurement, construction and management (EPCM) assignments.

Its areas of intervention cover all of the group's operations: mining, uranium chemistry, enrichment, nuclear fuel, recycling of used fuel, dismantling and waste management. OranoProjets also aims to contribute to the group's growth targets by gradually expanding in the fields of non-fuel nuclear and non-nuclear applications.

The engineering business draws on more than 40 years' experience of designing and building plants that are unique in the world (La Hague, Melox, etc.), but also from the flagship renovation projects concerning Orano's industrial facilities in France, i.e. the waste retrieval and packaging facilities at la Hague, the Georges BesseII enrichment plants, the Philippe Coste conversion plant, and the uranium chemistry facilities in Tricastin and Malvési.

It also has recognized expertise in the design, management and execution of international projects, particularly in Russia and Japan.

2.2.4 Orano's other operations

Orano's other operations include the other cross-business functions, as well as nuclear medicine.

Nuclear Medicine

Orano's nuclear medicine business is carried out by Orano Med, its medical subsidiary. Orano Med has developed a unique process making it possible to extract lead-212 (^{212}Pb), which is a particularly rare radioactive isotope, at a very high degree of purity.
Orano Med's ^{212}Pb is currently at the heart of promising nuclear medicine research projects for the development of new cancer treatments. This novel approach is called targeted alpha therapy or radioimmunotherapy when it implies using antibodies.

Orano Med's ambition is to develop effective and targeted anticancer therapies, with two prime objectives:

- participate in the development of innovative treatments using Orano Med's lead-212, in particular through scientific partnerships (Roche, RadioMedix, Morphotek, Nordic Nanovector, etc.);
- produce high-purity lead-212 at its two production sites based in Bessines-sur-Gartempe (France) and Plano (Texas, United States) to meet the needs of clinical development.

2.3 Research and Development activities

The group's main Research and Development programs in the 2019 financial year focused on:

- the development of new drilling technology for highly localized uranium deposits;
- startup support and operations optimization for conversion plants;
- for recycling-processing, on upholding and improving the performance of the present plants and the collection of waste, the construction of a road map for the recycling of plutonium in the pressurized water reactors (PWRs) and the concomitant launch of an R&D program to identify a new process for the production of MOX fuel and its qualification in a reactor;
- the development of new shipping casks for nuclear materials and waste; and
- the development of methods and tools to support dismantling operations.

Key figures

Research and Development expenses are capitalized if they meet the capitalization criteria established by IAS 38 and are recognized as Research and Development expenses if they do not. In the income statement, Research and Development expenses appear below gross margin and represent non-capitalizable expenses incurred exclusively by the group; expenses relating to programs funded wholly or partially by customers, together with projects carried out in partnerships where Orano has commercial rights of use of the results, are recognized in the cost of sales. The total Research and Development expenditure consists of the combination of amounts spent on Research and Development, whether capitalized or expensed during the financial year.

(in millions of euros)	**Financial year ended December 31, 2019 (12 months)**	**Financial year ended December 31, 2018 (12 months)**
TOTAL	**103**	**101**
Number of registered patents	**14**	**18**

At December 31, 2019, the Research and Development expenses amounted to 103million euros, i.e. 2.72% of the financial year's revenue, down very slightly from 2018 (2.79% of revenue).

The group registered 14 patents in 2019 and 18 patents in 2018.

2.4 Financial situation of the Company and group during the past financial year

2.4.1 Summary of key figures and segment information

The high volatility in net financial income due to the application of IFRS 9 at January 1, 2018 led the group to implement a new performance indicator at the end of 2018. This new alternative performance indicator (adjusted net income attributable to owners of the parent) reflects Orano's industrial performance independently of the impact of the financial markets on the return on earmarked assets (which must be appreciated over the long term), of regulatory changes and of variation of net discount rates related to end-of-lifecycle commitments. The definition of adjusted net income attributable to owners of the parent is available in Appendix 8.13 *Financial glossary* to this report.

2.4.1.1 Summary of key data at group level

(in millions of euros, except workforce)	**December 31, 2019 (*)**	**December 31, 2018 (**)**	**Change 2019 – 2018**
Income			
Revenue	3,787	3,623	+ 164
Gross margin	796	617	+ 179
Operating income	468	517	- 49
Share in net income of joint ventures and associates	(19)	(10)	- 9
Net financial income	40	(978)	+ 1,018
Adjusted net financial income	*(514)*	*(362)*	*- 152*
Income tax	(36)	(70)	+ 34
Adjusted income tax	*(36)*	*(70)*	*+ 34*
Net income attributable to owners of the parent	408	(544)	+ 952
Adjusted net income attributable to owners of the parent	*(145)*	*72*	*- 217*
Comprehensive income	470	(613)	+ 1,083
Comprehensive income attributable to owners of the parent	423	(604)	+ 1,027
Cash flows			
EBITDA	899	821	+ 78
Change in operating working capital requirement	362	185	+ 176
Net operating Capex	(554)	(451)	- 103
Operating cash flow	702	554	+ 148
Net cash flow from company operations	219	158	+ 61
Miscellaneous			
Net cash (debt)	(2,191)	(2,306)	+ 115
Equity attributable to owners of the parent	1,282	927	+ 355
Workforce at year end	18,604	18,793	- 1%

(*) Application of IFRS 16 from January 1, 2019.
*(**) The comparative figures as of December 31, 2018 have been restated to take into account the change in the presentation of end-of-lifecycle operations (*except for the workforce).

2.4.1.2 Summary data by business segment

2019

(in millions of euros)	**Mining**	**Front End**	**Back End**	**Corporate and other operations**	**Total**
Income					
Contribution to consolidated revenue	1,280	902	1,588	18	3,787
Operating income	446	191	(122)	(46)	468
Percentage of contribution to consolidated revenue	*34.8%*	*21.2%*	*ns*	*ns*	*12.4%*
Cash flows					
EBITDA	634	244	119	(97)	899
Percentage of contribution to consolidated revenue	*49.5%*	*27.1%*	*7.5%*	*ns*	*23.7%*
Change in operating WCR	(71)	41	263	130	362
Net operating Capex	(71)	(139)	(319)	(25)	(554)
Operating cash flow	489	146	61	7	702
Miscellaneous					
Property, plant and equipment and intangible assets (including goodwill)	2,750	4,282	3,808	110	10,950
Assets earmarked for end-of-lifecycle operations (*)	-	121	63	7,408	7,592

2018

(in millions of euros)	**Mining**	**Front End**	**Back End (*)**	**Corporate and other operations (*)**	**Total**
Income					
Contribution to consolidated revenue	1,124	846	1,638	14	3,623
Operating income	393	56	140	(73)	517
Percentage of contribution to consolidated revenue	*35.0%*	*6.6%*	*8.6%*	*ns*	*14.3%*
Cash flows					
EBITDA	584	164	166	(94)	821
Percentage of contribution to consolidated revenue	*52%*	*19.4%*	*10.1%*	*ns*	*22.7%*
Change in operating WCR	(119)	12	287	5	185
Net operating Capex	(57)	(128)	(262)	(3)	(451)
Operating cash flow	405	49	191	(91)	554
Miscellaneous					
Property, plant and equipment and intangible assets (including *goodwill*)	2,724	4,224	3,627	51	10,627
Assets earmarked for end-of-lifecycle operations	-	136	66	6,630	6,831

(*) The comparative figures as of December 31, 2018 have been restated to take into account the change in the organization of end-of-lifecycle operations.

SUMMARY OF REVENUE BY REGION AND BUSINESS

(in millions of euros)	**2019**	**2018**	**Change 2019 – 2018**
France	**1,811**	**1,696**	**+ 6.8%**
Mining	318	347	- 8.4%
Front End	395	357	+ 10.6%
Back End	1,080	978	+ 10.4%
Corporate and other operations	17	14	+ 21.4%
Europe (excluding France)	**373**	**358**	**+ 4.2%**
Mining	67	64	+ 4.7%
Front End	141	113	+ 24.8%
Back End	164	180	- 8.9%
Corporate and other operations	0	0	ns
North and South America	**576**	**611**	**- 5.7%**
Mining	223	187	+ 19.3%
Front End	157	170	- 7.6%
Back End	195	253	- 22.9%
Corporate and other operations	0	0	ns
Asia-Pacific	**969**	**874**	**+ 10.9%**
Mining	629	464	+ 35.6%
Front End	196	188	+ 4.3%
Back End	145	221	- 34.4%
Corporate and other operations	0	0	ns
Africa and Middle East	**58**	**85**	**- 31.8%**
Mining	42	61	- 31.1%
Front End	12	18	- 33.3%
Back End	4	5	- 20.0%
Corporate and other operations	0	0	ns
TOTAL	**3,787**	**3,623**	**+ 4.5%**

2.4.2 Consolidated financial statements for the past financial year

The consolidated financial statements for the past financial year ended can be found in Appendix 8.1 of this report.

2.4.2.1 Backlog

(in millions of euros)	**2019**	**2018**	**Change 2019 – 2018**
Backlog	**29,944**	**31,789**	**- 1,845**

The order intake for the year 2019 stood at 1.9 billion euros, mainly related to contracts signed with Asian and American customers. This performance also served to replenish the order backlog in short-cycle services activities. Conversely, the long-term backlog is subject to less regular renewal depending on market conditions.

Orano had a backlog of 29.9 billion euros as of December 31, 2019, down slightly compared with December 31, 2018 (31.8 billion euros). The backlog represents close to eight years of revenue.

2.4.2.2 Statement of income

Revenue

(in millions of euros)	2019	2018	Change 2019 – 2018
Consolidated revenue	**3,787**	**3,623**	**+ 164**
Mining	1,280	1,124	+ 156
Front End	902	846	+ 56
Back End	1,588	1,638	- 50
Corporate and other operations	18	14	+ 4

The group's consolidated revenue amounted to 3,787 million euros at December 31, 2019, compared with 3,623 million euros at December 31, 2018.

Gross margin

(in millions of euros)	2019	2018	Change 2019 – 2018
Gross margin	**796**	**617**	**+ 179**
Percentage of consolidated sales	*21.0%*	*17.0%*	*+ 4 pts*

The group's gross margin amounted to 796 million euros at December 31, 2019, compared with 617 million euros at December 31, 2018.

Research and Development

The group's Research and Development investments in the 2019 financial year amounted to 103 million euros, i.e. 2.72% of the financial year's revenue, compared with 101 million euros in 2018 (2.79% of revenue).

Marketing and sales, general and administrative expenses

Group marketing, sales, general and administrative expenses in the 2019 financial year amounted to 151 million euros, compared with 141 million euros in 2018.

Other operating income and expenses

Other operating income and expenses in the 2019 financial year represented a net expense of 76 million euros, compared with a net income of 138 million euros in 2018.

The restructuring costs are described in Note 5 to the consolidated financial statements found in Appendix 8.1. Intangible assets and property, plant and equipment are described respectively in Notes 10 and 11.

Operating income

The group's operating income amounted to 468 million euros at December 31, 2019, compared with 517 million euros at December 31, 2018. The decline in the operating income is explained by the increases in operating income for Mining (+53 million euros), Front End (+135 million) and Corporate and other operations (+27 million), offset by a decrease of 262 million euros for Back End.

Share in net income of joint ventures and associates

The share in net income of joint ventures and associates was negative 19 million euros at December 31, 2019 (compared with negative 10 million euros at the end of 2018).

(in millions of euros)	**2019**	**2018**
COMINAK	(31)	(22)
ETC	13	11
SI-nerGIE	(1)	0
TOTAL	**(19)**	**(10)**

Net financial income

Net financial income amounted to 40 million euros at December 31, 2019, compared with an expense of 978 million euros at December 31, 2018. The improvement in net financial income derives largely from the share of end-of-lifecycle operations. The return on assets earmarked for dismantling obligations increased sharply in 2019 due to the financial markets' positive performance for the year.

(in millions of euros)	**2019**	**2018**
Net borrowing costs [(expense) / income]	**(198)**	**(152)**
Other financial income and expenses	**238**	**(826)**
of which share related to end-of-lifecycle operations	541	(624)
of which share not related to end-of-lifecycle operations	(303)	(202)
NET FINANCIAL INCOME	**40**	**(978)**

Adjusted net financial income, which amounted to 514 million euros loss in 2019, compared with a 362 million euros loss in 2018. This trend is attributable largely to exogenous elements stemming from the steep drop in the rates used for the discounting of long term work completion provisions (excluding end-of-lifecycle provisions) in 2019 and the volatility of the hedging instruments resulting from unfavorable change in the EUR/USD interest rate differential between the two periods. In addition, it resulted to a lesser extent from the one-off cost of debt in connection with the debt management transaction carried out in April 2019, which optimized its cost and extended its average maturity.

Income tax

Tax expense was 36 million euros at December 31, 2019, compared with 70 million euros at December 31, 2018.

Adjusted net tax expense amounted to negative 36 million euros, compared with negative 70 million euros in 2018.

Net income attributable to non-controlling interests

The share of minority interests in the group's profit at December 31, 2019 was 44 million euros, compared with 2 million euros at December 31, 2018. This share mainly includes the contribution of minority shareholders in the mining and enrichment businesses.

Net income attributable to owners of the parent

Net income attributable to owners of the parent was 408 million euros in 2019, compared with negative 544 million for 2018. This strong increase was due to the strong operational performance of the businesses and to the return on assets earmarked for end-of-lifecycle commitments, reflecting the performance of the financial markets throughout 2019.

The following table reconciles published net income attributable to owners of the parent with adjusted net income attributable to owners of the parent, accounting for the financial impacts of end-of-lifecycle commitments:

CHANGE FROM REPORTED NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT TO ADJUSTED NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT

(in millions of euros)	**2019**	**2018**	**Change 2019 – 2018**
Reported net income attributable to owners of the parent	**408**	**(544)**	**+ 952**
Unwinding expenses on end-of-lifecycle liabilities	299	298	+ 1
Impact of changes in discount and inflation rates of end-of-lifecycle obligations	8	79	- 71
Return on earmarked assets	(860)	239	- 1,099
Tax impact of adjustments	0	0	+ 0
Adjusted net income attributable to owners of the parent	**(145)**	**72**	**- 217**

Adjusted net income attributable to owners of the parent amounted to negative 145 million euros at December 31, 2019, compared with 72 million in 2018. This trend mainly reflects the return on earmarked assets in 2019.

Comprehensive income attributable to owners of the parent

Including recyclable and non-recyclable items in the statement of income, comprehensive income attributable to owners of the parent was 423 million euros at December 31, 2019, compared with a loss of 604 million euros at December 31, 2018. This trend is due mainly to the change in net income described above.

2.4.2.3 Cash flows

Change in net debt

Items contributing to the change in the group's net debt for the year are presented below. It was calculated according to the French Accounting Board definition (sum of "cash and cash equivalents" less "current and non-current borrowings").

(in millions of euros)	**2019**
Net debt at the beginning of the financial year (at December 31, 2018)	**(2,306)**
Operating cash flow	702
End-of-lifecycle cash flow	(144)
Cash flow from financing activities	(270)
Income tax paid	(110)
Dividends paid to minority interests	(3)
Other items	60
(NET DEBT)/NET CASH AT THE END OF THE FINANCIAL YEAR (AT DECEMBER 31, 2019)	**(2,191)**
CHANGE IN NET DEBT OVER THE FINANCIAL YEAR ENDED DECEMBER 31, 2019	**+ 115**

The group's net financial debt totaled 2.2 billion euros at December 31, 2019, compared with 2.3 billion euros at December 31, 2018. Over the period, Orano improved the average maturity of its borrowings by issuing a new 750 million euro bond due in 2026 and redeeming a 750 million euro bond maturing in 2019. The group also partially redeemed a bond maturing in 2024, with a nominal value of 250 million euros.

Comparative table of operating cash flows and consolidated cash flows

The group analyzes cash flows from operating activities separately from flows relating to end-of-lifecycle operations and other cash flows.

RECONCILIATION OF OPERATING CASH FLOWS AND CONSOLIDATED CASH FLOWS

The following table distinguishes operating cash flows from the other cash flows presented in the consolidated statement of cash flows for the financial year ended December 31, 2019.

(in millions of euros)	**Operating**	**End-of-lifecycle operations(1)**	**Other(2)**	**Total**
EBE (or EBITDA) (i)	899			
Income from the sale of non-current operating assets and other non-cash operating items (ii)	(4)			
Cash flow from operations after interest and tax (i + ii)	**895**	**(23)**	**(375)**	**497**
Change in working capital requirement (iii)	362	-	(10)	352
Net cash flow from operating activities (i + ii + iii)	**1,256**	**(23)**	**(385)**	**849**
Cash from (used in) investing activities, net of disposals (iv)	(554)	(121)	39	(637)
Net cash from (used in) financing activities (v)	-	-	(290)	(290)
Impact of changes in scope, interest rates, and marketable securities (vi)	-	-	(456)	(456)
Net cash from operations sold or held for sale (vii)	-	-	-	-
Cash flow (i + ii + iii + iv + v + vi + vii)	**702**	**(144)**	**(1,092)**	**(534)**

(1) Includes expenses for end-of-lifecycle operations incurred on-site and for final waste disposal, flows relating to the financial asset portfolio earmarked for end-of-lifecycle operations, and flows resulting from the signature of agreements with third parties for the funding by such parties of a share of end-of-lifecycle operations.

(2) That is, non-operating cash flows unrelated to end-of-lifecycle operations and mainly corresponding to financial cash flows, including cash flows related to exceptional external growth operations, dividends paid, and cash flows of a tax nature.

Operating cash flow

Earnings before interest, taxes, depreciation and amortization (EBITDA)

EBITDA rose from 821 million euros at the end of 2018 to 899 million euros at the end of 2019. This increase is mainly due to (i) the favorable impact on revenue of the structure of the backlog schedule in Mining and Front End, (ii) the rise in processing volumes in the Recycling business, and (iii) the positive contribution of the performance plan. This resulted in savings of 100 million euros over the year compared with 2017.

Change in operating working capital requirement (WCR)

The change in operating WCR was 362 million euros at the end of 2019, compared with 185 million euros at the end of 2018. The increase in net working capital is primarily attributable to a rise in investments financed in the Back End and to the payment of research tax credit receivables for periods prior to 2019.

Net operating Capex

The group's net operating Capex totaled 554 million euros at the end of 2019, compared with 451 million euros at the end of 2018 reflecting the renovation and rejuvenation program of the la Hague plant in the Back End business unit.

Operating cash flow

As a result of the items described above, operating cash flow amounted to 702 million euros at the end of 2019, compared with 554 million euros at the end of 2018, i.e. a sharp increase of 148 million euros.

Net cash flow from company operations

(in millions of euros)	**2019**	**2018**	**Change 2019 – 2018**
Operating cash flow	**702**	**554**	**+ 148**
End-of-lifecycle cash flow	(144)	(12)	- 132
Income tax	(110)	3	- 113
Cost of borrowed capital	(270)	(283)	+ 13
Other items	41	(105)	+ 146
Non-operating cash flow	**(483)**	**(397)**	**- 86**
Net cash flow from company operations	**219**	**158**	**+ 61**

Net cash flow from company operations stood at 219 million euros at December 31, 2019 (vs. 158 million euros the previous year), following a voluntary contribution of 134 million euros to the earmarked funds ensuring 100% coverage for the end-of-lifecycle commitments (vs. 91% at December 31, 2018).

Cash flows related to end-of-lifecycle operations

In 2019, cash flows related to end-of-lifecycle operations amounted to negative 144 million euros, compared with negative 12 million euros in 2018. They mainly included the voluntary contribution to end-of-lifecycle assets for 134 million euros.

Consolidated statement of cash flows

The condensed consolidated statement of cash flows is presented below.

(in millions of euros)	**2019**	**2018**	**Change 2019 – 2018**
Cash flow from operations before interest and taxes	766	716	+ 50
Interest expense and taxes paid	(270)	(202)	- 68
Cash flow from operations after interest and taxes	**497**	**514**	**- 17**
Change in working capital requirement	352	147	+ 205
Cash from operating activities	**849**	**661**	**+ 188**
Cash used in investing activities	(637)	(384)	- 253
Cash from (used in) financing activities	(290)	(199)	- 91
Impact of change in classification of non-monetary funds (*)	*(460)*	-	*- 460*
Impact of foreign exchange movements	*4*	*(2)*	*+ 6*
INCREASE (DECREASE) IN NET CASH	**(534)**	**77**	**- 611**
Net cash at the beginning of the financial year	1,953	1,877	+ 106
NET CASH AT THE END OF THE FINANCIAL YEAR	**1,420**	**1,953**	**- 533**

(*) Following the entry into force on January 21, 2019 of EU Regulation 2017/1131, funds classified as cash equivalents as of December 31, 2018 have been reclassified as cash management financial assets in the amount of 460 million euros (see Note 20 and the statement of cash flows in the notes to the consolidated financial statements).

2.4.2.4 Balance sheet items

CONDENSED BALANCE SHEET

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Net goodwill	1,247	1,229
Property, plant and equipment (PP&E) and intangible assets	9,626	9,398
End-of-lifecycle assets	7,592	6,832
Operating working capital requirement – assets	2,742	2,680
Net cash	1,492	2,027
Deferred tax assets	109	104
Other assets	774	270
TOTAL ASSETS	**23,582**	**22,540**
Equity and minority interests	1,248	723
Employee benefits	1,111	1,088
Provisions for end-of-lifecycle operations	8,010	7,881
Other current and non-current provisions	2,319	2,211
Operating working capital requirement – liabilities	5,109	4,640
Borrowings	4,153	4,416
Other liabilities	1,631	1,582
TOTAL LIABILITIES	**23,582**	**22,540**

Non-current assets

Net goodwill

Net goodwill went from 1,229 million euros at December 31, 2018 to 1,247 million euros at December 31, 2019, an increase of 18 million euros.

Net property, plant and equipment and intangible assets

Net property, plant and equipment and intangible assets increased from 9,398 million euros at December 31, 2018 to 9,626 million euros at December 31, 2019.

Operating working capital requirement

The group's operating working capital requirement (operating WCR) was negative (i.e. a source of funds) in the amount of negative 2,367 million euros at December 31, 2019, compared with a negative 1,960 million euros at December 31, 2018.

Net cash and borrowings

At December 31, 2019, Orano had a net cash balance of 1.9 billion euros, including 0.4 billion euros of cash financial assets. This cash position is strengthened by a confirmed, undrawn syndicated credit facility of 940 million euros, obtained with 11 banking partners.

Furthermore, Orano's short-term debt at December 31, 2019 amounted to 746 million euros and mainly include a bond for which repayment is due in September 2020 in the amount of 500 million euros.

The group had total net financial debt of 2.2 billion euros as of December 31, 2019, compared with 2.3 billion euros at the end of 2018. Over the period, Orano improved the average maturity of its borrowings by issuing a new 750 million euro bond due in 2026 and redeeming a 750 million euro bond maturing in 2019. The group also partially redeemed a bond maturing in 2024, with a nominal value of 250 million euros.

RECONCILIATION BETWEEN NET CASH REPORTED IN THE STATEMENT OF CASH FLOWS AND NET CASH (DEBT) ON THE STATEMENT OF FINANCIAL POSITION

(in millions of euros)	**2019**	**2018**	**Change 2019 – 2018**
Net cash per statement of cash flows	**1,420**	**1,953**	**- 533**
Short-term bank facilities and current accounts in credit	72	74	- 2
Net cash from operations held for sale	-	-	-
Financial instruments, margin calls and collateral, cash management financial assets	470	83	+ 387
Borrowings	(4,153)	(4,416)	2,263
NET CASH (DEBT)	**(2,191)**	**(2,306)**	**+ 115**

Orano's equity

Group equity totaled 1,248 million euros at December 31, 2019, compared with 723 million euros at December 31, 2018.

Assets and provisions for end-of-lifecycle operations

The change in the financial position from December 31, 2018 to December 31, 2019 with regard to assets and liabilities for end-of-lifecycle operations is summarized in the table below.

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Assets		
End-of-lifecycle assets	**700**	**714**
of which legal share (to be amortized in future years)	579	575
of which non-legal share	121	139
Financial assets earmarked for end-of-lifecycle operations	**7,471**	**6,693**
Shareholders' equity and liabilities		
Provisions for end-of-lifecycle operations	**8,010**	**7,881**
of which provisions for end-of-lifecycle operations (legal share*)	7,689	7,575
of which provisions for end-of-lifecycle operations (non-legal share*)	322	306

(*) Scope of application of the law of June 28, 2006.

The change in assets and provisions for end-of-lifecycle operations is described in Note 13 to the consolidated financial statements.

2.4.2.5 Key figures by business segment

Orano consists largely of the nuclear fuel lifecycle operations housed in the Orano Mining and Orano Cycle subsidiaries: Mining, Front End (Chemistry and Enrichment) and Back End (Recycling, Nuclear Packages and Services, Dismantling and Services, Engineering) and the Corporate operations provided primarily by Orano Support.

The key figures of Orano for the financial year ended December 31, 2019 are presented by business segment below.

(in millions of euros)	**2019 (*)**	**2018**	**Change 2019 – 2018**
Revenue	**3,787**	**3,623**	**+ 164**
Mining	1,280	1,124	+ 156
Front End	902	846	+ 56
Back End	1,588	1,638	- 50
Corporate and other operations (**)	18	14	+ 4
EBITDA	**899**	**821**	**+ 78**
Mining	634	584	+ 50
Front End	244	164	+80
Back End	119	166	- 47
Corporate and other operations (**)	(97)	(94)	- 3
Operating income	**468**	**517**	**- 49**
Mining	446	393	+ 53
Front End	191	56	+ 135
Back End	(122)	140	- 262
Corporate and other operations (**)	(46)	(73)	+ 27
Operating cash flow	**702**	**554**	**+ 148**
Mining	489	405	+ 84
Front End	146	49	+ 97
Back End	61	191	- 130
Corporate and other operations (**)	7	(91)	+ 98

(*) Application of IFRS 16 as of January 1, 2019.

(**) "Corporate & Other operations" notably includes Corporate and Orano Med operations.

2.4.3 Parent company financial statements for the past financial year

Please refer to Appendix 8.2 of this report.

2.4.4 Dividends

In accordance with Article 243 bis of the French General Tax Code, we hereby remind you that no dividend has been paid for the past three financial years.

2.4.5 Non-deductible expenses

In addition, we hereby inform you, in accordance with Article 223quater of the French General Tax Code, that no sum has been recorded in the past financial year for expenses or charges which are not deductible for tax purposes, as referred to in Article39-4 of the General Tax Code.

2.5 Foreseeable developments and future prospects

2.5.1 Outlook

In 2019, the group widened the scope of its strategic priorities, which henceforth focus on the following five segments:

Community

The Sustainable Development Goals (SDGs) are the markers defined by the United Nations for achieving a better future. They reflect the collective awareness of the need for a sustainable society. Orano aims to make a positive contribution to the well-being of all communities (stakeholders, regions, biodiversity, etc.) associated with its activities. To that end, Orano intends to deploy ambitious action plans in the coming years for several SDGs for which the group is particularly relevant.

Climate

The Paris Agreement on the fight against climate change provides for a sharp reduction in CO_2 emissions and the European Union has set itself a target of climate neutrality by 2050. This compulsory target primarily affects companies. Despite recent IPCC (Intergovernmental Panel on Climate Change) studies, the importance of nuclear power in reducing the carbon footprint of human activities continues to be largely underestimated and debated. Orano intends to be an exemplary company, setting for itself the objective of moving towards carbon neutrality while asserting the merits of nuclear power by educating the general public and raising awareness of climate issues.

Growth

Strengthening the group's growth potential is a long-term challenge against a global backdrop of massive deployment of carbon-free power generation (including nuclear) and mobility solutions. Orano is working to increase its revenue by 2025, in particular by implementing major commercial projects in Asia and the United States and by strengthening its innovation, research and development momentum to develop new activities.

Cash

In addition to the growth objectives, the strengthening of Orano's financial and industrial profile involves the reduction of its net debt and the making of investments to maintain and renew its industrial resources. As such, the achievement of this objective will require the deployment of a new performance plan for the 2021-2023 period and the pursuit of ongoing operational excellence initiatives (including digital transformation and transformation plans for the group's industrial sites).

Skills

Managerial transformation and skills development has long been a strategic priority for Orano. Orano intends to continue to promote access to professional training for its employees and to strengthen the commitment and pride of its teams. This priority appears to be ever more important in a changing world, where half of current jobs will be profoundly reconfigured within the next ten years.

2.5.2 Orano's financial outlook

On February 28, 2020, the group published its 2019 results with the 2020 financial outlook confirming its sustainably positive net cash flow, continued growth in revenue, and an increase of 23%-26% in EBITDA margin.

On March 20, 2020, the group reported to the market that, in view of the immediate and future repercussions of the COVID-19 global health crisis on its markets and operation, the 2020 outlook was suspended. The group also specified that it would be able to face the events with its available financial resources and financing tools.

As of the publication date of this document, and in view of the development of the crisis over time, the group has not yet revised this outlook.

2.6 **Significant events since the date of closing**

2.6.1 Significant events between the date of closing and the date of preparation of the management report

On February 12, 2020, Orano was informed by letter from the Minister of ecological and solidary transition and the Minister of the economy and finances of their decision to amend certain regulatory provisions relating to the securing of the funding of nuclear expenses. These changes will relate to:

- the regulatory ceiling for the discount rate, which will henceforth be expressed as an actual value (discount rate net of inflation) based on the Ultimate Forward Rate applicable on the date in question as published by the European Insurance and Occupational Pensions Authority, plus 150 basis points. This change will take place gradually over five years;
- the maximum delay granted to the operator to rectify its situation in the case of insufficient cover: this period will be changed to five years;
- removal of the requirement to increase earmarked assets when the rate of cover is between 100% and 110% in certain cases of changes in provisions. However, the threshold above which withdrawals from earmarked funds will be possible will be changed to 120%.

These amendments have no impact on the group’s financial statements as of December 31, 2019

The group's financial statements were prepared on the basis of business continuity. The Orano group's operations were first affected by COVID-19 in the first quarter of 2020, with a negative impact expected on the financial statements in 2020. As of publication date and considering the recent nature and uncertainties related to the magnitude of the epidemic and its long-term management, the group is not yet able to assess the impact of this crisis on its financial outlook. However, Orano's management is not yet aware of any significant uncertainties that would call into question the group's capacity to continue operations.

2.6.2 Important events between the date of report preparation and the date of the General Meeting

Between the publication date of this report and the date of the General Meeting, and in the context of the ongoing health crisis, Orano's management is not aware of any events that may arise and are likely to generate significant uncertainty as to the group's capacity to continue its operation or fundamentally alter the information contained in this document.

3 Risks and safeguards

In a constantly evolving environment, the diversity of Orano's business activities exposes the group to risks of varying kinds and sources which, if they were to materialize, could have an unfavorable impact on its operations, financial position or objectives. Establishing a strong risk culture within the group enables these risks, which are described below, to be identified and managed within reason, depending on the information available.

This chapter outlines the framework adopted for the group's internal control and for identifying and analyzing the risks that the group believes it is exposed to at the time of writing. These are then collated with their action plans in order of importance.

In turn, this risk management informs the group's internal control system, and together they form a crucial part of its second line of defense. The coherence and organization of the lines of defense are ensured via a single tool enabling risk analysis and monitoring, internal control, internal audits of the group, and the implementation and monitoring to completion of the associated action plans.

This methodology also allows the group to meet its obligations regarding the consolidated statement of non-financial performance and its corporate duty of care. The relevant cross-reference table can be found in Appendix 8.9.

3.1 System of internal controls

Internal control, described below, is the responsibility of group management. It concerns every employee in the group and applies to Orano as parent company and to all of the companies it controls, regardless of their legal form.

3.1.1 Commitments of the Orano group

The Code of Ethics, published on the group's intranet and its website, lists the commitments of the Orano group in terms of, *inter alia*, safety, security, compliance and quality risks: "As a responsible company, our actions are governed by two basic principles considered to be a matter of priority:

- compliance with the most demanding requirements as appropriate to accomplish our goals in matters of nuclear and occupational safety in the conduct of our activities, as well as for the protection of health and the environment; and
- compliance with the strictest standards of integrity and a commitment to fighting corruption, fraud and anti-competitive practices without compromise.

It is the responsibility of each and every one of us, both managers and employees, across all entities of the group, as well as those of our industrial and commercial partners, to ensure that these values are properly disseminated and that our principles are respected."

3.1.2 Internal control objectives

The Orano group's internal control system is consistent with the commitments made as to the conduct of its business, particularly those written into its Code of Ethics, the demanding requirements in terms of safety and security, and compliance with the regulations applicable to activities.

The internal control system helps to manage risks and operations. In particular, it aims to ensure:

- the compliance with the applicable regulations;
- the implementation of instructions and directions set by management bodies;
- the proper functioning of the group's internal processes, particularly those helping to safeguard its assets;
- the reliability and the quality of the information produced and communicated, especially financial information.

Nonetheless, however well designed and applied they may be, the internal control mechanisms can only provide a reasonable assurance as to the attainment of the aforementioned objectives.

In the “Frame of Reference for Internal Control” of the *Autorité des marchés financiers* (AMF, the French financial markets authority), to which the group defers (guidelines based on the COSO), the internal control system is characterized by:

- an organization with a clear definition of responsibilities, sufficient resources and expertise, and appropriate information systems, procedures, tools and practices;
- the internal distribution of relevant and reliable information, enabling each person to carry out his or her duties;
- a risk identification, analysis and management system;
- control activities designed to reduce these risks; and
- continuous oversight of the internal control system.

The group has adopted a policy whereby all group entities conduct their own assessment of their level of internal control using a self-assessment questionnaire. This questionnaire, used by all entities, brings together 370 points of control, broken into 17 sets:

- 4 operational sets, including one on product quality;
- 1 set on compliance and ethics;
- 1 set on information systems;
- 3 sets on sales, purchasing, legal and intellectual property processes; and
- 8 sets on financial processes and human resources.

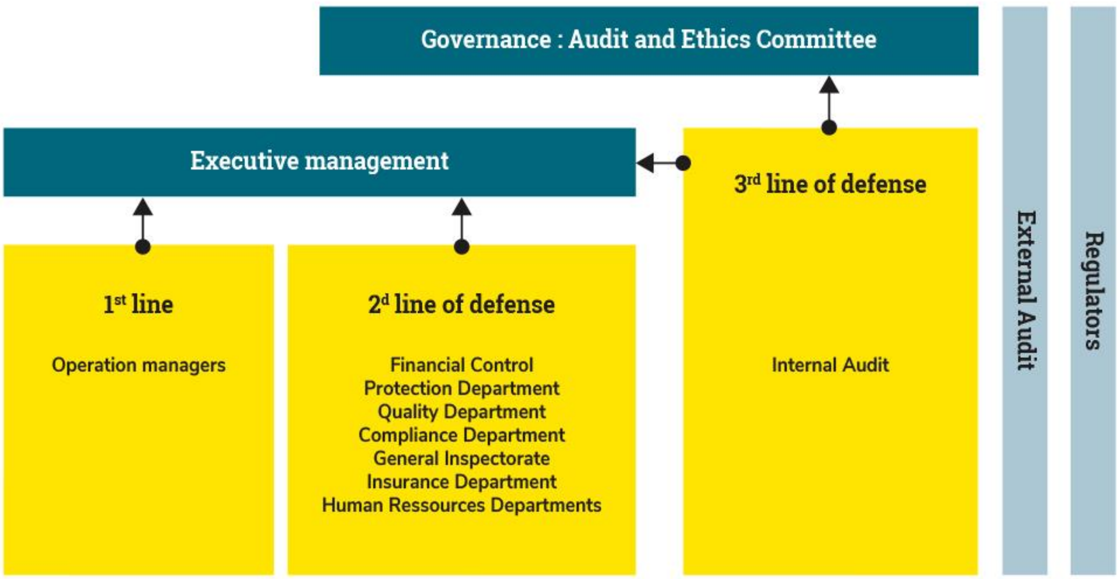
All of these sets are covered over two years, in alternation. This system, which is reviewed by the joint Statutory Auditors, allows each group entity to compare its internal control with best practices and improve it to that level, and with the group’s expectations in terms of controls designated as crucial. Management then commits to action plans to respond to the weaknesses identified.

The Risk and Internal Audit Department includes in its yearly audit plan a review of the self-assessments to ensure their accuracy. The main elements are summarized in the annual report by the Risk and Internal Audit Director on the review of the internal controls.

3.1.3 Organization of the internal control system

Orano’s internal control system is modeled on a triple line of defense.

THE THREE LINES TO MANAGE ORANO’S INTERNAL CONTROL



Source: Orano

<u>First line of defense</u>

By definition, control is specific to each organization. It involves the mobilization of human, material and financial resources, the organization of these assets, the deployment of specific objectives within the organizations and the implementation of prevention or detection controls. These activities are carried out by the employees and managers of each group entity, representing the first line of defense to the risks facing the Company.

The preventive controls are carried out according to specific manual or automated procedures, involving, among other things, validations at appropriate levels of the organization. The controls for detection consist of ex-post checks carried out as part of specific oversight of performance, variances and anomalies (and facilitated by the existence of information systems, indicators, etc.).

Second line of defense

The internal control function, led by the Finance Department in collaboration with the Risk and Internal Audit Department within the Internal Control Committee (COCI), relies on a network of internal control coordinators appointed in each of the Business Units, whose main objectives are to:

- foster a culture of internal control and to follow up on the action plans; and
- roll up specific points requiring attention from the entities to the Internal Control Committee.

The corporate functions also act as a second line of defense owing to their preponderant role and the oversight they have over their processes. These functions include the General Inspectorate for the safety and security of nuclear facilities, the Quality, Protection, Compliance and Insurance Departments, Financial Control and the Human Resources Department.

Third line of defense

Orano's Risk and Internal Audit Department is active group-wide and in each business sector. This department is placed under the responsibility of the Chief Executive Officer and reports horizontally to the Chairwoman of the Audit and Ethics Committee. In 2019, it conducted its activities completely independently in accordance with the Audit Charter and international professional standards.

This department is responsible among other things for reporting to the management bodies on its assessment of compliance and the effectiveness of the internal control systems deployed throughout the group. The audit plan takes into account the risks identified by all group systems (business risk model, internal control self-assessment tools, interviews carried out by the Audit Department with the General Inspectorate, the Compliance and Quality Departments, and all "top managers" within the group, as well as with the Statutory Auditors). The recommendations resulting from its work lead to progress plans, which are monitored in consultation with the managers concerned. In this way the Risk and Internal Audit Department helps with the continuous improvement of the internal control system.

Each year, the Risk and Internal Audit Director presents his internal controls review report and a summary of the department's activities to the Chief Executive Officer and to the Audit and Ethics Committee.

Anti-fraud system

For a few years, the risk of fraud has changed dramatically, with the surge in fraud by identity theft, heightened use of "social engineering" with attempts at intrusion and data theft. Aware of this risk, which is growing with the inventiveness of perpetrators and the increasing digitization of transactions, especially financial ones, Orano has continued the vigilance work that it initiated several years ago, primarily by adjusting its internal procedures in light of these new identified risks and by repeating awareness campaigns on a regular basis. These procedures and alerts are the basis of the anti-fraud system.

Each unit is obliged to report all attempts at fraud or evidence of fraud to the Finance Department and the Protection Department, so that lessons can be learned from the situations encountered. The fraud scenarios suggested by these events or any others of which the group might become aware, especially through communications from government agencies and other stakeholders, are also taken into consideration.

When necessary, the existing procedures are amended to reflect the corrective measures identified in these analyses, which are then shared across the group, particularly with the employees most exposed to the risk.

3.2 Risk mapping and risk management processes

3.2.1 Risk management policy

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

A risk-assessment campaign is mounted annually to take into account the potential impact of events on the achievement of the group's strategic and operational objectives. Its main objectives are:

- the formal identification of every type of risk;
- the characterization of these risks in order to prioritize them; and
- the definition and implementation of action plans to limit them.

The Risk and Internal Audit Department, reporting to group Executive Management, works out the methodological tools used in common throughout the group. Risks are identified using a Business Risk Model (BRM) drawn up for the use of the operating units. The BRM lists, in a set number of families of risks, all of the situations or foreseeable or unexpected events that may impact on the health and safety of the staff, the environment, operations, strategy or financial results of the group, its compliance with current regulations, as well as its reputation or image. The BRM is designed to evolve over time by incorporating best practices and feedback from users, and changes made to regulations. Since 2018, the group's business risk model has included the corporate duty of care and the risks associated with corruption and influence peddling.

ORANO GROUP RISK MAPPING PROCESS IN 2019

The Orano Risk and Internal Audit Department, in collaboration with the Risk Managers of the Business Units (each of which has a network of risk managers in their operating entities), coordinates the deployment of the risk mapping process, and consolidates the risk assessment at group level. The risks identified are analyzed and ranked on three axes: impact, likelihood and degree of control. By producing this map, elements of proposals and decisions can be compiled on the implementation of action plans intended to reduce risks to an ALARP (As Low As Reasonably Practicable) level.

The operational units have the responsibility of identifying, analyzing and prioritizing their risks and then managing them by implementing action plans and allocating the appropriate resources.

The Risk Committee coordinates, for all operations and on a worldwide basis, the analysis of the group's key risks and the follow-up on the action plans necessary to limit those risks. As part of its mission, the Risk Committee makes use of all of the expertise of the group. Its composition brings together the key functional areas in the Company that can provide special expertise or knowledge, enabling it to assess the criticality of the risks and their potential consequences.

Together with the Risk Committee, the members of the Executive Committee [1] identify and formalize a list of the group's major risks and appoint, for each risk, a "designated" member. More specifically, the latter is responsible for ensuring that there are appropriate action plans and for reporting on its progress to the Risk Committee. The mapping is presented annually to the Audit and Ethics Committee of the Board of Directors.

Based on this work, the main risk factors identified are described in Section 3.3 below.

3.2.2 Risk coverage and insurance

To limit the consequences of certain potential events on its operations and financial position, the group uses risk transfer techniques with leading insurers and re-insurers on the international markets. Orano has accordingly acquired insurance coverage for its industrial risks, its civil liability and other risks related to its operations, both nuclear and non-nuclear. The amount of the respective guarantees varies according to the type of risk and the group's exposure.

Some risk factors, were they to materialize, could be covered by one or several of the insurance policies taken out by the group as part of its insurance programs.

The insurance program is led by the group's Insurance Department, which:

- proposes to the Executive Management of the group and its subsidiaries internal financing solutions or the transfer of these risks to the insurance market;
- negotiates, implements and manages the worldwide insurance programs for the entire group and reports to group Executive Management on the actions undertaken and costs incurred; and
- negotiates, in support of the subsidiaries concerned, the payment of claims.

3.2.2.1 Worldwide group insurance programs

Civil liability

The group is covered by a "worldwide" civil liability program with limits appropriate to its size and operations. The program covers:

- operating liability, relating to operating activities and services rendered on customer premises;
- post-delivery civil liability; and
- professional civil liability, which deals with the financial consequences of damage following the provision by a group company of an intellectual service.

It is also covered for liability for environmental damage, for damage to property held on behalf of third parties and for product recall expenses, among others.

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[1] *As of the date of this report, the Executive Committee is composed of:*
- *the Chief Executive Officer;*
- *the Director of Marketing and Sales;*
- *the Director of Innovation and R&D;*
- *the Chief Financial Officer;*
- *the Director of People and Communications;*
- *the Director of Safety, Health, Security and Environment;*
- *the Director of Performance;*
- *the Senior Executive Vice-President of the Mining Business Unit;*
- *the Senior Executive Vice-President of the Chemistry-Enrichment Business Unit;*
- *the Senior Executive Vice-President of the Recycling Business Unit;*
- *the Senior Executive Vice-President of the Dismantling and Services Business Unit;*
- *the Senior Executive Vice-President of the Nuclear Packages and Services Business Unit; and*
- *the Senior Executive Vice-President of the Projects Business Unit.*

The program covers the financial consequences of civil liability that may be incurred by the operational entities due to their operations, in respect of physical harm, material and immaterial damages caused to third parties, outside of the responsibility of the nuclear facilities operator and with the exception of certain losses traditionally excluded from the scope of the insurance, such as the collapse of land, damage related to asbestos, or damage resulting from computer viruses. The coverage levels for liability insurance are based on the amounts of coverage available on the insurance market, and the quantification of the risks reasonably foreseen by the group and identified by the operational units when the risk mapping is done.

Insurance specifically covering the activities of a nuclear facility operator

International nuclear liability law is distinct from general liability law in that the operator of the nuclear facility causing the damage has sole liability. Its liability is objective ("no fault"), for which there are few exemptions. The operator of a nuclear installation is therefore required to compensate the victims for any physical injury and property damage they have suffered and for this purpose must maintain a financial guarantee (generally, an insurance policy), in order to cover its liability, for a limited amount.

This arrangement is defined by international conventions, including the Paris Convention of July 29, 1960 as amended, supplemented by the Brussels Supplementary Convention of January 31, 1963. Orano's nuclear facilities are all located in France, where, since February 18, 2016, pursuant to Act No. 2015-992 of August 17, 2015 on the Energy Transition for Green Growth in France, the TECV Act, the operator's liability is capped at 700 million euros per nuclear accident in a nuclear facility, at 70 million euros in a reduced-risk facility (Article L. 597-28 of the French Environmental Code) and at 80 million euros per nuclear accident during transportation (Article L. 597-32 of the Environmental Code).

One group ICPE (Orano DS in Bollène) appears on the list of sites benefiting from reduced liability amounts, pursuant to Decree No. 2016-333 of March 21, 2016 implementing Article L. 597-28 of the French Environmental Code related to liability in the field of nuclear energy.

For its regulated nuclear facilities (INB) in France and its other facilities abroad, as well as for its nuclear transportation operations, group companies are covered by the insurance program to which Orano has subscribed. These insurance policies comply with the international conventions governing nuclear operator liability, as well as the aforementioned Act No. 2015-992, including in terms of liability limits.

Property and business interruption insurance for nuclear operations

Due to the nature of the potential damage to the facilities, this type of insurance is available only through pools or through specialized mutual insurance companies capable of providing the necessary coverage. The limits of coverage for this type of insurance are based on the estimated replacement value or on an estimate of the maximum possible loss (MPL). Insurance coverage for some facilities can be up to one billion euros.

Mining operations are not covered by property and business interruption guarantees for the nuclear process, but rather are covered by specific programs controlled by Orano's Insurance Department.

The risk that the coverage terms of the insurance policies are not met or that the ceilings for this coverage are met and that thus the policies are insufficient to fully cover the consequences of a disaster cannot be ruled out.

3.2.2.2 Outlook and trends in 2020

The Orano group insurance programs will be renewed in April 2020.

3.3 Risk factors

The list of the group's risk factors is given in this chapter. The order of appearance reflects the priority attached by the Orano group to these risks, as follows:

Risk Families in the Orano Manual / Risk presented		**Statement of non-financial performance** (1)	**Corporate duty of care**(1)	**Section of the annual report**
External risks	Political and economic conditions	✓		3.3.1
	Commercial and legal risks			3.3.5
Operational risks	Risks related to the group's business activities			3.3.2
	Nuclear safety and environmental impacts	✓	✓	3.3.3/4.2
	Risks related to subcontracting and suppliers	✓	✓	3.3.2.7/4.3.2
HR risks	Risks related to health and safety	✓	✓	3.3.4/4.1.6
	Risks related to human resources	✓	✓	3.3.7/4.1
Financial risks				3.3.6
Compliance, integrity and ethics	Risks associated with corruption and influence peddling	✓		3.3.8/4.3.1
	Risks of tax evasion	✓		3.3.9

(1) The cross-reference table of the data required in the statement of non-financial performance (Articles L. 225-102-1 and R. 225-104 to R. 225-105-2 of the French Commercial Code) and those required by the French Corporate Duty of Care Act (Article L. 225-102-4 of the French Commercial Code) can be found in Appendix 8.9 of this Annual Activity Report and in the report of the independent third party on the statement of non-financial performance in Appendix 8.11. The elements of the corporate duty of care plan are also described in Section 3.4 of this chapter.

Measures combating food waste, food scarcity, or promoting animal welfare and responsible, fair and sustainable food policy are not relevant to Orano's operations. Consequently, they are not treated in this document.

On March 11, 2020, the World Health Organization declared that the COVID-19 coronavirus that appeared in China at the end of 2019 was a pandemic, in recognition of its rapid spread across the globe. This crisis has begun to affect the functioning of our industrial platforms and completion of our projects as well as the group's financial position. Nonetheless, it is difficult at this stage to quantify the consequences for the group.

This crisis will be reflected in the following risks (references correspond to those in the above table);

- Political and economic conditions (Section 3.3.1);
- Risks related to the group's business activities (Section 3.3.2);
- Risks related to subcontracting and suppliers (Section 3.2.7);
- Risks related to health and safety (Section 3.3.4); and
- Financial risks (Section 3.3.6), although the liquidity risk remains very low.

At the time of this document's publication, the group has implemented its crisis management organization, encompassing its national and international locations. In this context, the group has taken all measures required to protect the health of its employees and secure its industrial facilities, while ensuring the maintenance of the activities necessary for supplying its customers. In France, this includes the business continuity of its customer EDF and the group's strategic projects, with all precautions in terms of health, safety and security.

In France, it is about ensuring in particular business continuity for EDF and strategic projects for the group, with all protection measures regarding health, safety and security. A heightened focus is in place for all other group's locations where the Covid-19 is likely to spread in particular remote places with inadequate medical infrastructures where mines are in operation.

Moreover, the group is preparing to gradually phase-in its service and industrial operations without compromising the protection of its employees and subcontractors.

3.3.1 Political and economic conditions

Risks related to the energy policies of other countries and the European Union

The group remains exposed to the risk that the energy policy of some countries will affect the prospects for the nuclear industry as a whole (as in Germany following the decision taken in 2011 to phase out nuclear energy), the prospects for the construction of new reactors (as in South Korea following the election of President Moon Jae-In in 2017), or the policy for the back end of the cycle.

In EU institutions, political risk is apparent in repeated attempts, usually led by Austria and Germany, to exclude nuclear energy from European energy policy instruments: the taxonomy of sustainable activities, the "green pact", and instruments for financing the energy transition.

More specifically, political risks may involve the following:

- new thinking on the share of nuclear power and renewable energies in the energy mix;
- the early shutdown of certain nuclear power plants;
- the slowdown or freezing of investment in new nuclear construction projects;
- the reconsideration of programs to extend the operation of existing power plants;
- changes in policies for the end of the cycle, particularly as concerns used fuel recycling;
- the adoption of protectionist measures reducing the accessible market; and
- lesser acceptance of nuclear energy by the public.

In addition, the group is exposed to the risks of political instability or insufficient respect for the rule of law in some of its host countries, particularly in the context of its mining operations. These two risks can lead to civil unrest, expropriation, nationalization, changes in legal or tax systems, monetary restrictions, and renegotiation or cancellation of currently valid contracts, leases, mining permits and other agreements. Moreover, acts of terrorism can generate socio-political turmoil and jeopardize the physical safety of the group's personnel and/or facilities.

Lastly, political pressure could lead some of our competitors, closely linked to foreign powers, to make decisions influenced by considerations other than profitability and to benefit from financing on advantageous and non-market terms.

Risks related to French energy policy

The Multi-Year Energy Program (PPE), which is revised every five years, is the management tool provided for in the French law on energy transition for green growth (LTECV). It sets, for each type of energy, the broad objectives of France's energy policy and its energy mix. The current PPE was unveiled by the President of the French Republic on November 27, 2018 and was incorporated into the Energy-Climate Act ratified by the French Parliament in September 2019. It sets out a clear framework for the future share of nuclear energy, which is expected to fall to 50% of the French mix in 2035, equivalent to shutting down 14 reactors. It also reaffirmed the strategic nature of the recycling of used fuel.

Conversely, the PPE leaves open the question of building more next-generation EPR nuclear reactors. A working group led by EDF was set up under the aegis of the French Nuclear Energy Industry Group (GIFEN) to make this decision technically feasible as early as 2021. Despite this, recent government announcements suggest that a decision will not be made until 2023.

These factors incorporated into the reactor scenario used by the Orano group could have an impact in the middle of the next decade. However, the financial trajectories of the Business Units could change depending on the impact of the announcements of new construction on market prices and/or export markets.

Another risk could be that decisions taken by the French government on structuring energy policy issues besides the PPE (ARENH, calculation of end-of-lifecycle commitments) could negatively affect Orano's profitability and attractiveness.

Risks related to the national plan for managing radioactive materials and waste (French acronym PNGMDR)

Following the public debate held in 2019 in preparation for the adoption of a new PNGMDR, a report is being drafted and is due to be published in 2020. The main risks would be the reclassification of recoverable material as waste – unlikely but potentially disruptive – while these materials can be reused to generate electricity – and tighter regulations on the final condition of facilities and land.

3.3.2 Risks related to the group's business activities

3.3.2.1 Obsolescence risk of plant

The obsolescence of production plants, and their ability to function in a nominal way and in compliance with the regulatory commitments, represents a major challenge for the Orano group. The industrial installations are covered by preventive and curative maintenance programs. Regarding regulatory commitments, the group's "regulated nuclear facilities" undergo safety inspections every 10 years. Their purpose is twofold: to ensure that compliance with regulatory requirements is maintained and to provide a checklist on the obsolescence of the facility. Each site accordingly devises its own monitoring program to catch any obsolescence in its equipment.

3.3.2.2 Risks related to end-of-lifecycle operations

As operators of regulated nuclear facilities (*installations nucléaires de base*, INB) and industrial facilities covered by legislation on environmentally regulated sites (*installations classées pour la protection de l'environnement*, ICPE), the group's legal entities have an obligation to ensure the safety and dismantling of those facilities during their final shutdown, in whole or in part; to restore the sites; and to manage the products resulting from these operations.

The group plans for the dismantling of its new facilities from the beginning of the design phase. Computer programs were developed to facilitate the adoption of new traceability standards, thus reducing the research necessary for characterization at the end of operations (radiological, physico-chemical, etc.) as well as the impacts of dismantling work.

In France, the law provides a mechanism for ensuring that the operators of INBs have sufficient assets to fund long-term expenses associated with the dismantling of these facilities and/ or the management of used fuel and radioactive waste.

Future expenses associated with the end-of-lifecycle commitments of nuclear facilities and with the remediation of regulated industrial facilities have been identified, and specific provisions have been constituted by the legal entities which operate those facilities. The rules related to provisions for end-of-lifecycle operations are described in Appendix 8.1 *Notes to the consolidated financial statements*, Note 12 *End-of-lifecycle operations*.

End-of-lifecycle liabilities are quantified in two principal ways, depending on the lifecycle phase of the nuclear facility. The first is to evaluate the future costs before the INB is put in service and the second is to draw up an operating estimate at the start of the project phase of the dismantling operations. These figures also include the evaluation of margins for risks and contingencies, which are included in Orano's provisions for end-of-lifecycle expenses. It cannot be stated with certainty, however, that those amounts currently provisioned will equal the actual costs that will finally be incurred by the group. It is therefore possible that these future obligations and potential expenses or potential additional future liability of a nuclear or environmental nature that the group may later have to bear could have a significant negative impact on its financial position.

The main risks that could have a significant impact on the cost of end-of-lifecycle operations are in particular:

- differences between the initial estimated condition of legacy facilities or waste and their actual condition;
- changes in regulations, particularly with respect to dismantling, the target final condition of the facilities and soils after dismantling, the storage solutions used or the requalification as waste of radioactive materials currently still considered to be reusable (see also Section 3.3.1); and
- the appreciable increase in radioactive waste packaging and disposal costs, particularly for waste destined for geologic disposal (cost of the future CIGEO geologic repository) and for which no final disposal method has yet been identified.

3.3.2.3 Risks of cyber attack

Given the emergence of cyber-attacks in recent years, concerns about information system risk have grown considerably.

The risk of cyber-attacks was given the highest level of importance in Orano's assessment scale (very high severity with a likelihood remaining "infrequent").

To deal with these concerns, a plan for a cyber security program was devised in late 2017 and early 2018, then presented to and approved by the Executive Committee in March 2018.

This plan deals with the following six major risks:

- compromised confidentiality of business and technical data;
- compromised integrity of business and technical data;
- unavailability of business services;
- loss of ability to detect and/or investigate;
- massive, widespread compromise of the information system; and
- inability to meet legal and industry obligations.

The plan was devised along the lines of prevention and protection (identifying the risk and preventing its occurrence), detection and reaction (detecting the incident and eliminating and/or thwarting it), and resilience (reducing the impact and maintaining essential services).

Actions carried out in 2018 and 2019 included:

- the appointment of a group chief information security officer (CISO);
- the completion of a three-month 360 cybersecurity audit (late 2018 – early 2019);
- the gradual adaptation of cybersecurity governance to the group's new configuration; and
- the implementation of several "fake phishing" campaigns throughout 2019.

It consists of a number of areas for continuous improvement, including adding staff in information systems security, improving the cyber security culture, upgrading the in-depth defense systems, improving the protection of data centers and industrial sites, as well as business continuity.

3.3.2.4 Risk related to major projects

Generally, the revenue, cash flow and profitability recognized for a project can vary significantly according to the percentage of completion of the project in question.

They may depend on a certain number of items such as the occurrence of unforeseen technical problems inherent in the complexity of major projects and/or relative to the equipment supplied; loss of skills or questions about technologies; postponements or delays in the execution of contracts or capital projects; and changes in the position of customers or the geopolitical context of the countries where they are carried out.

Projects may also have to cope with financial difficulties or payments withheld; the default or financial difficulties of suppliers, subcontractors or partners in a consortium in which the Company is jointly responsible; and additional unforeseen costs resulting from changes in the technical scope of work, in project databases or in regulations.

The profit margins on some of the Company's client contracts may prove to be very different from those initially anticipated insofar as costs and productivity may vary significantly during the execution of these long-term projects. This phenomenon can also be observed regarding the costs to complete major projects relative to investments.

Orano's industrial projects

The group cannot ensure that industrial projects, mining projects or dismantling projects can be implemented within the planned budgets and schedules or that they are consistent with the operating requirements of the sites involved.

The group cannot guarantee that the income from mining, industrial or dismantling projects will enable it to cover its operating, depreciation and amortization expenses or give the expected return on investment, particular if the competitive situation in the target market changes.

Similarly, in the case of transitions between two industrial plants, the group cannot guarantee that facility shutdown and start-up schedules will be optimized to minimize the financial and social impacts.

In addition, the group cannot guarantee that suppliers associated with the different projects will provide their products or services on time and as required in the contracts.

Such risk could have a negative impact on the group's operations and, especially, its financial position.

3.3.2.5 Uranium resources and reserves

Orano's uranium reserves and resources derive from estimates made up by the group in accordance with NI43-101, based on geological assumptions (e.g. core drilling results) and economic assumptions; there is no guarantee that actual mining operations will produce the same results.

The group could be led to modify these estimates if there is a change in evaluation methods or geological assumptions, and/or a change in economic conditions.

It is not possible to guarantee that the projected quantities of uranium will be produced or that the group will receive the expected price for these ores, which is indexed to market performance, in accordance with the contractual terms agreed upon with the customers.

There is no assurance that other resources will be available. Moreover, uranium price fluctuations, production cost increases and declining mining and milling recovery rates can affect the profitability of reserves and require their adjustment.

3.3.2.6 Risks related to transport security

The international agreements concerning the various modes of transportation of hazardous materials define the categories of transportation and the types of models of packages, according to the safety issues involved. Each country writes these principles into its national regulations (for example in France: the TMD Decree - French acronym for hazardous materials transportation - issued by the Ministry of Ecological and Inclusive Transition). Every subsidiary of the Nuclear Packages and Services BU manages itself in a way that complies with these provisions.

For the highest risk shipments, the design, manufacture and use of packaging for the transportation of nuclear and radioactive materials undergo an assessment process by the competent authorities (in France: the ASN, the French Nuclear Safety Authority).

To keep a close watch on its transportation activities, the Nuclear Packages and Services BU employs a "transportation oversight" process at the group level whose purpose is ensure that the operational, safety, physical protection, media coverage and industrial risks of transportation involving Orano are under control.

The approach consists, firstly, of identifying and analyzing all the transportation flows that may present a risk to Orano. An exhaustive collection of information about all the transportation flows carried out or supervised by the group's Nuclear Packages and Services BU is made to assess the level of risk and, if necessary, to recommend actions to take.

The transportation oversight is physical and is performed, on the ground (shippers' sites, recipients' sites and trans-shipment zones, including ports and airports), by a team of qualified auditors and inspectors who review the operations of the Orano sites and group's shipping providers, including its subsidiaries, in every country where the group makes shipments. In 2019, 244 inspections and 37 audits were carried out on Orano shipping sites and transport providers.

"Transportation oversight", through close monitoring of all shipping and the crisis unit that can be mobilized in the event of any incidents, makes it possible to take better account of any risks identified.

Nonetheless, despite all the resources deployed to ensure transportation security, the group cannot guarantee a complete lack of transportation incidents or of impacts on its operations.

3.3.2.7 Risks related to subcontracting and suppliers

Purchasing contributes greatly to the group's attainment of its economic performance objectives, in interface with the other functions in the supply chain, i.e. order management, supplier claims, procurement, inventory management, front-end transport and major project logistics. Purchasing also has a key responsibility in limiting supplier risk.

By the nature of the Orano group's business, the main risks to do with the procurement chain to which the group could be exposed are identified in the following areas:

- Human Rights and Fundamental Freedoms;
- occupational health and safety; and
- nuclear safety and the Environment.

In accordance with the Order on regulated nuclear facilities (*Installations nucléaires de base* - INB), Orano's various business units monitor their service providers, duly inspected by the authorities, as appropriate to meet the relevant requirements.

In order to identify the suppliers and subcontractors that can potentially present risks, the group uses three basic criteria:

- the volume of annual purchases made with the supplier or subcontractors;
- the business segment; and
- the geographic location of the activity.

The control system and actions taken are detailed in Section 4.3.2 of Chapter 4 below.

3.3.3 Nuclear safety and environmental impacts

The group's environmental safety policy, renewed for the 2017-2020 period, aims to continuously improve its safety culture and to increase its preventive actions in light of risks related to:

- the occurrence of a nuclear or industrial accident classified as Level 2 or higher on the INES or ARIA scales and which could cause a significant contamination of protected interests (e.g. significant contamination of the environment); and
- the consequences of a natural phenomenon (such as an earthquake) or of climate disruption which could generate extremely violent effects on the sites (such as a tornado or flood).

This environmental safety policy has been disseminated to the entire group.

It sets the priorities for action in terms of:
- safety of the facilities;
- safety of the operations; and
- performance of management.

Although a serious event with major consequences around our sites cannot be completely ruled out, the extra measures taken to improve a culture of safety directly among our people on the ground make us confident in our ability to control any such occurrence. Furthermore, an additional factor in the overall improvement of the safety of our activities has been a reinforcement of our crisis organization and our procedures for limiting consequences and supporting a site in difficulty.

The main indicators of prevention and outcomes are stable.

The indicators and actions taken are detailed in Section 4.2 of Chapter 4 below.

Concerning the special case of natural phenomena and climate disruption, in 2020 the group will continue the investment projects initiated as part of the Additional Safety Assessments carried out after the Fukushima accident. These consist of commissioning a crisis building at the Melox site which could withstand extreme events (such as an earthquake, tornado or flood), modeled on the crisis command post put into service at the Tricastin site in 2017 and at la Hague in 2018.

3.3.3.1 Internal nuclear and industrial hazards

Risks of nuclear origin relate to the characteristics of radioactive substances. They thus concern all industrial facilities of the group where these substances are found, whether it be regulated nuclear facilities (INB), secret regulated nuclear facilities (INBS) or industrial facilities covered by the legislation on facilities classified for environmental protection (ICPE).

Risk prevention is based on a systemic and systematic analysis of the risks specific to each facility or activity undertaken and on the definition of means for preventing events of concern, for detecting and managing incidents and accidents, and for limiting their potential consequences, based on defense-in-depth principles. These principles involve a systematic analysis of potential technical, human or organizational failures, and definition and implementation of a series of independent lines of defense to protect against the consequences of those failures. These principles are implemented during the facility design phase, during the industrial production phase, and during cleanup and dismantling after the end of production operations.

These risks are the following:

The risk of a criticality accident corresponds to the risk of an uncontrolled chain reaction with a brief and intense emission of neutrons, accompanied by radiation. This risk, should it materialize, would result in irradiation of workers or individuals located near the event, causing lesions proportional in seriousness to the intensity of the radiation received. This risk is addressed in any facility likely to receive fissile materials.

The prevention of this risk is based on limiting the factors leading to uncontrolled chain reactions. This limitation is factored into the design (e.g. equipment geometry) or operating requirements (e.g. mass limitation). In areas of facilities representing the greatest risk, the prevention measures are strengthened with the use of shielding to sharply reduce the consequences of a potential criticality incident for personnel, and with the installation of a criticality accident detection, alarm and measurement system.

Thermal releases and radiolysis: Matter absorbs the energy produced by intense radiation, which can lead to increased temperatures. The energy is removed to control the temperature increase and prevent the dispersion of radioactive materials. Cooling is provided by redundant cooling systems with heat exchangers and ventilation systems.

Radiolysis corresponds to the decomposition of a hydrogenated compound (especially water) when exposed to radiation, leading to the release of hydrogen. In normal operations, the facilities are designed to limit hydrogen concentrations by flushing the equipment with air. A backup system is added if a loss of flushing capacity causes concentrations to rise significantly.

The typical risks of all industrial operations:
- risks associated with the handling and use of hoisting, transfer and positioning equipment;
- risks of fire and internal explosion;
- risks related to the use of chemicals or toxic raw materials such as HF;
- risks associated with the use of pressurized equipment; and
- risks associated with utilities (electricity, water, steam, industrial gases, etc.).

These risks are managed using a risk management approach tailored, as in the case of nuclear-based risks, to the nature of the risk and in compliance with the regulatory requirements defined for each technical field: safety systems, fire containment, detection, ATEX rules for explosive atmospheres, separation of incompatible chemicals. These technical measures are supplemented as necessary by compliance inspections, periodic verifications and maintenance, and operator training and/or certification.

3.3.3.2 External risks that could lead to nuclear risk

This risk concerns **the crash of an airplane or part of an airplane** on a facility. Its probability of occurrence depends on the number of aircraft that could reach the site without being detected; its potential severity depends on the type of aircraft and the surface area of sensitive areas in each facility. Each site is located:

- away from controlled airspace;
- away from airspace used by military aircraft; and
- far from any airport.

Safety studies are carried out to assess the risk of an airplane or drone crash, including the risk of deliberate attack, and to determine the means for limiting its consequences (factoring in the organization of airspace use, types of flights, known crash statistics, etc.).

Earthquakes andtheir possible repercussions, such as a tsunami, can cause damage that could disable nuclear safety systems.

For facilities in which nuclear materials are handled, the risk of an earthquake is factored into the design of equipment, systems and buildings. Risk analysis consists of demonstrating that no damage affecting the nuclear safety of the facility is likely to occur for the event scenario considered.

The earthquake in Le Teil on November 11, 2019 had no impact on the Orano facilities located in the Rhône valley. Furthermore, Orano will confirm that this event has not resulted in any changes to the safety guidelines for facilities potentially affected by seismic risks.

Climate disruption, particularly unfavorable weather conditions and floods:

This is factored into the design based on potential local conditions. Advance warning is given for any threatening weather conditions, and there are instructions for each facility concerning additional measures to be taken, such as increased monitoring or specific actions.

The possible causes of external flooding (rain, river flooding, breach of dikes, tsunami) are factored into the design of the facilities and operating measures. The risk of a thousand-year flood is taken into account, in particular by locating facilities above the thousand-year flood plain.

Orano has for some time now incorporated extreme climatic events into the design of its facilities. A sensitivity study has been carried out regarding changes attributable to climate change. The study has identified matters requiring attention as regards Orano's facilities in France

Other risks caused by potential external events, such as the loss of power supply or utilities (water, steam, compressed air, etc.), are addressed through redundant or independent backup systems.

Following the accident at the Fukushima Daiichi nuclear power plant in Japan, in addition to the measures taken in the design of the facilities or during operations, supplementary safety assessments (SSA) were carried out to evaluate the facilities' ability to withstand a malfunction. Based on these assessments, special programs to improve the level of facility protection led to work and actions. Other measures are being implemented in accordance with regulatory decisions by ASN applicable to the group's nuclear facilities.

Transportation of radioactive and nuclear materials

Faced with the risk of incidents during the transportation of radioactive and nuclear materials, these are subject, as are other nuclear operations, to the concept of "defense in depth" in order to ensure their safety and protect people, goods and the environment on public land. This system of defense consists of setting up a series of barriers (packaging performance, observance of safety and security requirements and arrangements for crisis management) to prevent accidents and limit their consequences. The design of the shipping cask is the main component of this system. As with any nuclear activity, these operations are governed by stringent international regulations.

Orano has a transportation monitoring organization that analyzes risks, establishes action plans, oversees shipping operations and manages emergencies around the globe. Its tracking center is able to access in real time all necessary information on shipments under its supervision at any moment.

The protection and safeguard of nuclear materials and facilities

Faced with the risk of malicious acts, special measures are taken to protect nuclear facilities and shipping from terrorism. These measures are strengthened under national security plans (such as the French "Vigipirate" plan). For security reasons, these measures may not be disclosed to the public.

In addition to the measures adopted to prevent the risks of an incident or accident and limit the consequences to the greatest possible extent, sites in possession of nuclear materials must take measures to prevent the loss, theft or diversion of the materials held in the facilities, or any act that might result in their dispersal in the environment. As with nuclear safety, the measures taken are based on the principle of "defense in depth".

The competent authorities, including for France inspectors reporting to the Senior Defense and Security Official of the Ministry for Ecological and Solidarity Transition, regularly verify compliance with and proper application of these measures.

3.3.4 Risks related to health and safety

In terms of a health and safety, the main risks for the group are:

- serious or fatal accident of an employee of the group or an outside company; and
- contamination or irradiation of an employee of the group or outside company.

Although there is no such thing as zero risk, the involvement of all line management in improving our performance, from Executive Management down to first-level supervisors, strongly supports our goal of eradicating serious or fatal accidents, and achieving a frequency rate of accidents with lost time of less than 1.5 by the year 2020.

In 2019, we observed a deterioration in the rate of occupational injuries with and without lost time compared with 2018. This consisted of a rise in travel-related accidents (around 30% of occupational injuries) and ergonomic-related injuries (also around 30% of occupational injuries), leading to a lost-time accident frequency rate of close to 1.9. This outcome will inform the entities' action plans in 2020, particularly with regard to on-the-ground detection and handling of any deviation from the baseline and decline in safety standards.

Renewed for the 2017-2020 period, the group's health, safety and radiation protection policy aims to continuously improve the group's performance in this regard and to increase its preventive actions. The constant goal is to strive for zero lost time injuries and zero impacts from Orano's operations on the health and safety of its employees, subcontractor personnel and the local communities near its sites. This policy has been initialed by the Chief Executive Officer and disseminated to the entire group.

Each entity of the group has adopted this policy and adapted it by integrating the risks related to its own activities identified in the Single Document for the Evaluation of Risks, factoring in reports of accidents or events occurring within its purview.

This policy covers three major areas:

- primary prevention;
- obtaining and circulating feedback; and
- operational controls.

Orano's commitments are to:

- ensure appropriate monitoring of occupational health for all employees by:
  - introducing an ongoing grass-roots healthcare program for the group's employees: in 2019, health screening kiosks and campaigns were organized by eye care professionals,
  - defining and applying international medical standards for the medical surveillance of occupational hazards,
  - strengthening the governance of occupational health actions and giving increased attention to the quality of working life, especially as concerns the prevention of occupational stress,
  - deploying the group's occupational health service in France,
  - including specific issues associated with expatriation in the medical follow up of employees;
- in the field of occupational safety, prevent and manage all industrial risks associated with operations for employees and subcontractor personnel.

Regarding security, a network of site- or entity-based prevention personnel, who are the local leaders of the security improvement actions, and led in turn by the HSE Department, allow for feedback on accidents or events that have occurred.

With regard to radiation protection, the application of the ALARA approach (As Low as Reasonably Achievable) allows the lowest possible dosimetry absorbed by the personnel. Monitoring of facilities with radioactivity tracking devices has helped limit the hazard of ionizing radiation, as well as to maintain facilities' radiological cleanliness.

Individual dose objectives are defined for each job in the monitored area.

A network of radiation protection specialists throughout the group is led by the corporate Safety, Health, Security and Environment Department. The tracking indicators used are the different dose limits and in particular the effective whole-body dose. The regulatory limit is 20 mSv per year for this concept. The group has set an observed indicator of 14 mSv as a forwarding threshold.

The indicators and actions taken are detailed in Section 4.1.6 of Chapter 4 below.

3.3.5 Commercial and legal risks

3.3.5.1 Contractual and commercial risks

3.3.5.1.1 Risk associated with dependency on the group's customers

Orano's loss of one of its main customers or a reduction in their purchases or an erosion of contract terms or conditions could have a significant negative impact on the group's operations and financial position.

Orano has very substantial commercial relations with the EDF group. EDF (including Framatome) accounted for approximately 41% of revenue in 2019 and 40% in 2018. In the fuel cycle, the relationship between EDF and Orano is governed by multi-year contracts.

In its operating segments, these contracts give Orano operating visibility beyond 2020, with the regular renewal of multi-year contracts.

In addition, the impacts of the French Energy Transition Act of August 17, 2015 (Articles L. 311-5-5 and L. 100-4-5) on EDF's operations were specified in the Multi-year Energy Program (PPE) presented by the President of the French Republic on November 27, 2018. For additional information on the impact of the PPE, see Section 3.3.1 *Risks related to French policy*.

The group's 10 biggest customers, including the EDF group, represented close to 73% of its revenue during the financial year.

3.3.5.1.2 Breach of contractual commitments

The Orano group is exposed to the risk of default by its customers for the payment of its products and services and/or by its suppliers for the performance of certain services or for the delivery of certain products.

In such instances, the group may not be able to recover the expenses incurred for a project, a service or provision of material, and consequently may fail to achieve the operating margins factored in when the contract was signed.

Though the group endeavors to control its exposure to contractual risk, it is not possible to guarantee that all risks of non-payment or non-execution can be eliminated.

3.3.5.1.3 Non-renewal or termination of concessions related to the group's mining operations

The group's mining operations involve concessions (or other legal arrangements to that effect) or partnerships formed under legal systems specific to each country. Despite the relatively long terms of these partnerships or concessions, the group is exposed to the risk of non-renewal or termination of its partnerships and concessions, in particular in countries that suffer from a certain degree of political instability as mentioned in Section 3.3.1 *Risks related to the energy policies of other Governments and the European Union*.

3.3.5.1.4 Multi-year contracts

The Company signs long-term contracts that may prevent the group from taking advantage of increases in the market price of certain products or services. This is the case for certain natural uranium sales contracts, in particular, or for conversion or enrichment services.

In addition, the profitability of certain long-term contracts in which the group commits to providing deliverables at a fixed price, adjusted based only on general indices, could be affected by certain additional costs that cannot be passed on to customers, such as unanticipated increases, technical difficulties, or subcontractor default. The performance of this type of contract could therefore reduce the group's anticipated profitability, or even cause an operating loss.

3.3.5.1.5 Warranties

The warranties provided in the group's contracts or financing are limited in duration and capped in value, and exclude consequential or indirect damages. However, the group could under certain circumstances give warranties exceeding those limits (in compliance with its governance rules), particularly in competitive markets.

3.3.5.1.6 Early termination clauses

Commercial contracts sometimes include clauses allowing the customer to terminate the contract or reject the products or service if contract clauses concerning schedule or performance have not been met, including if the ceiling on late penalties has been reached. Difficulties concerning products and services provided under this type of contract could thus result in unexpected costs.

In addition to the above-mentioned negative financial consequences, contract performance difficulties could harm the group's reputation with existing or potential customers, particularly in the nuclear sector.

3.3.5.1.7 "Requirements" contracts

Some contracts signed by entities of the group, in particular in the Chemistry-Enrichment Business Unit, are for variable quantities, depending on customers' reactor requirements. These are known as "requirements contracts". The estimates provided by Orano's customers in connection with these contracts may therefore be revised downwards in certain circumstances, with a corresponding reduction in the revenue anticipated by the Company for the contracts in question.

3.3.5.1.8 Outsourcing

The group makes use of many subcontractors, particularly for dismantling end-of-life facilities on its sites or for building new facilities. Those contracts contain clauses for adjusting the scope of work and the price, which are necessary given the nature of this work. The group is therefore exposed to claims by its subcontractors should it fail to reach agreement with them as to the application of these adjustment provisions.

3.3.5.2 Risks and disputes involving the group

The Company is exposed to the risk of disputes that could lead to civil and/or criminal penalties.

3.3.5.2.1 Uramin

In June 2018, Orano SA and Orano Mining entered into the "acquisition" part of the judicial investigation in the Uramin case. AREVA SA, the former holding company of the AREVA group, filed a civil suit as part of this investigation following a "notice to victim" received from the investigating magistrate in charge of the case in 2015. The Orano group intends to defend its interests through the civil proceedings by Orano SA and Orano Mining. The judicial investigation is still in progress and no date concerning a possible judgment has been put forward to date.

3.3.5.2.2 Investigations

The company has been aware since November 28, 2017 of a preliminary investigation opened by the French National Financial Prosecutor's Office in late July 2015 concerning a uranium trading transaction performed in 2011, and since August 27, 2018 of an investigation into the circumstances surrounding the granting of mining licenses in Mongolia. Orano is cooperating with the judicial authorities in these legal proceedings, which are ongoing. No Orano group entity has thus far been implicated.

3.3.5.2.3 Appeals against administrative decisions concerning the Orano group's operations

The Orano group's operations require various authorizations or administrative decisions (such as prefectoral orders, building permits, etc.). These decisions are sometimes challenged in France by organizations, which in some cases could have an impact on the completion schedule for the operations concerned.

3.3.5.2.4 COMUF

On January 30, 2019, an association of former workers assigned COMUF (*Compagnie Minière d'Uranium de Franceville*), a subsidiary of Orano Mining, before the Civil Court of Libreville (Gabon) alleging a breach of the safety of former workers, who were allegedly exposed to chemicals and radiation from uranium matter. The judgment of May 14, 2019 recorded that the proceedings against MATRAC had been dropped due to a procedural irregularity in the summons. As the action is not extinguished, the association could still resubmit the case, provided the limitation period had not expired. Orano has always made the protection of its employees a priority. The evidentiary items disclosed to date do not demonstrate the existence of damage attributable to COMUF, nor the admissibility of the action. However, given the partial nature of the evidence it has seen, Orano cannot exclude the possibility that it may have cause to reconsider its position in the light of further items.

3.3.5.2.5 Release of the Arlit hostages

On October 6, 2016, the managing director of a security firm sued AREVA SA and Orano Cycle SA before the Tribunal de Grande Instance of Nanterre to obtain payment of a success fee that he claims to be due for services he claims to have rendered to the AREVA group in Niger between September 2010 and October 2013. AREVA SA and Orano Cycle SA consider these claims to be unfounded and, as a preliminary point, challenged the jurisdiction of the Tribunal de Grande Instance in this matter. The Tribunal rejected this argument and declared itself competent in a ruling handed down on February 6, 2018. This ruling was upheld on appeal. AREVA and Orano have therefore filed an appeal with the French Supreme Court. In parallel with these proceedings, the parties attempted to settle their dispute by means of court mediation, which, despite the efforts of AREVA and Orano to reach a compromise, was unsuccessful. The substantive proceedings will therefore resume in 2020. Even if the court were not to accept the Orano group's position, the financial impact would be limited. However, there could be other indirect consequences such as negative media coverage.

3.3.5.2.6 Tax proceedings and disputes

Moreover, since the group includes a great many entities located in other countries, it is regularly audited by the tax authorities. Several audits and tax-related proceedings or disputes have been initiated or are currently being conducted by those authorities or in the courts, but none are expected to give rise to or has given rise to material tax expense that could have a significant impact on the financial statements. The group considers that it has sound means of defense and that it employs the legal procedures available to it to prevent any unfavorable outcome.

3.3.6 Financial risks

Orano has an organization dedicated to implementing market risk management policies approved by Executive Management for centralized management of the exposure to foreign exchange, commodity, rate and liquidity risks.

In the Finance Department, the Financial Operations and Treasury Management Department (DOFT) engages in transactions on financial markets and acts as a central desk that provides services and manages the group's financial exposure. The organization of this department ensures the separation of functions and the necessary human, technical, and information system resources. Transactions handled by DOFT cover foreign exchange and commodities trading, interest rates, centralized cash management, internal and external financing, borrowings and investments, and asset management.

3.3.6.1 Counterparty risk related to the use of derivatives and to the investment of cash management

The group is exposed to the risk of counterparties linked to cash deposited with banking institutions and the use of financial derivatives to cover its risks.

The group uses different types of financial derivatives to manage its exposure to foreign exchange and interest rate risks. The group primarily uses forward buy and sell currency contracts and rate derivative products, such as swaps, futures and options, to hedge these types of risk. These transactions involve exposure to counterparty risk when the contracts are concluded over the counter.

In addition, almost all of the group's cash is centrally managed, in accordance with an internal policy which defines the authorized products and placements. The group's cash is exposed to counterparty risk, primarily banking risk.

To minimize these risks, the group's Treasury Management Department deals with diversified, top-quality counterparties based on their ratings in the Standard & Poor's and Moody's rating systems, with a rating of Investment Grade. Moreover, a framework agreement, for example, is systematically put in place with counterparties likely to deal with derivatives.

The limits allowed for each counterparty are determined based on its rating and the type and maturity of the instruments traded. Assuming the rating of the counterparty is not downgraded earlier, the limits are reviewed at least once a year and approved by the group's Chief Financial Officer. The limits are verified in a specific report produced by the internal control team of the Treasury Management Department. During periods of significant financial instability which may entail an increased risk of bank default and which may be underestimated by ratings agencies, the group tries to monitor advanced indicators such as the value of the credit default swaps (CDS) of the eligible counterparties to determine if limits should be adjusted.

To limit the counterparty risk on the market value of its commitments, the group has set up a mechanism for margin calls with its most significant counterparties concerning interest rate transactions (including foreign exchange and interest terms and conditions).

3.3.6.2 Risk of shares and other assets involved in end-of-lifecycle operations

The group holds a portfolio of listed financial assets (equities, bonds, investment funds and third-party receivables) to fund operations related to its future end-of-lifecycle obligations.

The listed assets held by the group are subject to the volatility risk inherent in the financial markets.

At December 31, 2019, there were in particular a significant number of shares within the investment portfolio earmarked for end-of-lifecycle operations.

Despite the group's prudent management strategy for end-of-lifecycle obligations, outside economic factors may have an unfavorable impact on the coverage ratio of end-of-lifecycle liabilities by earmarked assets, and thus the group's financial position. Such factors may involve:

- an unfavorable development in the financial markets that could pose a risk of lower performance of the assets versus the assumptions currently retained; and
- a reduction in the discount rate or any other change in regulations related to the earmarked assets.

The group is thus exposed to changes in the value of the financial instruments in its portfolio of earmarked assets, in particular bonds and investment funds. The equity risk on the shares held in the portfolio of assets earmarked for end-of-lifecycle operations is an integral component of asset management, which uses shares to increase long-term returns as part of its allocation between bonds and equities.

If the earmarked assets are insufficient coverage for the liabilities, the group has a maximum of three years, after notification by the administrative authority, to supplement the earmarked funds so as to restore the liability coverage ratio above 100%. The additional funding would result in an unfavorable effect on the group's cash flow and net financial debt.

The risk on shares and other non-current financial assets is not systematically hedged against price drops.

For more information, please refer to Appendix 8.1 *Notes to the consolidated financial statements*, Note 29 *Financial instruments*.

3.3.6.3 Foreign exchange risk management

In view of the geographic diversity of its locations and operations, the group is exposed to fluctuations in exchange rates, particularly the euro/US dollar exchange rate. The volatility of exchange rates may impact the group's currency translation adjustments, equity and income. The value of the US dollar in relation to the euro appreciated by approximately 2% between December 31, 2018 and December 31, 2019.

The Business Units with significant exposure to the risk of the US dollar's depreciation against the euro are Mining and Chemistry-Enrichment, due to their geographically diversified locations (local currencies: euro/FCFA, Canadian dollar, tenge kazakh) and to their operations denominated primarily in US dollars, which is the reference currency for worldwide prices for natural uranium and uranium conversion and enrichment services. The foreign exchange risk to be hedged is managed globally by Business Unit and is net (some requirements in different directions of the same currency are offset, providing a natural hedge). For medium- and long-term exposures, the amount of the hedge is set up according to a gradual scale for a duration based on the highly probable nature of exposure, generally not to exceed five years.

As provided in the group's policies, operating entities responsible for identifying foreign exchange risk must initiate hedges for currencies other than their own accounting currency exclusively with the group's Treasury Department, except as otherwise required by specific circumstances or regulations. DOFT thus centralizes the currency risk for all entities and hedges its position directly with banking counterparties. A system of limits, particularly concerning authorized foreign exchange positions and results, "marked to market", is monitored daily by specialized teams which are also in charge of valuation of the transactions.

For more information, please refer to Appendix 8.1 *Notes to the consolidated financial statements*, Note 29 *Financial instruments*.

3.3.6.4 Interest rate risk

The group's exposure to fluctuations of interest rates encompasses two types of risk:

- a risk of change in the value of fixed-rate financial assets and liabilities; and
- a risk of change in cash flows related to floating-rate financial assets and liabilities.

The group uses several types of derivatives, depending on market conditions, to allocate its borrowings and investments between fixed rates and floating rates, with the goal being mainly to reduce its borrowing costs while optimizing the management of its cash surpluses. The group's rate risk management policy, approved by Executive Management, is supplemented by a system of specific limits for asset management and the management of rate risk on borrowings. In particular, the system defines authorized limits for portfolio sensitivity, authorized derivatives for managing financial risk, and subsequent positions that may be taken.

For more information, please refer to Appendix 8.1 *Notes to the consolidated financial statements*, Note 29 *Financial instruments*.

3.3.6.5 Price movements of uranium, enrichment and conversion

Fluctuations in the prices of uranium, uranium conversion and uranium enrichment could have a significant negative or positive impact on the financial position of the group's mining, enrichment and conversion operations.

Historically, the prices of uranium and of conversion and enrichment services have undergone significant fluctuations. These relate to factors outside the group's control. These factors include demand for nuclear power; economic and political conditions in countries which produce or consume uranium, including Canada, the United States, Russia, other CIS republics, Australia, and some African countries; nuclear materials and used fuel treatment; and sales of surplus civilian and defense inventories (including for example those from the dismantling of nuclear weapons).

If the prices for natural uranium, conversion and enrichment were to remain below production costs over a prolonged period, this could have a negative impact on the group's mining operations and uranium conversion and enrichment operations.

3.3.7 Risks related to human resources

Securing critical skills, attracting new talent at all levels of experience, adapting the workforce to needs, and also identifying the skills which the group will need tomorrow for its development, are all fundamental challenges for human resources. To take full account of this risk, the group has taken a comprehensive approach primarily involving tightly coordinated skills management; a proactive, diverse and visible hiring policy; an expanded and digitized set of training courses; and development of a pool of experts in conjunction with the other leaders in the nuclear industry (EDF, CEA, etc.) (see details in Section 4.1 of Chapter 4).

Now that the major re-organizations have been achieved (2015-2017), the group strives to remain attractive, in a context of global mobilization against climate change, of public debate on nuclear energy and of internal transformation. The group therefore began hiring again in 2018, with almost 1,174 new hires in 2018 and 1,264 in 2019. It is also developing a wage policy that rewards individual and group commitment and takes into account employees' special hardships and individual situation.

3.3.8 Risks associated with corruption and influence peddling

Orano wishes to be an exemplary group in terms of Ethics and Compliance. Accountability, fairness and openness to dialogue characterize the group's conduct.

The group's geographic footprint and nature of operations, could expose it to the risks of violating applicable laws and regulations, including those related to corruption and influence peddling, as well as risks of failing to comply with its internal ethical and anti-corruption rules. Such failures might expose the group or its employees to criminal or administrative sanctions and could harm its reputation and financial results.

To prevent the occurrence of such risks, Orano has introduced and applies within the group a robust and regularly updated anti-corruption compliance program.

The program promotes a culture of business ethics and transparency through a robust prevention policy based on strict rules of conduct as well as training and awareness-raising actions.

The Compliance Department defines and manages the implementation of the program to prevent corruption and influence peddling through its network of compliance correspondents. (see Section 4.3.1 of Chapter 4).

3.3.9 Risks of tax evasion

In every country and region where it does business, the group ensures that it complies with the applicable tax laws and that, in accordance with the applicable regulations, the right amount of tax is paid based on the taxable income it earns. It further ensures that the principles enunciated by the OECD, as written into national legislation, are observed whenever it undertakes cross-border transactions.

Against this backdrop, the group notes that it held, or holds, equity securities in two companies established in low-tax countries:

- a very minor stake in a holding company based in Jersey, with no participation in its financing. Its purpose is financing the development of a mining company in Africa, which has yet to begin operating. Inherited from acquisitions carried out in 2001, this holding was sold during the financial year;
- all of the capital in a holding company established in the British Virgin Islands. Today, it holds only the securities of the group's Namibian subsidiaries, but does not finance them. Inherited from acquisitions carried out in 2007, there are no plans to maintain this structure.

3.4 Corporate duty of care plan

3.4.1 Introduction and methodology

The group draws on strong ethical principles that form the basis of its policy on compliance, social and environmental responsibility and respect for basic rights. Due to the regulated nature of its activities, the group is subject to strict prior authorization processes and supervision by the competent authorities. These authorities take into account potential impacts with regard to both local populations and the environment. The group also applies high ethical and corporate responsibility standards, laid out in its Code of Ethics (presented in Appendix 8.12 of this report).

In all of the regions in which the group operates, it applies increasing vigilance with regard to the prevention of serious breaches of human rights and the health and safety of people as well as the environment, for the activities of its directly and indirectly controlled subsidiaries within the meaning of Article L. 233-16 of the French Commercial Code, as well as the activities of its subcontractors and suppliers with whom it maintains an established commercial relationship where these activities pertain to this relationship, it being understood that all of these companies are also obliged to comply with the applicable local laws, especially with regard to the prevention of the aforementioned risks.

However, as the group cannot act in the name and on behalf of its co-contractors and suppliers, in particular, it cannot guarantee the total absence of the risks mentioned in this corporate duty of care plan.

This section, presenting the group's corporate duty of care plan, has been prepared in accordance with the provisions of Act No. 2017- 399 of March 27, 2017 on the duty of care for parent companies and principal contractors, transposed into French law as the corporate duty of care as defined by international CSR guidelines (the UN Guiding Principles on Business and Human Rights, OECD Guidelines for Multinational Enterprises). It sets out numerous identification, alert and monitoring procedures that have been in place within the group for several years and contains reasonable duty of care measures.

The group's approach is one of continued improvement, based on the identification and management of risks affecting people and the business, taking into account the operational context of its activities in relation to the various countries and people concerned.

An update on the corporate duty of care plan is presented each year in the group's annual report which is submitted to the Board of Directors for approval. Each of the departments affected are responsible for their own management and supervision throughout the year.

Since 2018, the risks pertaining to human rights, the health and safety of people, and the environment have been incorporated within the business risk model prepared by the group. They are, in the same way as all topics identified, assessed using the risk management processes and methodology presented in this model (see Section 3.2 above).

A campaign is launched annually to assess the risks of serious violations, notably with regard to human rights, fundamental freedoms and the environment, and to take into account the impact of potential events on the achievement of the group's strategic and operational targets, as well as the health and safety of people and risks of damage to the environment.

Its main objectives are:

- the formal identification of every type of risk;
- the characterization of these risks in order to prioritize them; and
- the definition and implementation of action plans to limit them.

The Risk and Internal Audit Department, reporting to group Executive Management, develops the methodological tools used in common throughout the group. Risks are identified using a Business Risk Model (BRM) drawn up for the use of the operating units. The BRM lists, in a set number of families of risks, all of the situations or foreseeable or unexpected events that may impact on the health and safety of the staff, the environment, operations, strategy or financial results of the group, its compliance with current regulations, as well as its reputation or image. The BRM is designed to evolve over time by incorporating best practices and feedback from users, and changes made to regulations.

The Orano Risk and Internal Audit Department, in collaboration with the Risk Managers of the Business Units (each of which has a network of risk managers in their operating entities), coordinates the deployment of the risk mapping process, and consolidates the risk assessment at group level. The risks identified are analyzed and ranked on three axes: impact, likelihood and degree of control.

For more information, please see Section 3.2.1 of this report.

Section 8.9 of this activity report contains a detailed cross-reference table of the commitments made as part of the statement of non-financial performance (Articles L. 225-102-1 and R. 225-104 to R. 225-205-2 of the French Commercial Code) and the corporate duty of care (Article 225-102-4 of the French Commercial Code).

To ensure the optimum legibility of the report, the sections relating to corporate duty of care are summarized below. Please refer to each of the sections in the cross-reference table for more information, where required.

3.4.2 Business risk model

The group's corporate duty of care plan covers the risks mentioned in the provisions of Article L. 225-102-4 of the French Commercial Code. These have been compiled using the group's existing identification and management tools, notably through the analysis of risks of breaches of the human rights and fundamental freedoms most exposed to negative impacts that could result from the group's activities in each of the regions in which it operates. For more information on the risk mapping processes, please see Section 3.2 of this report.

3.4.2.1 The prevention of risks of breaches of human rights and fundamental freedoms

The group pays particular attention to the prevention of serious risks of breaches to fundamental human rights, whether in relation to its employees, the staff of its leading subcontractors, or its suppliers, in accordance with Article L. 233-16 of the French Commercial Code, or to local populations and stakeholders, taking into account the operational context of each of the sites in which it carries out its business.

For illustrative purposes, your attention is drawn to the Orano Mining CSR Report, available online (https://www.orano.group/docs/default-source/orano-doc/groupe/publications-reference/orano_mining_rapport_rse_en.pdf?sfvrsn=fc2b8428_6), which lists the risks and actions taken to safeguard local populations, and in particular the dialogue entered into with the various stakeholders affected by the group's projects and activities.

The assessment of the likelihood and severity of these risks has been carried out by a representative panel of the group's various entities, in all regions. The risks can be broken down into the following three major categories, for each of which the main risks have been assessed:

- risks to group employees, and mainly those relating to health and occupational safety, as well as, to a lesser extent, those relating to discrimination, discriminatory behavior and psychological or sexual harassment. The risks to the health and safety of employees are described in detail in Section 3.4.2.2 below;
- risks affecting the communities living in the vicinity of the group's sites, whether pertaining to potential environmental impacts, or the result of other activities (land acquisition or, to a lesser extent, security measures implemented for the protection of certain facilities); and
- risks generated by actors in the group's supply chain, such as non-compliance with the fundamental conventions of the International Labour Organization (ILO).

Orano monitors - and ensures that each of its employees monitors - its compliance with internationally recognized human rights, notably those set out in the United Nations Global Compact, including the elimination of all forms of forced or compulsory labor, the effective abolition of child labor, respect for freedom of association, privacy, movement, the right to collective bargaining, non-discrimination and all other types of violation of fundamental freedoms.

Furthermore, in accordance with the Orano Code of Ethics, the group has and implements a process of ethics and respect for human rights and the fundamental conventions of ILO. This code is updated regularly to include best practices in light of changes in the group's national and international environment.

Orano expects all of its suppliers and subcontractors to comply with its general terms and conditions of purchase. In particular:

Orano is committed to fighting discrimination. As a socially committed corporate citizen, Orano places particular importance on fighting all forms of discrimination and developing an inclusive policy.

Regarding discrimination, a risk mapping has been drawn up, showing where the 24 discrimination factors intersect with the four main HR areas. These are recruitment and hiring, career development, training and compensation, and the employment climate of the company.

For instance, with regard to psychosocial risks, a table illustrating the human impact of change is generated in the event of major organizational change, covering occupational stress factors and including an appropriate action plan. Similarly, approximately 100 tables have been produced for voluntary redundancy plans and the associated restructuring. Return-on-experience (REX) tables are generated 6 to 18 months after the restructuring takes place.

In France, Orano was awarded the Diversity label in 2010. This was renewed in 2014. An audit for the renewal of this certification was carried out in October 2019 for the group's new scope, with the award commission expected to approve the label in spring 2020. This has confirmed the quality of Orano's policy in this area, especially during the period of restructuring (see Section 4.1.5.3)

In the United States, Orano is recognized as an Equal Opportunity Employer (EOE) by the US Equal Employment Opportunity Commission. It expresses its commitment to minorities, women, seniors, veterans and people with disabilities through various measures, such as partnerships with subcontractors committed to diversity, membership in Direct Employers (an employment agency dedicated to helping recruit minorities, women, veterans and persons with disabilities), and participation in training and employment initiatives.

Orano promotes gender equality and social inclusion. Gender equality and social inclusion are also key components of the group's vigilance and its corporate policy and have been since 2012 when AREVA SA signed its first group agreement (see Section 4.1.5.3). The group's concerns consist notably of promoting gender equality in hiring and employment, guaranteeing equivalent career paths to men and women, ensuring equal access to training, improving the work-life balance, increasing employee awareness, and communicating with employees, guaranteeing equivalent compensation and promotions (for more details, see Section 4.1.5.3). In terms of the Gender Equality Index, established by the Act of September 5, 2018, "For the Freedom to Choose One's Professional Future", the results for the eight relevant companies ranged from 75 to 94 out of 100. The Orano group has an overall score of 89/100 for all businesses (for more information on the group's diversity policy see Section 5.2.3).

3.4.2.2 Protecting the health and safety of people

The group pays particular attention and care to the health and safety of people. In this regard, the main risks identified are as follows:

- serious or fatal accident of an employee of the group or an outside company;
- contamination or irradiation of an employee of the group or outside company; and
- the risks to the security of neighboring populations.

Renewed for the 2017-2020 period, the group's health, safety and radiation protection policy aims to continuously improve the group's performance in this regard and to increase its preventive actions. The constant goal is to strive for zero lost time injuries and zero impacts from Orano's operations on the health and safety of its employees, subcontractor personnel and the local communities near its sites. This policy has been initialed by the Chief Executive Officer and disseminated to the entire group.

Each entity of the group has adopted this policy and adapted it by integrating the risks related to its own activities identified in the Single Document for the Evaluation of Risks, factoring in reports of accidents or events occurring within its purview.

Orano's commitments are to:

- ensure appropriate monitoring of occupational health for all employees by:
  - introducing a multi-year grass-roots healthcare program for the group's employees: in 2019, health screening kiosks and campaigns were organized by eye care professionals;
  - defining and applying international medical standards for medical surveillance of occupational hazards;
  - strengthening the governance of occupational health actions and by giving increased attention to the quality of working life, especially as concerns the prevention of occupational stress;
  - deploying the group's occupational health service in France; and
  - including specific issues associated with expatriation in the medical follow-up of employees.
- in the field of occupational safety, prevent and manage all industrial risks associated with operations for employees and subcontractor personnel.

The group has established a healthcare monitoring scheme through the group's Health Department and via epidemiological studies.

Furthermore, the group has set up a health observatory in Gabon (Health Observatory of Mouana) and in Niger (Health Observatory for the Agadez Region), and independent tripartite bodies (government, civil society and associations of former employees, operators) the aim of which, for nearly 10 years, has been to offer regular medical check-ups to former employees of mining companies that have been exposed to radiation.

Regarding security, a network of site- or entity-based prevention personnel, who are the local leaders of the security improvement actions, and led in turn by the HSE Department, allow for feedback on accidents or events that have occurred.

For more information on the prevention policy for risks of serious health and safety violations, and the group's commitments, please see Sections 3.3.4 and 4.1.6.

3.4.2.3 Environmental and safety risk prevention

The group is subject to a large number of inspections by the French Nuclear Safety Authority (*Autorité de sûreté nucléaire* - ASN), which is responsible, on behalf of the French State, for nuclear regulation and safety oversight at all times and in all places, to protect the public, workers and the environment. Various kinds of inspections are made. Some inspections are performed by the DREAL.

As far as environmental risks are concerned, these inspections are an opportunity for ASN to examine in depth the condition of the facilities to verify that they comply with the applicable safety standards and to improve, if necessary, the safety level of the facilities.

3.4.2.3.1 General environmental and safety policy

The preservation of the environment is at the heart of the group's vigilance as a responsible actor and contributor to the production of low-carbon energy, which is now undeniably recognized by the world's scientific community (in particular IPCC) as necessary to achieve the objectives set by the Paris Agreement.

To go further, the group, which already evaluated these direct and indirect CO_2 emissions (scopes 1 and 2), is launching an evaluation of its dependence on Carbon (scope 3) in 2020.

The 2017-2020 group Environmental Safety Policy defines and formalizes priorities in terms of nuclear safety, industrial security, and environmental protection. For regulated nuclear facilities (*Installations nucléaires de base* - INB), ICPE facilities, and transport and service activities, its goal is compliance with regulatory requirements, mining operation controls in the broad sense, and the management performance of Orano's activities. It has been adopted by all entities in the form of action plans at various organizational levels in these entities (BU, sites, facilities, and entities).

It includes:

- the safety of the group's nuclear facilities (INB, ICPE, Mines) and of related activities (design, operation, dismantling, transportation, services) carried out for the group or for its customers;
- industrial and environmental risk prevention in the group's facilities (INB, ICPE, Mines), and more generally the management of sustainable development actions; and
- the management of critical events, emergencies and crisis situations.

This environmental policy is monitored by the Health, Safety and Environment (HSE) Department on behalf of the Executive Management. The HSE Department relies on specific organizations in the Business Units, operating entities and regions, forming a network of experts whose role is to lead and steer the group's health, safety and radiation protection policy and, in particular, to participate actively in regulatory monitoring and provide assistance to line managers for the implementation of their HSE performance plans.

This policy, the cross-functional improvement actions initiated and the HSE Department's control procedures are detailed in Section 4.2.1 of this report.

3.4.2.3.2 External risks that could lead to nuclear risk

This risk concerns the crash of an airplane or part of an airplane on a facility. Its probability of occurrence depends on the number of aircraft that could reach the site without being detected; its potential severity depends on the type of aircraft and the surface area of sensitive areas in each facility. Each site is located:

- away from controlled airspace;
- away from airspace used by military aircraft; and
- far from any airport.

Safety studies are carried out to assess the risk of an airplane crash, including the risk of deliberate attack, and to determine the means for limiting its consequences (factoring in the organization of airspace use, types of flights, known crash statistics, etc.).

Earthquakes and their possible repercussions, such as a tsunami, can cause damage that could disable nuclear safety systems.

For facilities in which nuclear materials are handled, the risk of an earthquake is factored into the design of equipment, systems and buildings. Risk analysis consists of demonstrating that no damage affecting the nuclear safety of the facility is likely to occur for the event scenario considered.

The earthquake in Le Teil on November 11, 2019 had no impact on the Orano facilities located in the Rhône valley. Furthermore, Orano will confirm that this event has not resulted in any changes to the safety guidelines for facilities potentially affected by seismic risks.

3.4.2.3.3 Pollution

Orano devotes considerable resources to reducing and monitoring chemical and radioactive releases. At the same time, it ensures that the environment is continuously monitored.

The resources deployed take into account regulatory reporting requirements, including in particular declarations for the European Pollutant Emission Register (EPER), reduction of greenhouse gas emissions under the National Quota Allocation Plan, and renewal of release decisions for the nuclear facilities. The amended "INB Order" of February 7, 2012 and ASN's "Environmental Decision" No. 2013-DC-360 of July 16, 2013 lay down the general rules related to the reporting of releases from INBs and for environmental monitoring.

Orano is firmly committed to the standardization program for measurements of effluent radioactivity established in 2007 by the M60-3 Committee of the French Nuclear Equipment Standards Organization (*Bureau de normalisation des équipements nucléaires* - BNEN). To that end, it has appointed a representative from each major nuclear site to participate in this effort.

3.4.2.3.4 Waste management

Orano devotes a significant part of its vigilance to the treatment of waste generated mainly during the operation, dismantling and clean-up of nuclear facilities, whose risks are categorized by their radiological activity (very low, low, medium or high) and by the lifetime of the radioactive elements they contain (very short, short or long). Here again, Orano's strategy is monitored and controlled by ASN.

Orano establishes radioactive waste management methods in compliance with the principles of the French Environmental Code and from Directive No. 2011/70/Euratom of July 19, 2011:

- protect public health, safety and the environment;
- prevent and limit the burden to be borne by future generations;
- reduce the quantity and toxicity of radioactive waste, in particular by using appropriate processing and packaging methods;
- organize waste shipments and limit them in distance and volume; and
- provide information to the public on the effects on the environment and public health of waste production and management operations, subject to confidentiality rules provided in the law, and on the measures taken to prevent or offset harmful effects.

Each waste management method is thus defined as part of a graduated approach to the risks and impacts as regards the costs (human, financial, environmental, etc.) and the benefits expected from the use of a management solution. (For more details on the implementation of waste management methods, please refer to Section 4.2.2).

A quality program including quality control is carried out throughout processing operations. Best available technologies (BAT) are used for processing and are chosen based on multicriteria analyses that factor in the industrial, environmental, health and radiological impacts.

The sustainable radioactive waste management solutions used by Orano follow the guidelines of the French National Radioactive Waste and Materials Management Plan (*Plan national de gestion des matières et des déchets radioactifs* - PNGMDR). Orano is heavily involved in developing the PNGMDR resulting from the implementation of the Program Act of June 28, 2006 on the sustainable management of radioactive materials and waste. The principal purpose of this triennial plan developed under the aegis of the Ministry for Ecological and Inclusive Transition, together with ASN, is to regularly assess the radioactive substances management policy in France, to evaluate new requirements and to determine the objectives to be achieved. Orano is represented through its Dismantling and Waste Contracting Department, which steers and coordinates cross-business programs and studies related to the development, implementation and follow-up of the plan.

For more information on the PNGMDR, please refer to Section 4.2.2.

Orano monitors environmental radioactivity and performs some 100,000 measurements and analyses annually on samples taken at some 1,000 locations to monitor the environmental radioactivity around its sites.

Since February 2010, it has been possible for any member of the public to go to the website managed by the French Institute of Radiation Protection and Nuclear Safety (*Institut de radioprotection et de sûreté nucléaire* - IRSN) (www.mesure-radioactivite.fr) to see all of the environmental radioactivity measurements carried out by the operators in the vicinity of their sites as part of the prescribed environmental monitoring. Each site has acquired the tools needed to manage and submit the data. The group's laboratories have been licensed by the French nuclear safety authority (ASN) to carry out the necessary analyses. These licenses are periodically renewed as laboratory comparison tests organized by IRSN are carried out, based on a table of analyses defined by the French National Environmental Radioactivity Measurement Network (*Réseau national de mesure de la radioactivité de l'environnement* - RNM). ASN's Decision No. 2008-DC-0099 of April 29, 2008 modified most recently by ASN's decision No. 2018-DC-0648 of October 16, 2018, sets the terms of the organization of the RNM as well as the terms for bespoke laboratory licensing.

3.4.2.3.5 Sustainable use of resources

Orano actively contributes to the circular economy by recycling spent nuclear fuel in its la Hague and Melox plants. This solution reduces waste volume and radioactivity. Within this very same recycling process, the group places special importance on the responsible use of the materials and consumables used in operations. Chemicals (in particular nitric acid and solvents) used during the processes of extracting and separating recyclable materials (uranium and plutonium) at la Hague are recovered and reused.

The uranium chemistry and enrichment phases on the Tricastin platform contribute to the principles of the circular economy, thereby reducing the consumption of raw materials, because every year, approximately:

- 5,000 metric tons of 70% hydrofluoric acid are produced by the defluorination of UF_6, then sold to the chemicals industry; and
- 1,000 metric tons of nitric acid are produced from uranyl nitrate, then shipped to the la Hague plant for reuse.

As for industrial facilities (plants), a nuclear facility's environmental impact study is updated at each stage of its lifecycle, i.e. upon its creation, significant modification, shutdown and dismantling. It is also reexamined (and updated as needed) at every ten-year review of the facilities. Such studies seek to characterize the potential health effects and environmental impacts of stresses and releases from the facility in question, by accounting for the particularities of the local environment (geology, hydrology, meteorology, natural and human environment, etc.) as well as the presence of any protected species or habitats. Accordingly, the impact study considers the presence of these remarkable zones.

To minimize its environmental footprint, including monitoring of its industrial platforms, the group acts to reduce withdrawals from the natural environment and its consumption of materials and energy, and continually searches for opportunities to recycle waste. Thus for the renovation and commissioning of its new facilities on the front end of the cycle, the best techniques available (MTD) are adopted, considerably reducing the withdrawals, consumption, and emissions of these activities. Compared to the Comurhex plant, the innovations of the Philippe Coste plant reduce the consumption of chemical reagents (-75% ammonia, -50% nitric acid, -60% potassium), cut water consumption by a factor of 10, and reduce greenhouse gas emissions.

These investments in new technologies and the eco-performance approach have helped Orano to achieve significant results in reducing its environmental footprint. Since 2004, the group has reduced its greenhouse gas emissions by 64%, its direct greenhouse gas emissions by 75%, its energy consumption by 91%, and its water consumption by 93%. To continue optimizing its energy consumption, in 2019 Orano launched a systemic horizontal campaign on the subject of energy, notably reviving its network of energy experts.

Through its activities, Orano contributes to low-carbon electricity. In 2020, the group decided to assess its climate contribution across its entire value chain by estimating scope 3 GHGs and to study the impact of different IPCC scenarios on its activities.

3.4.2.3.6 Biodiversity

As regards 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. Overall, the protection of plant and animal life begins in the new project design phase, continuing throughout the facility operating period, and later into the site rehabilitation phase.

Owing to their location and size, the mining sites are particularly concerned with biodiversity protection and conservation, whether during the exploration, operating, or “post-mining” phases. Therefore, Orano makes every effort to take preventive and compensatory measures where necessary. In 2019 for example, a compensatory project targeting saxauls (a species endemic to the region) was launched in Mongolia involving both specialists and local farmers. In France, all reclaimed sites are monitored by an ecologist. In 2019, during the approval phase of a photovoltaic project on the Baconnière site in Maine-et-Loire (France), it was decided that, as a compensatory measure, the 16 hectares would be managed ecologically.

As regards soil management, the objectives of Orano's environmental safety policy are to reduce and manage all of its negative environmental impacts with an approach that is in proportion to the challenges. On February 6, 2014, AREVA NC (now Orano Cycle) filed a license application with the French ministry in charge of nuclear safety for the dismantling of INB 105 at the Tricastin site, whose operations were prescribed by decree dated December 16, 2019. At the same time, a similar application was filed for INB 93 (EURODIF gaseous diffusion uranium enrichment plant), also to proceed with its dismantling. The partial dismantling operations of INB 93 were prescribed by a ruling on February 5, 2020.

For more specific information on the various Orano sites, please refer to Section 4.2.2.

3.4.3 Implementation of the plan and control systems

3.4.3.1 Whistleblowing and reporting

The multi-channel ethics whistleblowing system set up within the group was reinforced at the beginning of 2019 with the launch of an externalized, secure platform for receiving ethics reports, and a dedicated organization including group ethics contacts for each alert area. This system is accessible to all group employees and covers all of the risks identified in the mapping, including risks on Human Rights and Fundamental Freedoms, protection of life and protection of the environment. It also guarantees the confidentiality in information processing and protection of whistleblowers. Thus, any employee who directly witnesses a serious violation of Orano's Code of Ethics can report it to his or her manager, the manager responsible for the area, the Compliance Department, the network of Compliance Correspondents, or via the platform. The whistleblowing system is detailed in Section 4.3.1.6 of the report.

More specifically, in certain subsidiaries and business units, notably Orano Mining, a procedure for handling complaints and grievances, concerning possible risks of human rights violations especially, will be implemented in 2020 at all sites.

3.4.3.2 Monitoring and evaluation

The group has various monitoring systems in place to ensure the effective deployment of the measures set out in the corporate duty of care plan, which cover all of its activities as well as those of the subsidiaries that it controls within the meaning of the Act of March 27, 2017.

Please note that all requirements imposed by Orano on all of its subcontractors and suppliers are set out in the group's general terms and conditions of purchase.

Furthermore, for Tier 1 suppliers and subcontractors, the third-party compliance assessment procedure provides for a number of checks to be carried out for each of Orano's new suppliers or contractors. The third-party compliance assessment procedures are described in Section 4.3.2. The supplier assessment in the broadest sense (which also includes the compliance assessment portion) is described in the Group Supply Chain Manual, to which reference is made for the details of the assessment process.

Depending on the results obtained during the assessment procedure a questionnaire, containing questions about relevant subsidiaries and existing capital ties, may be sent to the supplier, and the Business Intelligence Unit may carry out an investigation covering all topics referred to in the corporate duty of care plan. This business intelligence investigation is systematically conducted for suppliers with a medium or high level of risk, including in Sourcing Opportunity Countries (sourcing in low-cost countries, with per capita GDP of less than $20,000 per year, mainly Niger, China, Turkey).

Suppliers also undertake to comply with the sustainable development commitment policy.

In addition, Orano has implemented a robust internal control system under the group's management. The purpose of this unique tool is to integrate all risks identified in the mapping, including in particular the risks identified in this corporate duty of care plan. The objectives and the internal control system are detailed in Section 3.1 of this report.

The proper implementation of the corporate duty of care plan is also monitored with neighboring populations in France and abroad. The group has long maintained a regular dialogue with local stakeholders, in particular through Local Information Commissions (LICs).

This system remains in force pursuant to the Decree of November 2, 2007 defining the regime applicable to INBs.

The mission of the LICs is to monitor, inform and consult on nuclear safety, radiation protection and the impact of nuclear operations on people and the environment. They are made up of representatives of local authorities, local Members of Parliament, representatives of environmental associations, trade unions and qualified individuals. Representatives of ASN, the relevant French State services and operators participate ex officio in an advisory capacity in the work of the LICs.

This system is replicated abroad in such countries as Niger and Gabon (see the Orano Mining CSR Report available on the Orano website www.orano.group).

4 Social, environmental and societal commitments

Access to competitive energy in order to tackle climate change is one of the core societal and environmental challenges. Against the backdrop of growing global demand for electricity and the need to tackle climate change, Orano has risen to the challenge by helping to boost the share of nuclear energy worldwide by providing its customers with services and products throughout the fuel cycle (supply of uranium, processing, recycling of nuclear materials, waste management, etc.) in order to generate low-carbon electricity. The key themes of our commitment to our customers, employees, local communities and society in general are to:

- transform nuclear materials and contribute to the development of society, while managing resources and waste responsibly;
- be accountable to local communities and authorities, with safety and security front and center;
- meet the highest standards commensurate with the safety and security issues at stake in the conduct of our business, and to protect people and the environment; and
- maintain the strictest standards of integrity and to fight corruption, fraud and anti-competitive practices without compromise.

For its corporate plan, Orano has defined the values that must be embodied by all of its employees. The commitments of the Orano group, which includes Orano SA and the consolidated companies, are deployed through various policies in the fields of human resources – diversity – security – occupational health and safety – environment as well as in ethics matters. These various policies and codes serve to organize the company's activity in accordance with Human Rights and the interests associated with environmental protection and the laws that govern them. Orano strives for the continuous improvement of its performance in all these areas and considers the expectations of its stakeholders directly or indirectly involved in the group's activities.

The results of the vigilance plan as required by the Corporate Duty of Care Act are presented in the various sections on the prevention of serious abuses of human rights and basic freedoms, infringements of personal health and safety, and damage to the environment, related to Orano's activities, as well as to our subcontractors and suppliers (see cross-reference table in Appendix 8.9). The reporting methodology is presented in Appendix 8.10.

4.1 Harnessing the skills of proud and committed teams

4.1.1 Total workforce and distribution by gender, age and region

The Orano group had 18,604 employees at December 31, 2019, versus 18,793 employees at the end of 2018.

Breakdown of registered employees by business within the group's consolidation scope	**2019**	**2018**	**2017**
Mining	2,754	2,819	3,179
Front End (Chemistry - Enrichment)	2,371	2,550	2,693
Back End (Recycling, Dismantling and Services, Logistics, Projects)	12,490	12,388	12,212
Corporate and other operations (incl. Medical)	989	1,036	1,061
Total	**18,604**	**18,793**	**19,145**

More than 98% of the group's workforce is spread over five countries: France, Kazakhstan, Niger, USA and Canada.

Employees by gender*	2019	2018	2017
Women (global)	21.7%	21.5%	20.9%
Men (global)	78.3%	78.5%	79.1%
Women in management positions	28.3%	27.7%	27.2%
Women in non-management positions	18.9%	18.9%	18.2%
Employees by age group*			
Less than 21 years old	0.1%	0.1%	0.04%
21 to 30 years old	13.6%	13.6%	12.0%
31 to 40 years old	30.2%	29.6%	29.8%
41 to 50 years old	25.4%	26.1%	26.3%
51 to 60 years old	28.7%	28.8%	29.8%
More than 60 years old	2.0%	1.9%	2.0%
Employees by region*			
France	81.4%	79.8%	78.4%
Asia-Pacific	7.6%	7.9%	8.0%
North and South America	5.2%	6.5%	6.7%
Africa and Middle East	4.9%	4.9%	6.0%
Europe (excluding France)	0.9%	0.9%	0.9%
Employees by occupational category*			
Engineers and management staff	30.1%	30.0%	29.2%
Technical and administrative personnel	52.0%	51.9%	52.1%
Skilled workers	17.9%	18.2%	18.6%

* Percentage calculated based on employees working under open-ended employment contracts

4.1.2 Tighter steering of skills

The skills management policy, launched in 2016 during the group's restructuring, was maintained in 2019. The policy has been stepped up so that the Orano group can address the challenges it faces not only in terms of employment and training, but also in terms of development. Its ambition is simultaneously to strengthen the employer brand, the group's performance and the career prospects of employees. Skills management is also evolving in line with the group's ambitions under the French Act of September 5, 2018 on the freedom to choose one's professional future.

These changes are set out in the 2020 skills development plan and incorporated into the "Compétence 2025" project, for which a group head of skills management was hired on September 1, 2019.

The cornerstone of the group's strategy and its annual master plan, the "Skills" component is one of the 5Cs of the Strategic Action Plan (SAP), designed to ensure the sustainability and development of the Orano group's operations. It is divided into four clear lines of action:

- skills steering process;
- hiring policy;
- training, digitization, and skills transfer; and
- development of the "expertise" network.

These four actions continue to be accompanied by a cooperation initiative with CEA, EDF, FRAMATOME and several companies in the sector, acting under the aegis of the French Nuclear Platform (PFN) and the French Nuclear Energy Industry Group (GIFEN), recently established with industry players and continuing to report tangible results. Thus, under the industry agreement signed on January 28, 2019, a working group on skills and training was set up within the GIFEN. In line with its roadmap, in the second half of 2019 the group worked on its response to the French government's call for projects on a Commitment to Jobs and Skills Development (EDEC). The EDEC agreement, which is expected to be signed in 2020, will enable the sector to develop, jointly with the French government and the relevant professional branches (notably the *Union des industries et métiers de la métallurgie*), a skills audit for the industry and to draw up a long-term action plan.

Skills steering process

Since 2016, the critical skills management initiative has been based on a network of “Key Discipline Leaders” tasked with diagnosing the situation of the company’s main disciplines and spurring the necessary action plans with the Human Resources Department.

In 2019, the skills initiative was further developed with the systematization of annual skills reviews, conducted by management with the support of the Key Discipline Leaders and experts at each of the company’s sites. The initiative now fits perfectly within Orano’s management cycle, with annual reviews supplying the preparation phase of professional development, training, and hiring plans.

A project to digitize the annual skills review is being examined with a view to further improvement.

During the annual skills reviews, the degree of mastery (or “criticality”) of each of the technical business lines, fields, and sub-fields is measured on the basis of a common benchmark, constructed around five criteria:

- the workforce shortages;
- the level of the experience and skills required in view of the need;
- the demographic risks (age pyramid, etc.);
- the attractiveness of the business line; and
- the significant technological developments.

In order to improve the follow-up on action plans, the assessment grids are currently being revised and a summary will be presented to group executive management at the end of January 2020.

The overall impact of the demographics, particularly on production entities and expertise, organizational changes for cost control, regulatory or safety authority requirements, and efforts at team stabilization or skills enhancement remain a source of observable shortages in most of the business lines.

A dynamic hiring policy

In 2019, there were 1,264 new hires on permanent contracts, of which 1,082 in France, i.e. 131 more than the previous year. This hiring volume allowed for a net increase in the active permanent workforce in France over the period (12,948 vs. 12,703), focused on two Business Units, namely Dismantling and Services (261) and Projects (79).

The renewal of skills, the strengthening of expertise and, to a lesser extent, the hiring of younger talent were among the main challenges of the 2019 recruitment plan. The new hires have also contributed to the digital transformation and deployment of operational excellence within the group. The sharp increase of the workforce in the Dismantling and Services BU (up 6%) reflects the group’s commercial momentum.

The volume of recruitment of engineers and management personnel remains at 32%, particularly in the Projects and Nuclear Packages and Services BUs and in engineering professions (design engineers, planners and project managers). This is supported by internships (more than 700 interns, including some 450 new hires in 2019) and relationship-building with 26 key schools and universities, resulting in the formation of a network of 80 ambassadors (40% of whom are women) and participation in around 50 forums. On June 5, Orano hosted around 40 principals and teachers from schools and universities with dedicated nuclear programs.

By continuing to engage in digital communication, brand awareness can be developed.

4.1.3 A proactive policy for developing and digitizing the training offer

To make Orano a “learning company”, a proactive training development policy was launched in 2017.

The Management School (Ecole du Management) and Business School (Ecole des Métiers), in conjunction with the Shared Service Centers (CSP) for Training, supplement the existing training provision to meet the group’s needs.

These needs may arise from:

- new regulations following regulatory monitoring by the business lines;
- the impact of the vocational training reforms introduced by the French Act of September 5, 2018 on the freedom to choose one’s professional future;
- the annual appraisal review, aimed at identifying the critical business skills to be maintained; or
- changes brought about by the group’s digital transformation.

Since 2018, a single training management tool has been in place to better connect the annual appraisal with the training plan. Consultation of the catalog, and the training goals agreed on during the annual interview, are brought directly into the year's training plan, to closely align the achievement with the need.

For the employee and his or her manager, the training catalog is therefore a cross-functional tool covering the entire Orano group. It contains approximately 3,300 training initiatives, delivered by external training bodies or carried out by internal trainers.
The process of digitizing and modernizing the training offer continued, with an increasing amount of digital content available to employees on the LMS platform. In 2019 for example, the "Fuel cycle" MOOC [1] gave rise to the production of around 20 modules, considering that the goal is to produce about 40 modules by the end of 2021.

The training department has decided to develop its own e-learning modules, thus enabling the business experts contacted to be involved in the training.

Lastly, internal trainers are encouraged to digitize their training by:

- adding digital features (e.g. videos and questionnaires) to their content; and
- rethinking their teaching approach, opting for classroom-based practical lessons and theoretical distance learning.

Total hours of training

In France, nearly 460,000 hours of training (estimated based on year-end progress) were provided in 2019, giving an estimated average of more than 33 hours of training per employee (compared with 35.4 in 2018).

4.1.4 A wage policy that emphasizes individual and collective commitment factors, particular constraints and individual situations of employees

Compensation and trends

The compensation policy is designed not only to reward employees worldwide, but to attract and retain talent with valuable skills for the group. It is based on three pillars:

- rewarding performance;
- guaranteeing fairness within the group; and
- boosting Orano's appeal, particularly among technicians, managers and engineers.

In France, total compensation is broken down into:

- fixed compensation: base salary, seniority benefits, etc.;
- variable compensation: that may be job based (hardship allowances, on call pay, etc.) or based on individual performance (bonus, variable component or allowance) or based on collective performance;
- employee benefits: health and insurance benefits (which are identical for all companies); and
- mandatory and optional profit-sharing based on criteria for rewarding collective performance and involving the employees in the financial performance of the Company.

Compensation, particularly in France, is based on industry agreements and collective bargaining agreements. Every year, the budget for wage increases is negotiated with the labor unions. In France, a pay measures budget of 2.2% of the payroll was negotiated for 2019.

In the United States, the variable component takes several forms:

- Short-Term Incentives, which corresponds to the French variable component;
- Long-Term Incentives, which is a program for retaining executive talent; and
- the All Employee Incentive Plan, which applies to all employees not covered by the two previous points.

[1] Massive Open Online Course

Variable compensation

The group's variable compensation program, based on both collective financial performance and individual objectives, is gradually being brought into alignment and expanded to include all of Orano's entities around the world. The target percentages for variable compensation depend on local practices and are structured by level of responsibility.

In view of the group's financial and economic situation, the policy for the variable component was adjusted for the collective component and guidelines were given for the individual component as a reminder of the importance of selectivity and of the employee's performance level in his or her evaluation.

A suite of HR software interfaced with the annual performance interview is used to collect individual objectives. It is used by a majority of group entities in the following countries: Canada, China, United States, France and the United Kingdom.

Employee savings plans and collective performance

The group establishes collective compensation systems based on economic indicators and entity-specific criteria, according to local practices and legislation.

In France, compensation based on collective performance takes the form of optional profit-sharing agreements and of mandatory profit-sharing plans applicable to the group's companies. The amounts distributed in 2019 in respect of profit-sharing in 2018 totaled 14.3 million euros for all companies in the Orano group.

In 2018, group profit sharing and the "better fortunes clause" were put in place at group level, allowing the distribution to employees, in the form of added profit sharing, of a portion of any positive difference between the net cash flow realized and the net cash flow forecast in the budget and in the financial projections. These two measures made it possible to distribute nearly 40 million euros to employees in 2018.

Employees opted to invest almost 70% of the amounts of optional profit sharing and mandatory profit sharing paid in 2019 into the Orano group savings plan (see below).

Group savings plan, group retirement savings plan and investment vehicles

The Orano group savings plan was set up on January 1, 2019. The plan follows on from the corporate savings plan set up for the AREVA group in 2005. As a reminder, the group savings plan consists of seven mutual funds with different investment horizons.

The group retirement savings plan was set up on January 1, 2018 for the entire group with the aim of establishing a supplementary pension. The funds are frozen until retirement and invested in the seven mutual funds or in three actively managed schemes. Upon retirement, the funds are released either in the form of a lump-sum or in the form of an annuity.

As at December 31, 2019, the outstandings of Orano's group savings plan and retirement plan amounted to more than 423 million euros.

In the United States, under the "401(K)" retirement savings plan, Orano contributes 3% of each person's salary. The company also matches 100% of the employee's contributions for the first five percentage points of the employee's contributions.

Payment of a one-off "purchasing power bonus"

On December 20, 2018, the Chief Executive Officer of Orano announced that a one-off "purchasing power bonus" would be paid to employees who in 2018 received gross annual compensation of less than or equal to three times France's annual minimum wage (i.e. 53,945 euros). The bonus, which was paid in January 2019, concerned 9,156 employees at a cost of 4,765,300 euros, or 0.40% of payroll costs. Under the act on "emergency social measures" of December 24, 2018, the bonus was tax-free and non-contributory.

4.1.5 Quality of work life, a constant focus of attention for the group

Orano places particular importance on the working conditions of its employees, by being attentive to their well-being and aware of the impact the quality of work life has on performance. The group considers these topics to be an essential component of social dialogue. As such, they are the subject of regular discussions and negotiations with employee representatives (signing of the first Quality of Life at Work (QVT) agreement for Orano by all labor unions on April 1, 2019).

4.1.5.1 Organization of social dialogue, in particular procedures for information and consultation of personnel

The group's labor relations are founded on mutual respect and dialogue. They take into account the requirement for competitiveness, performance improvement and the well-being of employees. In that spirit, management and the labor partners met on a regular basis throughout 2019, in various bodies:

- at bilateral meetings or plenary meetings of the various bodies (group works committee set up within Orano, central social and economic committee, site social and economic committee, etc.); and
- during the various negotiations entered into with the labor unions (jobs/skills and implementation of the new Act of September 5, 2018, negotiation of the Quality of Life at Work agreement, mandatory annual bargaining, etc.).

4.1.5.2 In search of better work/life balance

Orano continually strives to improve the work-life balance, for example by offering flexible working hours on site or allowing staff to work from home.

For example:

- On April 1, 2019, Orano renewed its Quality of Life at Work agreement in France, which for the first time covers the entire group. Among other things, the agreement sets out the conditions for working from home. Specific provisions to increase teleworking were negotiated and implemented as part of the agreement of October 2, 2018 on the conditions for relocating the head office from La Défense to Châtillon. This allows staff the option of working from home two days a week, subject to certain conditions. To date, more than 670 employees have taken advantage of this option (5.5% of the group's workforce, but more than 60% of the head office workforce), enabling them to balance their performance with well-being at work.
- In the United Kingdom, full-time employees work an average of 37 hours per week. Overtime is not paid. Orano authorizes telecommuting in exceptional circumstances. This working-hour arrangement is possible under certain conditions for employees who have completed their trial period.
- In the United States and China, the standard work schedule is 8 hours per day, i.e. 40 hours per week.

Status of collective bargaining agreements

In France, labor unions and management pursued the contractual policy in 2019 by signing:

At group level, four unanimous agreements on:

- the economic and social database (January 10, 2019);
- the establishment of the group works committee (January 20, 2019);
- quality of life at work (April 1, 2019); and
- gender equality (April 18, 2019).

In addition, talks began with the labor unions in the fourth quarter of 2018 with a view to discussing the changes introduced – particularly in the field of vocational training – by the Act of September 5, 2018 on the freedom to choose one's professional future. Following the adoption of the reform in the first quarter of 2019, negotiations began in the second quarter with a view to signing an agreement on employment and skills, incorporating the changes introduced by the reform. The agreement is due to be signed in the first half of 2020.

Employee satisfaction

In 2017, Orano established an annual commitment barometer called Orano Vox, distributed to 15,000 employees in 13 countries, virtually the entire group.

The third annual survey, carried out in the autumn of 2019, shows a 5-point increase in overall satisfaction on average compared with 2018, including 3 points for engineers and management staff and 7 points for other employees. Orano employees expressed greater satisfaction with managers' ability to support employees in their personal development (up 14 points in two years). In addition, the commitment of employees to supporting the group's objectives has increased significantly since 2017 (up 11 points), as has their understanding of and buy-in to those objectives (up 16 points on 2017).

The question of whether employees would recommend Orano as an employer to their friends or family saw the highest jump of all the topics surveyed internally, with an increase of 19 points in two years.

4.1.5.3 A company that is attentive to the fight against discrimination, promotion of equality, and inclusion

As a socially committed corporate citizen, Orano places particular importance on eliminating all risk of discrimination and violations of human rights. It has developed its own provisions for reporting and whistleblowing.

In terms of discrimination and human rights violations, the three main categories of risk factors are:

- non-compliance with the obligations of the French Labor Code and collective agreements;
- discrimination, per the 24 criteria defined by the Labor Code, along with a special whistleblowing system; and
- occurrences of occupational stress (OS), sexual or non-sexual harassment, and sexist behaviors.

Regarding discrimination, a risk mapping has been drawn up at the Orano France level, showing where the 24 discrimination factors intersect with the four main HR areas. These are recruitment/ hiring, career development, training and compensation, plus the employment climate of the Company.

With regard to occupational stress, a table illustrating the human impact of change is generated in the event of major organizational change, covering the occupational stress factors and accompanied by the associated action plan. As an example, around 100 tables were produced for voluntary redundancy plans and the associated restructuring. Return-on-experience (REX) tables are generated 6 to 18 months after the restructuring takes place.

In accordance with the Code of Ethics of Orano, the group has and implements a process of ethics and respect for Human Rights and the fundamental conventions of the International Labor Organization (ILO). The code is updated regularly to include best practices in light of changes in the group's national and international environment. Individual behaviors and management activities may be audited for compliance with the code, which serves as a set of standards and a code of conduct in this regard.

By explicitly reiterating these tenets, Orano underscores its commitment to these international values and principles, which every employee is expected to uphold. Orano respects the principles of the United Nations Global Compact, and, as such:
- respects the freedom of association and the right to collective bargaining;
- works for "the elimination of all forms of forced or compulsory labor"; and
- works for "the effective abolition of child labor".

In general, HR processes concern the diversity and non-discrimination policy as a whole and particularly verification that managerial decisions affecting employees are made according to the principle of equal treatment.

In France, an audit was carried out in the first quarter of 2014 for the renewal of the Diversity Label granted to the AREVA group (of which Orano was a part until July 27, 2017). The certification was confirmed for a four-year period on July 6, 2014. In particular, the auditors validated the sustainability and maturity of the group's approach to diversity and appreciated its evolutionary nature and its alignment with changes in the group. Another renewal audit for Orano only, carried out in October 2019, confirmed the quality of Orano's policy in this area, particularly during the restructuring period. Orano will be interviewed by the label's award committee in the spring of 2020.

In the United States, Orano is recognized as an Equal Opportunity Employer (EOE) by the US Equal Employment Opportunity Commission. A proactive anti-discrimination and anti-harassment policy is also carried out, and the Human Resources Department offers special training in this regard. It expresses its commitment to minorities, women, seniors, veterans and people with disabilities through various measures, such as partnerships with subcontractors committed to diversity, membership in Direct Employers (an employment agency dedicated to helping recruit minorities, women, veterans and persons with disabilities), and participation in training and employment initiatives.

Gender equality

In France, AREVA SA signed its first group agreement in favor of gender equality on December 12, 2012. This three-year agreement addressed all of the issues covered by the French Act of November 9, 2010: promoting gender equality in hiring and employment, guaranteeing equivalent career paths to men and women, guaranteeing equivalent compensation and promotions, ensuring equal access to training, improving the work life balance, increasing employee awareness, and communicating with employees.

To further its commitment to equality, Orano commissioned a survey from APEC [1] on the data extracted at the end of May 2018 on the gender pay gap. The survey revealed that for two equally qualified people, the gender pay gap was 1 point for managers and 2.7 points for non-managers, compared with a nationwide average of 9.

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[1] *Association Pour l'Emploi des Cadres (Association for Management Personnel)*

Nevertheless, given that a pay gap still exists, a group-wide agreement was signed on April 18, 2019 by Orano's Chief Executive Officer and all representative labor unions to set aside a budget of 0.05% per year of the payroll to compensate for unjustified pay gaps between employees with identical responsibilities.

In addition, on April 25, 2019, Orano's Board of Directors, following a presentation and review by the Compensation and Nominating Committee, approved the diversity policy deployed within the group.

Employment of and support for the disabled

Since 2006, the AREVA group has led a group policy in favor of developing all talents and of openness to difference in the workplace. A disability mission was integrated into the Social Strategy, School Relations and Diversity Department in 2010, and this policy is deployed within each establishment by a diversity / disability leader. Through the policy for integrating people with disabilities, the group integrated more than 500 employees with disabilities between 2006 and 2017, despite the major restructuring plan the group underwent between 2015 and 2017.

The first three-year agreement covering the Orano group was signed unanimously in May 2018 and was later approved by DIRECCTE.

Anti-discrimination: Whistleblowing system

As set out in the Code of Ethics, employees have multiple paths of recourse in connection with the group's anti-discrimination measures. They may contact their local HR manager, their manager, the occupational health unit, the Director of Compliance, or the labor partners.

To facilitate the reporting of any discrimination or discriminatory behavior and to fulfill its obligations under the Diversity Label, Orano's Human Resources Department has introduced a whistleblowing and complaints system for all employees based in France. This system supplements other internal corporate systems to report actual or alleged discrimination in the group. It follows rules and a process and is the subject of authorization by the National Commission on Informatics and Liberty (CNIL).

In 2019, the whistleblowing and complaints system was incorporated into a more general Orano internal ethics alert procedure (see Section 4.3.1.6).

In terms of the fight against discrimination in France, six cases were reported in 2019 (including three via the whistleblowing and complaints system), ten in 2017 and four in 2018. Following investigation, two of the six cases were found to be justified (including one reported via the whistleblowing and complaints procedure).

Principal gender equality indicators	2019	2018	2017
Recruitment of women on permanent contracts	24%	27%	27%
of which Engineers & Management personnel	35%	35%	40%
BU Management Committees and support functions	25%	25%	25%

To find out more about the gender balance and diversity policy applied to the members of the Board of Directors, see Section 5.2.3. In terms of the employment and inclusion of people with disabilities, a proactive policy led to an employment rate of 5.12% in 2017 and 5.58% at the end of 2018, compared with 2.7% in 2007. The statutory requirement is 6%. The 2019 figure will be known in March 2020. Currently, the teams in France include 625 employees with disabilities.

Regarding equal pay, around 150,000 euros in 2018 and 260,000 euros in 2019 were paid by way of compensation for 318 unjustified pay gaps between employees with an equivalent level of responsibility. Of these amounts, 85% was paid to women.

4.1.6 Safeguarding the health of our employees by improving primary prevention, controlling our operations and sharing experiences

Ensuring the physical and mental well-being of our employees is a daily concern. The 2017-2020 health, safety, and radiation protection policy applies to all entities of the Orano group. Its aims are threefold:

- the development of primary prevention in health, safety and radiation protection;
- commitment and accountability in controlling our operations; and
- improving feedback and sharing experiences.

Workplace health in France is coordinated in a group Health Department, which, to be more effective, has national responsibilities. This service covers more than 60% of employees. The other employees are monitored either by CEA or by inter-firm medical providers. The functioning of the group's Occupational Health Service has reached maturity, and feedback is being used to arrange the employee supervisory grid. These updates are made within the framework of the governance of the Health Service (National Commission for Follow-up and Control and Standing National Committee on Occupational Health), which includes management and labor.

In 2019, the group introduced a multi-year prevention plan called "Santé Attitude". Health screening kiosks and campaigns run by health professionals can now be found at most of the group's sites, with an initial focus on eyesight. These initiatives will continue in 2020 on themes reflecting the main types of occupational injuries we encounter (gestures and postures in particular).

As part of its occupational stress (OS) prevention policy, Orano has set up approximately 35 drop-in centers open to all employees in France. A specific program has been set up in coordination with the Insurance Department for expatriate personnel and their families.

There are provisions for monitoring the occupational health of expatriate or long-term contract employees. They cover medical follow-up before, during, and on return from expatriation. In case of injury or illness, a global insurance contract through Europ-Assistance provides employees with assistance and/or repatriation.

OCCUPATIONAL HEALTH AND SAFETY DATA

Occupational safety data	**2019**	**2018**	**2017 (12 months)**
Accident frequency rate with lost time (excluding commuting accidents)	1.8	1.5	2.4
Accident severity rate (accidents reported during the year, excluding commuting accidents)	0.08	0.03	0.07
Number of fatal accidents	0	0	1

Radiation protection and occupational disease data*	**2019**	**2018**	**2017**
Average employee exposure to radiation over 12 consecutive months (mSv)	0.84	0.86	0.8
Total individual external dose for Orano employees over 12 consecutive months (man-mSv)	8,300	8,360	8,016
Total individual internal dose for Orano employees over 12 consecutive months (man-mSv)	2,934	3,374	3,259
Average exposure of subcontractors to radiation over 12 consecutive months (mSv)	0.50	0.47	0.5
Occupational disease	23	16	10

** Due to the time needed to get the results of passive dosimetry analyses (also called benchmark dosimetry) and the half-year schedule for rolling up these data in the group's reporting software, the annual results are always expressed from July 1 of year n-2 to June 30 of year n-1.*

4.2 An unwavering commitment to the safety of our operations and the limitation of our environmental footprint

4.2.1 A policy and organization dedicated to safety and the environment

The 2017-2020 Environmental Safety Policy

The 2017-2020 group Environmental Safety Policy defines and formalizes priorities in terms of nuclear safety, industrial security, and environmental protection. For INB – ICPE facilities and transport and service activities, its goal is compliance with regulatory requirements, mining operation controls in the broad sense, and the management performance of Orano's activities.

It has been adopted by all entities in the form of action plans at various organizational levels in these entities (BU, sites, facilities, and entities).

Cross-business actions for improvement began a few years ago:

- roll-out of intervention reliability practices (PFI);
- self-assessments of the SE culture of those involved, which are used to create training initiatives;
- increase of the field presence of managers with their teams (Managers in the Field approach);
- assessments of the compliance control on the sites at la Hague, Melox, and Tricastin;
- formalization of operating standards as close to the workstation as possible, supported by greater management involvement in the control and guidance of operating procedures; and
- intensified monitoring of service providers.

A robust organization

The corporate Health, Safety and Environment Department (HSE Department) spearheads a number of areas on behalf of Executive Management:

- the safety of the group's nuclear facilities (INB, ICPE, Mines) and of related activities (design, operation, dismantling, transportation, services) carried out for the group or for its customers;
- the radiation protection in the group's facilities and for all the group's service operations;
- the occupational health and safety of all of the employees of the group and of its subcontractors;
- industrial and environmental risk prevention in the group's facilities (INB, ICPE, Mines), and more generally the management of sustainable development actions; and
- the management of critical events, emergencies and crisis situations.

The HSE Department draws on specific organizations within the Business Units, the operating entities and the regions to carry out its duties. The role of this network of experts is to participate actively in regulatory monitoring, and to provide assistance to line managers for the implementation of their HSE performance plans.

On behalf of the Executive Management, a body of inspectors, which is independent of the chain of command, is tasked with verifying that responsibilities are correctly assumed, detecting any early signs of potential deterioration, and recommending the necessary improvements. It issues an annual report on the status of safety in the group's nuclear facilities and operations.

Through its specialists and their networks, the department disseminates information related to accomplishments, best practices and events in order to prevent risk and promote performance improvement.

4.2.2 Conserving natural resources

Being committed to the climate and the circular economy

Orano actively contributes to the circular economy by recycling spent nuclear fuel in its la Hague and Melox plants. This solution reduces waste volume and radioactivity. Recycling also saves raw materials. In France, around one in ten light bulbs works because of recycled nuclear materials and electricity generated by nuclear power plants. Recycling uranium and used MOX fuel can mean 20-30% savings on raw materials. Within this same recycling process, the group places special importance on the responsible use of materials and consumables used in operations. Through the processes of extracting and separating recyclable materials (Uranium and Plutonium) in la Hague, chemicals that are used during the operations (in particular nitric acid and solvents) are recovered and reused.

The uranium chemistry and enrichment phases on the Tricastin platform contribute to the principles of the circular economy, thereby economizing on raw materials, because every year, approximately:

- 5,000 metric tons of 70% hydrofluoric acid are produced by the defluorination of UF_6 and then sold to the chemicals industry; and
- 1,000 metric tons of nitric acid are produced from uranyl nitrate and then shipped to the la Hague plant for reuse.

As for industrial facilities (plants), a nuclear facility's environmental impact study is updated at each stage of its lifecycle, i.e. upon its creation, significant modification, shutdown and dismantling. It is also reexamined (and updated as needed) at every ten-year review of the facilities. Such studies seek to characterize the potential health effects and environmental impacts of stresses and releases from the facility in question, by accounting for the particularities of the local environment (geology, hydrology, meteorology, natural and human environment, etc.) as well as the presence of any protected species or habitats. Accordingly, the impact study considers the presence of these remarkable zones.

To minimize its environmental footprint, including monitoring of its industrial platforms, the group acts to reduce withdrawals from the natural environment and its consumption of materials and energy, and continually searches for opportunities to recycle waste. Thus for the renovation and commissioning of its new facilities on the front end of the cycle, the best available technology is adopted, considerably reducing the withdrawals, consumption, and emissions of these activities. Compared to the COMURHEX plant, the innovations of the Philippe Coste plant reduce the consumption of chemical reagents (-75% ammonia, -50% nitric acid, -60% potassium), cut water consumption by a factor of 10, and reduce greenhouse gas emissions.

These investments in new technologies and the eco-performance approach have helped Orano to achieve significant results in reducing its environmental footprint. Since 2004, the group has reduced its greenhouse gas emissions by 64%, its direct greenhouse gas emissions by 75%, its energy consumption by 91%, and its water consumption by 93%. To continue optimizing its energy consumption, in 2019 Orano launched a systemic horizontal campaign on the subject of energy, notably reviving its network of energy experts.

Through its activities, Orano contributes to low-carbon electricity. Nevertheless, the group decided to assess in 2020 its climate contribution across its entire value chain by estimating scope 3 GHGs and to study the impact of different IPCC scenarios on its activities.

Protecting biodiversity and soil

As regards 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. Overall, the protection of plant and animal life begins in the new project design phase, continuing throughout the facility operating period, and later into the site rehabilitation phase.

Owing to their location and size, the mining sites are particularly concerned with biodiversity protection and conservation, whether during the exploration, operating, or “post-mining” phases. Therefore, Orano makes every effort to take preventive and compensatory measures where necessary. In 2019 for example, a compensatory project targeting saxauls (a tree species endemic to the region) was launched in Mongolia involving both specialists and local farmers. In France, all reclaimed sites are monitored by an ecologist. In 2019, during the approval phase of a photovoltaic project on the Baconnière site in Maine-et-Loire, it was decided that, as a compensatory measure, 16 hectares would be managed ecologically.

As regards soil management, the objectives of Orano's environmental safety policy are to reduce and manage all of its negative environmental impacts with an approach that is in proportion to the challenges. On February 6, 2014, AREVA NC (now Orano Cycle) filed a license application with the French ministry in charge of nuclear safety for the dismantling of INB 105 at the Tricastin site, whose operations were prescribed by decree dated December 16, 2019. At the same time, a similar application was filed for INB 93 (EURODIF gaseous diffusion uranium enrichment plant), also to proceed with its dismantling. ASN and its technical expert IRSN are reviewing both applications, and the decrees are expected for 2020. The partial dismantling operations of INB 93 were prescribed by a ruling on February 5, 2020.

Following the completion of cleanup and dismantling work at the SICN site in Annecy, prefectural permits for monitoring and public service were issued to the site. Currently, the site hosts a mechanical machining company which conducts its operations in the remaining rooms, a warehousing and maintenance workshop where the former uranium foundry was located, and the biomass boiler built by IDEX in the southwestern part of the site, which has provided heating for a number of individual houses and municipalities since the beginning of the year. On the Veurey Voroise site, decommissioning of the two INBs 65 and 90 was approved by ASN and reviewed by the local authorities. A prefectoral order establishing the perimeter and public utility easements of the base plots of the two INBs as part of the decommissioning procedure was published on October 1, 2019. Following the publication of this prefectoral order, the ASN published the decisions to decommission INB 65 and INB 90 on October 29, 2019 (Decisions Nos. DC 0680 and DC 0681). These were then ratified by a Ministerial Decree on December 12, 2019 (published in the Official Gazette on December 19, 2019).

The decommissioning of these two INBs and the creation of public utility easements will allow the industrial redevelopment of the site to be finalized, in partnership with the companies already based at the site and occupying more than half of its area.

At former French mining sites, 95% of the work required by the authorities to combine mine tailings that are in the public domain had been completed at the end of 2019. The work is scheduled for completion in early 2020. Regarding the management of these tailings storage facilities and dams, Orano Mining, as a member of the International Council on Mining and Metals (ICMM), published in its 2018 CSR report, in a spirit of transparency and accountability, the list of its largest tailing storage facilities, including their dimensions, characteristics and monitoring procedures.

Completion reports on the operations to clean up the Miramas site were sent to the prefecture for review and approval. The site is now working with local partners to assess its sale and industrial redevelopment: the western section was sold in April 2019 with a view to setting up a solar farm, due to be commissioned in mid-2020. The central zone is expected to be sold and redeveloped for the rail industry, after completion of the final decontamination and reclamation operations.

Controlling chemical and radioactive releases and waste

Orano devotes considerable resources to reducing and monitoring chemical and radioactive releases. At the same time, it ensures that the environment is continuously monitored.

The resources deployed take into account regulatory reporting requirements, including in particular declarations for the European Pollutant Emission Register (EPER), reduction of greenhouse gas emissions under the National Quota Allocation Plan, and renewal of release permits for the nuclear facilities. The amended "INB Order" of February 7, 2012 and ASN's "Environmental Decision" No. 2013-DC-360 of July 16, 2013, as modified, lay down general rules related to the reporting of releases from regulated nuclear facilities and for environmental monitoring.

The group is firmly committed to the standardization program for measurements of effluent radioactivity established in 2007 by the M60-3 Committee of the *Bureau de normalisation des équipements nucléaires* (BNEN, the French nuclear equipment standards organization). To that end, it has appointed a representative from each major nuclear site to participate in this effort.

Radioactive waste is produced mainly during operations, dismantling and cleanup of nuclear facilities. It is characterized based on its radiological activity (very low-level, low-level, medium-level or high-level) and by the half-life of the radioelements that it contains (very short-lived, short-lived or long-lived waste). Each type of waste requires a specific management method, as shown in the table below:

<table>
<tr><th></th><th>Very short-lived waste
(< 100 days)</th><th>Short-lived waste
(≤ 31 years)</th><th>Long-lived waste
(> 31 years)</th></tr>
<tr><td>Very low-level waste (VLLW)</td><td rowspan="2">Management through radioactive decay at the production site</td><td colspan="2">Near-surface disposal facility for VLLW (Aube)</td></tr>
<tr><td>Low-level waste (LLW)</td><td rowspan="2">Near-surface disposal facility for LLW and MLW</td><td>Research carried out under the French Act of June 28, 2006 (near-surface disposal at 15 to 200 m)</td></tr>
<tr><td>Medium-level waste (MLW)</td><td rowspan="2">followed by conventional disposal</td><td>Research carried out under the French Act of June 28, 2006 (deep disposal, 500 m)</td></tr>
<tr><td>High-level waste (HLW)</td><td colspan="2">Research carried out under the French Act of June 28, 2006 (deep geological repository, 500 m)</td></tr>
</table>

Orano establishes radioactive waste management methods in compliance with the principles of the French Environmental Code and from Directive No. 2011/70/Euratom of July 19, 2011:

- protect public health, safety and the environment;
- prevent and limit the burden to be borne by future generations;
- reduce the quantity and toxicity of radioactive waste, in particular by using appropriate processing and packaging methods;
- organize waste shipments and limit them in distance and volume; and
- provide information to the public on the effects on the environment and public health of waste production and management operations, subject to confidentiality rules provided in the law, and on the measures taken to prevent or offset harmful effects.

Each waste management method is thus defined as part of a graduated approach to the risks and impacts as regards the costs (human, financial, environmental, etc.) and the benefits expected from the use of a management solution.

For implementation of waste management methods, Orano draws on:

- the operating entities of the different production sites likely to generate radioactive waste; and
- the Dismantling and Waste Contracting Department (DM2D), which is tasked with steering Orano's overall performance plan and defining the strategies to be deployed by the operating entities.

The principles guiding the use of management methods at Orano's different sites, in compliance with safety, cost, schedule and quality objectives and commitments, are:

- waste reduction at source, with the goal of "zero waste" in design and operation; waste likely to be radioactive is separated from conventional waste based in particular on a facility "zoning" policy. This policy is continually optimized to minimize the quantities of radioactive waste;
- radiological characterization and assessment of activity to define the optimum packaging;
- volume reduction using cuttings, assembling and compaction processes; and
- with packaging, waste is immobilized in a container suited to its radioactivity level and half-life, in some cases using material to hold it in place (such as cement) or after processing. When processing is necessary, the goal is to convert the initial waste into a waste form with characteristics more appropriate for final disposal, in particular by maximizing containment performance. Drying, incineration, vitrification and melting are examples of processing. Furthermore, processing can reduce waste volumes.

A quality program including quality control is carried out throughout processing operations. Best available technologies (BAT) are used for processing and are chosen based on multicriteria analyses that factor in the industrial, environmental, health and radiological impacts.

The sustainable radioactive waste management solutions used by Orano follow the guidelines of the National Radioactive Waste and Materials Management Plan (PNGMDR). Orano is heavily involved in developing the PNGMDR resulting from the implementation of the Program Act of June 28, 2006 on the sustainable management of radioactive materials and waste. The principal purpose of this triennial plan developed under the aegis of the Ministry for Ecological and Solidarity Transition, together with the nuclear safety authority ASN, is to regularly assess the radioactive substances management policy in France, to evaluate new requirements and to determine the objectives to be achieved. Orano is represented through its Dismantling and Waste Contracting Department, which steers and coordinates cross-business programs and studies related to the development, implementation and follow-up of the plan.

The first public debate on the PNGMDR took place from April 17 to September 25, 2019. Orano, attending each of the 23 public meetings, was one of the key participants in this debate. The Special Committee for the Public Debate (CPDP [1]) invited Orano to give presentations on topics such as recycling and multi-recycling of used fuel in current generation reactors, the recycling of VLLW metal, the recovery of materials such as depleted uranium, the responsible management of processing residues from the conversion of uranium, and the health and environmental impacts of former uranium mining sites. Orano has also published five guides and two reports. These documents are available on the debate website https://pngmdr.debatpublic.fr/. CPDP and CNDP [2] published their report and assessment on November 25, 2019. The French nuclear safety authority (ASN) and the Department of Energy and Climate (DGEC) are in charge of the debate and will publish their findings by February 25, 2020, including the actions they intend to take. These elements will form the basis of the fifth PNGMDR.

Information on the flows and volumes of waste stored at Orano's nuclear facilities (especially volumes) is communicated to the competent authorities in the form of annual reports. In addition, Orano is a major participant in updates to the National Inventory published every year by ANDRA.

The inventory also presents storage capacities, in particular for long-lived medium- and high-level waste, along with their fill status.

This information is available on the website of ANDRA's national inventory of radioactive waste and materials: https://inventaire.andra.fr/inventaire

Monitoring environmental radioactivity

Orano performs some 100,000 measurements and analyses annually on samples taken at some 1,000 locations to monitor environmental radioactivity around its sites.

Since February 2010, it has been possible for any member of the public to go to the website managed by IRSN (www.mesure-radioactivite.fr) to see all of the environmental radioactivity measurements carried out by the operators in the vicinity of their sites as part of the prescribed environmental monitoring. Each site has acquired the tools needed to manage and submit the data. The group's laboratories have been licensed by the French nuclear safety authority (ASN) to carry out the necessary analyses. These licenses are periodically renewed as laboratory comparison tests organized by IRSN are carried out, based on a table of analyses defined by the national environmental radioactivity measurement network RNM. ASN's Decision No. 2008-DC-0099 of April 29, 2008 modified most recently by decision No. 2018-DC-0648 of October 16, 2018 sets the terms for the organization of the national environmental radioactivity measurement network as well as the terms for bespoke laboratory licensing.

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[1] *Special Committee for Public Debate.*

[2] *National Committee for Public Debate.*

4.2.3 Monitoring environmental safety performance at the highest level

Reports are presented regularly to the Orano Executive Committee (COMEX) and the Board of Directors.

The main environmental safety indicators used are:

- the number of significant safety events (SSE) of Level 2 or higher; and
- the prevention rate of the events (where EPR = SSE N1/SSE N0).

NUMBER OF EVENTS IN 2018 RANKED ON THE INES SCALE[1] IN THE GROUP'S NUCLEAR ENTITIES (OWNER-OPERATORS, CONTRACT OPERATORS, AND SERVICE PROVIDERS) OR DURING THE SHIPMENT OF RADIOACTIVE MATERIALS

	Level 0	Level 1	Level 2 or higher
2019	132	7	0
2018	121	8	0
2017	105	12	0

Concerning environmental performance, each site in the group has defined its areas of improvement in its action plans, especially as concerns the consumption of energy and production of conventional waste. The improvements in terms of energy consumption are mainly the result of the major investments made by the group, in particular on the Tricastin site with the commissioning of the new Georges Besse II enrichment facility and the Philippe Coste conversion plant.

ENVIRONMENTAL DATA

		2019	2018	2017 (12 months)
Consumption				
Quantity of energy consumed (MWh)		1,905,131	1,869,557	2,080,917
Quantity of water tapped (m^3)		10,294,639	10,856,726	12,026,198
Conventional waste				
Total tonnage of conventional waste (normal and exceptional operations)		21,704	19,909	26,686
Quantity of hazardous waste (MT) related to normal operations		5,267	6,690	9,490
Quantity of non-hazardous waste (MT) related to normal operations		6,786	6,760	6,796
Releases				
Indirect Scope 1 greenhouse gas emissions (teq CO_2)	✓(1)	267,872	260,687	294,832
Indirect Scope 2 greenhouse gas emissions (teq CO_2)	✓(1)	182,921	163,893	157,424

(1) Indicator subject to reasonable assurance.

[1] *International Nuclear Event Scale.*

4.3 Being committed and acting responsibly within our ecosystem

4.3.1 A system to prevent corruption and influence peddling coordinated and deployed by the Group Compliance Department

Orano has adopted an initiative for the prevention and the continuous improvement regarding the fight against corruption and influence peddling.

Based on its risk map of corruption and influence peddling, which was updated in 2019, and in compliance with the Sapin II Act, Orano has established a corruption and influence peddling prevention program. The program is coordinated and implemented by the Compliance Department, assisted by a network of compliance correspondents.

The program is intended for the group's employees, managers and executives who have dealings with third-parties. It borrows from and applies the internal rules of conduct, policies and procedures, as well as external laws and regulations.

4.3.1.1 Commitment of the group's top management and organizational reinforcement

The group's management, particularly the Chief Executive Officer and all members of the Executive Committee, spearhead and enforce the group's Compliance Charter and corruption and influence peddling prevention program.

A strong commitment, set out in the Code of Ethics, is made directly by the Chairman of the Board and the Chief Executive Officer and relayed by all departments and managers to the teams.

As a responsible company, Orano's actions are governed by two fundamental principles:

- compliance with the most demanding requirements as appropriate to accomplish our goals in matters of nuclear and occupational safety in the conduct of our activities, as well as for the protection of health and the environment; and
- compliance with the strictest standards of integrity and a commitment in fighting against corruption, fraud and anti-competitive practices without compromise.

and to conduct its business ethically and responsibly.

Reporting directly to the Executive Management, the Compliance Department defines and coordinates the implementation of its program as approved by the Executive Committee. It also submits regular progress reports to the Executive Committee. In addition, the Board of Directors ensures, through the Audit and Ethics Committee, that Orano implements the corruption and influence peddling prevention program.

This program includes:

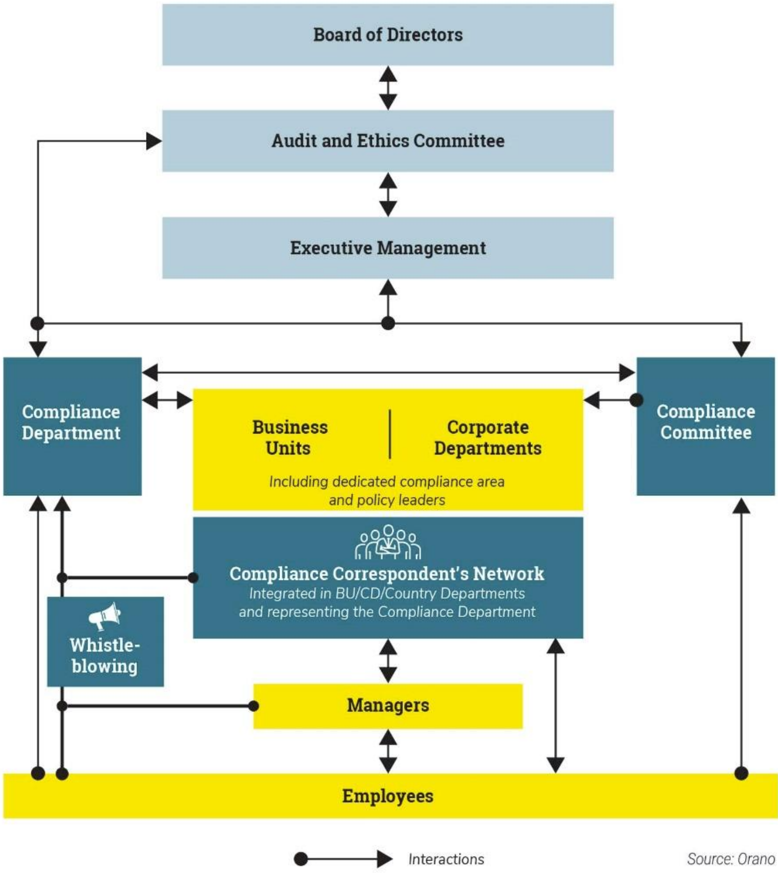
- improving and steering the compliance processes, publishing the associated procedures, setting up necessary tools when appropriate, and monitoring their understanding and application;
- leading a network of Business Units' (BU), countries' and Corporate Departments' (CD) Compliance Correspondents, and ensuring regular communication with operational managers and staff;
- developing employees' ethics and compliance culture through awareness and training campaigns; and
- improving the internal whistleblowing system.

The Compliance Committee, chaired by the Chief Compliance Officer, issues opinions and recommendations on third-party compliance assessments (under the Sapin II Act) and oversees the implementation of the compliance procedures. It is composed of permanent members from the Corporate Departments. Depending on the topics, the concerned Compliance Correspondent and operationals are invited to Compliance Committee meetings.

The Compliance Correspondents, appointed by their department, relay the internal rules on ethics and compliance through their organization, and provide information and training to exposed populations. They also take part in the development of the procedures for managing identified risks, and in the operational implementation of action plans.

Finally, the group's managers play a key role in the teams' commitment to implementing the program and to its day-to-day integration.

GOVERNANCE OF ORANO COMPLIANCE



4.3.1.2 Risk mapping and action plans

The risks associated with corruption and influence peddling are included in a specific risks mapping as part of the group's overall risk analysis according to three criteria: severity, occurrence, and level of control. The purpose of this map is to identify and prioritize risks according to the activity, geographical region and processes concerned. It allows the compliance program to be adapted according to the risks to which the group is exposed. The action plans and their prioritization are defined on the basis of this mapping.

The Risk and Internal Audit Department coordinates updates to the map by liaising with the Compliance Department. The updates are applied by the BU, Country and/or Compliance Department according to a standard method. The results are presented to the Executive Committee and to the Audit and Risk Committee.

4.3.1.3 Reference documentation available to employees

The group endeavors to provide accurate and relevant information enabling objective assessment of its performance in terms of environmental, economic, social and societal responsibility. Its compliance program is aimed at developing this culture of business ethics based on:

- the Code of Ethics and the Anti-corruption Code of Conduct updated in July 2018. It is available on the intranet and on the group's website, handed to every new employee, reminded to the group's employees during their annual appraisal interview, and it is shared with all Orano's third-parties when contracting. It is the foundation of the group's compliance policy and includes Executive Management's commitment in leading an initiative to prevent and detect corruption and influence peddling. 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;
- a set of internal policies and procedures dedicated to preventing corruption and influence peddling (i.e. gifts and invitations, third-party assessments, conflicts of interest, facilitation payments, etc.), disclosed and accessible to all employees via the group's documentation system.

4.3.1.4 An audit process for third-party business relations

Business relationships with third parties (clients, intermediaries, suppliers, service providers, consultants, etc.) may incur risks of corruption and influence peddling. In order to prevent these risks, and in keeping with changes in the French Sapin II Act (prevention of corruption and influence peddling) and Corporate Duty of Care Acts, the group carries out appropriate checks on the integrity of third parties with a view to establishing ethical and long-lasting partnerships.

This process is based on the identification of corruption risk and influence peddling within the risk map, and the categorization of third parties at risk. It applies to every new or renewed business relationship. It is steered by the Compliance Department, with support from the Compliance Network, the Business Intelligence Division, the Compliance Committee, and the relevant Business Unit, country and corporate departments, countries.

The Compliance Committee ensures that, for all business relationships with potentially at-risk third parties, the risks of non-compliance with the group's standards, particularly with the regulations on corruption, or with international rules and sanctions, are identified and managed as much as possible, in order to ensure informed operational decision-making.

4.3.1.5 Training and awareness

The Compliance Department defines and steers the deployment of an annual awareness and training plan regarding the prevention of corruption and influence peddling, in coordination with the Compliance Network.

This program includes:

- awareness sessions for the Executive Committee (three or four times a year) and the group's Management Committees;
- in-person training sessions for the populations that are the most exposed to the identified risks, based on their job: the targeted jobs in 2019 were mainly those with relationships with the group's third parties; the target in 2020 extends to cross-divisional positions (finance, control functions and management);
- e-learning modules dedicated to ethics and corruption prevention, for all employees of the group.

For the 2018-2019 period, 80% of managers had followed the "Our Code of Ethics" e-learning module, in line with the target, and over 1,100 people had received awareness-raising training on this issue during face-to-face sessions (including 843 in 2019 against a target of 800). For 2020, the group has set itself the targets of providing face-to-face training to the 700 people identified as being the most exposed, and of providing a "welcome pack" on compliance issues to all new employees.

4.3.1.6 The whistleblowing system guarantees the confidentiality and protection of *bona fide* whistleblowers.

The internal whistleblowing system is dedicated to all group employees and guarantees the confidentiality and protection of whistleblowers. Its description and operating procedure are accessible on the group intranet.

The system stipulates that if in case of any suspicion or observation of a blatant incident or breach of a statutory or regulatory obligation or a violation of the Code of Ethics or the compliance policies, employees can report it to their immediate supervisor, contact their entity's Compliance Correspondent, or the group's Compliance Department directly.

Lastly, in view of the regulatory changes (the French Sapin II Act), in 2019 the group reinforced its internal whistleblowing system by setting up a secure platform for receiving reports, with the relevant points of contact organized by subject area, responsible for processing.

4.3.2 Responsible purchasing and subcontracting

4.3.2.1 A rigorous purchasing and supplier assessment process

The group's purchasing activities are governed by the group's Purchasing and Supply Chain Process.

Suppliers are assessed and monitored as regards their reliability, quality, compliance, financial strength, competitiveness, health, safety, security, environmental performance, Legal, and ability to provide products and/or services that are compliant with the specified needs and requirements.

The Corporate Supply Chain Department works closely with the group's Quality; Safety, Health, Security and Environment; Legal; and Compliance Departments to ensure that suppliers meet the benchmarks such as ISO 9001, ISO 14001, OHSAS 18001, and the regulations on regulated nuclear facilities (INB Decree) or even the compliance requirements related in particular to the prevention of corruption and influence peddling.

To adapt the responses to the risk levels, Orano has divided the markets into three categories using a “hazard analysis”. Suitable risk criteria have also been defined as regards compliance and anti-corruption.

The level of the activity’s risk determines the list of suppliers invited to bid and the measures to be taken for contract follow-up and operational supervision to ensure the control of subcontractor health, safety, environment and sustainable development requirements.

Moreover, the Purchasing Manager and the specifier must factor in the economic and ethical aspects, as well as fair competition practices, specifically by:

- promoting competition, plurality of responses, and the emergence of alternative offers;
- allowing all companies matching the bid requirements to respond without discrimination;
- applying the reciprocity principle, i.e. requiring of suppliers what the organization requires of itself; and
- valuing the suppliers and bids that are the best fit with the organization's activities. When identifying needs, they must factor in the local situation, the impact on jobs and the local economy.

4.3.2.2 A commitment to sustainable development integrated into the General Terms and Conditions of Purchase

Orano wishes to engage its suppliers in its efforts toward sustainable development.

For several years, Orano has included provisions concerning suppliers’ observance of this commitment in 100% of its contracts and general conditions of purchase.

Under the terms of this commitment, suppliers agree to promote respect for human rights, labor rights (work standards, child labor, discrimination, working hours and minimum wage) and the environment, along with a nuclear safety and security system.

Each supplier also agrees to make ongoing efforts toward progress in these areas, including corruption prevention, efforts which are taken into account when being listed as an Orano supplier.

An integral part of all contracts signed with suppliers, the General Terms and Conditions of Purchase (GTCP) set forth the obligations on suppliers as to hygiene, safety and health protection, as well as respect of the environment. They include provisions concerning the obligations the provider must respect in terms of:

- hygiene, safety and protection of health;
- regulated substances (the REACH regulations); and
- sustainable development relating to human rights, health, safety, labor law and the environment.

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

The GTCP include provisions such that Orano where applicable, its customer, any third party commissioned by Orano or any duly empowered authority shall have access to the premises of the supplier, its subcontractors and suppliers for the purpose of inspections or audits of all the requirements specified in the order.

4.3.2.3 Specific measures relating to subcontracting

The Supply Chain Unit helps the group’s Safety, Health, Security and Environment Department issue a report on the state of outsourcing in France, which is sent to the French Ministry with oversight. This report is also transmitted to the French Nuclear Safety Authority (ASN) and the French Institute of Radiation Protection and Nuclear Safety (IRSN). It reports on the inclusion of safety-security-environment requirements in the procurement process, as well as on the monitoring of authorizations, training and awareness programs for outside companies operating on Orano sites.

For operations in remote areas, the Mines BU surveys the subcontractor’s healthcare arrangements
(such as occupational medicine, vaccine requirements, training in first aid, medical care, infirmary, equipment, medical evacuation plans) on the isolated sites (Kazakhstan, Mongolia).

On the production sites in Niger, dosimetric monitoring of the relevant subcontractors is provided by the Orano subsidiaries themselves, to ensure monitoring quality identical to that of its employees.

4.3.2.4 Sapin II and Corporate Duty of Care Acts: measures in place and action plans planned in 2020

The Orano group's Supply Chain Management System integrates the corporate duty of care prevention plan into these processes (RFI/RFQ and Supplier evaluation and tracking). The various documents and processes making up the Supply Chain Management System (Code of Ethics, GTCP, Sustainable Development Commitment, etc.) take into account:

- the risk analyses by Purchasing market ("Hazard Table") and by country (see Orano internal "Country Compliance Classification" procedure). These analyses will be reinforced by the deployment of a compliance questionnaire;
- the plan for mitigating the associated risks before awarding the contracts (through supplier selection criteria and qualification audits, and monitoring programs during contract fulfillment);
- the supplier performance metrics and the required improvement plans;
- the Ethics and Sustainable Development Commitment aspects in contract clauses, in compliance with the French Sapin II and Corporate Duty of Care Acts; and
- the studies performed by the group's Economic Intelligence Division, specifically for all SOC suppliers, systematically.

In 2019, a systematic assessment process for new suppliers, adjusted to risk level (compliance, corruption, corporate duty of care) was implemented in coordination with the Compliance Department. 100% of its suppliers added since the process was introduced have been assessed. Since the end of April 2019, the third-party assessment form, completed and approved depending on the outcome, has been a prerequisite for adding a supplier to the group's ERP system. Other active suppliers are subject to compliance checks when contracts are renewed or when the supplier database is reviewed. Concerning the French suppliers subject to the Corporate Duty of Care Act, Orano may arrange for a study of their annual reports to verify the measures taken by them. Depending on the results of this analysis, Orano will reserve the possibility of carrying out more in-depth analyses of the companies concerned.

For suppliers not subject to the act, Orano will continue in 2020 to assess them by sending questionnaires and conducting audits, if necessary.

4.3.3 Creating value for local communities, regions and society at large

4.3.3.1 Contributing to local economic development

Orano continues to be committed to local involvement through programs aimed at contributing to the attractiveness and economic development of the communities in which its sites are based.

Since 2016, as part of its competitiveness plan and commitments to revitalization under its voluntary departure plan in France, the Orano group has been committed to helping communities through an economic revitalization plan and programs designed to promote the emergence of new businesses and the creation of new jobs.

The framework agreement for the implementation of the revitalization, signed with the French State in October 2016, has been adopted in the form of local agreements in the following regions and departments: Ile-de-France, Manche, Aude, and the Tricastin-Marcoule platform (Drôme, Gard, and Vaucluse). The goal of the revitalization action plan was to create a thousand jobs in the areas near the affected Orano sites over the 2017-2019 period. By the end of 2019, Orano had fulfilled its commitments under the revitalization agreements and supported the creation of 1,122 jobs (23% more than the original target).

In accordance with the company's social and environmental values, Orano draws on its knowledge of the communities and local economic development agents to carry out actions suited to the specific features of each employment area. The group supports labor sectors experiencing shortages and projects led by small- and medium-sized businesses in the manufacturing and industrial services sector, particularly in the nuclear industry, and attaches particular importance to the sustainability of the activities generated by those projects. Local economic development actions also concern the funding of projects in the fields of training, employment support and the social and solidarity-based economy.

4.3.3.2 Transparency and dialogue with our stakeholders in France and abroad

Orano participates as much as possible in forums and committees promoting stakeholder dialogue. In France, for example, the group is a member of the High Committee for Transparency and Information on Nuclear Security (HCTISN) and actively contributes to its work. It also participates in the local information commissions (CLI) set up to relay information to people living near Orano's industrial sites.

In all its countries of operation, Orano Mining systematically creates and coordinates organizations for dialogue and consensus-building near its sites in the form of local information commissions (CLI), site-monitoring commissions (CSS), visits, or web applications providing the public with information on the monitoring of reclaimed former mining sites. They are integral to an approach aimed at long-term dialogue with local and internal stakeholders and ensure a transparent and constructive relationship to gain a better understanding of their expectations.

The frequency of dialogue depends on the results of the stakeholder mapping regularly carried out: in 2018, in Mongolia and France on certain post-mining issues; in 2019, two maps were produced, one in Kazakhstan and one in Niger, near the mining sites. To meet the expectations of stakeholders and address the operational challenges faced by Orano Mining, a total of 4.5 million euros were invested in 2019 by the different entities in community investment projects.

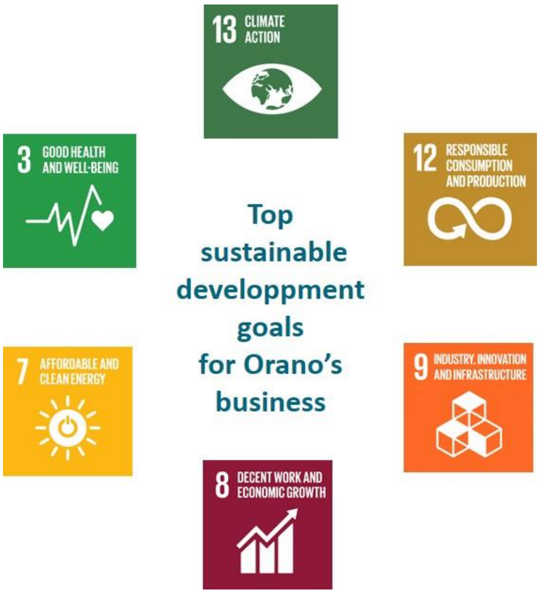
Orano Mining also maintains its proactive, progressive approach to mining activities by following international Corporate Social Responsibility (CSR) best practices as advocated by the International Council on Mining and Metals (ICMM), for example by encouraging greater transparency of payments to governments for the management of mineral deposits. In 2019, ICMM, together with its members, called for more financial transparency within the Extractive Industries Transparency Initiative (EITI) and environmental transparency on the management of tailings storage facilities. In addition, ICMM was able to finalize its own CSR performance assessment framework (Performance Expectations) in 2019.

4.3.3.3 Stepping up our response to societal demands and the environmental emergency

On August 29, 2019, during the French business event “La Rencontre des Entrepreneurs de France”, Orano renewed its commitment to the French Business Climate pledge, thereby formalizing its contribution to the reduction of greenhouse gas emissions.

At the end of 2019, the Executive Committee and 200 managers from the group’s entities were made aware of the new strategic, societal and environmental challenges that Orano faces between now and 2025. These sessions were an opportunity to affirm the group’s willingness to contribute to the UN’s 2030 Agenda for Sustainable Development. Orano intends to play a role in achieving the UN’s Sustainable Development Goals (SDGs) by 2030, particularly with regard to SDG 13 (Climate Action) and SDG 12 (Responsible Consumption and Production).

The group has identified the 6 following SDGs as being priorities for its business:



In 2020, Orano will continue its efforts to build a new corporate commitment roadmap. This will be based in particular on a materiality analysis in consultation with internal and external stakeholders. The ambition of this study is to bolster stakeholder relations and ensure that the most relevant issues inform Orano’s core practices.

4.3.3.4 Being the partner of choice, due in large part to the intrinsic operational excellence of our management

Orano is committed to creating value for its customers by offering them competitive products, technologies and services that meet their current and future needs.

Therefore, one of the group's priorities is to make operational excellence an integral part of its day-to-day management. This priority is managed by the Performance Department, whose objectives include improving the perception of the quality of the group's products and services by customers and regulatory bodies, improving supplier quality, and identifying strategic areas of operational excellence.

The quality of products and services is a key factor for safety and success. With its sights set on being a major player in the nuclear industry, Orano refuses to compromise on quality. As part of its Quality policy, Orano therefore undertakes to:

- establish a robust and entrenched quality culture;
- build trust among its customers and other stakeholders by improving their satisfaction; and
- drive continuous improvement on a daily basis.

Intent on being a trusted partner, in 2019 the group introduced a policy aimed at formalizing the business continuity plans of its entities.

4.3.3.5 Innovating in response to current and future needs

In a fast-changing world in which the energy sector is undergoing a radical transformation and new industrial and digital technologies are becoming widely accessible, companies from all sectors of industry must not only continue to improve their performance, but reinvent themselves while expediting their innovation cycles. Orano has clearly grasped these challenges; indeed it has made innovation one of its three priorities, along with operational excellence and value creation for its customers. The innovation policy is based on three pillars:

- industrial technological innovation;
- business innovation; and
- managerial innovation, which makes this transformation possible.

Industrial technological innovation harnesses the new industry 4.0 technologies to enhance plant productivity, service competitiveness and operator safety. Orano has already entered the era of industry 4.0, with plants operating with very different profiles in terms of activity and age. Collaboration and collective intelligence are key to meeting the challenge of expediting innovation cycles. With this in mind, the group has developed a decidedly open innovation strategy, moving towards the disruptive ecosystems of start-ups and SMEs by launching an initiative called "Orano PME" to foster collaborative innovation between Orano and small businesses in France. The group is already collaborating successfully with almost a hundred firms that are developing some of the technology bricks Orano needs, contributing to their growth through access to use cases, expertise and new markets.

In addition to improving its performance, Orano has stepped up its efforts to diversify its operations and explore new growth opportunities, by showcasing its unique skills, state-of-the-art technology and nuclear fuel cycle materials. The group now manages a portfolio of new opportunities based on the three main areas in which the group can reasonably position itself: new services, the circular economy and deeptech, targeting business sectors while continuing to benefit society in terms of sustainability. One example is the use of isotopes such as Pb212 to develop new cancer therapies, as Orano Med is already doing. Other isotopes are being studied to continue this trend in the medical sector. To give impetus to this trend, in late 2019 Orano launched a competition with deeptech start-ups, in collaboration with Hello Tomorrow, to explore and co-develop new activities around health, space, the energy transition, the circular economy and the environment.

Lastly, the integration of industry 4.0 technologies and the exploration of new business models necessarily transform how the group works and manages its teams. These require more openness to innovative ecosystems, freedom of action, collective intelligence, trust, and a mindset where the main focus is always on the customer and user.

5 Report of the Board of Directors on corporate governance

In accordance with the provisions of Article L. 225-37 of the French Commercial Code, this report covers the composition of the Board of Directors of Orano SA (the "Company") and the way in which it prepares and carries out its activities.

It was approved by the Board of Directors at its meeting of February 27, 2020.

Works carried out for the preparation of this report were also submitted to the Statutory Auditors.

Note that, as an issuer of debt instruments admitted for trading on a regulated market, the Board of Directors decided on July 27, 2017 to refer voluntarily to the Afep-Medef Code of Corporate Governance. In accordance with the "apply or explain" principle set out in Article L. 225-37-4 of the French Commercial Code, the Company will explain hereunder the reasons for which it currently derogates from certain recommendations of the Afep-Medef Code.

5.1 Preparation and organization of the Board of Directors' work

5.1.1 Composition and functioning of the Board of Directors

5.1.1.1 General rules relating to the composition of the Board of Directors

The Company operates under a "Monist" or unitary organization, with a Board of Directors.

In accordance with Article 14 of the Articles of Association:

- the Company is run by a Board of Directors composed of at least three and at most eighteen members including, where applicable, one representative of the French State and several Directors appointed by the General Meeting of Shareholders upon a proposal by the French State, as provided under the Order and Decree No. 2014-949 of August 20, 2014, subject to statutory dispensations; and
- the Board of Directors also includes two directors representing employees, appointed by the two labor unions with the highest number of votes in the first round of the elections preceding the date of appointment of the members of the Social and Economic Committee or Works Committee or the sole Employee Delegation for the Company and its (direct and indirect) subsidiaries with their registered offices in France. These are not taken into account when determining the minimum and maximum number of directors.

As of the date of this report, the Board of Directors is composed of 13 members, including:

- 11 members appointed by the General Meeting of Shareholders (including the representative of the French State and five directors upon proposal of the French State); and
- 2 members appointed by the labor unions to represent the employees.

The members of the Board of Directors hold office for a period of four years. This being said pursuant to the provisions of Article 14 of the Articles of Association, the terms of office of the members of the Board of Directors in office as of this date should end after the General Meeting called to approve the financial statements for the financial year ending December 31, 2021.

Notwithstanding, on October 29, 2019, the Board of Directors resolved, in accordance with the recommendations of the Afep-Medef Code, to establish, in practice, a staggering of the mandates of the Board of Directors, by renewing every two years one-half of the Board members (excluding the directors representing the employees, the French State representative, and the Chief Executive Officer). Such staggering will be implemented at the General Meeting convened to approve the financial statements for the financial year ended December 31, 2019. (See Section 5.1.2.2).

Pursuant to Article 14 of the Company's Articles of Association, the terms of office of the members of the Board of Directors representing the employees will end either (i) upon expiry of their four-year terms of office, due at the close of the Ordinary General Meeting convened to rule upon the financial statements for the financial year ended and held during the year of expiry of said terms of office, or (ii) in the event of a breach in the employment contract, or (iii) on the date of their revocation in accordance with the conditions set out in the Articles of Association and with the statutory and regulatory provisions in force on the date of revocation, or (iv) in the event of a conflict as described in Article L. 225-30 of the French Commercial Code. Furthermore, if the Company is no longer subject to the obligation set out in Article L. 225-27-1 of the French Commercial Code, the terms of office of the Directors representing the employees will end at the close of the meeting during which the Board of Directors notes the removal of this obligation.

Pursuant to Decree No. 83-1116 of December 21, 1983, as amended, and Decree No. 55-733 of May 26, 1955, the following persons may also attend meetings of the Board of Directors in an advisory capacity: the Government Commissioner, in the person of the Director General of the French Directorate General for Energy and Climate, DGEC, and the representative of the General Economic and Financial Control's mission to the French Alternative Energies and Atomic Energy Commission, EDF, and other structures in the energy sector (Control mission for Atomic Energy). They may also attend meetings of Board committees (see Section 5.1.1.5 below).

Pursuant to Article 14 of the Articles of Association, the Board of Directors may also be assisted by one or more observers who may attend meetings in an advisory capacity (see Section 5.1.1.5 below).

The Statutory Auditors are invited to attend meetings of the Board of Directors held to review the annual and half-year financial statements, and any other meetings at which their presence is deemed appropriate.

5.1.1.2 Diversity policy of the Board of Directors

Due to its limited number of employees, the Company is not subject to the provisions of Article L.225-18-1 of the French Commercial Code on balanced gender representation on Boards of Directors and Supervisory Boards.

However, and as provided under Article 6.2 of the Afep-Medef Code, the Board of Directors periodically reviews its composition and that of its committees, notably in terms of gender representation, nationalities, age, qualifications, and professional experience.

After reviewing the composition of the Board and, on the recommendation of the Compensation and Nominating Committee in December 13, 2019, the Board of Directors defined and approved its diversity policy on December 18, 2019. This policy was established with due consideration to composition of the group's shareholding, and the strategy and environment in which it operates.

The Board's composition was established in partnership with its shareholders during the review of its Articles of Association in July 2017. When its members are reappointed, the Board of Directors strives to ensure a balanced gender representation, the presence of independent members and employee representation, all the while reflecting its shareholding composition. It also seeks to ensure a diversity in terms of skills and expertise, and to ensure more particularly that the Board include directors with a knowledge of the industry, particularly in the nuclear field, and experience in terms of large project management, strategy, including CSR, governance and management, and financial expertise. A more detailed description of these skills and expertise may be found hereunder. Considering the importance of the group's international activities, the Board also places special emphasis on having directors with an international background or significant international experience. In all instances, the Board expects a high level of commitment and ethics from each of its directors.

At its meeting of December 18, 2019, the Board of Directors reasserted its intent to increase the presence of women and people with international backgrounds within it in the future.

Expertises on the Board of Directors are presented on the board below:

Expertise	Description	Number of Directors concerned
Business line knowledge	Knowledge of the Orano group and its employees, knowledge of industry business lines, the energy sector and nuclear in particular.	10
Finance	Expertise in finance and risk management, knowledge of the financial markets, in-depth understanding of financial reporting processes, corporate finance, and financial communication.	5
International	In-depth knowledge of the international environment, experience abroad.	7
Strategy and CSR	Experience in defining the strategy and overall vision of major groups, including social, societal, and environmental aspects.	5
Executive management and governance	Experience as a manager or director of a large company.	7
Major project management	Experience in managing large-scale projects requiring cross-functional skills.	8
Other	The six skills listed above are the main skills that the Board considers essential to possess, to varying and multiple degrees among its members. Nonetheless, the Board endeavors to combine other skills as well which are more specific but no less critical to the group's good governance, including communications, crisis management, social dialog, legal, cybersecurity, and digital transformation.	10

5.1.1.3 Composition of the Board of Directors

As of the date of this report, the members of the Board of Directors are:

- Philippe VARIN (Chairman);
- Philippe KNOCHE (Chief Executive Officer, Director);
- Catherine DEIANA (Director representing employees);
- Alexia DRAVET (Director representing employees);
- François DELATTRE (Director appointed upon a proposal of the French State);
- Claude IMAUVEN (Independent Director);
- François JACQ (Director appointed upon a proposal of the French State);
- François MESTRE (Director appointed upon a proposal of the French State);
- Patrick PELATA (Independent Director);
- Marie-Hélène SARTORIUS (Independent Director);
- Philippe SOULIÉ (Director appointed upon a proposal of the French State);
- Marie-Solange TISSIER (Director appointed upon a proposal of the French State);
- The French State, represented by Bruno VINCENT (Director appointed by decree of the French State).

Overview of the Board of Directors at December 31, 2019

	Personal information				Position on the Board				Board committees
	Date of birth	Gender	Nationality	Number of shares	Independence	Initial appointment	Expiration of term of office	Length of service on the Board	
Philippe VARIN Chairman of the Board	1952	M	FR	n/a	Yes	2017	2022	2.5 years	**CSI**
Philippe KNOCHE Chief Executive Officer and Director	1969	M	FR / GER	n/a	No	2017	2022	2.5 years	n/a
Catherine DEIANA Director representing employees	1968	F	FR	n/a	No	2017	2022	2.5 years	**CNR/CSI**
François DELATTRE Director appointed upon a proposal of the French State	1963	M	FR	n/a	No	2019	2022	6 months	**CSI**
Alexia DRAVET Director representing employees	1987	F	FR	n/a	No	2017	2022	2.5 years	**CAE/CSOFC**
Claude IMAUVEN Director	1957	M	FR	n/a	Yes	2017	2022	2.5 years	**CAE/CSI/ CSOFC**
François JACQ Director appointed upon a proposal of the French State	1965	M	FR	n/a	No	2018	2022	1 year and 8 months	**CSI/CSOFC**
François MESTRE Director appointed upon a proposal of the French State	1965	M	FR	n/a	No	2018	2022	1 year and 3 months	n/a
Patrick PELATA Director	1955	M	FR	n/a	Yes	2018	2022	1.5 year	n/a
Marie-Hélène SARTORIUS Director	1957	F	FR	n/a	Yes	2017	2022	2.5 years	**CAE/CNR/CSOFC**
Philippe SOULIÉ Director appointed upon a proposal of the French State	1956	M	FR	n/a	No	2018	2022	1 year and 1 month	n/a
Marie-Solange TISSIER Director appointed upon a proposal of the French State	1955	F	FR	n/a	No	2017	2022	2.5 years	**CAE/CNR**
French State (Bruno VINCENT) Director	1982	M	FR	n/a	No	2017	2022	2.5 years	**CAE/CSI/CNR/ CSOFC**

(Key - n/a: not applicable; CAE: Audit and Ethics Committee; CSI: Strategy and Investments Committee; CNR: Compensation and Nominating Committee; CSOFC: End-of-Lifecycle Obligations Monitoring Committee)

Nota Bene: Maurice GOURDAULT-MONTAGNE resigned from his duties as director on June 30, 2019 as a result of his retirement. He was replaced by François DELATTRE, his successor to the office of Secretary General of the Ministry of Foreign Affairs, by a decision of the Board on July 4, 2019. This appointment will be submitted for ratification at the next Annual General Meeting.

Biographies and terms of office of the members of the Board of Directors

The number of offices held by directors is compliant with the law, the applicable regulations, and the Afep-Medef Corporate Governance Code limiting the number of offices any individual may hold.

Philippe VARIN – Chairman of the Board of Directors

Born on August 8, 1952 in Reims (France), a French national, Philippe VARIN is an alumnus of École polytechnique and École des mines de Paris.

He joined the Péchiney group in 1978 as a researcher and subsequently held a number of management positions within the group (management control, strategy, project direction) before being appointed in 1995 as Director of the Rhenalu Division then Chief Executive Officer of the aluminum segment and member of the group's Executive Committee in 1999.

In 2003, he joined the Anglo-Dutch steel group Corus as Chief Executive Officer. He was Chairman of the European Confederation of Iron and Steel Industries (Eurofer) from 2006 to 2008.

Appointed Chairman of the Management Board of PSA Peugeot Citroën in June 2009, he left the group in June 2014.

In 2015, he joined the AREVA group as Chairman of the Board of Directors.

He has chaired the Board of Directors of the Company since July 27, 2017. As such, he is responsible for relations between the Board and the Company's shareholders.

Other offices held

- Director and Chairman of the Board of Directors of AREVA SA (until November 13, 2019);
- Director of Saint-Gobain;
- Director of Positive Planet;
- Chairman of France Industrie;
- Vice-Chairman of Conseil National de l'Industrie;
- Chairman of SASU PRM3C;
- Chairman of Fondation Georges Besse;
- Chairman of the French Committee of the International Chamber of Commerce (ICC);
- Director of the Saint Joseph Hospital Group.

Other offices held during the past five years

- Director of EDF;
- Chairman of the Management Board of Peugeot SA;
- Chairman of the Board of Directors of Peugeot Citroën Automobiles SA;
- Director of Banque PSA Finance SA;
- Director of Faurecia SA;
- Director of PCMA Holding BV.

Philippe KNOCHE – Chief Executive Officer, Director

Born on February 14, 1969 in Strasbourg (France), with dual French and German nationality, Philippe KNOCHE is a graduate of École polytechnique (class of 1989) and École des mines de Paris.

In 1995, he began his career in Brussels as a Case Handler for the European Commission's anti-dumping department.

In 1998, he joined the Consortium de Réalisation as Assistant to the Chairman of the Supervisory Board.

He joined AREVA in 2000 as Director of Strategy. In 2004, he was appointed Executive Vice President of the Recycling Business Unit and, in 2006, Director of the Olkiluoto 3 project. In 2010, he took over the Reactors and Services Business group and became a member of AREVA's Executive Committee.

In July 2011, Philippe KNOCHE was appointed member of the Executive Board and Chief Operating Officer in charge of nuclear operations at AREVA.

In January 2015, he became a member of the Board of Directors and Chief Executive Officer of AREVA.

He has been the Company's Chief Executive Officer since July 27, 2017.

Other offices held

- Chairman & CEO of Orano Cycle;
- Chairman of the Board of Directors of Orano Mining;
- Permanent Member of the Strategy Committee of SET Holding.

Other offices held during the past five years

- Chief Executive Officer and Director of AREVA SA (expired July 26, 2017);
- Member of the Executive Board and Chief Executive Officer of AREVA (expired January 7, 2015);
- Chairman of the Supervisory Board of AREVA GmbH (expired November 8, 2016);
- Chairman of the Board of Canberra Industries Inc. (expired July 1, 2016);
- Chairman of AREVA NP SAS (expired June 30, 2016);
- Permanent representative of AREVA SA on the Board of Directors of AREVA TA (expired February 10, 2016).

Catherine DEIANA – Director representing the employees

Born on December 10, 1968 in Dieulefit (France), a French national, Catherine DEIANA has a degree in Documentation Studies.

She joined the AREVA group in 2001.

Currently in charge of reprography at the Tricastin site, Catherine DEIANA was appointed by her labor union as Director representing the employees.

She has been a member of the Board of Directors of the Company since July 27, 2017.

Other offices held

- None.

Other offices held during the past five years

- Member of the Orano Cycle Tricastin Social and Economic Committee (CSE), elected during the professional elections held on October 15-19, 2018, expired (due to resignation to remain as employee director) on October 23, 2018;
- Labor union representative on the AREVA NC Tricastin Health, Safety and Working Conditions Committee (CHSCT) (expired July 26, 2017).

Alexia DRAVET – Director representing the employees

Born on April 13, 1987 in Amiens (France), a French national, Alexia DRAVET has a Master's degree in "Science, Technology, and Health" (with a concentration in Quality, Safety, Environment, and Industrial Risks) from the Université de droit et de science politique de Montpellier [School of Law and Political Science at the University of Montpellier].

She joined the AREVA group (later Orano) in 2008 and worked as a Safety, Environment, Security Engineer and Quality Manager in a variety of areas (FBFC in Romans-sur-Isère and all facilities on the Tricastin site).

Currently in charge of chemical product management (Environment, REACH, SEVESO, etc.) within the Safety, Health, Security and Environment Department at the Tricastin site, Alexia DRAVET was appointed by her labor union as a director representing the employees.

She has been a member of the Board of Directors of the Company since July 27, 2017.

Other offices held

- None.

Other offices held during the past five years

- Director representing the employees of AREVA NC (expired May 24, 2017).

François DELATTRE - Director (since July 4, 2019)

Born on November 15, 1963 in Saint-Marcellin (France), a French national, he is a graduate of Institut d'études politiques (IEP) in Paris and École nationale d'administration.

François Delattre was appointed Secretary General of the Ministry of Europe and Foreign Affairs on July 1, 2019.

François Delattre was the Ambassador, Permanent Representative of France to the United Nations Organization from September 2014 to July 2019. He previously served for nearly four years as Ambassador of France to the United States (2011-2014), after being Ambassador of France to Canada (2008-2011), French Consul General in New York City (2004-2008), and Press and Communications Director at the French Embassy in Washington, D.C. (1998-2002).

A devoted practitioner of economic diplomacy, François Delattre is also an expert in European and transatlantic defense and security. He was in charge of these issues on the diplomatic team (1995-1998) of the President of the Republic, Jacques Chirac, where he was also responsible for monitoring the crisis in Bosnia. He furthermore served as an advisor on these issues (1993-1995) in the Office of French Foreign Minister, Alain Juppé, after two years with the Department of Strategic Affairs and Disarmament in the French Foreign Minister's Office (1991-1993).

Moreover, François Delattre held the office of Deputy Chief of Staff (2002-2004) to the French Foreign Minister, Dominique de Villepin. Lastly, he was posted to the French Embassy in Bonn, Germany (1989-1991), where he was responsible for environmental affairs and the economic integration of Germany after the reunification.

Other offices held

- Director of EDF (since July 1, 2019);
- Director of Agence nationale des titres sécurisés (since July 1, 2019);
- Director of Institut national des langues et civilisations orientales [French national institute of eastern languages and civilizations] (since July 1, 2019);
- Director of Commission de récolement des dépôts d'œuvres d'art (since July 1, 2019);
- Director of École Nationale d'Administration (since July 1, 2019);
- Director of France Médias Monde (since July 1, 2019);
- Director of Institut français (since July 1, 2019);
- Director of Office français de protection des réfugiés et apatrides (since July 1, 2019);
- Director of Institut du Monde Arabe (since July 1, 2019);
- Director of Sorbonne Abou Dhabi (since July 1, 2019).

Other offices held during the past five years

- None.

Maurice GOURDAULT-MONTAGNE - Director (until June 30, 2019)

Born on November 16, 1953 in Paris (France), a French national, Maurice GOURDAULT-MONTAGNE is a graduate of Institut d'études politiques (IEP) in Paris and Institut national des langues et civilisations orientales. He also holds a Master in law.

He has held various diplomatic positions in India (1981-1983), Germany (1988-1991) and at the headquarters of the Office of the Minister of Foreign Affairs (1986-1988), after which he became Deputy Spokesperson at Quai d'Orsay (1991-1993).

In 1993, he was appointed Deputy Director of the Office of the Minister of Foreign Affairs (Alain Juppé). He was the Director of the Office of the Prime Minister from 1995 to 1997.

He was French Ambassador to Tokyo in 1998, before being appointed Diplomatic Adviser and Sherpa to the President of the French Republic in 2002.

Between 2007 and 2017, he was successively the French Ambassador to the United Kingdom, Germany and China, before been appointed in 2017 as the Secretary General of the Ministry of Europe and Foreign Affairs.

He was a member of the Board of Directors of the Company from October 31, 2017 until his retirement on May 20, 2019.

Other offices held

- Director of EDF (since August 1, 2017);
- Director of École Nationale d'Administration;
- Director of Institut français;
- Director of Agence nationale des titres sécurisés;
- Director of Commission de récolement des dépôts d'œuvres d'art;
- Director of France Médias Monde;
- Director of Fondation d'entreprise Renault;
- Member of the Atomic Energy Committee.

Other offices held during the past five years

- None.

Claude IMAUVEN – Independent Director

Born on September 6, 1957 in Marseille (France), a French national, Claude IMAUVEN is a graduate of École polytechnique and an Engineer in the French Corps des Mines.

He began his career in 1983 at the French Ministry for Industry, where he held various positions of responsibility in public administration, notably in ministerial offices (Foreign Trade and Industry).

His career at Saint-Gobain began in 1993 with the Flat Glass Division, where he was Vice President of Industrial Policy and subsequently Vice President of Industry and Finance. In 1996, he was appointed Delegate General for Spain, Portugal and Morocco. Returning to France in 1999, he joined the Pipe branch as Deputy CEO of Pont-à-Mousson SA, and then in 2001 he took over the reins of this company as CEO and Director of the Pipe branch.

Between April 2004 and the end of 2015, Claude IMAUVEN was Deputy CEO of Saint-Gobain, leading the Construction Products Division.

From January 2016 until the end of 2018, Claude IMAUVEN was Chief Executive Officer of Saint-Gobain.

He has been a member of the Board of Directors of the Company since July 27, 2017.

Other offices held

- Chairman of the Board of Directors of Artelia Global SAS;
- Chairman of the Board of Directors of Institut Mines-Télécom (EPSCT).
- Director of Institut Polytechnique de Paris.

Other offices held during the past five years

- Director of AREVA SA (expired July 27, 2017);
- Director of Banque CIC Est;
- Chairman of Saint-Gobain Matériaux de Construction SAS (Saint-Gobain);
- Chairman of Saint-Gobain Matériaux Produits pour la Construction SAS (Saint Gobain);
- Chairman of the Board of Directors of Saint-Gobain PAM (Saint-Gobain);
- Chairman of the Board of Directors of Saint-Gobain ISOVER (Saint-Gobain);
- Chairman of the Supervisory Board of Saint-Gobain WEBER (Saint-Gobain).

François JACQ – Director

Born on October 28, 1965 in Harfleur (France), a French national, François JACQ is a graduate of École polytechnique, and an Engineer General of the French Corps des Mines. He holds a PhD from École des mines de Paris.

After starting out in research, he went on to hold various posts within the French Ministry of Education. From 2000 to 2005, he was Director General of the French National Agency for Radioactive Waste Management (ANDRA).

From 2005 to 2007, he was the Head of Energy Markets and Demand at the French Ministry of Industry, before becoming an adviser to the French Prime Minister. From 2009 to 2013, he was Chairman and Chief Executive Officer of Météo France, before serving as Chairman and Chief Executive Officer of IFREMER from 2013 to 2018. He then became Chief Executive of the French Alternative Energies and Atomic Energy Commission (CEA).

He has been a member of the Board of Directors of the Company since May 3, 2018.

Other offices held

- Chairman of the Board of Directors of CEA;
- Member of the Supervisory Board of Framatome.

Other offices held during the past five years

- Director of CNES;
- Director of STORENGY.

François MESTRE – Director

Born on September 14, 1965 in Clermont-Ferrand (France), a French national, François MESTRE is a graduate of École polytechnique (1985) and École nationale supérieure des techniques avancées (1990).

An engineer-general in the French Corps de l'armement, François MESTRE was appointed as Head of the Industrial Affairs and Economic Intelligence Unit by Decree of June 18, 2018. With a background in the chemicals industry, he has several years of experience in the management of arms programs. He has also held various posts in the office of the French defense minister.

Since 2018, François MESTRE has overseen the monitoring of defense companies and their expertise. He led a joint review of the government's shareholding strategy with the French State Shareholding Agency (Agence des participations de l'État – APE). He has also examined proposals for foreign investment in France for the Armed Forces Ministry, and security and economic intelligence initiatives for armaments and defense.

From 2013 to 2018, within the French Directorate General of Armaments, he worked on preparations for the future of arms programs at the French Defense Procurement Agency (DGA), where he developed guidance on technology maturity for the Chief Executive. He thus contributed within the Ministry of Defense to the overall capacity coherence of defense in association with the joint chiefs of staff.

He has been a member of the Board of Directors of the Company since October 25, 2018.

Other offices held

- Member of the Supervisory Board of KNDS;
- Director of Ariane Group.

Other offices held during the past five years

- None.

Patrick PELATA – Independent Director

Born on August 24, 1955 in Pujols (France), a French national, Patrick PELATA is a graduate of École polytechnique and École des ponts ParisTech. He also has a PhD in socioeconomics from École des hautes études en sciences sociales.

He joined the Renault Group in 1984, holding various positions in manufacturing and engineering before being named Senior Vice-President of Vehicle Engineering in 1998, then Executive Vice-President for Nissan in 1999 (Japan), then Executive Vice-President in charge of Corporate and Product Planning, Design and Programs for Renault in 2005, and then Chief Operating Officer for Renault in 2008.

In 2012, he was appointed Executive Vice-Chairman and Chief Automotive Officer of Salesforce in San Francisco.

In 2015, Patrick PELATA founded the company Meta Consulting LLC, of which he is Chairman. It was renamed Meta Strategy Consulting in early 2018.

Patrick PELATA served as censor of the Company from July 27, 2017, before being appointed to the Board of Directors on February 26, 2018, when Japan Nuclear Fuel Ltd and Mitsubishi Heavy Industries Ltd became shareholders of the Company.

<u>Other offices held</u>

- Chairman of Meta Strategy Consulting (France);
- Director of Safran SA (listed);
- Director of Vulog.

<u>Other offices held during the past five years</u>

- None.

Marie-Hélène SARTORIUS – Independent Director

Born on January 23, 1957 in Lyon (France), a French national, Marie-Hélène SARTORIUS is a graduate of École polytechnique and École nationale des ponts et chaussées.

She began her career at Banque Paribas, now BNP Paribas, where she held a number of positions in management control and corporate banking before being appointed Head of Specialized Financing for Europe (LBOs, project finance).

In 1995, she joined the Market Activities Department of the Paribas group in London as Head of Risk and in 1999, she launched a new credit derivatives trading business for the group.

In 2001, Marie-Hélène SARTORIUS joined PricewaterhouseCoopers (PwC) as a Partner in charge of consulting services in France and provided advice to some of the largest international groups until 2016. She works primarily with large listed investment banks, and energy companies, where she specializes in risk management, performance optimization and major transformation programs.

On an international level, Marie-Hélène SARTORIUS has been a member of PwC's EMEA Financial Services Leadership Team (EMEA FSLT) and Global Financial Services Advisory Leadership Team (GFSALT).

She has been a member of the Board of Directors of the Company since July 27, 2017.

<u>Other offices held</u>

- Director of BNP Paribas Cardif SA;
- Director of Milleis Banque SA;
- Director of Gemalto NV SA.

<u>Other offices held during the past five years</u>

- Member of the Supervisory Board of ANF Immobilier (expired October 23, 2017);
- Director of AREVA SA (expired July 27, 2017).

Philippe SOULIÉ – Director

Born on July 1, 1956 in Paris (France), a French national, Philippe SOULIÉ is a graduate of École polytechnique and holds an MBA from Insead.

He joined the AREVA group in 2016 as Chief Operating Officer during the restructuring of AREVA SA. On July 27, 2017 he was appointed Chief Executive Officer of Areva SA. He was co-opted on the same day by the Board of Directors as director of AREVA SA to replace Philippe KNOCHE, who had resigned. His term as director of AREVA SA will expire at the end of the Annual General Meeting convened in 2023 to approve the financial statements for the financial year ending December 31, 2022.

He has been a member of the Board of Directors of the Company since December 18, 2018.

Other offices held

- Chief Executive Officer of AREVA SA;
- Chairman of AREVA NP;
- Chairman of AREVA Énergies Renouvelables;
- Chairman of the Supervisory Board of AREVA H2Gen;
- Chairman of AREVA Project 2;
- Chairman of AVELEOS SA.

Other offices held during the past five years

- None.

Marie-Solange TISSIER – Director

Born on April 6, 1955 in Paris (France), a French national, Marie-Solange TISSIER is a graduate of École polytechnique and École des mines.

She was Head of the Environment Division within the Interdepartmental Directorate for Lorraine Industry from 1979 to 1982. In 1982, she moved to the General Council of Mines as Deputy Head of Service, and in 1984 she joined the office of the Secretary of State for Energy as a Technical Adviser. In 1986, Marie-Solange TISSIER was appointed Head of Nuclear Service at the French Directorate General for Energy and Raw Materials. In 1988, she joined the Ministry for Industry and Regional Development as a Technical Adviser.

From 1989 to 2017, Marie-Solange TISSIER was Head of Department at the General Council of Mines, which in 2009 became the General Council of Economy, Industry, Energy and Technology within the French Ministry for the Economy and Finance. During this period she also held the position of Deputy Director of École des mines de Paris.

In May 2017, she became Chairman of the Regulation and Resources Department of the General Council of Economy, Industry, Energy and Technology within the French Ministry for the Economy and Finance.

She has been a member of the Board of Directors of the Company since July 27, 2017.

Other offices held

- Director of AREVA SA;
- Director of IFP Énergies Nouvelles.

Other offices held during the past five years

- Member of the Supervisory Board of RTE (expired April 1, 2017).

The French State, represented by Bruno VINCENT – Director

Born on March 6, 1982, a French national, Bruno VINCENT is a graduate of École polytechnique and École nationale des ponts et chaussées.

Between 2005 and 2008, he worked at the French Embassy in the United States and later at the World Bank in Washington D.C., where he was initially a Research Assistant before becoming Consultant for the Economic Policy and Debt Department.

After heading the administrative supervision of the French Development Agency at the French Treasury from 2008 to 2010, Bruno VINCENT joined the French State Shareholding Agency (Agence des participations de l'État – APE) in 2010 as a Chargé d'Affaires overseeing RATP and the ports sector.

In 2012, he worked at the Treasury Department where he was involved in negotiating the arrangements for an instrument to recapitalize Eurozone banks.

In 2013, he was tasked with managing the Services & Finance sector at the French State Shareholding Agency (APE).

In 2014, he was appointed Assistant Head of Equity Investments for the transport sector at APE. In this role, he was responsible for managing a portfolio of companies in the transport sector (SNCF, RATP, Air France KLM, ADP, regional airports, ports, SNCM). He was also project manager for the privatization of the Nice and Lyon airport companies.

Since 2017, he has been Head of Equity Investments for the energy sector at APE.

He has represented the French State on the Board of Directors of the Company since July 27, 2017.

Other offices held

- Director of AREVA SA (representing the French State);
- Director of ERAMET SA (listed) (representing the French State).

Other offices held during the past five years

- Director of the Port of Marseille;
- Director of SNCF Réseau;
- Director of Aéroports de la Côte d'Azur;
- Director of Aéroports de Lyon;
- Director of Imprimerie Nationale;
- Director of Monnaie de Paris;
- Director of Grand port maritime de la Rochelle.

5.1.1.4 Changes in the composition of the Board and its committees in 2019

	Departure	Appointment	Renewal
Board of Directors	Maurice GOURDAULT-MONTAGNE (resigned on June 30, 2019 [(1)])	François DELATTRE (co-opted on July 4, 2019)	n/a
Audit and Ethics Committee	n/a	n/a	n/a
Compensation and Nominating Committee	n/a	n/a	n/a
Strategy and Investments Committee	Maurice GOURDAULT-MONTAGNE (resigned on June 30, 2019)	François DELATTRE (co-opted on July 4, 2019)	n/a
End-of-Lifecycle Obligations Monitoring Committee		Marie-Hélène SARTORIUS (on July 4, 2019)	n/a

(Key – n/a: not applicable)

1 Resigned when he retired from the French Ministry of Foreign Affairs.

5.1.1.5 Other attendees at meetings of the Board of Directors

Economic and Financial Controller General

Vincent BERJOT, appointed Head of the Control Mission of the General Economic and Financial Control Department by a decision dated September 20, 2018 of the Ministry for the Economy, Industry and Employment, is a member of the Company's general economic and financial control body, in accordance with Decree No. 83-1116 of December 21,1983, as amended.

Government Commissioner

Laurent MICHEL, Director General for Energy and Climate (DGEC) by a Decree dated December 19, 2012, holds the position of Government Commissioner for the Company, in application of Decree No. 83-1116 of December 21, 1983 as amended by a Decree dated July 25, 2017. To this end, he attends the meetings of the Board of Directors and of its specialized committees.

Pursuant to Article 3 of Decree No. 83-1116 of December 21, 1983 as amended and relative to the Company, the deliberations of the Board of Directors will become fully enforceable unless the Government Commissioner or other authority responsible for economic and financial control opposes these within five days of either the meeting of the Board of Directors if they were present there at, or following receipt of the minutes of the meeting.

This opposition, of which the Minister of the Economy and the Minister of Energy must be immediately informed by the party presenting the opposition, will cease to have effect if, within fifteen days, it has not been upheld by one of these Ministers.

Censors

Article 14.6 of the Company's Articles of Association stipulates that the Board of Directors may appoint one or more censors to assist it in the performance of its duties.

Pursuant to these provisions, the Board of Directors appointed Thomas COURBE as a censor on October 25, 2018, notably to monitor the strict application of the Articles of Association and provide advice and information to the Board of Directors. The latter may attends all meetings of the Board and participates in deliberations in an advisory capacity

Thomas COURBE's duties expired at the end of the Annual General Meeting on May 23, 2019.

At its meeting of October 29, 2019, the Board of Directors, on the recommendation of the Compensation and Nominating Committee, decided not to maintain this function. This decision was taken in the wake of the desire expressed by the Board during the three-year review of its organization and functioning (see Section 5.1.3 hereinafter) to reduce the number of people present at each Board Meeting.

Secretary of the Board

Anne-Sophie BODIN serves as Secretary of the Board of Directors.

5.1.2 Responsibilities and functioning of the Board of Directors

5.1.2.1 Responsibilities

The responsibilities of the Board of Directors and the organization of its work are defined by the legislative and regulatory provisions governing limited liability companies, as well as the Company's Articles of Association and in the rules of procedure of the Board of Directors.

The Board of Directors determines the overall direction of the Company's activities and ensures that such activities are properly implemented. Except for those powers expressly assigned to the General Meeting of Shareholders, and within the limits of the Company's scope of activities, it may take up any matter concerning the Company's operations and, through its resolutions, rule on matters concerning it. It may perform inspections and checks at any time of the year, as it sees fit, and demand the communication of any documents it may consider as useful for accomplishing its mission. It is to be kept updated by the Audit and Ethics Committee on the Company's financial position, cash-flow situation and commitments. It must also be kept informed in good time of the Company's liquidity position and take, where appropriate, decisions relating to its financing and borrowing.

As part of its responsibilities, and without this list being exhaustive, the Board of Directors in 2019:

- transferred the head office of the Company from the Tour AREVA in Courbevoie (92400) to the Prism building in Châtillon (92320);
- kept itself informed of all significant events concerning the Company and any significant transactions complementary to the Company's announced strategy, including the digitization process;
- determined the strategic direction of the group, after taking advice from the Strategy and Investments Committee;
- renewed its strategy seminar to provide directors with an insight into the group's strategic issues; and
- reviewed the balance of its composition, evaluated its functioning, and implemented an action plan improving its organization and functioning.

The Board of Directors meets as often as the interests of the Company require and at least four times per year. In 2019, the Board of Directors met six times with a 91% attendance rate. Directors may choose to be represented by another director at meetings of the Board of Directors. Each Director may only represent one of his or her colleagues at any one meeting of the Board of Directors.

The following table shows the attendance rate of directors and committee members as at December 31, 2019:

	Board of Directors	Audit and Ethics Committee	Compensation and Nominating Committee	Strategy and Investments Committee	End-of-Lifecycle Obligations Monitoring Committee
Philippe VARIN	100%	n/a	n/a	100%	n/a
Philippe KNOCHE	100%	n/a	n/a	n/a	n/a
French State (Bruno VINCENT)	100%	100%	100%	100%	80%
Catherine DEIANA	100%	n/a	100%	100%	n/a
François DELATTRE(2) (4)	50%	*n/a*	*n/a*	*50%*	*n/a*
Alexia DRAVET	100%	100%	*n/a*	*n/a*	100%
Maurice GOURDAULT - MONTAGNE (1) (4)	50%	*n/a*	*n/a*	75%	*n/a*
Claude IMAUVEN	100%	100%	*n/a*	100%	100%
François JACQ	67%	*n/a*	*n/a*	100%	40%
François MESTRE	83%	*n/a*	*n/a*	*n/a*	*n/a*
Patrick PELATA	100%	*n/a*	*n/a*	*n/a*	*n/a*
Marie-Hélène SARTORIUS (4)	100%	100%	100%	*n/a*	*50%* (3)
Philippe SOULIÉ	83%	*n/a*	*n/a*	*n/a*	*n/a*
Marie-Solange TISSIER	83%	88%	100%	*n/a*	*n/a*

n/a: not applicable

(1) Director until June 30, 2019.
(2) Director since July 4, 2019.
(3) Committee member since July 4, 2019.
(4) Note that these attendance rates were calculated for a period of six months only, thereby increasing the relative weight of an absence from a given meeting of a governing body.

The meetings of the Board of Directors are chaired by the Chairman, who leads the discussions, or, in his absence, by a member of the Board of Directors designated at the beginning of the meeting by a simple majority of the members present.

Directors who participate in a meeting of the Board of Directors via videoconferencing or other methods of telecommunication that allow their identity to be known and assure the effective participation thereof, will be deemed present for the calculation of quorum and majority. The Secretary of the Board of Directors shall sign the register in lieu and on behalf of these Directors.

This process may only be used for the preparation of the annual financial statements, the consolidated financial statements and related reports.

Furthermore, the use of videoconferencing or other methods of telecommunication may be excluded by the Chairman of the Board of Directors if one or more topics on the agenda are of a sensitive nature.

The group's employees may also be invited based on their contribution to the items on the meeting's agenda. The presence of external third parties must be authorized by the Chairman of the Board of Directors.

5.1.2.2 Terms of office of Directors and staggering of the mandates of Board Directors

Article 14.2 of the Company's Articles of Association stipulate that members of the Board of Directors hold office for four years, it being specified that all current terms of office will end after the General Meeting called to approve the financial statements for the financial year ending on December 31, 2021.

In order to provide greater continuity in the work of the Board and its committees, and in accordance with the provisions of Article 14.2 of the Afep-Medef Code, and with the recommendations of the Compensation and Nominating Committee adopted in the wake of the evaluation of the Board's activities in 2019 (see Section 5.1.3), the Board of Directors, meeting on October 29, 2019 decided to stagger the mandates of its members by reappointing one-half of Board members (excluding those directors representing employees , the French State representative, and the Chief Executive Officer) every two years. This mesure would concern two of the four independent directorships and three of the six directors appointed by or upon the French State's proposal (including the representative of the French State).

The staggered reappointment of Board members (excluding those directors representing employees and the Chief Executive Officer) will be put in place in the course of the General Meeting called to approve the financial statements for the financial year ended December 31, 2019.

5.1.2.3 Independence of the members of the Board of Directors

The Afep-Medef Code (Article 9.3) recommends that in controlled companies, within the meaning of Article L.233-3 of the French Commercial Code, the proportion of at least one-third of all Board members should be independent and specifies that those directors representing employees not be counted in establishing this proportion.

As of the date of this report, the Board of Directors has four independent (or deemed independent) directors. The proportion of at least one-third independent members recommended by the Afep-Medef Code is thus met, it being noted that the directors representing the employees are not counted in establishing this proportion.

Based on a recommendation made by the Compensation and Nominating Committee on February 4, 2020, the Board of Directors, at its meeting of February 27, 2020, considered the following Board members to be independent as per those provided by the Afep-Medef Code, or otherwise deemed them to be independent:

- Marie-Hélène SARTORIUS;
- Claude IMAUVEN;
- Patrick PELATA; and
- Philippe VARIN.

The Board of Directors examined the business relationships that may exist between the Company and the companies in which these directors hold terms of office. The Board of Directors noted that none of the independent members (or members deemed to be independent) have a significant business relationship with the Company. The primary basis for this assessment was the insignificant share of revenue generated by existing business relationships, if any, compared to the respective revenue of the Company and the companies in which the members concerned hold a position.

The table below outlines the situation for each director in the light of the independence criteria contained in Paragraph 8 of the Afep-Medef Code.

Independence criteria

Criterion 1	Not to be and not to have been within the previous five years: ▪ an employee or executive corporate officer of the corporation; ▪ an employee, executive corporate officer or director of a company consolidated within the corporation; or ▪ an employee, executive corporate officer or director of the corporation's parent company or a company consolidated within this parent company.
Criterion 2	Not to be an executive corporate officer of a company in which the corporation holds a directorship, directly or indirectly, or in which an employee appointed as such or an executive corporate officer of the corporation (currently in office or having held such office within the last five years) holds a directorship.
Criterion 3	Not to be a customer, supplier, commercial banker, investment banker or consultant: ▪ that is significant to the corporation or its group; or ▪ for which the corporation or its group represents a significant portion of its activities.
Criterion 4	Not to be related by close family ties to a corporate officer.
Criterion 5	Not to have been a Statutory Auditor of the corporation within the previous five years.
Criterion 6	Not to have been a director of the corporation for more than 12 years. Loss of the status as independent director occurs on the date that this 12-year limit is reached.
Criterion 7	A non-executive corporate officer cannot be considered independent if he or she receives variable compensation in cash or in the form of shares or any compensation linked to the performance of the corporation or the group.
Criterion 8 (1)	Directors representing major shareholders of the corporation or its parent company may be considered independent, provided these shareholders do not take part in the control of the corporation. Nevertheless, beyond a 10% threshold in capital or voting rights, the Board, upon a report from the Compensation and Nominating Committee, must systematically review the qualification of a director as independent in the light of the make-up of the corporation's capital and the existence of a potential conflict of interest.

(1) For the purposes of this analysis, and considering the structure of the Company's shareholding, Directors representing or appointed on proposal of the French the State are not deemed to meet this criteria.

Overview table (1)

	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Criterion 6	Criterion 7	Criterion 8	Independent Not independent
Philippe VARIN	*	✓	✓	✓	✓	✓	✓	✓	**Deemed Independent**
Philippe KNOCHE	x	x	✓	✓	✓	✓	✓	✓	**Not independent**
French State (Bruno VINCENT)	✓	✓	✓	✓	✓	✓	✓	x	**Not independent**
Catherine DEIANA	x	✓	✓	✓	✓	✓	✓	✓	**Not independent**
Alexia DRAVET	x	✓	✓	✓	✓	✓	✓	✓	**Not independent**
François DELATTRE	✓	✓	✓	✓	✓	✓	✓	x	**Not independent**
Claude IMAUVEN	✓	✓	✓	✓	✓	✓	✓	✓	**Independent**
François JACQ	✓	✓	x	✓	✓	✓	✓	x	**Not independent**
François MESTRE	✓	✓	✓	✓	✓	✓	✓	x	**Not independent**
Patrick PELATA	✓	✓	✓	✓	✓	✓	✓	✓	**Independent**
Marie-Hélène SARTORIUS	✓	✓	✓	✓	✓	✓	✓	✓	**Independent**
Philippe SOULIÉ	x	✓	✓	✓	✓	✓	✓	x	**Not independent**
Marie-Solange TISSIER	✓	✓	✓	✓	✓	✓	✓	x	**Not independent**

(1) In this table, ✓ means that an independence criterion is met, and ✗ means that an independence criterion is not met.

** The Board of Directors of February 27, 2020, on the recommendation of the Compensation and Nominating Committee of February 4, 2020, concluded that Philippe VARIN should be deemed independent since (i) his appointment was decided by the General Meeting of Shareholders of July 27, 2017, based on a proposal from the Board of Directors, on account of his knowledge, expertise and impartiality, (ii) he was deemed independent by decision of the shareholders in the shareholders' agreement dated February 21, 2018, reiterated on July 13, 2018, (iii) he does not hold, directly or indirectly, any significant business relationship with the company or its subsidiaries, and (iv) in the event that any conflict of interest should arise on the Board of Directors, he would abstain from voting and participating in debates.*

5.1.2.4 Information and training of directors

Directors shall receive, at least five calendar days prior to the meeting, the agenda of the meeting of the Board of Directors and any information to be discussed, except in cases of emergency or exceptional circumstance. They must be kept informed at all times between meetings of the Board of Directors and, where necessary, must be able, if they so wish, to meet with the key executives of the Company after giving prior notice thereof to the Chairman of the Board of Directors and the Chief Executive Officer.

Each Director may benefit, if he or she deems it necessary, from training on specific issues relating to the Company, its businesses and sectors of activity, as well as on their role as Director.

5.1.2.5 Business ethics of directors

The Director shall perform his or her duties with independence, integrity, uprightness and professionalism.

The rules of procedure of the Board of Directors of the Company set out directors' duties, which include, without limitation:

- compliance with applicable legislation, Articles of Association and the Company's corporate interest;
- professionalism and duty of expression;
- strict confidentiality of the work of the Board of Directors and of its committees;

- compliance with rules relating to the plurality of offices;
- preventing conflicts of interest; and
- compliance with obligations related to the holding of financial instruments issued by the Company and the holding of inside information.

The Company refers and adheres to the principles of the Orano Codes of Ethics and Anticorruption.

5.1.2.6 Rules applicable to conflicts of interest

The rules applicable to the members of the Board of Directors with regard to preventing conflicts of interest are set out under Article 4.6 of the rules of procedure of the Board of Directors, which notably states that:

- the Director shall at all times preserve their independence of judgment, decision-making and action;
- the Director shall strive to avoid any conflict that may exist between his or her moral and material interests and those of the Company;
- the Director shall inform the Board of any conflict of interest in which he or she may be directly or indirectly involved;
- in the event that a situation or risk of conflict of interest should arise, the Director concerned must, upon receipt of the agenda, inform the Chairman of the Board of Directors and, where applicable, the chairman of the committee concerned, and must abstain from taking part in any discussions or voting on the corresponding deliberation;
- the Director, or a permanent representative if the Director is a legal entity, may not participate personally in companies or activities in competition with the group without first informing the Board of Directors and receiving its approval;
- Directors who no longer consider themselves capable of fulfilling their role on the Board of Directors, or in any committee of which they are members, must resign.

5.1.3 Rules applicable to evaluations

Pursuant to the recommendations of the Afep-Medef Code, Article 1.2 of the rules of procedure of the Board of Directors provides that, at least once a year, the Board of Directors shall dedicate one item on its agenda to the assessment of its composition, its functioning and its organization, as well as those of its committees, to make sure that important issues are properly addressed and discussed. Furthermore, at least once every three years, it shall carry out or have carried out a formal assessment of its activities. It shall inform the shareholders annually of the assessments performed and, where applicable, the action taken as a result of such assessment.

In accordance with the recommendations of the Afep-Medef Code, the Board of Directors, on the recommendation of the Compensation and Nominating Committee, decided on December 18, 2018 to conduct a formal evaluation with the help of an external consultant.

The Board examined the results of this formal evaluation on February 28, 2019.

Based on the study, the Board concluded that it is appropriately organized and under continuous improvment, and that its directors are committed and involved. Therefore, there are no grounds to substantially alter its functioning.

Nonetheless, certain points could be improved and gave rise to an action plan for 2019. This action plan included the need to stagger the terms of office of the Board in order to foster a smooth functioning of the Board, to improve the time of submission of informational documents to the Board, and to involve the Directors representing the employees even more closely to the Board's activities.

The Compensation and Nominating Committee and the Board made note in December 2019 of the positive progress of this action plan and expressed their appreciation that all key measures had been implemented, including the implementation of the staggering of the terms of office for directors, as well as the renewal of the strategy seminar and the holding of a Board meeting off-site.

On December 18, 2019, the Board, on the recommendation of the Compensation and Nominating Committee, confirmed the relevance of this action plan and of the measures included therein, and to renew for 2020 those measures that could not be fully satisfied in 2019.

Individual review of the contribution of each Director

In accordance with the recommendations of the Afep-Medef Code (Article 10.2), each year, the Chairman of the Board reviews each director's individual contribution, in order to continuously improve the functioning of the Board.

The Chairman of the Board conducted these interviews individually in 2019, so that each director could be informed of the other directors' perception of his or her involvement in the Board's work.

Executive session

Finally, pursuant to its rules of procedure and the recommendations of the Afep-Medef Code, the Board met in an executive session, which was chaired by the Chairman of the Compensation and Nominating Committee.

5.2 Committees of the Board of Directors

The Board of Directors may establish Board committees, whose composition and powers it shall define.

The role of these committees is to gather and present to the Board of Directors any relevant information and to facilitate the Board's decision-making process. To this effect, it may, where appropriate, make any relevant suggestions to the Board. Committees do not have any powers of their own and carry out their duties under the responsibility of the Board of Directors.

The composition and functioning of the committees are defined by those statutory and regulatory provisions applicable to limited liability companies, the Company's Articles of Association and the rules of procedure of the Board of Directors.

On July 27, 2017, the Board of Directors created four permanent committees, namely:

- an Audit and Ethics Committee;
- a Strategy and Investments Committee;
- a Compensation and Nominating Committee; and
- an End-of-Lifecycle Obligations Monitoring Committee

Committee members may not claim compensation in this capacity, except when compensation is allocated to them by the Board of Directors.

The chairman of each committee may ask the Chief Executive Officer and, where applicable, any Deputy Chief Executive Officer(s) to attend committee meetings. This also applies to the Chairman of the Board of Directors, whethere he or she is a member of the committee in question.

Subject to the approval of the chairman of the committee, Group employees may also be invited, to attend committee meetings, depending on their contribution to the items on the agenda of the meeting.

The committees may seek external technical advice on topics that fall within their remit, subject to approval from the Chairman of the Board of Directors and with the understanding that it will share this information with the Board of Directors. The committee must verify the skills and independence of the external experts that it calls upon.

The duration of the terms of office of committee members shall coincide with their terms of office as members of the Board of Directors. These may be renewed at the same time as the latter. By way of exception, the Board of Directors may at any time dismiss a member of a committee or its chairman.

The chairman of each committee is appointed by the Board of Directors upon a proposal from the Compensation and Nominating Committee. In the absence of the chairman, the other members of the committee shall appoint a chairperson for the meeting.

The chairman of each committee shall appoint a secretary. Minutes of the committee meetings are the responsibility of the chairman of each committee, who shall send a copy thereof to the Board of Directors.

The members of the committee may be convened by any means (mail, fax, email, etc.), or even verbally. Other than in the case of an emergency or exceptional circumstances, the relevant documentation shall be sent to the members of the committee at least five calendar days prior to the date of the meeting.

Committee members cannot appoint their own representatives.

5.2.1 Audit and Ethics Committee

As at the date hereof, the Audit and Ethics Committee includes five members:

- Marie-Hélène SARTORIUS (Chairman and Independent Director);
- Alexia DRAVET (Director representing employees);
- Claude IMAUVEN (Independent Director);
- Marie-Solange TISSIER; and
- Bruno VINCENT (Director representing the French State).

In accordance with Article L. 823-19 of the French Commercial Code, it is specified that the Chairman of that committee, Marie-Hélène Sartorius, has special expertise in financial, accounting and auditing matters. On the recommendation of the Compensation and Nominating Committee, the independence of Ms. Sartorius was confirmed by the Board of Directors for 2019 at its meeting of February 28, 2019, and for 2020 at its meeting of February 27, 2020.

The Audit and Ethics Committee is responsible for issues relating to the preparation and control of accounting and financial information, in particular the process for the preparation of financial information, the effectiveness of the internal control and risk management systems, the statutory audit of annual and consolidated financial statements by the Statutory Auditors and the consistency of accounting methods, the procedure for the selection of the Statutory Auditors and their independence, the approval of additional services provided by the Statutory Auditors, the independence of the Statutory Auditor, the proper assessment of mining resources and reserves, the monitoring of the execution of major projects and business risk mapping.

To perform its duties, the committee must work together with the Head of Internal Control and give its opinion on the organization of this unit. The committee shall be sent internal audit reports or a periodic summary of these reports. The committee shall also work together with the Statutory Auditors and the Financial, Accounting and Treasury Directors.

The committee examines the list of consolidated companies and, if appropriate, the reasons for which companies are or are not included on it.

The Audit and Ethics Committee shall prepare an annual work agenda to ensure the proper planning of its work. Financial statements must be provided to the committee for review sufficiently in advance (at least three calendar days before their review by the committee). The review of the financial statements by the Audit and Ethics Committee must be accompanied by a presentation from the Statutory Auditors highlighting the key points of the findings of the statutory audit (in particular any audit adjustments and any significant internal control weaknesses identified), and of the accounting options selected. It must also be accompanied by a presentation from the Chief Financial Officer describing the Company's exposure to risk and any significant off-balance-sheet commitments.

The Audit and Ethics Committee must, at least twice per year, address the ethical aspects that concern the Company and, in accordance with the following recommendations:

- ensure that the Company and its relations with third parties are compliant with ethical standards and that the group complies with international best practices in relation to ethics; and
- examine the standards and procedures put in place by the group both for the Company and its (directly or indirectly controlled) subsidiaries in France and abroad, and in particular those governing the use of economic intelligence studies and the group's Charter of Values and any updates thereto, ensuring the correct distribution and application thereof.

With regard to foreign subsidiaries, the committee shall take into consideration the legal and regulatory framework of the countries in which they operate.

During the 2019 financial year, the Audit and Ethics Committee met eight times, with an average attendance rate of 93%.

It examined matters that specifically fall within its remit, including the half-year and annual financial statements, press releases, the risk mapping, the review of the conclusions of the Internal Audit Department and Statutory Auditors on internal controls, the review of major customer investment projects, the summary of internal audits, and cybersecurity.

In addition, the committee examined the following topics in 2019 (it being specified that this list is not exhaustive):

- the internal audit activities in 2019 and the audit plan for 2020;
- Orano's compliance plan and its obligations under the Sapin II Act;
- the Group's insurance policy;
- the internal dividend distribution policy;
- the ethics report;
- the 2020-2028 financial trajectory;
- the group's mining reserves and resources;
- the current legal proceedings; and
- the payment times to suppliers.

5.2.2 Strategy and Investments Committee

As of the date of this report, the Strategy and Investments Committee includes six members:

- Philippe VARIN (Chairman and Independent Director);
- Catherine DEIANA (Director representing employees);
- François DELATTRE;
- Claude IMAUVEN (Independent Director);
- François JACQ; and
- Bruno VINCENT (Director representing the French State).

The Strategy and Investments Committee is responsible for analyzing the main strategic directions in terms of the group's development and for making any major strategic decisions proposed by the Chief Executive Officer. It examines the implementation of the Company's strategy both at company level and within its subsidiaries.

The committee is tasked with examining proposed transactions subject to the prior approval of the Board of Directors [1].

The committee may also meet as a restricted committee at the initiative of its Chairman to examine major commercial proposals to be submitted to the Board of Directors for approval. No restricted committee meetings were held in 2019.

[1] *See Section 5.4.2.2 below.*

During the 2019 financial year, the Strategy and Investments Committee met five times, with an average attendance rate of 95%.

In 2019, the committee examined in the following topics, without this list being exhaustive:

- the progress made on the negotiations for the Treatment and Recycling plant in China;
- the 2019 strategic action plan and its worldwide implementation;
- examination of various commercial proposals, especially in Russia and the United States;
- various investment projects in Malvési and at La Hague; and
- the group's commercial policies at the front end of the fuel cycle.

5.2.3 Compensation and Nominating Committee

As of the date of this report, the Compensation and Nominating Committee includes four members:

- Marie-Solange TISSIER (Chairman);
- Catherine DEIANA (Director representing employees);
- Marie-Hélène SARTORIUS (Independent Director); and
- Bruno VINCENT (Director representing the French State).

The main role of the Compensation and Nominating Committee is to recommend to the Board of Directors potential persons to be appointed as corporate officers, to discuss the independent status of each Director, to put forward to the Board of Directors recommendations and proposals concerning compensation, pension and insurance schemes, supplemental pensions, benefits in kind, the various pecuniary rights of the Company's executive corporate officers and in particular, where applicable, severance payments and retirement benefits, to review the allocation procedure for attendance fees payable to the members of the Board of Directors, to review the compensation policy for key executives who are not corporate officers, to review the objectives, conditions and results of its policy on gender representation, nationalities and diversity of skills with regard to its members and to prepare and monitor the implementation of the corporate governance rules applicable to the Company.

Where possible, the executive corporate officers will attend the committee meeting at which the compensation policy for key executives who are not corporate officers is reviewed.

During the 2019 financial year, the Compensation and Nominating Committee met five times with an attendance rate of 100%.

It examined the following topics in particular:

- setting of the targets for the Chief Executive Officer;
- the Company's policy in terms of equal opportunity, equal pay and gender equality;
- succession plans for the executive corporate officers;
- candidates called on to replace the directors who have resigned;
- the action plan prepared by the Company to improve the organization and functioning of the work of the Board of Directors and its committees; and
- the diversity policy applied within the governing bodies with respect to criteria such as age, gender, qualifications, and professional experience, the way in which the Company works toward greater parity on its Executive Committee, and the results in terms of gender diversity in the 10% most responsible positions.

Succession plan for executive corporate officers

The review of the succession plan for Orano's executive corporate officers was included in the 2019 action plan prepared by Orano's Chairman of the Board of Directors to improve the organization and functioning of the works of the Board of Directors and its committees.

This succession plan is in line with the provisions of Order No. 2014-948 of August 20, 2014, pertaining to the governance of State-owned companies and transactions on their capital, in particular Article 19, which states that the Chief Executive Officer of Orano is appointed by decree of the President of the French Republic on the proposal of the Board of Directors, and Article 21, which sets out the terms and conditions for the appointment by the French State of an interim Chief Executive Officer.

The Compensation and Nominating Committee, in coordination with the Chairman of the Board of Directors, the Chief Executive Officer and the group's Human Resources Department, made sure that the Company had put in place the necessary mechanisms to allow for the immediate replacement, on an acting basis, of the Chief Executive Officer should the latter suddenly prove incapacitated or unavailable to run the Company's operations. the Compensation Committee has also established a standard profile for the position of Chief Executive Officer of Orano for the replacement of the Chief Executive Officer at the end of his term of office, to allow for the launching of an open search procedure, which could include, if necessary, candidates from within the company.

Diversity measures within the Executive Committee and in the top 10% most senior positions

At its meeting of December 18, 2019, following the recommendation of the Compensation and Nominating Committee of December 13, 2019, the Board of Directors also examined how the Company seeks to ensure a balanced representation of women and men within the Executive Committee, and the gender balance achieved in the top 10% most senior positions within the group.

In the present case, the Orano group is directed by an Executive Committee of 12 members, which includes the heads of the Business Units and of the Group's main Corporate departments, under the leadership of its Chief Executive Officer. Actions ongoing for several years to increase the number of women in decision-making bodies and throughout the group's management line have borne fruit, resulting in more women on this Executive Committee during the past year.

Accordingly, the Orano Executive Committee now includes three women, namely, Corinne SPILIOS as group Head of Performance in charge of the Operational Excellence, Supply Chain and Quality Departments; joined in early 2020 by Laurence GAZAGNE, Head of HSE; and Hélène DERRIEN, Head of People & Communications. As of the date of this report, women make up 25% of the Executive Committee (compared to 9% in 2019). Orano is continuing its actions to further increase diversity within its Executive Committee.

Group diversity policy

Pursuant to Article L. 225-37-1 of the French Commercial Code, the Board of Directors deliberates each year on its equal opportunity and equal pay policy and gender diversity policy.

At its meeting of December 18, 2019, following the recommendation of the Compensation and Nominating Committee of December 13, 2019, the Board of Directors observed that the implementation of the group's diversity policy for all human resources processes was overall satisfactory.

The group is pursuing its efforts to guarantee equal treatment for women and men, throughout their careers, and thus empower more women to hold senior positions all along the management line. This ipolicy hinges around three major focus areas:

1/ More female candidates in recruitment pools

The People & Communications Department gets involved early on in the process to encourage more female students to enter technical disciplines. It arranges talks by women in the Orano group who have technical and scientific roles at various levels of state education, from secondary schools to universities ("pre-sourcing"). In addition, a network of nearly 80 engineer ambassadors, 40% of whom are women, has been created to this end. These actions have gradually resumed since the start of 2018, following the group's restructuring.

Similarly, the group agreement signed last April by all labor unions and the Chief Executive Officer, Philippe KNOCHE, has targeted a one percentage point increase per year in the number of female interns, particularly in technical disciplines. At the end of 2019, women made up 37.5% of this group (compared to 36% at the end of 2018).

The group's communication, through its various communication channels (brochures, videos, social media), routinely portrays women in technical and industrial roles.

2/ Recruitment

Since recruitment have resumed in 2017, the number of female new hires has increased dramatically. In 2018, 27% of all new hires were women; for manager positions the figure was 35%. The objective is to increase this rate by one point per year. The results in 2019 were close to those achieved in 2018.

3/ Career development

In addition to its general goal of recruiting women, the group pays particular attention to their development throughout their careers. At the end of 2017, 26% of the group's managers and 27.5% of its identified talent were women. By the end of 2019, 30% of the group's managers and 31% of its identified talent were women; the objective is to have at least as many women of identified talent as women executives on staff.

The percentage of women on the group's Management Committees totaled 25% for the third consecutive year, of which 33% for the support functions and 23% for the BU functions. In addition, a specific mentoring program based on individual and collective coaching ("Female Talent") was launched in 2017, and continued in 2018, for women who are "potential executives" and "confirmed talent": a total of six modules were completed and 56 women received training. A further three sessions were held in 2019. At the end of 2019, the group also launched shorter modules for young women identified as "upcoming talent".

Lastly, the number of experts who are women is steadily increasing: experts are reappointed every two years, and in the 2018-2019 campaign 16% of the total number were women. This represents an increase of 3 percentage points compared with the previous campaign.

In terms of the Gender Equality Index, established by the Act of September 5, 2018, “For the Freedom to Choose One’s Professional Future”, the results for the eight relevant companies ranged from 75 to 94 out of 100. The Orano group received a score of 89/100, all activities combined.

For more details on the diversity policy, see Section 4.1.5.3.

5.2.4 End-of-Lifecycle Obligations Monitoring Committee

As of the date of this report, the End-of-Lifecycle Obligations Monitoring Committee includes four members:

- Claude IMAUVEN (Chairman and Independent Director);
- Alexia DRAVET (Director representing employees);
- Marie-Hélène SARTORIUS (Independent Director); and
- Bruno VINCENT (Director representing the French State).

Ms. SARTORIUS was appointed to the End-of-Lifecycle Obligations Monitoring Committee on July 4, 2019 by the Board of Directors to increase interaction with the Audit and Ethics Committee. Mr. JACQ was a member of this committee throughout the 2019 financial year, and left at the start of 2020 due to his lack of availability. In light of the recent appointment of Ms. SARTORIUS, he has not been replaced.

The role of this committee is to assist in the monitoring of the portfolio of earmarked assets created by Company subsidiaries to cover their future cleanup and dismantling expenses.

To this end, the committee, upon presentation by the Company of relevant documents including a Management Charter, shall assess, in accordance with a multi-year schedule, the future cleanup and dismantling expenses of the group companies concerned, review the terms and conditions for the constitution, functioning and control of funds earmarked to cover said expenses within these companies and the management policy applicable to the corresponding financial assets. These points form the basis of opinions and recommendations made by the committee to the Board of Directors, summarized in an annual document provided thereto with a view to preparing its report to the General Meeting.

The committee may work together with the financial advice institutions chosen by the companies responsible for the management of the funds, subject to committee approval.

During the 2019 financial year, the End-of-Lifecycle Obligations Monitoring Committee met five times with an average attendance rate of 74%.

In particular, it examined the following topics (it being specified that this list is not exhaustive):

- changes in estimates and end-of-lifecycle liabilities at the end of the 2019 financial year;
- the performance and investment strategy of earmarked assets and the coverage ratio of liabilities by earmarked assets throughout the year and at the end of 2019;
- changes in regulations on end-of-lifecycle obligations, specifically the discussions with the administrative authority about the inflation and discount rates, the formula for determining the regulatory limit; changes in the scope of end-of-lifecycle operations; and extension of the time limit for returning to a 100% coverage ratio;
- revision of the 2019-2028 financial trajectory for end-of-lifecycle operations (liabilities, end-of-lifecycle operating risks, financial assumptions and scenarios);
- the internal control report and the three-year report on the assessment of long-term expenses of regulated nuclear facilities and on financial asset management at December 31, 2018;
- the review of the dashboard of end-of-lifecycle projects in progress at each of the committee’s meetings;
- the status of the EOL performance plan;
- the follow-up letters received from the administrative authority, and the draft replies from Orano;
- the prepayment of CEA’s Receivable; and
- the status of two projects in progress at each of the committee meetings.

5.2.5 Composition of the committees

The table below summarizes the existing committees of the Company and their composition as of the date of this report.

First and last names	Audit and Ethics Committee	Compensation and Nominating Committee	Strategy and Investments Committee	Commercial Proposals Committee (restricted SIC)	End-of-Lifecycle Obligations Monitoring Committee
Philippe VARIN	*PG*	*n/a*	X Chairman	X Chairman	*n/a*
Philippe KNOCHE	*PG*	*n/a*	*n/a*	*n/a*	*n/a*
François DELATTRE	*n/a*	*n/a*	X	*n/a*	*n/a*
Claude IMAUVEN	X	*n/a*	X	X	X Chairman
Patrick PELATA	n/a	*n/a*	*n/a*	*n/a*	*n/a*
François MESTRE	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Philippe SOULIÉ	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Marie-Hélène SARTORIUS	X Chairman	X	*n/a*	*n/a*	X
Marie-Solange TISSIER	X	X Chairman	*n/a*	*n/a*	*n/a*
François JACQ	*n/a*	*n/a*	X	X	*n/a*
Bruno VINCENT	X	X	X	X	X
Alexia DRAVET	X	*n/a*	*n/a*	*n/a*	X
Catherine DEIANA	*n/a*	X	X	*n/a*	*n/a*

n/a: not applicable; PG: permanent guest

5.3 Other committee

In accordance with the provisions of the shareholders' agreement, an Advisory Committee was created on July 27, 2017. This committee, which plays an advisory and consultative role, may submit proposals concerning the group's strategy, particularly in relation to its international development policy.

In the 2019 financial year, the Advisory Committee met four times.

In accordance with the recommendations of the Afep-Medef Code (Article 4.4), the Chairman of the Board is responsible for the relations between shareholders and the Board of Directors. At meetings of the Advisory Committee (instituted by the shareholders' agreement), the Chairman of the Board regularly holds a special dialogue with the Company's key shareholders and reports on the missions of the Board.

Presentations made regularly to the Advisory Committee include, but are not limited to, the following topics:

- business highlights;
- on-going strategic and commercial projects;
- the budget;
- the Strategic Action Plan; and
- the annual and half-year results.

5.4 Executive corporate officers

5.4.1 Executive Management arrangements

The Board of Directors opted on July 12, 2017 to separate the roles of Chairman of the Board of Directors and Chief Executive Officer.

On July 27, 2017, following the General Meeting that approved the change in governance, the Board of Directors decided to appoint Philippe VARIN as Chairman of the Board of Directors and noted the appointment by decree of Philippe KNOCHE as Chief Executive Officer.

The aim of this separation of functions was to create a clear distinction between the strategic, decision-making and control duties of the Chairman of the Board of Directors and the operational and executive duties of the Chief Executive Officer. It was also designed to improve the functioning of the Board of Directors through the presence of one person dedicated to chairing the Board and the balanced distribution of powers to limit the isolation of the group leader and to encourage dialogue between peers.

Furthermore, as a member of the Board of Directors, the Chief Executive Officer participates in the determination of the Company's and the group's strategic directions.

The powers of the Chairman of the Board of Directors and of the Chief Executive Officer are described in Section 5.4.2 below.

5.4.2 Powers of the executive corporate officers

5.4.2.1 Chairman of the Board of Directors

The Chairman represents the Board of Directors and, other than in exceptional circumstances, is the sole person authorized to act and speak on behalf of the Board of Directors.

In coordination with the Company's Executive Management, the Chairman may take part in defining the group's strategic directions and may represent the group in France and abroad in its relations with public officials and the group's partners.

The Chairman organizes and manages the work of the Board of Directors and ensures the smooth functioning of the Company's bodies in compliance with the principles of good governance. He coordinates the work of the Board of Directors with that of the Board's committees.

He ensures that the Directors, the Head of the Control Mission, and the Government Commissioner and, where applicable, the Censors, have, in good time and in a clear and appropriate format, the information they require to carry out their responsibilities.

The Chairman provides liaison between the Board of Directors and the Company's Shareholders, in concert with Management.

The meetings of the Board of Directors are chaired by the Chairman, who leads the discussions, or, in his absence, by a member of the Board of Directors designated at the beginning of the meeting by a simple majority of the members present.

5.4.2.2 Chief Executive Officer

The Chief Executive Officer is responsible for the Company's Executive Management and represents the Company in its relations with third parties.

The broadest powers are vested in him to act in all circumstances on behalf of the Company, subject to the powers which the law assigns to the Board of Directors and to the General Meeting of Shareholders, as well as the corporate governance rules applicable to the Company.

Under the terms of Article 16-2 of the Company's Articles of Association, the following transactions of the Company and its subsidiaries are subject to the prior approval of the Board of Directors:

(a) transactions likely to impact the group's strategy and modify its financial structure or scope of activity;

(b) insofar as they relate to an amount of more than 80 million euros:

- (i) issues of securities by direct subsidiaries, of any nature,
- (ii) exchanges, with or without monetary consideration, of assets, shares or securities, loans, borrowings, credits and advances; acquisitions or disposals, by any means, of receivables, excluding day-to-day cash transactions,
- (iii) settlements, agreements or transactions relating to disputes;

(c) insofar as they relate to an amount of more than 20 million euros:

- (i) investment projects relating to the creation of a site or the extension of an existing site,
- (ii) acquisitions, extensions or disposals of equity interests in any existing or future companies,
- (iii) decisions to set up new or close down existing locations in France or abroad,
- (iv) acquisitions of buildings.

Exceptionally, and unless the Chairman of the Board of Directors requests otherwise, the transactions referred to under (a), (b) and (c) above are not subject to the prior approval of the Board of Directors when they are carried out between companies of the group.

On December 18, 2019, the Board of Directors delegated its authority to the Chief Executive Officer to issue sureties, endorsements and guarantees.

5.5 Compensation attributed to corporate officers

5.5.1 Principles and criteria for determining, distributing and allocating the remuneration attributable to corporate officers

The general principles and criteria for determining, distributing and allocating the fixed, variable and exceptional elements of remuneration that make up the total compensation and benefits of any kind attributable to the Chairman of the Board of Directors and to the Chief Executive Officer of the Company, on the one hand, and to the members of the Board of Directors, on the other, were approved by the Company's General Meeting on July 27, 2017, during which the Company's overall governance was reviewed before being rolled out by the Board of Directors at its meeting held on the same day.

This policy is established in accordance with Article 3 of Decree No. 53-707 of August 9, 1953, pertaining to State control over national public companies and certain organizations with an economic or social purpose, as amended by Decree No. 2012-915 of July 26, 2012, subjecting to ministerial authorization the amount of compensation paid out to corporate officers and capping the compensation of senior executives at 450,000 euros gross.

No element of remuneration, of any nature whatsoever, may be determined or allocated or paid by the Company if it does not comply with this policy.

The Company's compensation policy and the manner in which it is implemented by the Board is reviewed each year by the Compensation and Nominating Committee, which verifies that such policy complies with and remains in the corporate interest of the Company and its employees, and contributes to the sustainability, business strategy and long-term performance of the Company. If necessary, the Compensation and Nominating Committee may submit recommendations to the Board, for approval, if appropriate, by the General Meeting.

On December 13, 2019, the Compensation and Nominating Committee reviewed the Company's compensation policy for its executive corporate officers and the elements of compensation allocated to the members of the Board of Directors, as it does so for every financial year. It recommended that they be continued as they are and as they have always been from the outset.

Pursuant to Article L. 225-37-2 of the French Commercial Code (in its version in effect until November 29, 2019), the components of this policy pertaining to the compensation of the group's executive corporate officers was submitted for approval to the Company's General Meeting every year.

Whilst the elements of this policy are no longer subject to the prior approval of the General Meeting of Shareholders since the adoption of Order No. 2019-1234 of November 27, 2019, Orano has decided, in the interest of transparency and good governance, to submit them for approval by the General Meeting of Shareholders scheduled for May 14, 2020 [1], henceforth including not only the compensation policy regarding executive corporate officers, but also that regarding all corporate officers. The Board of Directors' report to the General Meeting describing the conditions and components of this policy can be found in Appendix 8.8 of the group's Annual Activity Report.

5.5.2 Compensation allocated to the members of the Board of Directors

The general principles setting out the compensation allocated to the members of the Company's Board of Directors were defined by the Company's General Meeting of July 27, 2017, and were implemented by the Board of Directors the same day (upon the recommendation of the Compensation and Nominating Committee of AREVA SA on July 26, 2017, since there was no such committee in the Company at that time). The resulting policy, which is compliant with the French Commercial Code and the Afep-Medef Code, remains applicable until the Board decides otherwise.

It is reviewed each year by the Compensation and Nominating Committee. This policy has not been amended since its adoption.

In accordance with the current regulations, the following tables present the compensation and benefits of any kind received by each of the corporate officers over the course of the financial year from controlled companies within the meaning of Article L. 233-16 or from the company that controls, within the meaning of the same article, the company in which the term of office is held.

[1] *See Section 5.5.4 below.*

5.5.2.1 Principles of the compensation allocated to the Directors

The General Meeting of July 27, 2017 set the total amount of compensation allocated to the members of the Board of Directors for the calendar year at 600,000 euros, including the amounts paid to the independent directors for their attendance at meetings of the Advisory Commitee.

The members of the Board of Directors are entitled to a fixed remuneration in consideration of their duties as Director and a variable remuneration according to their effective attendance at Board meetings and, where applicable, meetings of committees (or meetings of the Restricted Committee) of which they are a member. The distribution of the compensation allocated has been designed so that the variable part of the Board members' overall remuneration be dominant, particularly for those participating in Board of Directors' committee. Moreover, the Board may allocate additional compensation to those Directors residing outside of France to take account of the travel constraints involved.

1) Amounts for meetings of the Board:

a) A flat annual fee in view of the responsibility attached to the appointment, which fee may be withheld in the event of repeated absences. This fee has been set at 10,000 euros for the 2019 financial year;

b) An amount of 1,500 euros per meeting.

2) Amounts for meetings of the committees of the Board (including the Restricted Committee and non-permanent committees):

a) An amount of 3,000 euros per meeting for the chairman of the Audit and Ethics Committee;

b) An amount of 2,500 euros per meeting for each committee chairman (including the Restricted Committee and non-permanent committees);

c) An amount of 1,500 euros per meeting for each committee member, other than the committee chairman (including the Restricted Committee and non-permanent committees).

With regard to members residing outside of France, the amounts indicated in points 1 b) and 2 are doubled when they attend meetings physically.

Payment will be made within 45 days of the end of the financial year.

Directors attending a meeting of the Board of Directors or of a committee via teleconferencing or videoconferencing shall receive compensation equivalent to half of the compensation paid to a Director resident in France and physically attending the meeting.

As a matter of exception, if the Board of Directors meets on the same date as the General Meeting of Shareholders, either before or after said meeting, the total compensation equivalent to a single session will be paid in respect of the two sessions.

Moreover, each Director is entitled to reimbursement, on presentation of receipts, of reasonable travel expenses incurred in carrying out their duties.

It is not stipulated that the Censor(s) be compensated for their duties.

In accordance with Article 3 of Decree No. 53-707 of August 9, 1953, these compensation components have been approved by a ministerial decision dated September 7, 2017.

5.5.2.2 Exceptions

In accordance with their request to this effect:

- Philippe VARIN, Philippe KNOCHE, François JACQ, and Philippe SOULIÉ shall not be paid compensation for their terms of office as directors for the 2019 financial year;
- the compensation received by Alexia DRAVET and Catherine DEIANA, in their capacity as directors representing the employees, shall be paid to their labor unions; and
- the compensation paid to the representative of the French State and/or members of the Board nominated pursuant to a proposal of the French State and having the status of public officials, shall be paid directly to the French State as provided under Articles 5 and 6 of Order No. 2014-948 of August 20, 2014.

Summary of the compensation allocated to the Directors for the 2019 financial year

Members of the Board of Directors (1)	Fixed component	Variable component	Variable component	2019 total
Claude IMAUVEN	10,000	44,000	81%	54,000
Maurice GOURDAULT-MONTAGNE (until June 30, 2019)	5,000	5,250	51%	10,250
François DELATTRE (2) (since July 4, 2019)	5,000	3,750	43%	8,750 (2)
François MESTRE	10,000	7,500	43%	17,500 (3)
Patrick PELETA	10,000	9,000	47%	19,000
Marie-Hélène SARTORIUS	10,000	40,500	80%	50,500
Marie-Solange TISSIER	10,000	30,500	75%	40,500 (3)
French State represented by Bruno VINCENT	10,000	39,000	80%	49,000 (3)
Catherine DEIANA	10,000	19,500	66%	29,500 (4)
Alexia DRAVET	10,000	28,500	74%	38,500 (4)
TOTAL	**90,000**	**227,500**	**72%**	**317,500**

(1) List of the members of the Board of Directors who received compensation during the 2019 financial year. Philippe VARIN, Philippe KNOCHE, François JACQ, and Philippe SOULIÉ were not paid compensation for their respective terms of office on the Board of Directors for the 2019 financial year.

(2) François DELATTRE was appointed by the Board of Directors on July 4, 2019 to replace Maurice GOURDAULT-MONTAGNE, who resigned.

(3) The compensation allocated to François MESTRE, Maurice GOURDAULT-MONTAGNE, François DELATTRE, Bruno VINCENT, and Marie-Solange TISSIER, for their roles as representatives of the French State and/or members of the Board of Directors nominated upon proposal of the French State and as public officials, are paid by Orano directly to the French State's general budget.

(4) The compensation allocated to Catherine DEIANA and Alexia DRAVET, as Directors representing the employees, are paid by Orano directly to the labor union to which they belong.

The directors representing the employees are employed by Orano Cycle and as such receive compensation unrelated to their board duties. Accordingly, this compensation is not published.

5.5.3 Compensation of the executive corporate officers

5.5.3.1 Compensation of the CEO

On July 27, 2017, the Board of Directors decided, based on a recommendation from the Compensation and Nominating Committee, that Philippe KNOCHE would receive the following compensation in respect of his position as Chief Executive Officer, and this for his entire term of office:

- a gross annual fixed compensation of 420,000 euros;
- an annual variable compensation, which shall be based on the achievement of qualitative objectives for 40% and quantitative objectives for 60%, as approved for each financial year by the Board of Directors. This variable compensation may not exceed the gross amount of 30,000 euros; and
- an annual benefit in kind in the form of a company car, with a value as at July 27, 2017 of 4,416 euros [1].

It should also be noted that the Company does not offer any performance share plans, stock option plans or share option plans, either for directors or for Company employees.

These elements of remuneration are compliant with Decree No. 53-707 of August 9, 1953, as amended by Decree No. 2012-915 of July 26, 2012 on the French State's control over the compensation of directors of public companies. They have not been subject to any variation since they were set on July 27, 2017.

This recommendation was renewed for 2020 by the Compensation and Nominating Committee on December 13, 2019 and confirmed by the Board of Directors of the Company on February 27, 2020.

At its meeting on February 27, 2020, the Board of Directors set the targets for 2020 to determine the variable component of Philippe KNOCHE's remuneration and his severance payment (if and where applicable). The qualitative objectives include the implementation of a new phase of the performance plan as well as the implementation of the group's CSR policy (including in particular a complete rethinking of its "raison d'être", together with the group's strategic action plan. The quantitative objectives include objectives in terms of safety and security, net cash flow, operating income, production results, and sales targets.

[1] The value of this company car is adjusted annually. It was 4,416 euros in 2018 and is estimated at 4,488 euros for 2019.

The variable part of Philippe KNOCHE's remuneration is subject to the approval of the Minister of the Economy, in accordance with the provisions of Article 3 of Decree No. 53-707 of August 9, 1953 as amended concerning the control of the French State over domestic public sector companies and certain organizations with an economic or social purpose. As such, the variable compensation was approved for 2018 by a ministerial decision dated April 8, 2019.

Philippe KNOCHE does not have an employment contract.

The table below presents the gross compensation components owed to or received by Philippe KNOCHE in respect of his duties as Chief Executive Officer of the Company for the financial year ended and financial year N-1:

(in euros)	Summary of the compensation and benefits (gross) for Philippe KNOCHE			
	Financial year ended December 31, 2018		**Financial year ended December 31, 2019**	
Orano corporate officer	**Amounts due** (3)	**Amounts paid** (4)	**Amounts due** (3)	**Amounts paid** (4)
Fixed compensation	420,000	420,000	420,000	420,000
Variable compensation	30,000	23,100 (1)	30,000	26,400 (2)
Exceptional compensation	NA	NA	NA	NA
Compensation allocated for the term of office as director	NA	NA	NA	NA
Benefits in kind (Company vehicle)	4,416	4,416	4,488	4,488
TOTAL	454,416	447,516	454,488	450,888

(1) Variable compensation due/paid by Orano for the 2018 financial year.
(2) Variable compensation paid by Orano for the 2019 financial year.
(3) Compensation for the financial year, regardless of the payment date.
(4) Sum total of the compensation paid during the financial year.

Severance and non-competition payments

	Employment contract		**Supplemental retirement benefits**		**Compensation or benefits due or likely to be owed due to the cessation of or change in duties, including payments relative to a non-competition clause**	
Executive corporate officer	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Name: Philippe KNOCHE Position: Chief Executive Officer Date of start of term: July 26, 2017 Date of end of term: 2022 GM		X		X	X (1)	

(1) Except as noted below.

Severance payments

The Board of Directors, at its meeting on July 27, 2017, following a proposal from the Compensation and Nominating Committee, decided to put an end to the commitments made by the Company regarding payments or benefits due or liable to be due to Philippe KNOCHE, Chief Executive Officer, as a result of his duties being terminated or changed during his term of office, under the following conditions:

Philippe KNOCHE may be granted a severance payment capped at twice the total amount of his annual compensation on the date of cessation of his duties.

If Philippe KNOCHE (i) wishes to exercise his right to retire shortly after the end of his term, regardless of the reason, even if constrained to do so, or (ii) occupies another function within the group, he shall not be entitled to a severance payment.

The aforementioned severance payment shall only be paid in the event of the dismissal of Philippe KNOCHE due to a change in control or strategy, it being understood that this shall not be paid in the event of dismissal for just cause.

This payment shall also be subject to performance conditions, in accordance with the following criteria:

- if the rate of fulfillment of the quantitative and qualitative objectives set for the last two full financial years averages out to at least 60%, the severance payment shall automatically be paid;
- if the rate of fulfillment of the quantitative and qualitative objectives set for the last two full financial years averages out to less than 60%, the Board of Directors shall appraise the performance of the person in question in view of the circumstances that affected the operation of the Company during the financial year ended.

The performance objectives shall be approved every year by the Board of Directors of the Company.

Non-compete compensation

The Board of Directors may decide to grant Philippe KNOCHE an indemnity in return for a non-competition clause. The amount of this indemnity shall be deducted from the amount of severance payment granted, where applicable, to Philippe KNOCHE in accordance with the above conditions. In the absence of any severance payment, the amount of the non-competition indemnity shall be set by the Board of Directors in accordance with usual practices.

Any severance payment and/or non-competition indemnity must be approved in advance by the Minister for the Economy pursuant to the aforementioned Article 3 of Decree No. 53-707 of August 9, 1953.

Pensions and retirement benefits

No defined-benefit supplemental retirement plans have been subscribed by the Company on behalf of Philippe KNOCHE. He is eligible for the supplemental retirement plans applicable to the Company's management personnel.

Unemployment insurance

A MEDEF unemployment insurance policy has been taken out with the GSC (Garantie Sociale des Chefs et Dirigeants d'Entreprise) in favor of Philippe KNOCHE. 70% of the contributions to this policy are paid by the Company and 30% by the beneficiary.

5.5.3.2 Compensation of the Chairman of the Board of Directors

Philippe VARIN was also appointed Chairman of the Board of Directors of the Company by a decision of the Board of Directors dated July 27, 2017.

Based on a recommendation from the Compensation and Nominating Committee, the Board of Directors, at its meeting of July 27, 2017, decided to set Philippe VARIN's gross fixed compensation at 120,000 euros per year for the duration of his term of office.

This recommendation was renewed for 2020 by the Compensation and Nominating Committee on December 13, 2019 and confirmed by the Board of Directors of the Company on February 27, 2020.

Philippe VARIN does not receive any variable compensation.

The table below presents the gross compensation owed to or received by Philippe VARIN in respect of his duties as Chairman of the Board of Directors of the Company for the financial year ended and financial year N-1:

(in euros)	**Summary of the compensation and benefits (gross) for Philippe VARIN**			
	Financial year ended December 31, 2018*(1)		**Financial year ended December 31, 2019(1)**	
Orano corporate officer	**Amounts due (1)**	**Amounts paid (2)**	**Amounts due (1)**	**Amounts paid (2)**
Fixed compensation	120,000	120,000	120,000	120,000
Variable compensation	NA	NA	NA	NA
Exceptional compensation	NA	NA	NA	NA
Compensation allocated for the term of office as director	NA	NA	NA	NA
Benefits in kind	NA	NA	NA	NA
TOTAL	120,000	120,000	120,000	120,000

(1) Compensation for the financial year, regardless of the payment date.
(2) Sum total of the compensation paid during the financial year.

Severance and non-competition payments

Philippe VARIN is not entitled to any severance or non-competition payment.

Executive corporate officer	Employment contract		Supplemental retirement benefits		Compensation or benefits due or likely to be owed due to the cessation of or change in duties, including payments relative to a non-competition clause	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
Name: Philippe VARIN Title: Chairman of the Board of Directors Date of start of term: July 27, 2017 Date of end of term: 2022 GM		X		X		X

5.5.4 Shareholder consultation on the compensation of the executive corporate officers

Pursuant to Article L. 225-37-2 of the French Commercial Code (in its version in effect until November 29, 2019), the General Meeting, deliberating under the conditions of quorum and majority required for Ordinary General Meetings and after having taken note of the Board of Directors' report prepared, approves the principles and criteria used for determining, distributing and allocating the fixed, variable and exceptional components of the total compensation and the benefits of any kind payable to the Chairman of the Board of Directors and the Chief Executive Officer of the Company, by reason of their respective offices, as presented in the report contained in the Corporate Governance Report included in Section 5.5.3.

In accordance with this principle, on May 23, 2019, Orano's General Meeting approved, according to the "ex ante" and "ex post" voting principles, the compensation policy for the executive corporate officers for 2019, as well as the components of variable compensation to be paid to Philippe KNOCHE for 2018. The resolutions concerning these votes were adopted unanimously.

Although it is no longer subject to this obligation since the adoption of Order No. 2019-1234 of November 27, 2019 and the January 30, 2020 revision of the Afep-Medef Code, Orano has decided, for the purposes of transparency and good governance, to voluntarily continue this practice of ex ante and ex post approval of the compensation policy and elements of compensation of its executive corporate officers, and to also subject the elements of compensation of its other corporate officers who are members of the Board of Directors to this approval, in line with the principles applicable to listed companies stated in this order and its implementing decree.

As a result, all of these elements will be subject to the approval of the General Shareholders' Meeting to be held on May 14, 2020.

5.6 Reference Corporate Governance Code

Following a decision of the Board of Directors on July 27, 2017, the Company voluntarily refers to the "Code of Corporate Governance for Publicly Traded Companies" developed jointly by Afep and Medef in December 2008 and last revised in January 2020 (Afep-Medef Code).

Pursuant to the "apply or explain" principle laid down in Article L. 225-37-4 of the French Commercial Code, the Company explains, below, the reasons why it deviated from the following recommendations of the Afep-Medef Code:

Relevant Afep-Medef recommendation	Departure	Explanation or corrective action taken
The Afep-Medef Code recommends that the terms of office of the members of the Board of Directors should be staggered to avoid replacing the entire Board *en masse* and to facilitate the smooth replacement of directors (Article 15 of the Code).	As of the date of this report the terms of office of the members of the Board of Directors appointed on July 27, 2017 and February 26, 2018 will all expire on the same date, i.e. after the General Meeting convened to approve the financial statements for the financial year ending December 31, 2021.	At its meeting on October 29, 2019, the Board of Directors decided to establish a staggering of the terms of its members. The staggered reappointment of Board members (excluding directors representing employees, the French State Representative, and the Chief Executive Officer) shall come into effect as from the General Meeting called to approve the financial statements for the financial year ended December 31, 2019.
The Afep-Medef Code recommends that: • the proportion of independent directors on the committee in charge of audit be at least equal to two-thirds; and • the proportion of independent directors on the committee in charge of compensation and nominations represent a majority and that the committee be chaired by an independent director (Articles 16, 17 and 18 of the Code).	• The Audit and Ethics Committee is not two-thirds composed of independent directors. • The Compensation and Nominating Committee is composed of a majority of directors nominated by the French State and includes one employee director. It is not chaired by an independent director.	These recommendations are not suited to the Company, in view of its shareholding structure and the resulting composition of the Board of Directors.
The Afep-Medef Code recommends that the members of the Board of Directors hold a relatively significant number of shares and that the executive corporate officers hold a "minimum number of shares" (Articles 20 and 23 of the Code).	The Company's Articles of Association and the rules of procedure of the Board of Directors do not require Board members to hold a relatively significant number of shares. In addition, the Board of Directors has not set the number of shares that must be held by the executive corporate officers until the end of their term of office.	These recommendations are not suited to the Company, considering the structure of its share ownership and the resulting composition of the Board of Directors. Moreover, because the Company's shares are not listed, the need for alignment of interests in terms of share performance (which is the reason for this recommendation) does not apply. Likewise, since no stock options or free shares are allocated to the executive corporate officers, the recommendation to retain some of the shares thus obtained is not relevant.

5.7 General Meetings

5.7.1 Shareholder attendance at General Meetings

In accordance with Chapter V of the Company's Articles of Association, General Meetings of Shareholders are convened and vote in accordance with the conditions provided by law.

A duly convened General Meeting shall be deemed to represent all shareholders.

Resolutions of the General Meeting adopted in compliance with the law and with the Articles of Association are binding on all shareholders, including absent, dissenting or incapable shareholders.

Any shareholder may attend General Meetings in person or by proxy under the conditions prescribed by law upon presenting proof of his or her identity and evidence of the registration of his or her shares on the day of the General Meeting in the registered share account maintained by the Company.

In the event of a subdivision of share ownership, only the voting right holder may attend or be represented at the General Meeting.

Joint owners of undivided shares are represented at the General Meeting by one of them or by a single proxy who shall be designated, in the event of disagreement, by order of the President of the Commercial Court in an urgent ruling at the request of any of the joint owners.

Any shareholder may be represented by another shareholder, by his or her spouse, or by the partner with which he or she has signed a civil solidarity pact.

The General Meeting is chaired by the Chairman of the Board of Directors. In the absence of the latter, the meeting elects its own chairman.

In the event that the General Meeting is convened by the Statutory Auditor(s), by a court-appointed receiver or by the liquidators, the meeting is chaired by the person or by one of the persons who convened it.

The two members of the General Meeting who hold the largest number of votes fulfill, if they so accept, the duties of vote teller.

The meeting committee thus constituted appoints a Meeting Secretary, who may come from outside the members of the General Meeting.

An attendance sheet maintained in accordance with the regulatory conditions is signed by the shareholders present or their representatives and certified to be accurate by the members of the committee.

The meeting committee ensures the functioning of the General Meeting, but its decisions may, at the request of any member of the General Meeting, be subject to the sovereign vote of the General Meeting itself.

Resolutions of General Meetings are recorded in minutes signed by the members of the meeting committee and drawn up on a special register kept at the registered office, with a serial mark and initialed per the conditions stipulated in the applicable regulations.

5.7.2 Delegations granted to the Board of Directors by the General Meeting of Shareholders pursuant to Article L. 225-37-4 of the French Commercial Code

As of the date of this report, the General Meeting has granted no delegation for capital increases to the Board of Directors pursuant to Articles L. 225-129-1 and L. 225-129-2 of the French Commercial Code.

5.8 Agreements referred to in Article L. 225-37-4 of the French Commercial Code

No agreement was signed in 2019, directly or through a third party, between the Chairman and Chief Executive Officer, one of the directors or one of the shareholders holding a share of more than 10% of the Company's voting rights, and another company of which the Company owns, directly or indirectly, more than half of the share capital.

5.9 Elements likely to have an impact in the event of a public offer

Since the Company's shares are not admitted for trading on a regulated market, they cannot be subject to a public tender offer or public exchange offer. Furthermore, the purchase of the Company's publicly traded bonds cannot lead to a change of control. Consequently, the provisions of Article L. 225-37-5 of the French Commercial Code requiring the description of elements likely to have an impact in the event of a public offering are not applicable. Moreover, the items listed in sub-sections 1 to 10 of Article L. 225-37-5 of the French Commercial Code have already been described and included in the Annual Activity Report or are not applicable to the Company.

6 Information on the share capital

6.1 Structure and evolution of the Company's share capital

6.1.1 Amount of subscribed capital

At December 31, 2019, the share capital of the company amounted to 132,076,389 euros divided into 264,152,778 shares with a par value of 0.50 euros per share, accompanied by a single voting right.

6.1.2 Treasury shares and interlocking investments

None.

6.1.3 Share buyback programs

None.

6.1.4 Liens

None.

6.1.5 Transactions during the financial year referred to in Article L. 621-18-2 of the French Monetary and Financial Code

None.

6.2 Shareholding structure and voting rights

6.2.1 Shareholding composition

At December 31, 2019, the Company's share capital and voting rights broke down as follows:

Shareholder	Number of shares	% of share capital and voting rights
AREVA SA	52,830,555	19.9999998%
French State	132,076,390	50.0000004%
CEA	1	0.0000004%
Japan Nuclear Fuel Limited	13,207,639	5.0000000%
Mitsubishi Heavy Industries, Ltd	13,207,639	5.0000000%
Natixis	26,415,277	9.9999997%
Caisse des Dépôts	26,415,277	9.9999997%
Total	**264,152,778**	**100%**

6.2.2 Employee share ownership

In accordance with Article L. 225-102 of the French Commercial Code, we hereby inform you that neither the personnel of the Company nor that of the companies which are related to it under the meaning of Article L. 225-180 of the French Commercial Code held an interest in the share capital of the Company on the last day of the financial year.

At December 31, 2019, the Company had two employees.

7 Miscellaneous information

7.1 Statutory Auditors

The Statutory Auditors of the Company are as follows:

PricewaterhouseCoopers Audit

(term expiring at the conclusion of the General Meeting convened to approve the financial statements for the financial year ending December 31, 2023)

KPMG Audit

(term expiring at the conclusion of the General Meeting convened to approve the financial statements for the financial year ending December 31, 2023)

7.2 Review of regulated agreements and commitments

7.2.1 Review of regulated agreements and commitments authorized during the financial year ended December 31, 2019

During the financial year ended December 31, 2019, pursuant to Articles L. 225-38 et seq. of the French Commercial Code, the Board of Directors authorized the signing of new related-party agreements.

- **Agreement on financial flows between Orano and AREVA SA**

On February 28, 2019, the Board of Directors authorized the signature of a settlement agreement between Orano SA (formerly New AREVA Holding) and AREVA SA to settle financial flows which had not been anticipated in the financial trajectories of these entities in 2016 and 2017.

- **Amendment to the service agreement authorized by the Board of Directors on July 26, 2017**

On April 25, 2019, the Board of Directors authorized the signature of an amendment to the service agreement between Orano SA (previously New AREVA Holding) and AREVA SA authorized by the Board of Directors on July 26, 2017. This amendment provides for a readjustment of the spheres of services to be delivered to AREVA SA. The financial terms of the contract remain unchanged. This amendment covers the same period as the contract it amends.

7.2.2 Review of regulated agreements and commitments authorized during previous financial years with continuing effect

The following regulated agreements and commitments, authorized by the Board of Directors in accordance with Articles L. 225-38 and sec. of the French Commercial Code, continued during the financial period ended December 31, 2019.

- **Memorandum of investment between the Company, AREVA SA, the French State, Mitsubishi Heavy Industries Ltd (MHI), and Japan Nuclear Fuel Limited (JNFL)**

On January 26, 2017, the Board of Directors authorized the signing of a memorandum of investment between AREVA SA, the French State, Japan Nuclear Fuel Limited (JNFL), Mitsubishi Heavy Industries Ltd (MHI) and the Company, pertaining to the acquisition by JNFL and MHI of an equity stake in the Company, each acquiring 5% of the share capital and voting rights. This memorandum of investment was signed on March 13, 2017 and has been amended twice, on July 26, 2017, and on February 21, 2018.

The main purposes of the two amendments were to complement to the draft Articles of Association of the Company and rules of procedure of the Board appended to the memorandum of investment and to officially acknowledge that several conditions precedent necessary for MHI's and JNFL's equity stakes (notably the transfer of New NP/Framatome to EDF) had been satisfied.

- **Shareholders' agreement between the Company, AREVA SA, the French State, CEA, MHI and JNFL**

On February 21, 2018, the Board of Directors authorized the signing of a Shareholders' Agreement between the Company, AREVA SA, the French State, French Alternative Energies and Atomic Energy Commission (CEA), MHI and JNFL, amending, superseding and replacing the shareholders' agreement initially concluded between the parties on March 13, 2017.

This Shareholders' Agreement was signed on February 21, 2018. On March 27, 2018, Natixis and Caisse des Dépôts joined the agreement. A French and English version of this agreement was signed on July 13, 2018, reiterating the terms of the Shareholders' Agreement of February 21, 2018.

- **Service agreement**

On July 26, 2017, the Board of Directors authorized the signing of a service agreement between AREVA SA and the Company concerning financial services, the administrative management of human resources, the management of work environment services and access to information systems.

Concluded pursuant to the regulations applicable to regulated professions, the agreement is renewable on a yearly basis, with effect from the completion of the Company's capital increase reserved for the French State.

The agreement was signed on July 27, 2017 and was tacitly renewed on July 27, 2018 for a renewable one-year term.

- **Compensation of independent directors members of the Advisory Committee**

On July 27, 2017, the Board of Directors took note of the establishment of an "Advisory Committee" in accordance with the provisions of the Shareholders' Agreement entered into on February 21, 2018 between AREVA SA, the French State, the French Alternative Energies and Atomic Energy Commission (CEA), Mitsubishi Heavy Industries Ltd (MHI), Japan Nuclear Fuel Ltd (JNFL) and the Company (see Section 5.3 above).

On the same day, the Board of Directors, upon a recommendation from AREVA SA's Compensation and Nominating Committee, authorized the assignment of compensation to those independent directors agreeing to sit on the Advisory Committee of 1,500 euros per meeting attended.

7.3 Injunctions or fines for anti-competitive practices

As of the date of this report, the Company was not aware of any injunctions or monetary sanctions for anti-competitive practices against the Company.

7.4 Observations of the Works Council

In accordance with the provisions of Article L. 2332-10 of the French Labor Code, the group's Works Council was consulted in September 2018 about the group's economic and financial situation and, more generally, about Orano's strategic guidance.

On April 25, 2019, the Board of Directors reviewed the opinion issued by the group's Works Council on December 12, 2018, and pursuant to the provisions of Article L. 2312-25 of the French Labor Code, replied (by delegation to the group's Chief Executive Officer) to the observations issued by the Single Representative Authority of the SEU Orano SA - Orano Support.

7.5 Information on payment terms

The invoices received and issued and not settled as at the closing date of the financial year and for which the payment deadline has passed are presented in the table below (in accordance with paragraph I of Article D. 441-4).

In thousands of euros	**Article D. 441 1.- 1: Invoices received and not settled as at the closing date of the financial year and for which the payment deadline has passed**						**Article D. 441 1.- 2: Invoices issued and not settled as at the closing date of the financial year and for which the payment deadline has passed**					
	0 days (indicative)	1-30 days	31-60 days	61-90 days	91 days or more	Total (1 day and more)	*0 days (indicative)*	1-30 days	31-60 days	31-60 days	91 days or more	Total (1 day and more)
(A) Late payment bands												
Number of invoices concerned	60					30	14					18
Total amount of the invoices concerned (excl. tax)	19,241	-3	0	0	25	23	2,179	1,218	13	4	134	1,369
Percentage of total amount of purchases for the financial year (excl. tax)	11.17%	0.00%	0.00%	0.00%	0.01%	0.01%						
Percentage of revenue for the financial year (excl. tax)							1.78%	1.00%	0.01%	0.00%	0.11%	1.12%
(B) Invoices excluded from (A) relating to disputed or unrecorded debts and receivables												
Number of invoices excluded	3						0					
Total amount of the excluded invoices (incl. tax)	6						0					
(C) Reference payment terms used (contractual or statutory payment terms – Articles L. 441-6 or L. 443-1 of the French Commercial Code)												
Payment terms used for calculating late payment	o Contractual terms + LME Act						o Contractual terms + LME Act					

7.6 Information on loans granted to other companies covered by Articles L. 511-6 and R. 511-2-1-1-II of the French Monetary and Financial Code

None.

8 Appendices to the Annual Activity Report

8.1 Consolidated financial statements – Financial year ended December 31, 2019

Consolidated Financial Statements

Orano

December 31, 2019

Consolidated statement of income

(in millions of euros)	*Note*	December 31, 2019 (*)	December 31, 2018 (**)
REVENUE		**3,787**	**3,623**
Cost of sales		(2,991)	(3,007)
GROSS MARGIN		**796**	**617**
Research and development expenses		(101)	(97)
Marketing and sales expenses		(39)	(38)
General expenses		(112)	(103)
Other operating income	***5***	107	344
Other operating expenses	***5***	(183)	(206)
OPERATING INCOME		**468**	**517**
Share in net income of joint ventures and associates	***14***	(19)	(10)
Operating income after share in net income of joint ventures and associates		**449**	**506**
Income from cash and cash equivalents		24	24
Gross borrowing costs		(222)	(176)
Net borrowing costs	***7***	**(198)**	**(152)**
Other financial income		865	191
Other financial expenses		(627)	(1,017)
Other financial income and expenses	***7***	**238**	**(826)**
NET FINANCIAL INCOME		**40**	**(978)**
Income tax	***8***	(36)	(70)
NET INCOME FOR THE PERIOD		**452**	**(542)**
NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT		**408**	**(544)**
NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS		**44**	**2**

(*) Application of IFRS 16 as of January 1, 2019 (see Note 1.3.1).
(**) The comparative figures as of December 31, 2018 have been restated to take into account the change in the presentation of end-of-lifecycle operations (see Notes 1.3.1 and 36).

Comprehensive income

(in millions of euros)	***Note***	**December 31, 2019 (*)**	**December 31, 2018**
Net income		**452**	**(542)**
Other items not recyclable to the statement of income		**(57)**	**26**
Actuarial gains and losses on employee benefits		(54)	18
Income tax related to non-recyclable items		1	(0)
Share in other non-recyclable items from joint ventures and associates, net of tax		(4)	8
Other items recyclable to the statement of income		**75**	**(96)**
Currency translation adjustments		73	4
Change in value of cash flow hedges		7	(138)
Income tax related to recyclable items		(4)	38
Share in other recyclable items from joint ventures and associates, net of tax		-	-
Total other items of comprehensive income (net of income tax)	***8***	**18**	**(70)**
COMPREHENSIVE INCOME		**470**	**(613)**
- Attributable to owners of the parent		423	(604)
- Attributable to non-controlling interests		47	(9)

(*) Application of IFRS 16 as of January 1, 2019 (see Note 1.3.1).

Consolidated statement of financial position

Assets

(in millions of euros)	***Note***	**December 31, 2019 (*)**	**December 31, 2018**
NON-CURRENT ASSETS		**18,761**	**17,681**
Goodwill	***9***	1,247	1,229
Intangible assets	***10***	1,247	1,278
Property, plant and equipment	***11***	8,380	8,120
Right of use – leases	***12***	77	-
End-of-lifecycle assets (third party share)	***13***	121	139
Financial assets earmarked for end-of- lifecycle operations	***13***	7,471	6,693
Investments in joint ventures and associates	***14***	4	1
Other non-current assets	***15***	106	118
Deferred tax assets	***8***	109	104
CURRENT ASSETS		**4,820**	**4,859**
Inventories and work-in-process	***16***	1,511	1,301
Trade accounts receivable and related accounts	***17***	617	625
Contract assets	***18***	95	97
Other operating receivables	***19***	518	657
Other non-operating receivables		45	48
Current tax assets	***8***	93	37
Other current financial assets	***15***	448	66
Cash and cash equivalents	***20***	1,492	2,027
TOTAL ASSETS		**23,582**	**22,540**

(*) Application of IFRS 16 as of January 1, 2019 (see Notes 1.3.1 and 36).

SHAREHOLDERS' EQUITY AND LIABILITIES

(in millions of euros)	***Note***	**December 31, 2019 (*)**	**December 31, 2018**
Capital		132	132
Consolidated premiums and reserves		1,370	1,007
Actuarial gains and losses on employee benefits		(195)	(138)
Unrealized gains and losses on financial instruments		(7)	(10)
Currency translation reserves		(18)	(64)
Equity attributable to owners of the parent		**1,282**	**927**
Noncontrolling interests	***23***	(34)	(204)
EQUITY	***22***	**1,248**	**723**
NON-CURRENT LIABILITIES		**12,974**	**12,799**
Employee benefits	***24***	1,111	1,088
Provisions for end-of-lifecycle operations	***13***	8,010	7,881
Other non-current provisions	***25***	316	279
Share in negative net equity of joint ventures and associates	***14***	69	45
Long-term borrowings	***26***	3,407	3,494
Long-term lease liabilities	***12***	62	-
Deferred tax liabilities	***8***	0	13
CURRENT LIABILITIES		**9,359**	**9,017**
Current provisions	***25***	2,003	1,933
Short-term borrowings	***26***	746	922
Short-term lease liabilities	***12***	20	-
Trade accounts payable and related accounts		842	652
Contract liabilities	***18***	4,781	4,514
Other operating liabilities	***27***	940	972
Other non-operating liabilities		6	7
Current tax liabilities	***8***	20	19
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		**23,582**	**22,540**

(*) Application of IFRS 16 as of January 1, 2019 (see Notes 1.3.1 and 36).

Consolidated statement of cash flows

(in millions of euros)	*Note*	December 31, 2019 (*)	December 31, 2018
Net income		**452**	**(542)**
Net amortization, depreciation and impairment of PP&E and intangible assets and marketable securities maturing in more than 3 months		531	424
Net increase in (reversal of) provisions	*13, 24 and 25*	(312)	(293)
Net effect of unwinding of assets and provisions		471	498
Income tax expense (current and deferred)		36	70
Net accrued interest included in financial debt		197	165
Loss (gain) on disposals of fixed assets and change in fair value of financial assets	*5 and 7*	(663)	404
Share in net income of joint ventures and associates	*14*	19	10
Dividends received from joint ventures and associates and share of income from consortiums		0	(5)
Other non-cash items		35	(15)
Cash flow from operations before interest and taxes		**766**	**716**
Net interest received (paid)		(158)	(205)
Net interest paid on lease liabilities		(2)	-
Income tax paid		(110)	3
Cash flow from operations after interest and tax		**497**	**514**
Change in working capital requirement	*21*	352	147
NET CASH FLOW FROM OPERATING ACTIVITIES		**849**	**661**
Investment in PP&E and intangible assets		(564)	(460)
Disposals of PP&E and intangible assets		8	7
Acquisitions of shares of consolidated companies, net of acquired cash		(3)	(1)
Acquisitions of financial assets earmarked for end-of-lifecycle operations		(3,744)	(1,349)
Disposals of financial assets earmarked for end-of-lifecycle operations		3,625	1,396
Change in cash management financial assets	*15*	21	-
Loans granted to joint ventures and associates		0	(32)
Repayment of loans from joint ventures and associates		25	1
Acquisitions of other financial assets		(4)	(6)
Disposals of other financial assets		0	59
NET CASH FLOW FROM INVESTING ACTIVITIES		**(637)**	**(384)**
Parent company capital increases	*22*	-	499
Capital increases subscribed by non-controlling interests		47	-
Dividends paid to non-controlling interests		(3)	(62)
Repayment of lease liabilities		(15)	-
Increase in borrowings	*26*	745	7
Decrease in borrowings	*26*	(1,068)	(565)
Change in other borrowings	*26*	5	(77)
NET CASH FLOW FROM FINANCING ACTIVITIES		**(290)**	**(199)**
Impact of change in classification of non-monetary funds	*20*	(460)	-
Impact of foreign exchange movements		4	(2)
CHANGE IN NET CASH		**(534)**	**77**
Net cash at the beginning of the period		**1,953**	**1,877**
Net cash at the end of the period	*20*	1,492	2,027
(-) short-term bank facilities and non-trade current accounts in credit	*26*	(72)	(74)
Net cash at the end of the period		**1,420**	**1,953**

(*) Application of IFRS 16 as of January 1, 2019 (see Note 1.3.1).

Consolidated statement of changes in equity

(in millions of euros)	*Note*	Number of shares outstanding	Capital	Consolidated premiums and reserves	Actuarial gains and Losses on employee benefits	Unrealized gains and losses on financial instruments	Currency translation reserves	Total equity attributable to owners of the parent	Non-controlling interests	Total shareholders' equity
JANUARY 1, 2018		**237,737,500**	**119**	**1,066**	**(164)**	**90**	**(79)**	**1,032**	**(192)**	**840**
Net income for the financial year				(544)				(544)	2	(542)
Other items of comprehensive income	***8***				26	(100)	14	(60)	(10)	(70)
Comprehensive income				**(544)**	**26**	**(100)**	**14**	**(604)**	**(9)**	**(613)**
Dividends paid									(3)	(3)
Other changes (**)	***22***	26,415,278	13	486				499	-	499
DECEMBER 31, 2018		**264,152,778**	**132**	**1,007**	**(138)**	**(10)**	**(64)**	**927**	**(204)**	**723**
JANUARY 1, 2019 (*)		**264,152,778**	**132**	**1,007**	**(138)**	**(10)**	**(64)**	**927**	**(204)**	**723**
Net income for the financial year				408				408	44	452
Other items of comprehensive income	***8***				(56)	2	68	14	3	18
Comprehensive income				**408**	**(56)**	**2**	**68**	**423**	**47**	**470**
Dividends paid									(3)	(3)
Other changes (**)	***22***			(46)			(22)	(68)	126	59
DECEMBER 31, 2019		**264,152,778**	**132**	**1,370**	**(195)**	**(7)**	**(18)**	**1,282**	**(34)**	**1,248**

(*) Application of IFRS 16 as of January 1, 2019 (see Notes 1.3.1 and 36).
(**) Including other transactions with shareholders (see Note 22).

Notes to the consolidated financial statements for the year ended December 31, 2019

All amounts are presented in millions of euros unless otherwise indicated. Certain totals may have rounding differences.

INTRODUCTION

Orano is a business corporation with a Board of Directors (*Société anonyme à conseil d'administration*) under French law.

Orano SA has issued debt securities admitted to trading on the Euronext Paris regulated market; in accordance with Article L. 233-16 of the French Commercial Code, it is therefore required to publish consolidated financial statements.

The consolidated financial statements of the Orano group as of December 31, 2019 have been prepared in accordance with IFRS. They were approved by the Board of Directors of Orano SA on February 27, 2020.

Note 1 HIGHLIGHTS OF THE PERIOD, ESTIMATES AND JUDGMENTS, AND ACCOUNTING PRINCIPLES

1.1 HIGHLIGHTS

Termination of the MFFF contract

MOX Services, 30% owned by Orano, was notified on October 10, 2018 by the National Nuclear Safety Administration (NNSA) of a request for termination for convenience of the contract for the construction of the Savannah River recycling plant (South Carolina). The plant, known as the MOX Fuel Fabrication Facility (MFFF), was to contribute to the nuclear disarmament program by recycling 34 metric tons of military plutonium into fuel to produce electricity for the US grid. Orano, a minority partner of the MOX Services consortium in charge of building the plant, was in charge of supplying recycling equipment.

The mediation procedure requested by the U.S. Department of Justice (DoJ) in June 2019 concluded with an agreement signed in November 2019 terminating the contract and requiring both parties to discontinue proceedings and NNSA to pay MOX Services a sum in full and final settlement.

Philippe Coste plant

The ramp-up of the Philippe Coste plant was disrupted by a technical incident affecting the crystallizers, one of the key items of the plant's equipment. These act as a heat exchanger for crystallizing or liquefying the material produced by the process before transfer into transport packaging.

Work by on-site teams cushioned the impact on the plant's ramp-up and demonstrated the capacity of the other parts of the facility to operate at their nominal point of production. The UF_6 (uranium hexafluoride) produced by the Philippe Coste plant has been approved (ASTM standards) and has started to supply the Georges Besse 2 enrichment plant. The replacement of the crystallizers with new equipment is planned for the first half of 2020.

The plant's ramp-up continues in 2020, with the connection and start-up of a new electrolysis unit doubling installed UF_6 production capacity to 15,000 metric tons of UF_6 annualized.

Cominak

In October 2019, the Board of Directors of the Akouta Mining Company (Cominak) set the date for the end of production at the Akouta site at March 31, 2021. This decision results from the depletion of mine reserves.

Creation of a joint venture in Uzbekistan

In December 2019, Orano Mining established a partnership with the State Committee for Geology and Mineral Resources of the Republic of Uzbekistan through the creation of the Nurlikum Mining LLC joint venture, controlled by Orano. The agreement formalizes the desire of both parties to work together on uranium mining projects in Uzbekistan, particularly in the Navoiy region in a desert area at the heart of the uranium-rich province of Kyzylkum. Once exploration permits have been granted, Nurlikum Mining will carry out surveys to improve the classification level of the resources already identified by the Uzbek partner and to identify new uranium reserves.

Funding

On April 9, 2019, Orano successfully issued a maiden 750 million euros 7-year bond (maturity 2026) bearing an annual coupon of 3.375% (yield of 3.50% on issue).

In parallel with this issue, Orano launched a partial redemption offer on the 2023 and 2024 bonds issued by Areva and contributed to Orano in 2016. The maximum amount of acceptance of redeemed securities was 250 million euros, allocated entirely to the 2024 bond.

With these transactions, Orano was able to strengthen the group's liquidity position, renew its long-term funding and as such optimize its borrowing profile.

1.2 ESTIMATES AND JUDGMENTS

In preparing its consolidated financial statements, Orano must make estimates, assumptions and judgments impacting the carrying amount of certain assets and liabilities, income and expense items, or information disclosed in certain notes to the financial statements. Orano updates its estimates and judgments on a regular basis to reflect past experience and other factors deemed pertinent, based on economic conditions. As a function of changes in these assumptions or in circumstances, the amounts appearing in its future financial statements may differ from current estimates, particularly in the following areas:

- operating margins on contracts recognized according to the percentage of completion method (see Notes 1.3.6 and 25), which are estimated by the project teams and reviewed by management following the group's procedures;
- cash flow forecasts and the discount and growth rates used for impairment tests for goodwill and other plant, property and equipment and intangible assets (see Notes 1.3.7.5, 9, 10 and 11);
- all assumptions used to assess the value of pension commitments and other employee benefits, including future payroll escalation and discount rates, retirement age and employee turnover (see Notes 1.3.10 and 24);
- all assumptions used to measure provisions for end-of-lifecycle operations (see Notes 1.3.12 and 13) and, where appropriate, the assets corresponding to the third-party share, in particular:
  - the estimated costs of those operations;
  - the inflation and discount rates;
  - the schedule of future disbursements;
  - the operating life of the facilities;
  - the scenario chosen with regard to knowledge of the initial condition of the facilities, the target final condition, and waste treatment and removal methods and their availability;
  - the procedures for final shut-down;
  - safety requirements and regulatory developments.
- assumptions used to measure provisions for contract completion, in particular for waste treatment channels not yet existing: the estimated costs of those operations, the provisional payment schedule, the inflation rate and the discount rate (see Notes 1.3.11 and 25);
- estimates and judgments regarding the outcome of disputes in progress and, more generally, estimates regarding all of the provisions and contingent liabilities of Orano (see Notes 1.3.11 and 25);
- estimates and judgments relative to the recoverability of accounts receivable from the group's customers and other financial assets (see Notes 1.3.6 and 1.3.9.5);
- estimates of future taxable income allowing the recognition of deferred tax assets (see Notes 1.3.13 and 8).

1.3 ACCOUNTING PRINCIPLES

1.3.1. Basis of preparation

Pursuant to European Regulation 1606/2002 of July 19, 2002 on international accounting standards, the consolidated financial statements of Orano for the year ended December 31, 2019 were prepared in accordance with international accounting standards as published by the International Accounting Standard Board (IASB) and approved by the European Union as of December 31, 2019. They include IAS (International Accounting Standards), IFRS (International Financial Reporting Standards) and the interpretations issued by the IFRS Interpretations Committee (IFRS-IC) and by the former Standing Interpretation Committee (SIC).

The IFRS standards and interpretations as adopted in the European Union are available on the website:
https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting_en

The group has not early adopted any standards, amendments or interpretations published by the IASB whose implementation was not mandatory in 2019.

The consolidated financial statements have been prepared on a historical cost basis, with the exception of derivative instruments and certain financial assets, which have been measured at fair value. Financial liabilities (excluding derivatives) are measured on the amortized cost principle.

Standards applicable from January 1, 2019

IFRS 16 "Leases"

First-time application
IFRS 16 "Leases", adopted by the European Union on October 31, 2017, replaces IAS 17. It is mandatory for fiscal years beginning on or after January 1, 2019.

IFRS 16 requires all leases to be recognized in the lessee's balance sheet as a "right-of-use" asset offsetting a financial liability.

The group has elected to apply the modified retrospective transition method, as well as the simplification measures provided by the standard. These measures allow the exclusion of:
- low-value leases;
- leases whose remaining term is less than one year from the date of first-time application; and
- the initial direct costs of leases.

The transition method selected requires the recognition of:
- a lease liability in the amount of remaining rent payments discounted at the rate applicable on the date of transition; and
- a right-of-use asset in an amount equal to the lease liability, less prepaid rent.

In addition, for the determination of discount rates, the lease term selected on the transition date is the remaining term of the lease. The weighted average incremental borrowing rate as of January 1, 2019 was 4.3%.

Lease agreements mainly relate to the rental of real estate, light and heavy vehicles, industrial equipment and IT equipment.

The impact of the first-time application of IFRS 16 as of January 1, 2019 results in the recording of a lease liability and a right-of-use asset of 50 million euros (see Note 36).

Reconciliation between minimum future lease payments as of December 31, 2018 and the lease liability as of January 1, 2019:

(in millions of euros)	
Minimum future rents as of December 31, 2018	**87**
Exempt contracts (*)	(12)
Effect of discounting of the lease liability	(6)
Other effects (**)	(19)
Lease liability as of January 1, 2019	**50**

(*) Exempt contracts mainly include the rent on Orano's former registered office, the remaining term of which was less than 12 months as of January 1, 2019.
(**) Other effects mainly include leases whose effective date is after December 31, 2018 (which were included in minimum future lease payments taking into account the commitment made on December 31, 2018) and off-balance sheet commitments not presented as of December 31, 2018.

The accounting and measurement principles for leases are described in Note 1.3.7.3.

Other standards, amendments and interpretations that came into force on January 1, 2019

- IFRIC 23 “Uncertainty over Income Tax Treatments” clarifies the application of the provisions of IAS 12 “Income Taxes” as regards recognition and measurement when there is uncertainty over the treatment of income taxes.
- Amendments to IFRS 9 “Prepayment Features with Negative Compensation” (effective date: January 1, 2019).
- Amendments to IAS 28 “Investments in Associates and Joint Ventures.”
- Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement.”
- Annual improvements, 2015-2017 cycle: IAS 12 “Income tax consequences of payments for financial instruments classified as equity instruments”, IAS 23 «Borrowing costs included in the cost of the asset,” and IFRS 3 and IFRS 11 “Previously held interests in a joint operation.”

Amendments and interpretations with mandatory application from January 1, 2019 did not have an impact on the group’s consolidated financial statements.

New standards and interpretations adopted by the European Union that do not yet have a mandatory effective date

The amendments to IAS 1 and IAS 8 relating to the definition of material and the amendment “Amendments to References to the Conceptual Framework in IFRS Standards” were not applied in advance.

The Group has applied the amendments to IFRS 9, IAS 39, and IFRS 7 (interest rate benchmark reform), published on September 26, 2019 in advance. The application of these amendments removes the threat of consequences from interest rate benchmark reform on the classification of the group’s hedging relationships.

Change of presentation of end-of-lifecycle operations

In 2019, the group made a change in the organization of end-of-lifecycle operations, under which the end-of-lifecycle activities for regulated nuclear facilities at a standstill are now directly linked to “Corporate and other operations” and leading to a change in the segment information. At the same time, and taking into account the delegation of management of end-of-life cycle assets to the “Corporate and other operations” segment, these earmarked assets are presented within this segment in the segment information.

In addition, it has been decided to modify the presentation of end-of-lifecycle operations in the statement of income so as to reflect the performance on the dismantling of facilities separately from commercial activities. Dismantling and waste treatment costs, as well as changes in the corresponding provisions, are accordingly presented under “Other operating income and expenses” from January 1, 2019. The amortization of the end-of-lifecycle assets is maintained in the gross margin.

The statement of income for the financial year 2018 has been restated to reflect the impact of this change over the comparative period (see Note 36).

1.3.2. Rules governing the presentation of the financial statements

Current and non-current assets and liabilities

The assets and liabilities constituting working capital in the normal business cycle are classified as current in the consolidated balance sheet. Other assets and liabilities are classified as current or non-current depending on whether their maturity is greater or lesser than one year from the closing date.

Other operating income and expenses

Income and expenses that are unusual, abnormal or infrequent in nature are included in other operating income and expenses. This heading includes:

- impairment and reversals of impairment for loss of value;
- gains or losses on disposals of non-financial assets;
- changes in provisions for end-of-lifecycle operations on discontinued facilities caused by changes in cost estimates;
- dismantling and waste treatment costs, as well as changes in the corresponding provisions;
- the effects of restructuring plans;
- the effects of amendments to pension plans and other post-employment benefits.

1.3.3. Consolidation method

Subsidiaries

Entities over which the group exercises exclusive control are fully consolidated. Control by the group over its subsidiaries is based on its exposure or entitlements to variable income resulting from its investment in these entities, as well as its ability to exercise power over the entity in such a way as to influence the amount of the returns it receives.
In the event of a change in the percentage of the group’s interest in a subsidiary without loss of control, the change is recognized as a transaction between shareholders.

Intra-group balances and transactions are eliminated.

The acquisition date from which the group consolidates the financial statements of the acquiree is the date of its effective takeover.

Non-controlling interests in the net assets of consolidated subsidiaries are presented on a separate line of equity under “non-controlling interests.” Non-controlling interests include the amount of minority interests as of the acquisition date and the amount represented by minority interests in the change in equity since that date. In the absence of a binding agreement, the negative results of subsidiaries are systematically allocated to equity attributable to the owners of the parent company and to non-controlling interests based on their respective interests, even if they become negative.

Transactions with non-controlling interests, without impact on control, are treated as transactions with group shareholders and are recorded in equity.

Joint ventures and associates

An associate is an entity over which the group exercises significant influence. Significant influence is the power to influence the making of key financial and operational decisions within the entity, without this demonstrating control or joint control of the group.
A joint venture is a joint arrangement in which the parties, who exercise joint control, are entitled to a share of the net assets of the joint venture. Joint control is demonstrated when, on the basis of the rights granted by the agreement, decisions on the relevant activities of the entity require the unanimous agreement of the parties.
The factors taken into account to demonstrate significant influence or joint control are similar to those used for analyzing the group's control over its subsidiaries. Joint ventures and associates are accounted for using the equity method.

Interests in joint operations

A joint operation is a partnership in which the partners (joint owners), who exercise joint control over the entity, have direct rights over the assets of the entity, and obligations in respect of its liabilities. As a co-investor, the group recognizes the relevant assets and liabilities line by line, as well as the income and expenses related to its interests in the joint operations.

1.3.4. Consideration of the effect of foreign currencies

The group's consolidated financial statements are denominated in euros, which is also the functional currency of the group's parent company. The group has determined the functional currency of each of its subsidiaries based on the economic environment in which it conducts the major part of its operations. In most cases, the functional currency is the local currency.

Transactions denominated in foreign currencies

Foreign currency-denominated transactions are translated by group companies into their functional currency at the exchange rate prevailing at the transaction date.
Monetary assets and liabilities denominated in foreign currencies are revalued at the exchange rate prevailing on the last day of the period. Foreign exchange gains and losses are then recognized:

- in operating income when related to operating activities: trade accounts receivable, trade accounts payable, etc.;
- in financial income when they relate to financial transactions (loans or borrowings).

Translation of the financial statements of consolidated companies whose functional currency is different from that of the group

As part of the consolidation process, assets and liabilities denominated in foreign currencies are translated into euros at the closing rate, and expenses and income are converted at the rate prevailing on the date of the transaction. Foreign exchange differences are recognized in translation differences in other items of comprehensive income. In the event of the disposal of a foreign entity, the share of accumulated foreign currency translation adjustments relating to this entity is recycled in the statement of income.

1.3.5. Operating segments

The operating segments selected for the purposes of segment information have been identified on the basis of the internal reporting used by the chief operating decision-maker to allocate resources to the various segments and assess their performance.

The group's chief operating decision-maker is the Executive Management, assisted by the Executive Committee.

The analysis of internal reporting and the specific features of the group's businesses have led Orano to present the following three operating segments: Mining, Front End and Back End. Information relating to Orano Med, as well as end-of-life-cycle activities for regulated nuclear facilities at a standstill and earmarked assets are presented in "Corporate and other operations."

Mining activities cover exploration (search for new deposits), mining projects (studies and construction of mines), operation (extraction of natural uranium, then chemical concentration into U3O8) and the redevelopment of sites after their operation.
Front End activities primarily include the conversion of uranium concentrate (U3O8) to uranium hexafluoride (UF_6), followed by the enrichment of UF_6 by centrifugation.
Lastly, Back End activities include used fuel recycling, nuclear logistics (cask design and manufacturing, and transportation of nuclear materials and waste), dismantling and services (dismantling of nuclear facilities, waste management and services to nuclear operators), as well as engineering activities (design and implementation of complex projects).

The methods used to measure the key indicators of each segment when preparing the internal reporting are identical to those used for the preparation of the consolidated financial statements. As a result, the segment information provided in the tables is presented in accordance with the same accounting principles as those used for the group's consolidated financial statements.
In addition, transactions between operating segments are carried out on an arm's length basis.

Segment assets include "Inventories and work-in-progress", receivables (excluding tax) and non-current assets, with the exception of "deferred tax assets" and "investments in joint ventures and associates." Orano has adopted centralized management of financial assets and liabilities and tax matters. Therefore, the corresponding balance sheet and statement of income items are not assigned to business operations.
Moreover, information on segment assets and liabilities is not regularly provided to the chief operating decision-maker; the group has nevertheless elected to present the assets allocatable by operating segment on a voluntary basis.

Orano also publishes information by region: Orano's consolidated revenue is broken down between the following five regions by destination of sales: France, Europe excluding France, America (North and South), Asia-Pacific, Africa and Middle East.

1.3.6. Revenue

The group operates in the various stages of the fuel cycle, offering the following products and services:
- Supply of uranium concentrates (U3O8);
- Supply of conversion and enrichment services or UF_6 and enriched UF_6;
- Treatment-recycling services;
- Engineering support to the operator and dismantling of nuclear facilities;
- Transportation and warehousing logistics services and solutions, including cask design and manufacturing.

<u>Customer contracts and performance obligations</u>
Contracts with customers are analyzed to determine the performance requirements that constitute the unit of account for revenue recognition.

Contract price
The contract price is the amount of the consideration that Orano expects to receive in exchange for the goods and services transferred. It includes firm fixed items, as well as variable items in the proportion considered highly likely to be received. Variable items include price revisions potentially resulting from indexation clauses or riders, the potential effects of penalties or discounts, etc.

The contract price is adjusted in the event that one of the parties to the contract receives a significant financing advantage from the other party, i.e. when the combination of (i) the time lag between receipt and transfer of control of the goods and services covered by the contract (i.e. revenue recognition) and (ii) the interest rate applicable to an equivalent credit facility has a significant impact on the contract price negotiated by the parties. This adjustment is equivalent to recognizing revenue on the basis of a transaction price reflecting the price that the customer would have paid for a spot transaction, i.e. net of any items related to the financing terms. The adjustment determined in this manner on the contract price is recognized at the same time as revenue, while the expense or financial income is recognized in proportion to the performance and amortization of the implied credit facility resulting from the terms of payment. The interest rate applied is the marginal financing rate that the party receiving the financing would have obtained from a financial institution by negotiating, on the day of the signature of the contract, a loan whose characteristics are similar to the implied financing granted.

Allocation of the contract price to performance obligations
The contract price is allocated to each performance obligation based on the proportions of the separate sales prices, generally in line with the contractual terms.

Recognition of revenue associated with each performance obligation
Revenue is recognized when the company transfers control of the goods or services to the customer. In application of this principle, revenue is recognized:

- For concentrate supply contracts: on delivery of uranium concentrates to conversion sites designated by customers; the delivery can be materialized by a physical delivery or by a transfer from the material account held by Orano with the converter to the material account held by the customer with the same converter (book transfer);
- For conversion and enrichment contracts: upon delivery of UF_6. The delivery can be materialized by a physical delivery or by a transfer from the material account held by Orano to the material account held by the customer with the fuel enricher or assembler;
- For treatment-recycling, transportation and storage services: by the percentage-of-completion method; when the contract requires the customer to participate in the financing of the construction of an asset necessary for the performance of the services covered by the contract, the revenue relating to the financing received is recognized on the basis of the percentage of completion of the underlying services over the useful life of the asset, except if the customer takes control of the asset upon completion (in which case the revenue is recognized as the asset is constructed);
- For design and equipment manufacturing contracts that meet the customer’s technical specifications: by the percentage-of-completion method, except if the group does not have a sufficient right to payments for the services performed to date in the event of interruption of the contract for a reason other than the group’s default.

When revenue recognition is made using the percentage-of-completion method in the cases described above, the percentage of completion is determined by the ratio of costs incurred to costs at termination. Revenue is recognized insofar as it is highly likely that it will not be subject to any subsequent reversal.

Contract assets and liabilities

Contract assets are the rights held by the group in respect of work performed, but which does not yet constitute an unconditional right to payment.

Contract liabilities are the amounts recognized in the event of payments received in excess of the amount recognized as revenue in satisfaction of a performance obligation. They include:

- the amounts received from customers and used to finance capital expenditure for the performance of long-term contracts to which they are party;
- other advances and down payments received from customers reversed as and when the services covered by the contract are realized.

In accordance with the provisions of the standard, the group offsets each contract between assets and liabilities.

Trade receivables represent the unconditional right of the group to receive a payment depending solely on the passage of time.

Costs of obtaining contracts

Costs incurred to obtain a contract are only capitalized if:

- they are marginal costs that the group would not have incurred if it had not obtained the contract; and
- the group expects to recover them.

1.3.7. Valuation of property, plant and equipment and intangible assets

1.3.7.1. Intangible assets

An intangible asset is recognized when it is probable that future economic benefits therefrom will accrue to the company and if the cost of this asset can be reliably estimated based on reasonable and documented assumptions.

Intangible assets are recorded at their acquisition or production cost.

Goodwill

In accordance with IFRS 3 "Business Combinations", goodwill relating to a business combination is the difference between:

- The sum of the following items:
  - The purchase price for the takeover at fair value at the acquisition date;
  - The amount of non-controlling interests in the acquired entity; and
  - For step acquisitions, the fair value, at the acquisition date, of the group's interest in the acquired entity before the acquisition of control; and
- The net amount of assets acquired and liabilities assumed, measured at their fair value at the acquisition date.

When the resulting difference is negative, it is immediately recognized in profit or loss.

The amount of goodwill is definitively set within 12 months of the date of acquisition.

Goodwill is allocated to the cash-generating units (CGUs) or group of CGUs in which it is monitored.

Goodwill from the acquisition of subsidiaries is presented separately in the balance sheet. Goodwill is not amortized, but is subject to impairment testing whenever indications of loss of value are identified, and at least once a year, as described in 1.3.7.5.

After initial recognition, goodwill is recorded at cost less any impairment recognized. In the income statement, impairment losses related to goodwill are presented under "Other operating expenses."

Goodwill arising on the acquisition of associates and joint ventures is included in the carrying amount of the interest recorded in the group's balance sheet. In the income statement, impairment losses related to this goodwill are recorded under "Share of net income of associates and joint ventures."

When a CGU or part of a CGU is sold, the share of goodwill corresponding to the transferred entity is taken into account in the carrying amount of its net assets used to determine the gain or loss realized. The share of goodwill is measured based on the relative value of the scope transferred within the CGU or group of CGUs.

Research and Development expenses

Research expenses incurred by the group on its own account are expensed as incurred.

Research and Development expenses funded by customers under contracts are included in the production cost of these contracts and recorded under “cost of sales.”

Expenses relating to development projects are recognized as intangible assets if the project meets the following criteria:

- the project is clearly defined and its costs are identified separately and measured reliably;
- the project’s technical feasibility has been demonstrated;
- it is the group’s intention to complete the project with a view to its use or sale;
- adequate technical and financial resources are available for the completion of the project;
- it is likely that the future economic benefits associated with the project will accrue to the group.

Development costs capitalized on that basis are then amortized over the probable useful life of the intangible asset, as from the commissioning date. They are depreciated on a straight-line basis over a minimum period of time.

Mineral exploration and pre-mining development

Mineral exploration and pre-development work are valued on the basis of the following rules:

- exploration expenses whose purpose is to identify new mineral resources, and expenses related to assessments and pre-development of identified deposits are incurred before project profitability is determined and are recognized as “Research and Development expenses" for the financial year;
- pre-mining development expenses that concern a project which, as of the date of the financial statements, has a strong chance of technical success and commercial profitability, are capitalized. Indirect costs, excluding overhead expenses, are included in the valuation of these costs. Capitalized pre-mining expenses are amortized in proportion to the number of metric tons mined from the reserves they helped identify.

Other intangible assets

Other intangible assets, including mining rights and acquired technology, are measured at acquisition cost or production cost. They are amortized using the most appropriate method in view of their use (straight-line or by units of production), starting on the date they were placed in service and over the shorter of their probable period of use or, when applicable, the length of their legal protection.

1.3.7.2. Property, plant and equipment

Property, plant and equipment are recognized at acquisition or production cost, including startup expenses, less cumulative depreciation and impairment.

The cost of in-house facilities includes all labor costs, parts and all other production costs involved in the construction of the asset.

The cost of nuclear facilities includes the group's share of provisions for end-of-lifecycle operations, estimated at the date they are placed in service, termed "end-of-lifecycle assets – group share" (see Note 1.3.12). In accordance with IFRIC 1, changes in provisions for end-of-lifecycle operations coming from changes in estimates or calculation assumptions and relating to nuclear facilities in operation are offset by a change in the same amount of the assets to which these provisions relate.

Property, plant and equipment are depreciated based on the approach deemed most representative of the economic impairment of the assets (straight-line depreciation or as a function of the production units); each component is depreciated over its specific useful life.

Mining land is depreciated over the operating period of the deposit; site layout and preparation expenses are depreciated over 10 years; buildings over 10 to 45 years; production facilities, equipment and tooling other than nuclear facilities over 5 to 10 years; general facilities and miscellaneous fixtures over 10 to 20 years; industrial containers over 10 to 20 years, and other transportation equipment, office equipment, computer equipment and furniture over 3 to 10 years. Nuclear facilities are depreciated on a straight-line basis over their estimated useful lives.

Depreciation periods are revised if there is a significant change in their estimated useful lives.

Changes in the value of end-of-lifecycle assets (own share) are amortized on a prospective basis over the remaining useful lives of the facilities.

1.3.7.3. Leases

Leases are recognized in the balance sheet as soon as they come into effect, by the recognition of right-of-use assets under "Right-of-use assets – Leases" and a liability recorded under "Lease liabilities." A contract contains a lease if it gives the group the right to control the use of an identified asset for a specified period in exchange for the payment of a consideration.

On the effective date of the contract, the lease liability is the present value of future payments.

Lease payments are discounted at the incremental borrowing rate. The rate used, determined by currency and by maturity, is the rate that the lessee would have had to pay to borrow, over a similar period and with a similar guarantee, the funds necessary to obtain a good of similar value to the right to use the leased asset in a similar economic environment.

The value of the right of use is determined on the effective date of the lease from the initial amount of the lease liability, plus, where applicable:

- advance payments made to the lessor, net of advantages received from the lessor;
- initial direct costs: the incremental costs incurred by the lessee for the conclusion of the contract;
- the estimated costs of repairing the leased property; this amount is discounted and recorded against a provision for remediation.

In the statement of income, rental expense is replaced by an amortization charge for the right of use and an interest charge. This restatement results in the recognition of deferred taxes. In the statement of cash flows, only the interest expense impacts the cash flows generated by the activity; the repayment of the principal of the lease liability affects the cash flows linked to financing operations.

Leases on contracts for assets with a low unit value or for short terms are expensed directly.

The right of use and the lease liability are amortized over the term of the lease, which is the firm period of the commitment taking into account optional periods that are reasonably certain to be exercised. The probability of exercising a renewal option or not exercising a termination option is determined by type of contract or on a case-by-case basis based on contractual and regulatory provisions, the nature of the underlying asset, its specific features and its location, as appropriate.

For impairment testing, right-of-use assets are allocated to the CGU or group of CGUs to which they belong. To this end, the value of the right-of-use asset is integrated into the carrying amount of the CGU or group of CGUs and the rent payments used to calculate the lease liability are excluded from the future cash flows used for the determination of the value in use of the CGU or group of CGUs tested. These procedures for carrying out impairment testing in connection with the application of IFRS 16 did not have a material impact on the results of testing in view of the amount of right-of-use assets.

1.3.7.4. Inclusion of borrowing costs

In accordance with IAS 23 revised, effective since January 1, 2009, the borrowing costs related to tangible and intangible investments for projects initiated after that date and for which the construction or development period is greater than one year are included in the costs of these assets.

Borrowing costs are not included in the measurement of property, plant and equipment and intangible assets when:

- they came into service before January 1, 2009; or
- they came into service after this date, but the expenses were incurred and recognized as fixed assets in progress at December 31, 2008.

1.3.7.5. Impairment of property, plant and equipment, intangible assets and goodwill

Assets that do not generate cash flows that are largely independent of each other are grouped together in cash-generating units (CGUs). CGUs are uniform sets of assets whose ongoing use generates cash inflows that are largely independent of the cash inflows generated by other groups of assets. They reflect the way in which activities are managed within the group.

Impairment tests are performed on property, plant and equipment and intangible assets with finite useful lives whenever there is an indication of impairment. Impairment losses on property, plant and equipment or intangible assets may be reversed later if there has been a change in the estimates used to determine the recoverable value of the asset and if that amount again comes to be greater than the net carrying amount. The value of the asset after reversal of the impairment loss is capped at the carrying amount net of amortization, as if no impairment loss had been recognized in prior years.

In addition, impairment tests are systematically performed at least once a year for goodwill and intangible assets with indefinite lives, and whenever there is an indication of loss of value. Such tests are performed at the level of the cash-generating units (CGU) or groups of CGUs to which the goodwill and intangible assets belong.

Impairment is recognized when the recoverable amount of the CGU is less than the net carrying amount of the assets belonging to it. Impairment losses recognized on goodwill cannot subsequently be reversed.

The group performs impairment tests on its assets on the basis of its best estimate of their recoverable value, which is the greater of:

- its fair value less costs to sell, corresponding to the net realizable value based on observable data when available (recent transactions, offers received from potential acquirers, reported ratios for comparable publicly traded companies, multiples of uranium resources in the ground obtained by comparing the market capitalizations of comparable companies with the stated deposit reserves or resources);
- and its value in use, which is equal to the present value of its projected future cash flows, as it results from the strategic plan validated by the governance bodies and its underlying assumptions, plus its "terminal value", corresponding to the present value, discounted to infinity, of cash flows for the "normative" year estimated at the end of the period covered by future cash flow projections. However, some CGUs or groups of CGUs have finite lives (depending on the volume of ore resources in Mining or the duration of operating permits in the nuclear businesses); in such cases, the cash flows taken into account to assess their value in use are not discounted to infinity but within the limit of their expected useful lives.

The discount rates used are based on the weighted average cost of capital of each of the assets or groups of assets concerned. They are calculated after tax.

Impairment tests are sensitive to the macroeconomic (including the US dollar exchange rate) and sector-based assumptions used, particularly in terms of changes in ore prices or those of conversion and enrichment services, as well as the useful lives of the underlying assets. In view of this sensitivity, the group revises its underlying estimates and assumptions at least once a year, or more often as required by changes in market conditions.

1.3.8. Inventories and work-in-process

Inventories are carried at the lesser of their historical cost and their net realizable value, which is the estimated selling price in the ordinary course of business, less anticipated completion costs or costs to sell.
Inventory consumption is generally measured using the weighted average unit cost method.

The entry cost of inventory includes all direct material costs, labor costs and the allocation of indirect production costs.

In the case of material loans with transfer of ownership, the group recognizes in inventory the borrowed material at the weighted average unit cost, which corresponds to the estimated fair value of the consideration transferred on the transaction date. A liability corresponding to the obligation to return the material is recognized in the same amount in "other operating liabilities."
A provision for onerous contracts is made when the expected weighted average unit cost of the return comes to be greater than that of the liability initially recorded.

1.3.9. Financial assets and liabilities

Financial assets

Financial assets consist of:
- financial assets earmarked for end-of-lifecycle operations;
- equity interests in unconsolidated companies;
- loans, advances and deposits;
- trade accounts receivable and related accounts;
- certain other operating receivables;
- pledged bank accounts;
- cash and cash equivalents; and
- the positive fair value of derivative financial instruments.

Financial liabilities

Financial liabilities include:
- financial debts;
- trade accounts payable and related accounts;
- certain other operating liabilities;
- bank overdrafts; and
- the negative fair value of derivative financial instruments.

1.3.9.1. Classification and measurement of financial assets and liabilities

IFRS 9 requires financial assets to be classified in one of three categories (amortized cost, fair value through profit or loss, or fair value through other comprehensive income), depending on the business model defined by the entity and the characteristics of its contractual cash flows (the so-called “solely payments of principal and interest” criterion, SPPI).

Assets meeting the definition of debt instruments (contractual cash flows associated with interest payments and repayments of capital) are recognized:

- at amortized cost when the group holds them in order to collect all contractual cash flows;
- at fair value through profit or loss when the group holds them in order to sell them and realize a capital gain;
- at fair value through other comprehensive income where the group holds them for the mixed purpose of collecting contractual cash flows and selling them (with the gain or loss recycled in profit or loss on the date of transfer).

Assets meeting the definition of equity instruments (equities or equity mutual funds) are recognized at fair value through profit or loss unless the group opts irrevocably to recognize them at fair value through other items of comprehensive income (without recycling gains or losses in profit or loss).

As an exception to these principles, certain instruments may be recognized at fair value through profit or loss when this treatment makes it possible to offset a matching position affecting the income statement.

1.3.9.2. Methods used to measure financial assets and liabilities

With the exception of financial assets and liabilities measured at amortized cost, the group measures its financial assets and liabilities at fair value at the balance sheet date. Fair value is the price that would be received to sell an asset or paid to transfer a liability in a normal transaction between market participants on the measurement date.

All assets and liabilities measured at fair value are valued using techniques that seek to maximize the use of observable market data. These techniques are hierarchical, and have three levels:

- Level 1 (unadjusted quoted prices): price at which the group may access identical assets or liabilities in active markets;
- Level 2 (observable inputs): valuation techniques based on inputs that are observable, either directly or indirectly, in an active market for similar instruments;
- Level 3 (unobservable inputs): valuation techniques primarily using unobservable inputs, including observable inputs with significant adjustments.

1.3.9.3. Financial assets earmarked for end-of-lifecycle operations

This heading brings together all the investments that Orano earmarks for the funding of its future end-of-lifecycle operations in the nuclear business, including facility dismantling and waste retrieval and packaging. It includes directly-held publicly traded shares and bonds, dedicated share investment funds, dedicated bond and money-market investment funds, and cash. It also includes receivables resulting from agreements with third parties for the funding of end-of-lifecycle operations. These receivables are recognized using the method described in Note 1.3.9.5.

Orano does not consolidate the assets of its earmarked investment funds line by line, insofar as it does not control them within the meaning of IFRS 10:

- Orano is not involved in the management of the earmarked investment funds, which are managed by front-ranking independent management companies;
- Orano does not hold voting rights in the investment funds;
- The investment funds do not trade directly or indirectly in financial instruments issued by Orano;
- None of the financial investments made by the funds are strategic to Orano;
- Orano receives no benefit and bears no risk other than that normally associated with investments in mutual funds and in proportion to its holding;
- Orano may only terminate the management agreements in specific cases (gross negligence, fraud, etc.). This means that Orano cannot replace a fund’s management company at will.

Accordingly, the earmarked mutual funds are recorded on a single line in the balance sheet in an amount corresponding to Orano's share of their net asset value as of the end of the financial year.

Other than government bonds and the claim on the CEA, which are recognized at amortized cost, the entire portfolio of earmarked assets for end-of-lifecycle operations is recorded as financial assets at fair value through profit or loss.

1.3.9.4. Loans, advances and deposits

This heading mainly includes loans related to unconsolidated interests, advances for acquisitions of interests, and security deposits.

These assets are valued at amortized cost. Impairment is recognized when the recoverable amount is less than the net carrying amount.

1.3.9.5. Trade accounts receivable

Trade receivables are recognized using the amortized cost method.

Impairment is calculated on the basis of the expected credit loss model. Under this model, 12-month expected credit losses are recorded on purchased or originated instruments (resulting from the risk of defaults in the next 12 months) at their initiation. Full lifetime expected credit losses (resulting from the risk of defaults over the remaining life of the instrument) are recognized when a significant increase in credit risk is recorded after initial recognition or in the case of short-term trade receivables. The group determines the expected loss based on (a) the amount of exposure at default, (b) the associated loss-given-default rate and (c) the probability of default.

1.3.9.6. Other current financial assets

Cash management financial assets include negotiable debt securities with a maturity of more than three months and shares of non-monetary UCITS with a short-term management horizon that can be easily mobilized and do not strictly meet the criteria for classification as cash equivalents laid down by IAS 7. Debt securities are measured using the amortized cost method, and UCITS at fair value through profit or loss.

1.3.9.7. Cash and cash equivalents

Cash includes bank balances and non-trade current accounts with unconsolidated entities.

Cash equivalents include risk-free marketable securities with an initial maturity of three months or less, or which may be converted almost immediately into a known amount of cash and which are subject to negligible risk of change as per the criteria set out in IAS 7. These assets include negotiable debt securities and shares of euro-denominated money market UCITS; debt securities are measured using the amortized cost method, and UCITS at fair value through profit or loss.

1.3.9.8. Borrowings

Borrowings include:

- certain interest-bearing advances received from customers: interest-bearing advances received from customers are classified as financial liabilities when they are settled in cash, and as contract liabilities in other cases;
- loans from financial institutions;
- bond debts issued by Orano;
- bank overdrafts; and
- liabilities under finance leases.

Financial debts are measured at amortized cost based on the effective interest rate method.

Bond debts hedged with a rate swap (fixed rate/variable rate swap) qualified as a fair value hedge are revalued in the same amount as the hedging derivative.

1.3.9.9. Derivatives and hedge accounting

The group elected to continue applying the hedge accounting provisions of IAS 39.

1.3.9.9.1. Risks hedged and financial instruments

Orano uses derivative instruments to hedge its foreign exchange and interest rate risks. The derivatives used are mainly forward currency contracts, currency and interest rate swaps, inflation swaps and currency options.

The hedged risks relate to receivables, liabilities and firm or projected obligations in foreign currencies.

1.3.9.9.2. Recognition of derivatives

Derivatives are measured at fair value on initial recognition and subsequently remeasured at the end of each accounting period until settled.

Accounting methods for derivatives vary, depending on whether the derivatives are designated as fair value hedging items, cash flow hedges, hedges of net investments in foreign operations, or do not qualify as hedging items.

Fair value hedges
This designation concerns hedges of firm commitments in foreign currencies: purchases, sales, receivables and debt. The hedged item and the derivative are revalued simultaneously and any changes in value are recorded in the statement of income.

Cash flow hedges
This designation refers to hedges of probable future cash flows: projected purchases and sales in foreign currencies.

The highly probable hedged items are not valued in the balance sheet. Only the derivative hedges are revalued at the end of each accounting period. The portion of the gain or loss that is considered effective is recognized under “other items of comprehensive income” and presented directly in equity under the balance sheet heading “deferred unrealized gains and losses on financial instruments”, on an after-tax basis. Only the ineffective portion of the hedge impacts income for the period.

The amounts recognized under “deferred unrealized gains and losses on financial instruments” are released to income when the hedged item impacts the statement of income, i.e. when the hedged transaction is recognized in the financial statements.

Hedges of net investments in foreign operations
This designation relates to borrowings in a foreign currency and to borrowings in euros when the euro has been swapped against a foreign currency, to finance the acquisition of a subsidiary using the same functional currency for instance. Currency translation adjustments on these borrowings are recognized under “other items of comprehensive income” and presented on the balance sheet under “currency translation reserves” in their net amount after tax; only the ineffective portion is recognized through profit and loss.

The amount accumulated in currency translation reserves is released to profit and loss when the subsidiary in question is sold.

Derivatives not qualifying as hedges
When derivatives do not qualify as hedging instruments, fair value gains and losses are recognized immediately in the statement of income.

1.3.9.9.3. Presentation of derivatives in the statement of financial position and statement of income

Presentation in the statement of financial position
Derivatives used to hedge risks related to market transactions are reported under operating receivables and liabilities in the statement of financial position. Derivatives used to hedge risks related to loans, borrowings and current accounts are reported under financial assets or borrowings.

Presentation in the statement of income
The revaluation of derivatives and hedged items relating to commercial transactions affecting the statement of income is recognized under “other operating income and expenses”, except for the component corresponding to the discount/premium, which is recognized in net financial income.

For loans and borrowings denominated in foreign currencies, fair value gains and losses on financial instruments and hedged items are recognized in financial income.

1.3.9.10. Derecognition of financial assets and liabilities

The group derecognizes a financial asset when:
- the contractual rights to the cash flows generated by the asset expire; or
- the group has transferred the rights to receive the contractual cash flows related to the financial asset as a result of the transfer of substantially all the risks and rewards of ownership of the said asset.

The group derecognizes a financial liability when its contractual obligations are extinguished, when they are canceled or when they expire.

1.3.10. Employee benefits

Pension, early retirement, severance pay, medical insurance, long-service medals, accident and disability insurance, and other related commitments, whether for active personnel and for retired personnel, are recognized pursuant to IAS 19 as amended.

The benefits provided under post-employment benefits can be distinguished according to whether the level of benefits depends on (i) contributions made by the employee (“defined contribution” plans) or (ii) a level of benefit defined by the company (“defined benefit” plans).
In the case of defined contribution plans, the group’s payments are recognized as expenses for the period to which they relate.
For defined benefit plans, benefit costs are estimated using the projected credit unit method: under this method, accrued pension benefits are allocated among service periods based on the plan vesting formula.

The amount of future benefit payments to employees is determined on the basis of actuarial assumptions (change in wages, retirement age, probability of payment, turnover rate and mortality rate). These future payments are reduced to their present value using a discount rate determined according to the rates of investment-grade corporate bonds of a maturity equivalent to that of the company’s corporate liabilities.

The amount of the provision results from the measurement of commitments less the fair value of the assets intended to cover them.

Actuarial gains and losses relating to post-employment benefits (change in the valuation of commitments and financial assets due to changes in assumptions and experience differences) are recognized under “Other items of comprehensive income”; they are not recyclable to the income statement.

In contrast, actuarial gains and losses relating to benefits for currently employed employees (e.g. long-service medals) are recognized in the statement of income under “other operating income and expenses.”

The costs relating to employee benefits (pensions and other similar benefits) are split into two categories:

- the discounting reversal expense for the provision, net of the expected yield on assets earmarked for retirement plans, are charged to net financial income; the expected yield of the assets is calculated using the same interest rate used to discount the provision;

- the expense corresponding to the cost of the services rendered is divided between the different operating expense items by purpose: the costs of products and services sold, research and development expenses, sales and marketing expenses, administrative expenses.

Past service costs, including the expense or income related to plan amendments/settlements or the introduction of new plans, are recognized in the income statement under “Other operating income and expenses.”

1.3.11. Provisions relating to operating activities

In accordance with IAS 37, a provision is recognized when there is a current legal obligation, contractual or constructive, resulting from a past event, and it is likely to result in an outflow of resources without consideration expected after the closing date. A reasonably reliable estimate of net outflow must be determined in order to recognize a provision.

When the outflow of resources is expected to occur in more than two years, provisions are discounted to net present value if the impact of discounting is material.

Provisions for contract completion

Provisions for contract completion cover a series of future expenses to be incurred on the La Hague and Melox sites (Back End segment), Tricastin and Malvesi (Front End segment) for waste treatment and other operations resulting from the operating cycle. For the Back End segment, the work mainly covers the warehousing, treatment, packaging, transport and storage of technological and process waste, and, for the Front End segment, nitrate effluent and dust treatment and packaging.

The discount rate is determined on basis of the yield curve for French government securities (OAT rates) at the closing date, extended for non-liquid maturities using a long-term equilibrium rate, plus a spread applicable to investment grade corporate bonds as well as an illiquidity premium. Based on expected disbursements, a single equivalent rate is deducted from the rate curve constructed in this manner;

The inflation rate is set in accordance with the long-term inflation projections for the Eurozone and taking into account the European Central Bank’s target rate.

Changes in assumptions relating to changes in cost estimates, discount and inflation rates, and payment schedules are recognized in profit or loss.

Onerous contracts

An onerous contract is one in which the costs to fulfill the terms of the contract exceed the economic benefits expected from it. Costs to fulfill the terms of the contract reflect the net cost of exit from the contract, which is the lesser of the cost of performing the contract or any compensation or penalty arising from the failure to perform it.

When the group records an onerous contract, the present value of the resulting obligation is subject to a provision (after taking into account any impairment of the assets earmarked for its performance).

Provisions for restructuring

A provision for restructuring is recognized by the group when it has a constructive obligation, which is materialized when: (i) there is a formalized and detailed plan specifying the activity or part of the activity concerned, the location and number of people affected, the estimate of the expenses to be incurred and the date on which the plan will be implemented; and (ii) the people affected have been properly informed of the plan’s main features.

Provisions for mining site reclamation

These provisions correspond to foreseeable expenses stemming from the cost of rehabilitating mining sites borne by the group. The provision is constituted as and when the site is operated, in accordance with the principle of progressive deterioration.
The provision for mining site reclamation is equal to the proportion of tonnages processed since the commissioning of the site compared to the total tonnage of the site (quantities already processed and yet to be processed).

1.3.12. Provisions for end-of-lifecycle operations

Provisions for end-of-lifecycle operations cover:

- the costs of dismantling to bring the facility to the final state of decommissioning, including the costs of treatment and packaging of the waste resulting from the dismantling operations;
- the costs of storage, retrieval, treatment and packaging of certain legacy waste from older spent fuel treatment contracts that could not be processed on site (WRP);
- costs related to the long-term management of radioactive waste (warehousing, transport and storage);
- costs relating to the monitoring of storage sites after their closure.

At the closing date, these costs are adjusted in view of the prevailing economic conditions, and are positioned by payment date so as to be discounted using the inflation rate and the discount rate corresponding to the schedule of forecast expenditure.

Provisions for end-of-lifecycle operations performed by the group and relating to the dismantling of facilities are an integral part of the cost of facilities.
They are therefore measured and recognized in full as of the date of active commissioning of the corresponding nuclear facility, against an end-of-lifecycle asset, in property, plant and equipment (see Note 1.3.7.2).

Treatment of amortization

Dismantling assets are amortized on a straight-line basis over the same period as the relevant facilities.

The corresponding amortization expense does not contribute to the progress of the contracts and is not taken into account in the cost of inventories. It is however included in the profit and loss account under “cost of sales”, deducted from gross profit.

Treatment of expenses from discounting reversals

The discounting of the provision is reversed at the end of each financial year: the discounting reversal corresponds to the increase in the provision due to the passage of time. This increase is recorded as a financial expense.

Inflation and discount rates used to discount end-of-lifecycle operations

The inflation and discount rates used to measure present value for end-of-lifecycle operations are determined on the basis of the principles described below.

The inflation rate is set in accordance with the long-term inflation projections for the Eurozone and taking into account the European Central Bank’s target rate.

The discount rate is set pursuant to IAS 37, i.e. based on year-end market conditions and the specific characteristics of the liability. It is accordingly determined on basis of the yield curve for French government securities (OAT rates) at the closing date, extended for non-liquid maturities using a long-term equilibrium rate, plus a spread applicable to investment grade corporate bonds as well as an illiquidity premium. Based on expected disbursements, a single equivalent rate is deducted from the rate curve constructed in this manner.

The revision of the discount rate is accordingly a function of market rates and structural changes in the economy resulting in sustainable medium- and long-term changes.

According to decree 2007-243 of February 23, 2007 and decree of December 29, 2017 amending the decree of March 21, 2007 relating to the securing of the funding of nuclear expenses, a deficit or excess of coverage (ratio of earmarked assets to the fair value of the provisions for end-of-lifecycle operations within the scope of the law) is calculated on the basis of the discount rate determined in that manner, as long as it is lower:

- than the expected rate of return on the hedging assets; and
- the regulatory rate determined as the four-year arithmetic average of the TEC 30, plus 100 basis points. However, as a transitional measure, from December 31, 2017 until December 31, 2026, it is determined on the basis of the weighted average between 4.3% and the new formula, with the weighting of the rate of 4.3% declining on a straight-line basis over the transition period.

In the event that the discount rate is higher than the regulatory rate, the latter rate is used to determine the deficit or surplus of coverage.

Treatment of changes in assumptions

Changes in assumptions relate to changes in cost estimates, discount and inflation rates, and payment schedules.

In application of the prospective method:

- if the facility is in operation, end-of-lifecycle assets are adjusted in the same amount as the provision; end-of-lifecycle assets are amortized over the remaining life of the facilities;
- if the facility is no longer in operation, or if the operations cover waste retrieval and packaging (WRP), the impact is expensed in the year of the change for the remaining share of the cost to the group. The impact of changes in cost estimates is recognized under operating income in Other operating income and expenses; the impact of changes in discount and inflation rates related to changes in market conditions and changes in the payment schedules is reflected in net financial income.

End-of-lifecycle assets (third party share)

The group may be required to carry out dismantling operations, funded in part by third parties. Provisions for end-of-lifecycle operations covers all operations. They are recognized against “Dismantling assets (own share)” for the group’s share and, in return, and against “End-of-lifecycle assets (third party share)” in the amount of the funding expected from the third party.

End-of-lifecycle assets (third party share) are not amortized.
They are discounted symmetrically with the corresponding provisions. Accretion effects increasing the value of the asset are recorded in a financial income account.
It is reduced as the contractual work is performed.

1.3.13. Income tax

Income taxes include current tax expense (income) and the deferred tax expense (income), calculated in accordance with the tax laws of the countries where the income is taxable.

Current tax

Current tax assets and liabilities are measured based on the expected amount that will be received or paid to the tax authorities.
Current tax relating to items recognized in equity is also recognized in equity, and not in the income statement. When the positions it has taken in its tax returns are subject to interpretation, Management periodically reviews them, and records provisions accordingly when it deems necessary.

Deferred taxes

As provided for in IAS 12, deferred taxes are determined for all temporary differences between net carrying amounts and the tax basis of assets and liabilities, to which is applied the anticipated tax rate at the time of reversal of these temporary differences, and which has been adopted as of the closing date. They are not discounted.

Temporary taxable differences generate a deferred tax liability.
Temporary deductible differences, tax loss carry-forwards, and unused tax credits generate a deferred tax asset equal to the probable amounts recoverable in the future. Deferred tax assets are analyzed case by case for recoverability, taking into account the income projections from the group's strategic action plan.

Deferred tax liabilities are recorded for all taxable temporary differences of subsidiaries, associates and partnerships, unless AREVA is in a position to control the timing of reversal of the temporary differences and it is probable that such reversal will not take place in the foreseeable future. Tax accounts are reviewed at the end of each financial year, in particular to take into account changes in tax laws and the likelihood that amounts recognized will be recovered.

Deferred taxes are recognized in the statement of income, with the exception of those relating to "other items of comprehensive income", which are also recorded under "other comprehensive income."

Orano has elected to recognize the value added business tax (*contribution sur la valeur ajoutée des entreprises*, CVAE) as an income tax; since 2010, its French subsidiaries have been subject to this tax (including the Chamber of Commerce and Industry tax) at the rate of 1.6%. As provided in IAS 12, this election requires recognition of deferred taxes at the rate of 1.6% on the corresponding temporary differences.

<u>Recoverability of deferred tax assets</u>
The amount of deferred tax assets is reviewed at each reporting date, and is reduced where necessary if it is no longer probable that future taxable profits will permit the use of all or part of the amount. Similarly, unrecognized deferred tax assets are remeasured at each reporting date and recognized in the amount of the estimated future taxable profits against which they may be charged.
The recoverable share of the group's deferred tax assets is that for which the probability of recovery is higher than 50%. To establish this probability, the group performs a three-step analysis: (a) demonstration of the non-recurring nature of the losses; (b) analysis of future earnings prospects; and (c) analysis of tax management opportunities.

Regarding the outlook for future income, the probability of future taxable profits to offset losses carried forward is assessed based on income projections from the strategic plan validated by the governance bodies.

The estimation of recoverable losses also takes into account the annual regulation on maximum recoverable amounts (50% for France).

<u>Offsetting of deferred taxes</u>
Deferred tax assets and liabilities are netted for each taxable entity if the entity is allowed to offset its current tax receivables against its current tax liabilities.

Note 2 – CONSOLIDATION SCOPE

BREAKDOWN OF CONSOLIDATED COMPANIES IN FRANCE AND INTERNATIONALLY

(number of companies)	**December 31, 2019**		**December 31, 2018**	
	French	Foreign	French	Foreign
Full consolidation	22	41	24	42
Joint operations	-	6	-	6
Equity method	1	4	1	5
Sub-Total	**23**	**51**	**25**	**53**
Total	**74**		**78**	

MAIN OPERATIONS IN 2019

Creation of Nurlikum Mining LLC joint venture in Uzbekistan

(see Note 1.1)

MAIN OPERATIONS IN 2018

Creation of the Interim Storage Partners LLC joint venture

Orano CIS LLC, owned by Orano USA, and Waste Control Specialists (WCS) have created a joint venture named Interim Storage Partners (ISP), held at 51%/49% respectively, to operate a centralized used fuel storage facility on the WCS site in Texas. Orano TN is providing its unique expertise in cask design, transportation and used fuel storage. WCS brings its experience of operating a single facility serving both the nuclear industry and the US Department of Energy (DOE).

SCOPE OF CONSOLIDATED COMPANIES

(FC: Full consolidation; EM: equity method; JO: Joint operation)

Name of unit or controlling entity: Company name, legal form	Country	December 31, 2019		December 31, 2018	
			Percentage of interest		Percentage of interest
FRANCE					
Orano		FC	100	FC	100
Orano Cycle		FC	100	FC	100
Orano Support		FC	100	FC	100
Orano Mining		FC	100	FC	100
CFMM		FC	100	FC	100
CFM (*)				FC	100
Orano Expansion		FC	95.28	FC	86.51
EURODIF SA (2)		FC	100	FC	90
EURODIF PRODUCTION (*)				FC	90
SOFIDIF (2)		FC	60	FC	60
SET HOLDING		FC	95	FC	95
SET		FC	95	FC	95
Orano Temis		FC	100	FC	100
Orano DS – Démantèlement et Services		FC	73.86	FC	73.86
CNS		FC	51	FC	51
TRIHOM (1)		FC	48.75	FC	48.75
SICN		FC	100	FC	100
LEMARECHAL		FC	100	FC	100
TN International		FC	100	FC	100
Orano Med		FC	100	FC	100
Orano Projets		FC	100	FC	100
Orano Assurance et Réassurance		FC	100	FC	100
Orano DA – Diagnostic Amiante		FC	74		
Laboratoire d'étalons d'activité		FC	100	FC	100
SI-nerGIE		EM	50	EM	50
EUROPE (Excluding France)					
Orano GmbH	Germany	FC	100	FC	100
Urangesellschaft - Frankfurt	Germany	FC	100	FC	100
Dekontaminierung Sanierung Rekultivierung	Germany	FC	100	FC	100
Enrichment Technology Company Ltd (ETC)	United Kingdom	EM	50	EM	50
Orano Projects Ltd.	United Kingdom	FC	100	FC	100
AMA Nuclear Ltd (**)	United Kingdom			EM	33
Orano UK Ltd.	United Kingdom	FC	100	FC	100

Name of unit or controlling entity: Company name, legal form	Country	December 31, 2019		December 31, 2018	
			Percentage of interest		Percentage of interest
AMERICAS					
Orano USA LLC	United States	FC	100	FC	100
UG USA	United States	FC	100	FC	100
Columbiana High Tech (*)	United States			FC	100
TN Americas LLC	United States	FC	100	FC	100
Orano Med LLC	United States	FC	100	FC	100
PIC	United States	FC	100	FC	100
Orano Federal Services LLC	United States	FC	100	FC	100
Orano Decommissioning Services LLC	United States	FC	100	FC	100
Orano CIS LLC	United States	FC	100	FC	100
Interim Storage Partners LLC	United States	EM	51	EM	51
Orano Canada Inc.	Canada	FC	100	FC	100
Cigar Lake	Canada	JO	37.10	JO	37.10
Key Lake	Canada	JO	16.67	JO	16.67
Kiggavik	Canada	JO	23.97	JO	23.97
McArthur River	Canada	JO	30.20	JO	30.20
McClean Lake	Canada	JO	70	JO	70
Midwest	Canada	JO	69.16	JO	69.16
Areva Est Canada	Canada	FC	100	FC	100
Urangesellschaft Canada Limited	Canada	FC	100	FC	100
URANOR Inc.	Canada	FC	100	FC	100
Areva Quebec Inc.	Canada	FC	100	FC	100
Orano Resources Southern Africa	Virgin Islands	FC	100	FC	100
ASIA/PACIFIC					
Orano Japan	Japan	FC	100	FC	100
Orano Cycle Japan Projects	Japan	FC	100	FC	100
ANADEC/Orano ATOX D&D Solutions Co. Ltd.	Japan	EM	50	EM	50
Orano Beijing Technology Co. Ltd.	China	FC	100	FC	100
UG Asia Limited	China	FC	100	FC	100
Areva Mongol LLC	Mongolia	FC	66	FC	66
COGEGOBI	Mongolia	FC	66	FC	66
Badrakh Energy LLC (1)	Mongolia	FC	43.56	FC	43.56
Orano Korea	Rep. of Korea	FC	100	FC	100
AREVA India Private Ltd.	India	FC	100	FC	100
KATCO	Kazakhstan	FC	51	FC	51
Nurlikum Mining LLC	Uzbekistan	FC	51		
Orano Holdings Australia Pty Ltd	Australia	FC	100	FC	100
Orano Australia Pty Ltd.	Australia	FC	100	FC	100
AFRICA/MIDDLE EAST					
SOMAïR	Niger	FC	63.40	FC	63.40
IMOURAREN SA	Niger	FC	63.50	FC	57.66
COMINAK	Niger	EM	34	EM	34
Orano Mining (Namibia) Pty Ltd.	Namibia	FC	100	FC	100
Orano Processing Namibia	Namibia	FC	100	FC	100
Erongo Desalination Company (PTY) Ltd.	Namibia	FC	100	FC	100
URAMIN Centrafrique	Central African Rep.	FC	100	FC	100
AREVEXPLO RCA SA (**)	Central African Rep.			FC	70
Orano Gabon	Gabon	FC	100	FC	100
COMUF	Gabon	FC	68.42	FC	68.42
JORDAN AREVA RESSOURCES	Jordan	FC	50	FC	50

(*) Mergers between consolidated entities/(**) Liquidation

(1) The percentage of control over these entities is greater than 50%.

(2) Following the recapitalization of Eurodif SA, Sofidif no longer holds a stake in any group companies

UNCONSOLIDATED COMPANIES

At December 31, 2019, the net carrying amount of securities held in the 13 unconsolidated companies in which Orano holds interests of more than 50% amounted to 4 million euros in the statement of financial position. The company believes there is no risk associated with these holdings and considers them non-material.

Note 3 - OPERATING SEGMENTS

BY BUSINESS SEGMENT

2019 result

(in millions of euros)	Mining	Front End	Back End	Corporate, other operations and eliminations	Total
Gross revenue	**1,285**	**930**	**1,678**	**(107)**	**3,787**
Inter-segment sales	(6)	(29)	(90)	124	-
Contribution to consolidated revenue	**1,279**	**901**	**1,588**	**18**	**3,787**
Operating income	**446**	**191**	**(122)**	**(46)**	**468**
Share in net income of joint ventures and associates	-	-	-	-	(19)
Net financial income	-	-	-	-	40
Income tax	-	-	-	-	(36)
Net income	-	-	-	-	**452**
EBITDA (*)	**634**	**244**	**119**	**(97)**	**899**
% of gross revenue	*49.3%*	*26.2%*	*7.1%*	*n/a*	*23.7%*

(*) See note 6

In the year ended December 31, 2019, the group generated approximately 41% of its revenue with EDF.

Revenue is recognized when the control of the material is transferred for the Mining and Front End segments, and predominantly on the basis of the percentage-of-completion method for the Back End segment.

2019 statement of financial position

(in millions of euros)	Mining	Front End	Back End	Corporate, other operations and eliminations	Total
Property, plant and equipment and intangible assets (including goodwill and right-of-use assets on leases)	2,750	4,282	3,808	110	**10,950**
Assets earmarked for end-of-lifecycle operations	-	121	63	7,408	**7,592**
Other non-current assets	-	-	-	219	**219**
Subtotal: Non-current assets	**2,750**	**4,403**	**3,871**	**7,738**	**18,761**
Inventories and receivables (excluding tax receivables)	630	1,317	722	117	**2,787**
Other current assets	-	-	-	2,033	**2,033**
Subtotal: Current assets	**630**	**1,317**	**722**	**2,150**	**4,820**
TOTAL ASSETS	**3,380**	**5,720**	**4,593**	**9,888**	**23,582**

2018 Result

(in millions of euros)	Mining	Front End	Back End	Corporate, other operations and eliminations	Total
Gross revenue	**1,129**	**888**	**1,708**	**(101)**	**3,623**
Inter-segment sales	(4)	(41)	(69)	115	-
Contribution to consolidated revenue	**1,124**	**846**	**1,638**	**14**	**3,623**
Operating income	**393**	**56**	**140**	**(73)**	**517**
Share in net income of joint ventures and associates	-	-	-	-	(10)
Net financial income	-	-	-	-	(978)
Income tax	-	-	-	-	(70)
Net income	**-**	**-**	**-**	**-**	**(542)**
EBITDA	**584**	**164**	**166**	**(94)**	**821**
% of gross revenue	*51.8%*	*18.3%*	*9.7%*	*n/a*	*22.7%*

In the year ended December 31, 2018, the group generated approximately 40% of its revenue with EDF.

The change in the presentation of end-of-lifecycle operations has no impact on segment information as of December 31, 2018.

2018 STATEMENT OF FINANCIAL POSITION

(in millions of euros)	Mining	Front End	Back End	Corporate, other operations and eliminations	Total
PP&E and intangible assets (including goodwill)	2,724	4,224	3,627	51	**10,627**
Assets earmarked for end-of-lifecycle operations (*)	-	136	66	6,630	**6,831**
Other non-current assets	-	-	-	222	**222**
Subtotal: Non-current assets	**2,724**	**4,360**	**3,693**	**6,903**	**17,681**
Inventories and receivables (excluding tax receivables)	657	1,149	675	248	**2,729**
Other current assets	-	-	-	2,130	**2,130**
Subtotal: Current assets	**657**	**1,149**	**675**	**2,378**	**4,859**
TOTAL ASSETS	**3,381**	**5,509**	**4,369**	**9,281**	**22,540**

(*) The comparative figures as of December 31, 2018 have been restated to take into account the change in the organization of end-of-lifecycle operations (see Note 1.3.1).

BY REGION

2019

Contribution to consolidated revenue by business segment and customer location

(in millions of euros)	Mining	Front End	Back End	Corporate and other operations	Total
France	318	395	1,080	17	**1,811**
Europe (excluding France)	67	141	164	0	**373**
North & South America	223	157	195	-	**576**
Asia-Pacific	629	196	145	0	**969**
Africa and Middle East	42	12	4	-	**58**
TOTAL	**1,279**	**901**	**1,588**	**18**	**3,787**

Acquisitions of property, plant and equipment and intangible assets (excluding goodwill) by business segment and region of origin of the units

(in millions of euros)	Mining	Front End	Back End	Corporate and other operations	Total
France	7	160	311	20	**498**
Europe (excluding France)	26	-	3	0	**29**
North & South America	24	0	21	5	**50**
Asia-Pacific	0	-	-	0	**0**
Africa and Middle East	28	-	-	-	**28**
TOTAL (*)	**84**	**160**	**335**	**26**	**605**

(*) see Notes 10 and 11

Financial year 2018

Contribution to consolidated revenue by business segment and customer location

(in millions of euros)	Mining	Front End	Back End	Corporate and other operations	Total
France	347	357	978	14	**1,696**
Europe (excluding France)	64	113	180	0	**358**
North & South America	187	170	253	0	**611**
Asia-Pacific	464	188	221	0	**874**
Africa and Middle East	61	18	5	-	**85**
TOTAL	**1,124**	**846**	**1,638**	**14**	**3,623**

Acquisitions of property, plant and equipment and intangible assets (excluding goodwill) by business segment and region of origin of the units

(in millions of euros)	Mining	Front End	Back End	Corporate and other operations	Total
France	2	140	272	2	**417**
Europe (excluding France)	28	-	3	0	**31**
North & South America	21	-	12	0	**33**
Asia-Pacific	3	-	-	0	**3**
Africa and Middle East	13	-	-	-	**13**
TOTAL	**67**	**140**	**287**	**3**	**497**

Note 4 ADDITIONAL INFORMATION BY TYPE OF EXPENSE

(in millions of euros)	December 31, 2019	December 31, 2018
Payroll expenses (*)	(1,345)	(1,376)
Average full-time equivalent workforce	17,609	17,552

(*) Excluding pension obligations

Note 5 OTHER OPERATING INCOME AND EXPENSES

OTHER OPERATING INCOME

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Gain on disposals of assets other than financial assets	6	6
Reversal of impairment on assets	63	70
Other income	38	269
Total other operating income	**107**	**344**

In 2019 and 2018, the reversal of impairment relates mainly to the Philippe Coste plant.

In 2018, other income includes the provision reversal related to the renegotiation of the master health and accident/disability personal insurance plan.

OTHER OPERATING EXPENSES

(in millions of euros)	**December 31, 2019**	**December 31, 2018 (*)**
Restructuring and early retirement plan costs	(13)	(23)
Reversal of impairment on assets (excluding goodwill)	(61)	(17)
Loss on disposals of assets other than financial assets	(1)	(5)
Dismantling costs net of provisions/reversals of provisions for end-of-lifecycle operations	(16)	(45)
Other expenses	(92)	(116)
Total other operating expenses	**(183)**	**(206)**

(*) The comparative figures as of December 31, 2018 have been restated to take into account the change in presentation in the statement of income of end-of-lifecycle operations (see Notes 1.3.1 and 36).

Asset impairment is described in Notes 10 and 11.

In the year ended December 31, 2019, other expenses related mainly to the postponement of the start of mining operations on the Imouraren and Trekkopje sites, as well as 24 million euros in infrastructure maintenance (22 million euros at December 31, 2018).

In the year ended December 31, 2018, other expenses include provisions for tax, social and environmental contingencies and losses in the various countries in which Orano operates.

Note 6 - RECONCILIATION BETWEEN OPERATING INCOME AND EBITDA

(in millions of euros)	December 31, 2019	December 31, 2018
Operating income	468	517
Net increase in depreciation and impairment of intangible assets, net of reversals	157	71
Net increase in depreciation and impairment of property, plant and equipment, net of reversals	355	362
Net increase in amortization and impairment of right-of-use assets on leases, net of reversals (*)	18	-
Impairment of current assets, net of reversals	(6)	(36)
Provisions, net of reversals (**)	(313)	(291)
Costs of end-of-lifecycle operations performed	219	199
EBITDA	**899**	**821**

(*) Application of IFRS 16 as of January 1, 2019.
(**) Including increases and reversals of provisions for employee benefits and end-of-lifecycle operations.

Note 7 - NET FINANCIAL INCOME

GROSS BORROWING COSTS

Gross borrowing costs in the year ended December 31, 2019 include interest expense on bond debts in the amount of 162 million euros (157 million euros in the year ended December 31, 2018) and the balance of 32 million euros following the partial redemption of the 2024 bond carried out in April 2019.

The interest expense related to IFRS 16 incurred in the financial year 2019 was 3 million euros.

OTHER FINANCIAL INCOME AND EXPENSES

(in millions of euros)	December 31, 2019	December 31, 2018
Change in fair value through profit or loss of earmarked assets	659	(405)
Dividends received	191	116
Income from receivables and accretion gains on earmarked assets	10	50
Impact of changes in discount rates and inflation rates	(8)	(79)
Impact of revisions of payment schedules	-	3
Unwinding expenses on end-of-lifecycle operations	(311)	(309)
Share related to end-of-lifecycle operations	***541***	***(624)***
Foreign exchange gain (loss)	2	11
Change in fair value through profit or loss of non-earmarked assets	(1)	(1)
Impairment of financial assets net of reversals	(0)	8
Interest on advances	(54)	(47)
Financial income from pensions and other employee benefits	(18)	(21)
Accretion expenses of debt and other provisions	(140)	(100)
Other financial income	2	5
Other financial expenses	(95)	(58)
Share not related to end-of-lifecycle operations	***(303)***	***(202)***
Other financial income and expenses	**238**	**(826)**

Other financial expenses consist chiefly of premiums/discounts on currency hedging instruments.

Note 8 – INCOME TAX

ANALYSIS OF INCOME TAX EXPENSE

(in millions of euros)	December 31, 2019	December 31, 2018
Current taxes (France)	(37)	(32)
Current taxes (other countries)	(20)	(20)
Total current taxes	**(57)**	**(51)**
Deferred taxes	21	(19)
Total Taxes	**(36)**	**(70)**

The main French subsidiaries in the scope of consolidation, which are at least 95% owned, established a tax consolidation group effective September 1, 2017.

No deferred tax assets were recognized in respect of the tax loss carryforwards of the French entities included in the tax consolidation group at December 31, 2019.

In view of the implementation of the tax consolidation group formed around the Company as of September 1, 2017, future relationships between the subsidiaries and Orano SA are governed by a tax consolidation agreement for the period covered by the tax consolidation, based on a principle of neutrality.

It should also be noted that certain subsidiaries were part of the tax consolidation group formed around AREVA SA until December 31, 2016 inclusive. As such, the tax credits that the companies transmitted to the parent company during the tax consolidation period and that were not used within the consolidation were refunded in full by AREVA SA in 2019.

Reconciliation of income tax expense and income before taxes

(in millions of euros)	December 31, 2019	December 31, 2018
Net income for the period	**452**	**(542)**
Less		
Net income from operations sold, discontinued or held for sale	-	-
Share in net income of joint ventures and associates	19	10
Tax expense (income)	36	70
Income before tax	**508**	**(462)**
Theoretical tax income (expense) at 34.43%	(175)	159
Impact of tax consolidation		
Operations taxed at a rate other than the full statutory rate	7	(37)
Unrecognized deferred taxes	183	(141)
Other change in permanent differences	(52)	(51)
Effective tax income (expense)	**(36)**	**(70)**
Effective tax rate	**8%**	**n/a**

Breakdown of other change in permanent differences

(in millions of euros)	December 31, 2019	December 31, 2018
Parent/subsidiary tax treatment and inter-company dividends	(3)	2
Impact of permanent differences for tax purposes	11	(9)
Differences between the French tax rate and tax rates applicable abroad	12	5
CVAE business tax	(19)	(14)
Impact of change in tax rate		
Impact of changes in temporary differences in the payment schedules for calculating the impact of the reduction in rates in France	(48)	(33)
Other	(4)	(3)
Total other change in permanent differences	**(52)**	**(51)**

DEFERRED TAX ASSETS AND LIABILITIES

(in millions of euros)	December 31, 2019	December 31, 2018
Deferred tax assets	109	104
Deferred tax liabilities	-	13
Total deferred tax assets and (liabilities)	**109**	**91**

For all French companies, the expected tax rates depending on the year in which temporary differences will be reversed are as follows:

2020	2021	>2022
32.02%	28.41%	25.83%

Following the entry into force of the US tax reform from January 1, 2018, the federal tax rate in the United States is 21%. Combined with the average standard rate of taxes collected by the states, Orano Inc.'s tax rate is now approximately 25%.

Main categories of deferred tax assets and liabilities

(in millions of euros)	December 31, 2019	December 31, 2018
Tax impact of temporary differences related to:		
Property, plant and equipment, intangible assets and non-current assets	77	56
Working capital assets	12	16
Employee benefits	8	11
Provisions for restructuring	0	0
Tax-driven provisions	(154)	(146)
Provisions for end-of-lifecycle operations	34	30
Impact of loss carry-forwards and deferred taxes	101	93
Other temporary differences	31	31
Total net deferred tax assets and (liabilities)	**109**	**91**

Change in consolidated deferred tax assets and liabilities

(in millions of euros)	December 31, 2019	December 31, 2018
At January 1	**91**	**68**
Tax on continuing operations, recognized in profit or loss	21	(19)
Tax recognized in operations held for sale	-	-
Tax expense recognized directly in other items of comprehensive income	(4)	38
Change in consolidated group	-	-
Currency translation adjustments	0	5
Total deferred tax assets and (liabilities)	**109**	**91**

Deferred tax income and expenses by category of temporary difference

(in millions of euros)	December 31, 2019	December 31, 2018
Property, plant and equipment, intangible assets and non-current assets	(187)	48
Working capital assets	15	(8)
Employee benefits	(40)	(22)
Provisions for restructuring	(15)	(17)
Tax-driven provisions	(15)	(11)
Provisions for end-of-lifecycle operations	-	-
Net loss carry-forwards and deferred taxes	35	128
Impairment of deferred taxes	183	(141)
Other temporary differences	44	4
Total deferred tax income (expenses)	**21**	**(19)**

Breakdown of deferred tax recognized in other items of comprehensive income

(in millions of euros)	December 31, 2019			December 31, 2018		
	Before tax	Income tax	After tax	Before tax	Income tax	After tax
Actuarial gains and losses on employee benefits	(54)	1	(53)	18	(0)	18
Currency translation adjustments	73	-	73	4	-	4
Change in value of cash flow hedges	7	(4)	2	(138)	38	(100)
Share in comprehensive income of associates (net of income tax)	(4)	-	(4)	8	-	8
Total gains and (losses) in other comprehensive income after tax	**21**	**(4)**	**18**	**(108)**	**38**	**(70)**

UNRECOGNIZED DEFERRED TAX ASSETS

(in millions of euros)	December 31, 2019	December 31, 2018
Tax credits		-
Tax losses	613	589
Other temporary differences	1,028	1,177
Total unrecognized deferred taxes	**1,641**	**1,766**

Note 9 - GOODWILL

(in millions of euros)	**December 31, 2018**	Increases	Disposals	Impairment	Currency translation adjustments and other	**December 31, 2019**
Mining	**840**				17	**858**
Front End	**161**					**161**
Back End	**227**				0	**228**
Total	**1,229**	**-**	**-**	**-**	**18**	**1,247**

GOODWILL IMPAIRMENT TESTS

As indicated in Notes 1.2. “Estimates and judgments” and 1.3.7.5 “Impairment of property, plant and equipment, intangible assets and goodwill”, the group performs impairment tests at least once a year and whenever there is an indication of impairment. These tests consist of comparing the net carrying amount of the assets of cash-generating units (CGU) or groups of CGUs to which goodwill has been allocated (after inclusion of impairment of property, plant and equipment and intangible assets listed in Notes 10 and 11) with their recoverable amount.

The discount rates used for impairment testing are based on the average cost of capital, and reflect current assumptions as regards the time value of money and the specific risk represented by the asset, the CGU or the group of CGUs; they are determined on the basis of observed market data and evaluations prepared by specialized firms (market risk-free rate, equity market risk premium, volatility indices, credit spreads and debt ratios of comparable companies in each sector).

The following assumptions were used to determine the net present value of the estimated future cash flows of the CGUs or groups of CGUs:

December 31, 2019	**Discount rate after tax**	**Growth rate of the standard year**	**Standard year**
Mining	7.55%-12.00%	N/A	N/A
Front End	6.60%	N/A	N/A
Back End	6.65%-7.75%	1.50%	2040

December 31, 2018	**Discount rate after tax**	**Growth rate of the standard year**	**Standard year**
Mining	7.65%-11.60%	N/A	N/A
Front End	6.70%	N/A	N/A
Back End	6.83%-7.21%	1.50%	2027

These impairment tests were calculated using exchange rates in effect on the balance sheet date or the hedged rate when cash flows are hedged.

Mining

The recoverable amount of the Mining group of CGUs is determined based on its value in use. The value in use of mining operations is calculated based on forecast data for the entire period, up to the planned end of mining operations at existing mines and the marketing of the corresponding products (i.e. no later than 2043), rather than on a normative year. The value in use is determined by discounting estimated future cash flows per mine at rates between 7.55% and 12.00% (7.65% and 11.60% at December 31, 2018) and based on exchange rates at December 31, 2019.

Future cash flows are determined using the contractually set prices for the fixed component of the backlog and, for the variable component, the market prices based on the forecast price curve prepared by Orano. The forecast price curve is also used for the portion of sales not yet covered by a contract. The price curve is based among other things on Orano's vision of changes in supply (uranium mines and secondary resources) and demand (reflecting the consumption of the global fleet of nuclear power plants over the length of the curve and the purchasing policy of the relevant utilities). The forecast price curve was updated in November 2019 to take into account Orano's analysis of foreseeable changes in the nuclear fleet, the purchasing policy of electricity utilities and trends in resources, both production resources and secondary resources.

The value in use determined in this manner is greater than the net carrying amount, and therefore does not result in any impairment of goodwill.

The test remains sensitive to discount rates, to foreign exchange parity and to the anticipated future prices of uranium. The value in use of the assets of the Mining group of CGUs would fall by the amounts below if any of the following assumptions were used:

- a discount rate of 50 basis points higher: 98 million euros;
- a euro/US dollar exchange rate 5 eurocents higher (i.e., 1.17 instead of 1.12): 216 million euros;
- sales price assumptions US$5 per pound of uranium below Orano's projected price curves over the entire period of the business plans: 390 million euros.

On this point, the sensitivity analysis was carried out without taking into account a revision of economically mineable uranium quantities or production schedules resulting from this price change.

Taken individually or on a cumulative basis, deterioration of this nature would not result in the impairment of the goodwill allocated to the Mining group of CGUs.

Front End

In the Front End segment, goodwill is carried by the Enrichment CGU. The recoverable amount of the CGU is determined from the value in use, calculated using forecast data for the entire period up to the planned end of the operation of industrial assets, without using a normative year. The value in use is determined by discounting estimated future cash flows at 6.60% (6.70% at December 31, 2018) and on the basis of a euro-US dollar exchange rate of 1.12, in line with the closing rate as of December 31, 2019 (1.15 at December 31, 2018).

Future cash flows are determined using the contractually set prices for the fixed component of the backlog and, for the variable component, the market prices based on the forecast price curve prepared and updated by Orano. The forecast price curve is also used for the portion of sales not yet covered by a contract. The price curve is based among other things on Orano's vision of changes in supply (enrichment capacities, secondary stocks and resources) and demand for enriched uranium (reflecting the consumption of the global fleet of nuclear power plants over the length of the curve and the purchasing policy of the relevant utilities). Assumptions in respect of the construction of revised price curves have prompted Orano to consider that prices will be determined in euros from 2030.

Impairment testing performed at December 31, 2019 did not result in the recognition of any impairment of goodwill.

Testing is sensitive to the discount rate, long-term price expectations for separative work units (SWU) and the euro/US dollar exchange rate. The value in use of the assets of the Enrichment CGU would fall by the amounts below if any of the following assumptions were used:

- a discount rate of 50 basis points higher: 296 million euros;
- sales price assumptions €1 per SWU below Orano's projected price curves: 50 million euros.
- a euro/US dollar exchange rate 5 eurocents higher (i.e. 1.17 instead of 1.12): 48 million euros;

Of these three sensitivities, only the reduction of the discount rate would result in impairment of goodwill.

Back End

In the Back End segment, goodwill was carried by the Recycling BU in the amount of 172 million euros, the Logistics BU in the amount of 41 million euros and the DS BU in the amount of 15 million euros.

Impairment testing carried out at December 31, 2019 on the CGUs relating to the Back End activities did not result in the recognition of any impairment of goodwill.

Sensitivity analyses show that the use of a discount rate 50 basis points higher or a growth rate for the normative year 1 percentage point lower than the above-mentioned rates would not have led to the recognition of impairment on goodwill.

Note 10 – INTANGIBLE ASSETS

(in millions of euros)	Pre-mining expenses	R&D expenses	Mineral rights	Concessions & patents	Software	Intangible assets in progress	Other	Total
Gross amount at December 31, 2018	**1,882**	**71**	**1,200**	**409**	**366**	**295**	**189**	**4,411**
CAPEX	34	6	-	-	-	19	-	59
Disposals	-	-	-	(3)	(29)	-	(3)	(35)
Currency translation adjustments	82	1	15	-	-	7	1	107
Change in consolidated group	12	-	(60)	-	-	-	-	(48)
Other changes	45	(21)	-	2	4	(255)	(2)	(227)
Gross amount at December 31, 2019	**2,054**	**56**	**1,155**	**408**	**342**	**65**	**186**	**4,267**
Amortization and provisions at December 31, 2018	**(1,147)**	**(4)**	**(1,200)**	**(91)**	**(332)**	**(241)**	**(118)**	**(3,133)**
Net charges to amortization/impairment (1)	(77)	(52)	-	(8)	(5)	-	(16)	(157)
Disposals	-	-	-	3	28	-	3	34
Currency translation adjustments	(41)	-	(15)	-	-	(6)	(1)	(63)
Change in consolidated group	-	-	60	-	-	-	-	60
Other changes	(5)	-	-	(2)	-	242	1	237
Amortization and provisions at December 31, 2019	**(1,268)**	**(56)**	**(1,155)**	**(98)**	**(309)**	**(4)**	**(130)**	**(3,020)**
Net carrying amount at December 31, 2018	**735**	**67**	**-**	**318**	**34**	**54**	**71**	**1,278**
Net carrying amount at December 31, 2019	**786**	**-**	**-**	**311**	**34**	**61**	**55**	**1,247**

(1) Including 61 million euros in impairment losses.

BACK END SEGMENT

Capitalized R&D costs have been impaired by 52 million euros in the Back End segment.

MINING ASSETS

The tangible and intangible assets of mining and industrial sites (constituting Mining segment CGUs) are subject to an impairment test at each year-end (in accordance with the principles set out in Note 1.3.7.5) taking into account the deteriorating conditions in the uranium market.

Mining assets in Namibia - Trekkopje

The group's assets in Namibia include both the mining infrastructure and the desalination plant.

The value in use of the desalination plant is tested separately from that of the mining infrastructure. It is determined on the basis of its business plan discounted at a rate of 7.55% (7.65% at December 31, 2018). No impairment was recognized at December 31, 2019.

Impairment in the amount of 7 million euros was recorded on the carrying amount of intangible assets and property, plant and equipment of the Trekkopje mine at December 31, 2018, and additional impairment of 1 million euros was recorded at December 31, 2019 based on their fair value, determined based on a multiple of uranium resources in the ground. After recognition of impairment of the mining assets, the carrying amount of the Trekkopje mining assets was 47 million euros at December 31, 2019 (48 million euros at December 31, 2018).

Mining assets in Canada – Midwest

Impairment in the amount of 8 million euros was recorded on the carrying amount of the intangible assets and property, plant and equipment of the Midwest deposit at December 31, 2019 based on their fair value, determined based on a multiple of uranium resources in the ground. After recognition of that impairment, the carrying amount of the Midwest project's assets was 46 million euros at December 31, 2019 (compared with 51 million euros at December 31, 2018).

Note 11 – PROPERTY, PLANT AND EQUIPMENT

(in millions of euros)	**Land**	**Buildings**	**Plant, equipment and tooling**	**End-of-lifecycle assets - attributable to owners of the parent**	**Other**	**In progress**	**Total**
Gross amount at December 31, 2018	**154**	**1,905**	**19,948**	**1,172**	**1,436**	**2,148**	**26,763**
CAPEX	-	4	29	-	5	508	546
Disposals	(1)	(18)	(83)	0	(60)	(10)	(172)
Currency translation adjustments	2	16	57	0	20	4	99
Change in consolidated group	-	-	-	-	-	-	-
Other changes	(1)	101	543	30	75	(697)	51
Gross amount at December 31, 2019	**155**	**2,009**	**20,492**	**1,202**	**1,476**	**1,954**	**27,287**
Depreciation and provisions at December 31, 2018	**(82)**	**(1,012)**	**(14,742)**	**(597)**	**(1,170)**	**(1,040)**	**(18,643)**
Net charges to **depreciation** /impairment (1)	(1)	(91)	(526)	(27)	(34)	325	(355)
Disposals	0	18	81	0	42	-	142
Currency translation adjustments	0	(7)	(22)	0	(15)	(1)	(46)
Change in consolidated group	-	-	-	-	-	-	-
Other changes	0	(2)	1	0	(8)	2	(6)
Depreciation and provisions at December 31, 2019	**(82)**	**(1,094)**	**(15,208)**	**(623)**	**(1,185)**	**(715)**	**(18,908)**
Net carrying amount at December 31, 2018	**73**	**893**	**5,205**	**575**	**265**	**1,109**	**8,120**
Net carrying amount at December 31, 2019	**73**	**914**	**5,284**	**579**	**291**	**1,239**	**8,380**

(1) including 63 million euros in reversals of impairment losses.

INDUSTRIAL ASSETS OF THE CONVERSION CGU

The Conversion CGU includes the industrial assets of Malvési and Philippe Coste.

The value in use of property, plant and equipment was estimated as of December 31, 2019, using a discount rate of 7.1% (6.7% at December 31, 2018), a euro-US dollar exchange rate of 1.12 in line with the rate as of December 31, 2019 (1.15 as of December 31, 2018) and sales price assumptions for the conversion units resulting from Orano's analysis of expected medium- and long-term supply and demand trends. Assumptions in respect of the construction of revised price curves have prompted Orano to consider that prices will be determined in euros from 2030.
Favorable trends in market conditions and the commissioning of the Philippe Coste plant justified the carrying out of value testing insofar as these factors constitute an indication that the impairment observed to date may have diminished. Value testing performed as of December 31, 2019 resulted in the recognition of a reversal of impairment of 62 million euros. The net carrying amount of the industrial assets was 405 million euros. At December 31, 2018, a reversal of 45 million euros had been recognized.

Moreover, the test result is sensitive to the discount rate, long-term conversion price expectations and the euro/US dollar exchange rate. The value in use of the industrial assets of the Conversion CGU would fall by the following amounts if any of the following assumptions were used:

- a discount rate 50 basis points higher (i.e. 7.6% instead of 7.1%): 30 million euros;
- sales price assumptions per kilogram of converted uranium 1 euro below Orano's projected price curves: 83 million euros;
- a euro/US dollar exchange rate 5 eurocents higher (i.e. 1.17 instead of 1.12): 22 million euros.

Any variation in these assumptions would imply additional loss of value.

INDUSTRIAL ASSETS OF THE ENRICHMENT CGU

Impairment testing of the Enrichment CGU, which also carried goodwill, did not result in the recognition of any impairment (see Note 9).

Note 12 - LEASES

RIGHT-OF-USE ASSETS

(in millions of euros)	**January 1, 2019**	New leases	ɛeduction/wit ıdrawal from leases	Net increase in depreciation/ impairment	Other changes	Currency translation adjustments	**December 31, 2019**
Property assets	34	41	(2)	(12)	2	0	**63**
Other assets	16	5	(0)	(7)	(0)	(0)	**15**
Total	**50**	**46**	**(2)**	**(18)**	**2**	**0**	**77**

New leases bearing on property assets relate to the group's new head office in France and a major lease in the United States. No impairment was recognized when IFRS 16 was first applied or in the financial year 2019.

LEASE LIABILITIES

The following table presents the provisional disbursement schedule:

(in millions of euros)	**December 31, 2019**
Maturing in one year or less	20
Maturing in 1-2 years	14
Maturing in 2-3 years	11
Maturing in 3-4 years	10
Maturing in 4-5 years	7
Maturing in more than 5 years	35
TOTAL	**97**

The amounts represent future disbursements expressed before discounting.

Note 13 - END-OF-LIFECYCLE OPERATIONS

PROVISIONS FOR END-OF-LIFECYCLE OPERATIONS

(in millions of euros)	**Net carrying amount at December 31, 2018**	**Reversal (when risk has materialized)**	**Accretion**	**Change in assumptions, revised budgets, etc.**	**Net carrying amount at December 31, 2019**
Provisions for dismantling	5,051	(123)	198	(56)	5,069
Provisions for waste retrieval and packaging	1,156	(70)	45	50	1,182
Provisions for long-term waste management and site monitoring	1,367	(16)	56	31	1,438
Provisions for end-of-lifecycle operations (regulated*)	**7,575**	**(209)**	**299**	**24**	**7,689**
Provisions for end-of-lifecycle operations (non-regulated*)	306	(8)	12	12	322
PROVISIONS FOR END-OF-LIFECYCLE OPERATIONS	**7,881**	**(217)**	**311**	**36**	**8,010**

(*) Scope of application of the law of June 28, 2006.

At December 31, 2019, used provisions in the amount of 217 million euros correspond to the expenses relating to the end-of-lifecycle operations incurred by the group.

Changes in assumptions, revisions of estimates and other variations in the positive amount of 36 million euros include:

- the impacts of the change in the discount and inflation rates for positive 39 million euros (of which positive 38 million euros on the regulated scope) allocated in the amount of 31 million euros to end-of-lifecycle assets and 8 million euros in expenses to net financial income;
- changes in payment schedules in the amount of (7) million euros;
- changes in estimates in the positive amount of 25 million euros;
- expenditure on works carried out on facilities financed by third parties in the amount of (20) million euros.

Nature of the commitments

As a nuclear facility operator, the group has a legal obligation to secure and dismantle its production facilities when they are shut down in whole or in part on a permanent basis. It must also retrieve and package in accordance with prevailing standards certain legacy waste as well as the waste resulting from operating (HA-MAVL technological waste) and dismantling activities. The group must also assume financial obligations to monitor storage sites after their closure.

In December 2004, the CEA, EDF and Orano Cycle signed an agreement concerning the Marcoule site, which transfers the responsibilities of site owner-operator to the CEA, which will be responsible for funding the dismantling of the site facilities. This agreement does not cover final disposal costs for long-lived high- and medium-level waste. Accordingly, provisions for the Marcoule site only cover Orano's share of waste shipping and final waste disposal costs.

For all the facilities within the regulated scope (regulated nuclear facilities, "INB") and those outside the scope (installation classified for the protection of the environment, "ICPE"), Orano uses the same methods to assess both the cost of end-of-lifecycle operations and expenses related to disposal and storage of waste.

In accordance with article 20 of French planning law No. 2006-739 of June 28, 2006 on the sustainable management of radioactive materials and waste, codified in articles L. 594-1 et seq. of the French Environmental Code, Orano submits a report on INBs to the administrative authority every three years setting out cost estimates and calculation methods for provisions, as well as an annual update of this report.

Measuring of provisions for dismantling and for waste retrieval and packaging

The costing of facility dismantling and WRP operations is based on methodologies and scenarios describing the nature and timing of the planned operations. The estimate is based on a parametric approach for facilities in operation (costing resulting from the inventory of the facility: volume of materials, equipment, etc.) and an analytical approach for facilities that have been shut down and WRP operations (costing resulting from estimates for each operation envisaged: volume and cost of the required units of work, collection of quotes from subcontractors, etc.).

The dismantling scenarios adopted by Orano are compliant with the French Environmental Code, which imposes the shortest possible time between the final shutdown of the facility and its dismantling under economically acceptable conditions and in compliance with the principles set out in the French Code of Public Health.

The group measures its provisions on the basis of a reference scenario, which notably defines the final state of the site. When Orano considers that the industrial reuse of buildings after the decommissioning of facilities is compatible with possible industrial use, the provisions exclude the cost of their deconstruction. In some situations, however, Orano provides for the deconstruction of the buildings and so sets aside the associated costs. Orano also provides for the cost of treating radiologically marked soils when characterization studies of these soils make such operations likely.

Main opportunities and uncertainties

In view of the duration of the end-of-lifecycle commitments, the main opportunities and uncertainties cited as examples below are taken into account as they occur:

- Opportunities:
    - Gains generated by the learning curve and industrial standardization of operating procedures,
    - In-depth investigations on the condition of the facilities using new technologies in order to reduce the uncertainty related to initial facility conditions,
    - Receipt of an exemption or a release threshold allowing the recycling of very low activity metallic materials resulting from the dismantling of facilities in the Front End segment;

- Uncertainties:
  - Revision of scenarios of certain WRP (waste retrieval and packaging) projects at La Hague during the qualification of waste retrieval processes,
  - Differences between the expected initial conditions of the legacy facilities and the actual initial conditions,
  - Change in regulations, particularly in terms of safety, security and respect for the environment,
  - Changes in financial parameters (discount and inflation rates).

Consideration of identified risks and unforeseen events

The technical cost of end-of-lifecycle operations is backed up by consideration of:

- a baseline scenario that takes operating experience into account;
- amounts for risks identified through risk analyses conducted in accordance with the Orano standard and updated regularly as the projects advance;
- amounts to cover unidentified risks.

Measurement of provisions for long-term waste management and monitoring of storage sites after their closure

Orano sets aside a provision for expenses related to radioactive waste in its possession.

These expenses include:

- disposal and surface storage of very low-level waste (VLLW) and low-level short-lived waste (LL-SLW) from dismantling;
- ,
- the warehousing, removal and underground disposal of long-lived low-level waste (LL-LLW);
- the warehousing, disposal and storage of high- and medium-level long-lived waste (HL-LLW and ML-LLW) covered by the law of December 30, 1991 (today codified in Articles L. 542-1 et seq. of the French Environment Code);
- the share of post-closure monitoring of the various ANDRA storage sites.

The volumes of waste giving rise to provision include packages relating to legacy waste, all waste coming from the dismantling of facilities, and HL- and ML-LLW technological waste from the operation of facilities. These volumes are periodically reviewed in line with the data declared within the framework of the national waste inventory.

The measurement of the provision related to the long-term management of HLW and MLW is based on the assumption that a deep geological repository (subsequently referred to as CIGEO) will be built. It draws on the cost at completion of 25 billion euros set in the Ministerial Order of January 15, 2016 (gross value not discounted, under the economic conditions prevailing at December 31, 2011). This order takes notably into account the cost estimate of the project established by ANDRA, the ASN opinion and the observations made by nuclear operators. In application of this order, it is expected that the cost of the CIGEO project may be updated as the key stages in its development are completed (authorization of creation, commissioning, end of the “pilot industrial phase”, safety reviews), in accordance with the ASN opinion. On January 15, 2018, the ASN also issued its opinion on the CIGEO safety options file, finding that the project had reached satisfactory overall technological maturity at the safety options file stage and requesting additional elements of demonstration regarding the bituminous waste safety options.

This cost at completion, after adjustment to the economic conditions prevailing at December 31, 2019 and discounting, have been covered by a provision for the amount of the estimated share of financing that will ultimately be borne by the group and the proportion of waste existing at the closure, and waste coming from dismantling operations. The breakdown of funding between nuclear operators depends on many factors, including the volume and nature of the waste sent by each operator, the timing of the shipment of waste and the design of the underground facility.
For sensitivity analysis purposes, an increase of 1 billion euros in the amount of the CIGEO project estimate by value before discounting would result in an additional expense at present value of approximately 34 million euros for Orano, based on the methodology used to establish the existing provision.

Discount and inflation rates (see principles laid out in Note 1.3.12)

At December 31, 2019, Orano applied a long-term inflation assumption of 1.40% and a discount rate of 3.70% (1.60% and 3.95% respectively at December 31, 2018).

At December 31, 2019, the use of a discount rate 25 basis points higher or lower than that used would have the effect of changing the closing balance of provisions for end-of-lifecycle operations by negative 382 million euros with a rate of 3.95% or positive 420 million euros with a rate of 3.45%.

Provisional schedule of provision disbursements

The following table shows the forward payment schedule of provisions both within and outside the scope of the law of June 28, 2006, excluding Andra's monitoring costs:

(in millions of euros)	**December 31, 2019**
2020	311
2021 – 2023	1,386
2024 – 2028	1,662
2029 – 2038	1,963
2039 and beyond	8,605
TOTAL PROVISIONS BEFORE DISCOUNTING	**13,927**

The amounts represent the future disbursement of provisions expressed before discounting and aligned with the economic conditions prevailing in 2019.

END-OF-LIFECYCLE ASSETS

End-of-lifecycle assets include two items:

- The group's share of end-of-lifecycle assets, classified under property, plant and equipment in the statement of financial position (see Note 11);
- Third party dismantling assets (see Note 1.3.12) described in this Note.

(in millions of euros)	**Net carrying amount at December 31, 2018**	**Decrease from period expense**	**Acc-retion**	**Change in assumptions, revised budgets, etc.**	**Net carrying amount at December 31, 2019**
End-of-lifecycle assets – third party share (regulated)*	135	(20)	5	-	120
End-of-lifecycle assets – third party share (non-regulated)*	4	(3)	-	-	1
TOTAL THIRD-PARTY SHARE	**139**	**(23)**	**5**	**-**	**121**

(*) Scope of application of the law of June 28, 2006.

The share of third parties remaining in the end-of-lifecycle assets corresponds to the funding expected from third parties contributing to the dismantling of certain facilities.

FINANCIAL ASSETS EARMARKED FOR END-OF-LIFECYCLE OPERATIONS

(in millions of euros)	December 31, 2019		December 31, 2018	
	Net carrying amount	Market value	Net carrying amount	Market value
Portfolio of earmarked securities	7,408	7,582	6,457	6,561
Receivables related to end-of-lifecycle operations	63	63	236	236
TOTAL FINANCIAL ASSETS EARMARKED FOR END-OF-LIFECYCLE OPERATIONS	**7,471**	**7,645**	**6,693**	**6,797**
of which earmarked assets (regulated scope*)	7,408	7,582	6,630	6,734
of which earmarked assets (outside the regulated scope*)	63	63	63	63

(*) Scope of application of the law of June 28, 2006.

Objective of hedging assets, portfolio of earmarked securities and end-of-lifecycle receivables

To secure the funding of end-of-lifecycle obligations, the group has built up a special portfolio earmarked for the payment of its future facility dismantling and waste management expenses. This obligation has applied to all nuclear operators in France since the law No. 2006-739 of June 28, 2006 and the implementing decree No. 2007-243 of February 23, 2007 came into force. This portfolio was composed based on a schedule of disbursements over more than a century and is therefore managed with long-term objectives. The portfolio is comprised of financial assets covering all of the group's commitments, whether related to obligations imposed by the law of June 28, 2006 for regulated nuclear facilities located in France, or related to other end-of-lifecycle commitments for facilities located in France.
The group relies on independent consultants to study strategic target asset allocations to optimize the risk/return of the portfolio over the long term and to advise it on the choice of asset classes and portfolio managers. These recommendations are submitted to the Cleanup and Dismantling Fund Monitoring Committee of the Board of Directors. Long-term asset allocations indicate the target percentage of assets to cover liabilities (bonds and money market assets, including receivables from third parties) and diversification assets (shares, etc.), subject to limits imposed by decree No. 2007-243 of February 23, 2007 and its amendment by decree No. 2013-678 of July 24, 2013, both in terms of the control and spread of risks and in terms of the type of investments.

On December 30, 2019, Orano made a voluntary contribution of 134 million euros to the dismantling funds. Following this contribution, at December 31, 2019 for the end-of-lifecycle obligations falling within the scope of Articles L. 594-1 et seq. of the French Environment Code, the legal entities comprising Orano had earmarked assets representing 100.2% of end-of-lifecycle liabilities (compared with 90.7% at December 31, 2018). This coverage ratio is determined as follows:

(in millions of euros)	December 31, 2019	December 31, 2018
Provisions for end-of-lifecycle operations (regulated*)	**7,689**	**7,575**
Third party assets (regulated*)	120	135
Financial assets at market value (regulated*)	7,582	6,734
Earmarked for end-of-lifecycle operations (regulated*)	**7,702**	**6,869**
(Deficit)/Surplus of earmarked assets (regulated*)	14	(706)
Coverage ratio (regulated*)	**100.2%**	**90.7%**

(*) Scope of application of the law of June 28, 2006.

The regulatory discount rate for end-of-life liabilities was 3.76% as of December 31, 2019 (3.97% at December 31, 2018). Insofar as the discount rate used is below the regulatory discount rate, the coverage ratio is calculated using the discount rate determined by Orano for discounting provisions for end-of-lifecycle operations within the regulated scope.

Portfolio of earmarked assets

Orano has ensured that all Orano Cycle funds are held, registered and valued by a single service provider capable of performing the necessary control and valuation procedures independently, as required by the implementing decree.

The Equity segment is primarily managed by external service providers via:
- an equity management agreement; and
- earmarked investment funds.

The Rate segment (bonds and money market) is invested via:
- open-ended mutual funds;
- earmarked investment funds; and
- directly held bonds.

The portfolio of assets earmarked to fund end-of-lifecycle expenses includes the following:

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
In market value or net asset value		
Equity mutual funds and listed equities	2,924	2,409
Bond and money market mutual funds	3,522	3,466
Unlisted mutual funds	505	210
At amortized cost		
Bonds and bond funds	457	372
Portfolio of securities earmarked for end-of-lifecycle operations	**7,408**	**6,457**
Receivables related to end-of-lifecycle operations	63	236
TOTAL FINANCIAL ASSETS EARMARKED FOR END-OF-LIFECYCLE OPERATIONS	**7,471**	**6,693**

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
By region		
Eurozone	5,969	6,137
Non-euro Europe	380	260
Other	1,122	296
TOTAL FINANCIAL ASSETS EARMARKED FOR END-OF-LIFECYCLE OPERATIONS	**7,471**	**6,693**

Financial assets held as securities or mutual funds represent 99% of all hedging assets at December 31, 2019. They are classified as follows: 46% equity, 53% bonds and money-market instruments and 1% receivables.

Performance of financial assets earmarked for end-of-lifecycle operations by asset class(*)

Asset class	December 31, 2019	December 31, 2018
Shares	+26.2%	-9.8%
Rate products (including receivables related to end-of-lifecycle operations)	+5.1%	-0.2%
TOTAL FINANCIAL ASSETS EARMARKED FOR END-OF-LIFECYCLE OPERATIONS	**+13.9%**	**-3.9%**

(*) The performance shown for these asset classes only covers the portion of earmarked assets for end-of-lifecycle operations of regulated nuclear facilities subject to the French law of June 28, 2006.

Receivables related to end-of-lifecycle operations

Receivables related to end-of-lifecycle operations mainly reflect two claims, one on the CEA and the other on EDF, resulting from the over-funding of ANDRA assumed by Orano between 1983 and 1999 (payment by Orano of contributions divided between nuclear operators above its share).

Pursuant to an agreement concluded in 2018, the CEA reimbursed in December 2019 the residual balance of 173 million euros of its receivable relating to a December 2004 agreement (modified in 2015 and 2018) for it to assume a share of the costs of dismantling workshops in the La Hague plants and the costs of waste retrieval and packaging from the UP2 400 plant.

Risk description and assessment

Equity investments in the portfolio of earmarked securities include mainly:

- a mandate of publicly traded shares, which includes about 50 companies based in the European Union. The securities are held in order to generate gains over the long term. Although it is not a management guideline, the mandate will be assessed over the long term by reference to the MSCI EMU index, net dividends reinvested. The nature of the long-term mandate is not compatible with an evaluation against a "benchmark";
- dedicated equity funds with diversified management strategies centered on European securities. The managers must follow strict exposure rules, depending on the objectives of the fund involved: including limits on the amounts invested in certain stocks or as a percentage of the net value of the portfolio, limits on exposures in currencies other than the euro, tracking error (relative risk compared with the benchmark), and limits on exposures to certain types of instruments. Together, these limits are designed to comply with investment rules established in the implementing decree of the law of June 28, 2006.

Fixed income products in the portfolio of earmarked securities mainly include:

- directly held securities consisting of government bonds from the Eurozone, which will be held to maturity. They are recognized using the amortized cost method;
- dedicated bond funds, listed bonds and open-ended money market funds. The sensitivity to interest rates of bond funds is limited in both directions, including the portfolio's overall consistency with preset long-term sensitivity objectives and the sensitivity of the liabilities to the discount rate used. The issuers' ratings (Moody's or Standard & Poor's) are used to manage the credit risk exposure of money market and bond funds and listed bonds.

Derivatives may be used for hedging or to acquire a limited exposure. They are subject to specific investment guidelines prohibiting leverage. Total nominal commitments may not exceed the fund's net assets. Sales of puts and calls must be fully covered by underlying assets (and are prohibited on assets not included in the portfolio).

Risk assessment and management of the earmarked portfolio

The risks underlying the portfolios and funds holding assets under the management mandate for end-of-lifecycle operations are assessed every month. For each fund or earmarked assets, this assessment allows the maximum total loss to be estimated with a 95% level of confidence for different portfolio maturities using the VaR (Value at Risk) method and volatility estimates. A second estimate is made using deterministic scenarios: yield curve shock and/or fall in equity markets.

The impacts of changes in equity markets and interest rates on the valuation of financial assets earmarked are summarized in the following table:

(in millions of euros)	**December 31, 2019**
Assumption: declining equity markets and rising interest rates	
-10% on equities	(343)
+100 basis points on fixed income	(86)
TOTAL	**(429)**
Assumption: rising equity markets and declining interest rates	
+10% on equities	+343
-100 basis points on fixed income	+86
TOTAL	**+429**

Note 14 - INFORMATION ON JOINT VENTURES AND ASSOCIATES

2019

(in millions of euros)	Share in net income of joint ventures and associates	Investments in joint ventures and associates	Share in negative net equity of joint ventures and associates
Cominak	(31)	-	45
ETC	13	-	23
SI-nerGIE	(1)	-	1
ANADEC	0	0	-
Interim Storage Partners	0	4	-
TOTAL	**(19)**	**4**	**69**

The share of net income of Cominak is mainly attributable to the costs associated with the decision to close the mine (see Note 1.1).
Orano considers that it has a constructive obligation to finance the residual operations to complete operations and rehabilitate the Cominak site in proportion with its interest; and in accordance with the provisions of IAS 28, Orano recognizes the share of negative equity as a liability in its consolidated statement of financial position, and its share of negative net income in its consolidated statement of income and statement of comprehensive income.

Enrichment Technology Company (ETC) is a joint venture held in equal shares by Orano and URENCO (see Note 28).
Orano and Framatome have created a consortium known as SI-nerGIE (see Note 28).
Orano considers that it has a constructive obligation to ensure the continuity of operations of ETC and Siner-GIE; and in accordance with the provisions of IAS 28, Orano recognizes the share of negative equity as a liability in its consolidated statement of financial position and its share of negative net income in its consolidated statement of income and statement of comprehensive income.

2018

(in millions of euros)	Share in net income of joint ventures and associates	Investments in joint ventures and associates	Share in negative net equity of joint ventures and associates
Cominak	(22)	-	13
ETC	11	-	32
SI-nerGIE	0	0	-
ANADEC	(0)	0	-
Interim Storage Partners	-	1	-
TOTAL	**(10)**	**1**	**45**

SIGNIFICANT JOINT VENTURES

A joint venture is deemed to be significant if its revenue or balance sheet total is more than 150 million euros. An associate is deemed to be significant when its balance sheet total is more than 150 million euros.

Financial information required under IFRS 12 is presented before eliminations of intercompany transactions and restatements, and is based on 100% ownership.

(in millions of euros)	**December 31, 2019**		**December 31, 2018**	
	ETC	**SIner-GIE**	**ETC**	**SIner-GIE**
	Front End	Corporate	Front End	Corporate
Country	UK	France	UK	France
% held	50%	50%	50%	50%
Revenue	**126**	**161**	**136**	**167**
EBITDA	**37**	**10**	**38**	**13**
Net income	**18**	**(1)**	**25**	**0**
Including increases to amortization and depreciation	(6)	(9)	(4)	(19)
Including interest income/expense	-	**-**	-	-
Including tax income/expense	-	**-**	-	-
Other items of comprehensive income	**(8)**	**0**	**18**	**-**
Comprehensive income	**10**	**(1)**	**43**	**0**

(in millions of euros)	December 31, 2019		December 31, 2018	
	ETC	SIner-GIE	ETC	SIner-GIE
	Front End	Corporate	Front End	Corporate
Country	UK	France	UK	France
% held	50%	50%	50%	50%
Current assets	**172**	**59**	**156**	**78**
Including cash and cash equivalents	17	19	20	44
Non-current assets	**46**	**32**	**40**	**23**
Current liabilities	**108**	**76**	**96**	**76**
Including current financial liabilities	-	-	-	-
Non-current liabilities	**14**	**16**	**14**	**25**
Including non-current financial liabilities	-	14	-	20
Net assets	**96**	**(2)**	**86**	**0**

(in millions of euros)	December 31, 2019		December 31, 2018	
	ETC	SIner-GIE	ETC	SIner-GIE
	Front End	Corporate	Front End	Corporate
Country	UK	France	UK	France
% held	50%	50%	50%	50%
Share of net equity before eliminations at the beginning of the year	**43**	**0**	**22**	**(5)**
Share of comprehensive income	5	**(1)**	21	-
Share of dividend distributions	-	**-**	-	-
Share of income paid by consortiums	-	**-**	-	5
Other changes	-	**-**	-	-
Share of net equity before eliminations at the end of the year	**48**	**(1)**	**43**	**0**
Consolidation adjustments	(71)	**-**	(75)	-
Investments in joint ventures at the end of the year	-	**-**	-	-
Share of negative net equity	**(23)**	**(1)**	**(32)**	**-**

NON-SIGNIFICANT JOINT VENTURES

(in millions of euros)	December 31, 2019	December 31, 2018
Securities of non-significant joint ventures in assets	**4**	**1**
Securities of non-significant joint ventures in liabilities	**45**	**13**
Share of net income	(31)	(22)
Share of other items of comprehensive income	0	(1)
Share of comprehensive income	(31)	(23)

The non-significant joint ventures are Cominak, ANADEC and Interim Storage Partners.

Note 15 - OTHER CURRENT AND NON-CURRENT ASSETS

OTHER NON-CURRENT ASSETS

(in millions of euros)	December 31, 2019	December 31, 2018
Derivatives on financing activities	29	37
Other assets	77	81
Total Other non-current assets	**106**	**118**

Other assets include inventories of uranium and deposits to finance future expenditure for the redevelopment of mining sites internationally in the amount of 52 million euros as of December 31, 2019 (45 million euros as of December 31, 2018).

OTHER CURRENT FINANCIAL ASSETS

(in millions of euros)	December 31, 2019	December 31, 2018
Derivatives on financing activities	2	46
Cash management financial assets	439	-
Other financial assets	7	20
Total Other current financial assets	**448**	**66**

The increase in cash management financial assets is attributable to the reclassification of funds classified as cash equivalents as of December 31, 2018 in the amount of 460 million euros (see Note 20).

Note 16 - INVENTORIES AND WORK IN PROCESS

(in millions of euros)	December 31, 2019	December 31, 2018
Raw materials and other supplies	444	277
In progress	814	802
Finished goods	411	390
Total gross amount	**1,669**	**1,468**
Provisions for impairment	(158)	(167)
Total Net carrying amount	**1,511**	**1,301**
Inventories and work-in-process:		
at cost	1,489	1,251
at fair value net of disposal expenses	22	50
	1,511	**1,301**

Note 17 – TRADE ACCOUNTS RECEIVABLE AND RELATED ACCOUNTS

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Gross amount	623	628
Impairment	(6)	(2)
Net carrying amount	**617**	**625**

At December 31, 2019, the gross amount of Trade accounts receivable and related accounts does not include unmatured receivables maturing in more than one year.

Breakdown of trade accounts receivable and related accounts

(in millions of euros)	**Net amount**	**Maturing in the future**	**of which due**					
			Less than 1 month	1 to 2 months	2 to 3 months	3 to 6 months	6 months to 1 year	More than 1 year
December 31, 2019	**617**	508	71	22	3	2	4	8
December 31, 2018	**625**	556	19	3	4	4	4	36

Note 18 - ASSETS AND LIABILITIES ON CONTRACTS

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Contract assets	**95**	**97**

At December 31, 2019, contract liabilities include 45 million euros with maturities greater than one year.

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Contract liabilities	**4,781**	**4,514**

Contract liabilities comprise prepaid income, and operating and investment advances and prepayments by customers. They are deducted from the revenue generated under the contracts under consideration, which bears primarily on investment financing for the treatment and recycling of used fuels and uranium sales.

At December 31, 2019, contract liabilities include 3,800 million euros with maturities greater than one year.

Note 19 – OTHER OPERATING RECEIVABLES

(in millions of euros)	December 31, 2019	December 31, 2018
French State receivables	218	345
Advances and down payments to suppliers	103	81
Miscellaneous accounts receivable	174	201
Financial instruments	23	25
Other	1	5
Other operating receivables	**518**	**657**

Government receivables mainly include VAT receivables and tax credits.

“Miscellaneous accounts receivable” includes prepaid expenses, receivables from suppliers and receivables from employees and benefit management bodies.

“Financial instruments” include the fair value of derivatives hedging market transactions and the fair value of the firm commitments hedged.

Other operating receivables do not include receivables maturing in more than one year.

Note 20 - CASH AND CASH EQUIVALENTS

(in millions of euros)	December 31, 2019	December 31, 2018
Cash and cash equivalents	941	963
Cash equivalents	551	1,064
Total	**1,492**	**2,027**

At December 31, 2019, cash and cash equivalents included cash and cash equivalents not immediately available to the group in the amount of 270 million euros (160 million euros at December 31, 2018), chiefly reflecting regulatory restrictions in the amount of 76 million euros and legal restrictions in international markets in the amount of 194 million euros.

Following the entry into force on January 21, 2019 of EU Regulation 2017/1131, funds classified as cash equivalents as of December 31, 2018 have been reclassified as cash management financial assets in the amount of 460 million euros (see Note 15 and the statement of cash flows).

Note 21 – CASH FROM OPERATING ACTIVITIES

CHANGE IN WORKING CAPITAL REQUIREMENT

(in millions of euros)	December 31, 2019	December 31, 2018
Change in inventories and work-in-process	(206)	(44)
Change in accounts receivable and other receivables	165	131
Change in contract assets	2	3
Change in accounts payable and other liabilities	191	(120)
Change in contract liabilities	246	218
Change in advances and prepayments made	(21)	(47)
Change in Forex hedge of WCR	(21)	9
Change in other non-current non-financial assets	(5)	(3)
TOTAL	**352**	**147**

NOTE 22 - EQUITY

CAPITAL

At December 31, 2018, Orano's share capital broke down as follows:

	December 31, 2019	December 31, 2018
French State	50% + 1 share	50% + 1 share
AREVA SA	20%	20%
Natixis(*)	10%	10%
Caisse des Dépôts(*)	10%	10%
CEA	1 share	1 share
MHI	5%	5%
JNFL	5%	5%
Total	**100%**	**100%**

(*) Under a trust agreement and as security on behalf of certain AREVA SA lenders, AREVA SA transferred 10% of the capital of Orano SA to Caisse des Dépôts and 10% of the capital of Orano SA to Natixis. Pursuant to the shareholders' agreement, it was nevertheless agreed that the voting rights held by Caisse des Dépôts and Natixis will be exercised exclusively in accordance with the instructions given by AREVA SA, pursuant to the provisions of the agreement.

Stock option plan

There is no stock option plan.

OTHER TRANSACTIONS WITH SHAREHOLDERS

In the year ended December 31, 2018, other transactions with shareholders were the completion of the capital increase reserved for Japan Nuclear Fuel Limited (JNFL) and Mitsubishi Heavy Industries, Ltd. (MHI) in a total amount of 500 million euros.

In the year ended December 31, 2019, other transactions with shareholders were the capital increase of Orano Expansion unequally subscribed by its shareholders, with a dilutive effect for KIUI, and the creation of the Nurlikum Mining LLc joint venture.

Note 23 - NON-CONTROLLING INTERESTS

Non-controlling interests consist of the share of net equity of interests held by third parties in a subsidiary controlled by the group.

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Orano Expansion and IMOURAREN	(306)	(419)
SOMAïR	42	49
KATCO	150	108
SET and SET Holding	93	87
Orano DS	5	6
Other	(17)	(36)
TOTAL	**(34)**	**(204)**

A subsidiary is considered significant if its revenue is greater than 200 million euros, if its total statement of financial position is greater than 200 million euros or if its net assets exceed 200 million euros in absolute value.
Financial information on significant subsidiaries, required under IFRS 12, is presented before elimination of intercompany transactions.

December 31, 2019

(in millions of euros)	**IMOURAREN**	**SOMAïR**	**KATCO**	**SET**	**Orano DS**
	Mining	Mining	Mining	Front End	DS
Country	Niger	Niger	Kazakhstan	France	France
Percentage stake in non-controlling interests	(*)	36.60%	49.00%	5.00% (**)	26.14%
Revenue	**-**	**120**	**181**	**568**	**292**
EBITDA	**(0)**	**20**	**112**	**367**	**12**
Net income	**(38)**	**(15)**	**78**	**105**	**2**
of which attributable to non-controlling interests	*(2)*	*(6)*	*38*	*5*	*1*
Current assets	15	138	225	642	151
Non-current assets	115	153	149	5,010	36
Current liabilities	(5)	(85)	(18)	(916)	(127)
Non-current liabilities	(1,043)	(69)	(26)	(2,827)	(26)
Net assets	**(919)**	**138**	**329**	**1,909**	**35**
of which attributable to non-controlling interests	*(354)*	*50*	*161*	*95*	*9*
Cash flow from operating activities	(41)	31	109	293	(4)
Cash flow from investing activities	2	(22)	(27)	(22)	(3)
Cash flow from financing activities	48	(9)	(0)	(272)	(6)
Increase (decrease) in net cash	**10**	**(1)**	**85**	**(1)**	**(13)**
Dividends paid to non-controlling interests	-	-	-	(1)	(1)

(*) Imouraren is held directly by Orano Expansion, whose purpose is to finance its subsidiary. The data presented for Imouraren and Orano Expansion are aggregated. The share attributable to non-controlling interests in Imouraren is 36.50%, to those in Orano Expansion, it is 4.72%.
(**) SET is held directly by SET Holding, whose purpose is to finance of its subsidiary. The data presented for SET and SET Holding are aggregated.

December 31, 2018

(in millions of euros)	**IMOURAREN**	**SOMAïR**	**KATCO**	**SET**	**Orano DS**
	Mining	Mining	Mining	Front End	DS
Country	Niger	Niger	Kazakhstan	France	France
Percentage stake in non-controlling interests	(*)	36.60%	49.00%	5.00% (**)	26.14%
Revenue	**-**	**110**	**175**	**588**	**251**
EBITDA	**(8)**	**12**	**116**	**364**	**0**
Net income	**(47)**	**0**	**69**	**9**	**(2)**
of which attributable to non-controlling interests	*(7)*	*0*	*34*	*0*	*(1)*
Current assets	5	124	136	654	139
Non-current assets	114	158	143	5,122	31
Current liabilities	(24)	(59)	(13)	(881)	(112)
Non-current liabilities	(2,114)	(71)	(22)	(3,076)	(20)
Net assets	**(2,018)**	**152**	**244**	**1,819**	**38**
of which attributable to non-controlling interests	*(554)*	*56*	*119*	*91*	*10*
Cash flow from operating activities	(51)	17	116	154	1
Cash flow from investing activities	6	(15)	(33)	39	(4)
Cash flow from financing activities	44	-	(1)	(200)	(6)
Increase (decrease) in net cash	**(1)**	**2**	**76**	**(6)**	**(9)**
Dividends paid to non-controlling interests	-	-	(9)	(1)	(1)

(*) Imouraren is held directly by Orano Expansion, whose purpose is to finance its subsidiary. The data presented for Imouraren and Orano Expansion are aggregated. The share attributable to non-controlling interests in Imouraren is 42.34%, to those in Orano Expansion, it is 13.49%.

(**) SET is held directly by SET Holding, whose purpose is to finance of its subsidiary. The data presented for SET and SET Holding are aggregated.

Note 24 - EMPLOYEE BENEFITS

Depending on the prevailing laws and practices of each country, the group's companies make severance payments to their retiring employees. Long-service awards and early retirement pensions are paid, while supplementary pensions contractually guarantee a given level of income to certain employees.

The group calls on an independent actuary to evaluate its commitments each year.

In some companies, these commitments are covered in whole or in part by contracts with insurance companies or pension funds. In such cases, the obligations and the covering assets are valued independently.

The difference between the commitment and the fair value of the covering assets is either a funding surplus or a deficit. A provision is recognized in the event of a deficit, and an asset is recognized in the event of a surplus, subject to specific conditions.

The group's key benefits

The "CAFC plan" (*Congés Anticipation Fin de Carrières*) is an early retirement plan consisting of a working time account with matching contributions from the employer for personnel who work at night or in certain jobs identified in the agreement. The system is partially covered by an insurance policy.

PROVISIONS RECOGNIZED ON THE STATEMENT OF FINANCIAL POSITION

(in millions of euros)	December 31, 2019	December 31, 2018
TOTAL PROVISIONS FOR PENSION OBLIGATIONS AND OTHER EMPLOYEE BENEFITS	**1,111**	**1,088**
Medical expenses and accident/disability insurance	101	88
Retirement benefits	349	316
Job-related awards	8	7
Early retirement benefits	647	673
Supplemental retirement benefits	6	4

By region *(in millions of euros)*	Eurozone	Other	December 31, 2019
Medical expenses and accident/disability insurance	99	3	101
Retirement benefits	348	1	349
Job-related awards	8	0	8
Early retirement benefits	637	9	647
Supplemental retirement benefits	3	3	6
TOTAL	**1,095**	**16**	**1,111**

ACTUARIAL ASSUMPTIONS

	December 31, 2019	December 31, 2018
Long-term inflation		
– Eurozone	1.3%	1.5%
Discount rate		
– Eurozone	0.6%	1.6%
– US zone	2.6%	4.0%
Pension benefit increases		
– Eurozone	1.3%	1.5%
Social security ceiling increase (net of inflation)	+0.5%	+0.5%

Mortality tables

	December 31, 2019	December 31, 2018
France		
- Annuities	Generation table	Generation table
- Lump sum payments	INSEE Men/Women 2000-2002	INSEE Men/Women 2000-2002

Retirement age in France

	December 31, 2019	December 31, 2018
Management personnel	65	65
Non-management personnel	62	62

The assumptions for average attrition reflect the natural rate of departure for employees prior to retirement age. These assumptions, set for each group company, are broken down by age bracket, with employees nearing retirement assumed to be less mobile than those early in their careers.

The rates in brackets indicate estimated maximum and minimum values in the group.

	Management personnel		Non-management personnel	
	December 31, 2019	**December 31, 2018**	**December 31, 2019**	**December 31, 2018**
France	[3.0% - 0.0%]	[2.6% - 0.0%]	[0.36% - 0.0%]	[0.7% - 0.0%]

Assumed rate of salary increase for the calculation of provisions include inflation.
The rates in square brackets show average revaluations at the beginning of the career, which are assumed to be higher, and those at the end of the career.

	Management personnel		Non-management personnel	
	December 31, 2019	**December 31, 2018**	**December 31, 2019**	**December 31, 2018**
France	[2.3% - 0.8%]	[2.5% - 1.0%]	[2.3% - 0.8%]	[2.5% - 1.0%]

FINANCIAL ASSETS

At December 31, 2019, financial assets consisted of bonds in the proportion of 98%, and other money market instruments in the proportion of 2% (90% and 10% respectively at December 31, 2018).

Effective return on plan assets

	December 31, 2019	**December 31, 2018**
Europe	-0.7%	-0.42%

NET AMOUNT RECOGNIZED

(in millions of euros)	**Medical expenses and accident/disability insurance**	**Retirement benefits**	**Job-related awards**	**Early retirement benefits**	**Supplemental retirement benefits**	**December 31, 2019**	**December 31, 2018**
Defined benefit obligation	101	349	8	719	46	**1,224**	**1,205**
Fair value of plan assets		1		72	40	**113**	**118**
Total defined benefit obligation	**101**	**348**	**8**	**647**	**6**	**1,111**	**1,088**

Sensitivity of the actuarial value to changes in discount rate
An across-the-board decrease in the discount rate of 0.50% would increase the defined benefit obligation by 5.4%.

TOTAL EXPENSE FOR THE FINANCIAL YEAR

December 31, 2019 *(in millions of euros)*	**Medical expenses and accident/disability insurance**	**Retirement benefits**	**Job-related awards**	**Early retirement benefits**	**Supplemental retirement benefits**	**Total**
Current service cost	1	14	1	17	-	**33**
Accretion expense	1	5	(0)	12	1	**18**
Past service costs (including plan changes and reductions)	-	-	-	-	-	**-**
Interest income on assets	-	-	-	(1)	(1)	**(2)**
Recognition of actuarial difference generated during the year on other long-term plans (long-service medals, CATS, etc.)	0	-	1	-	-	**1**
TOTAL expense with statement of income impact	**3**	**19**	**2**	**28**	**0**	**51**
Actual yield on assets net of expected yield	-	-	-	-	1	**1**
Experience differences	(2)	(2)	-	(32)	-	**(36)**
Demographic assumption differences	-	-	-	-	-	**-**
Financial assumption differences (adjustment of discount rate)	14	27	-	44	2	**87**
TOTAL expense with impact on other comprehensive income items	**12**	**26**	**-**	**12**	**4**	**54**
Total expense for the year	**15**	**44**	**2**	**40**	**4**	**104**

CHANGE IN THE DEFINED BENEFIT OBLIGATION

(in millions of euros)	**Medical expenses and accident/disability insurance**	**Retirement benefits**	**Job-related awards**	**Early retirement benefits**	**Supplemental retirement benefits**	**Total**
Defined benefit obligation At December 31, 2018	**88**	**317**	**7**	**747**	**47**	**1,205**
Current service cost	1	13	0	17	-	**32**
Past service costs (including plan changes and reductions)	-	-	-	-	-	**-**
Disposals / Liquidation / Plan reductions	-	-	-	-	-	**-**
Accretion expense	1	5	-	12	1	**18**
Benefits paid during the year	(1)	(12)	-	(68)	(4)	**(85)**
Employee contributions	-	-	-	-	-	**-**
Mergers, acquisitions, transfers	-	-	-	-	-	**-**
Plan transfer	-	-	-	-	-	**-**
Actuarial differences	12	26	-	12	2	**54**
Foreign exchange differences	-	-	-	-	-	**-**
Defined benefit obligation December 31, 2019	**101**	**349**	**8**	**719**	**46**	**1,224**

CHANGE IN FAIR VALUE OF HEDGING ASSETS

(in millions of euros)	
December 31, 2018	**118**
Interest income on assets	2
Benefits paid by earmarked assets	(4)
Actual yield on assets net of expected yield	(2)
December 31, 2019	**113**

CHANGE IN PROVISION MEASURED

(in millions of euros)	
December 31, 2018	**1,088**
Total expense	104
Contributions collected/benefits paid	(82)
Disposals/Liquidation/Plan reductions	-
Change in method	-
Change in consolidated group	-
Currency translation adjustment	-
December 31, 2019	**1,111**

PROVISIONAL SCHEDULE OF USE OF THE PROVISION

(in millions of euros)	
2020 – 2022	255
2023 – 2027	456
2028 and beyond	400
December 31, 2019	**1,111**

Note 25 - OTHER PROVISIONS

(in millions of euros)	December 31, 2018	Charges	Reversal (when risk has materialized)	Reversal (when risk has not materialized)	Other changes (*)	December 31, 2019
Restoration of mining sites and decommissioning of treatment facilities	279	15	(12)	(2)	34	313
Other non-current provisions	-	3	-	-	-	3
Non-current provisions	**279**	**18**	**(12)**	**(2)**	**34**	**316**
Restructuring and layoff plans	63	-	(54)	(4)	(2)	3
Provisions for onerous contracts	161	35	(25)	(22)	0	150
Accrued costs	1,381	107	(80)	(0)	112	1,520
Other current provisions	328	26	(33)	(12)	22	330
Current provisions	**1,933**	**168**	**(192)**	**(38)**	**132**	**2,003**
Total provisions	**2,212**	**186**	**(204)**	**(40)**	**165**	**2,319**

(*) including 140 million euros in accretion and change in discount and inflation rates.

PROVISIONS FOR ONEROUS CONTRACTS

Provisions for onerous contracts mainly concern the Front End segment. For the conversion business, the backlog of orders over the year and the increase in price curves resulted in reversals of provisions in the amount of 30 million euros. In addition, the re-estimate of the quantities of a sales contract gave rise to an allowance of 25 million euros.

PROVISIONS FOR CONTRACT COMPLETION

The main allowances for the financial year relate to the waste and discharges generated by operations, as well as storage costs, particularly in the Back End.

Reversals of provisions mainly cover the treatment of waste that has been processed and sent to the dedicated storage sites operated by Andra.

Main uncertainties

Uncertainties relating to provisions for contract completion bear notably on the definition of treatment channels for each category of waste and operating discharges, which are not all firmly established, the estimate of the cost of completion of the required facilities and the operational costs of future treatment, and on expenditure schedules. The measurement of provisions takes risks into account.

Discount rate

For the year ended December 31, 2019, Orano adopted a long-term inflation assumption of 1.40% and discount rates of between 3.22% and 3.54% (see Note 1.3.11).

At December 31, 2019, the use of a discount rate 25 basis points higher or lower than that used would have the effect of changing the closing balance of provisions for work yet to be carried out by negative 67 million euros or positive 72 million euros.

OTHER CURRENT AND NON-CURRENT PROVISIONS

As of December 31, 2019, other current provisions include:

- provisions for disputes;
- provisions for customer guarantees;
- provisions for ongoing cleanup;
- provisions for the restoration of leased assets;
- provisions for contingencies;
- provisions for charges.

Note 26 - BORROWINGS

(in millions of euros)	Non-current liabilities	Short-term borrowings	**December 31, 2019**	**December 31, 2018**
Bond issues (*)	3,237	578	3,815	4,073
Bank borrowings	5	-	5	4
Interest-bearing advances	157	-	157	143
Short-term bank facilities and current accounts in credit	-	72	72	74
Financial derivatives	6	62	68	52
Miscellaneous debt	1	34	36	70
Total	**3,407**	**746**	**4,153**	**4,415**

(*) after hedging of the interest rate risk

At December 31, 2019, borrowings included in particular:

- bond debts with a carrying amount of 3,743 million euros and accrued interest not yet due of 72 million euros;
- a financial current account credit balance for the ETC joint venture in the amount of 56 million euros.

CHANGE IN BORROWINGS

(in millions of euros)	
Borrowings at December 31, 2018	**4,415**
Cash flows	(375)
Non-cash flows:	
Accrued interest not yet due on borrowings	72
Currency translation adjustments	39
Other changes	1
Borrowings at December 31, 2019	**4,153**

Reconciliation of cash flows on borrowings between the note on borrowings and cash flows from financing activities:

(in millions of euros)	
Cash flows of borrowings	**(375)**
Interest paid	68
Balance on redemption of the bond	(32)
Financial instruments	21
Cash flows of borrowings included in net cash flows from financing activities	**(318)**

The cash flows on borrowings included in net cash flows from financing activities mainly include the redemption of the 2019 bond for 743 million euros, the partial redemption of the 2024 bond for 250 million euros and the new bond issue for 750 million euros.

BORROWINGS BY MATURITY (*)

(in millions of euros)	**December 31, 2019**
Maturing in one year or less	746
Maturing in 1-2 years	755
Maturing in 2-3 years	205
Maturing in 3-4 years	773
Maturing in 4-5 years	769
Maturing in more than 5 years	904
TOTAL	**4,153**

(*) present value

BORROWINGS BY CURRENCY

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Euro	4,090	4,352
US dollar	42	21
Other	21	43
TOTAL	**4,153**	**4,415**

BORROWINGS BY TYPE OF INTEREST RATE

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Fixed rate borrowings	3,171	3,973
Floating rate borrowings	843	346
TOTAL	**4,014**	**4,318**
Other non-interest-bearing debt	72	46
Financial derivatives	68	52
TOTAL	**4,153**	**4,415**

The maturities of the group’s financial assets and borrowings at December 31, 2019 are presented in Note 29.

BOND DEBTS

Issue date	**Balance sheet value** *(in millions of euros)*	**Currency**	**Nominal** *(in millions of currency units)*	**Nominal rate**	**Term/Expiration**
September 23, 2009	769	EUR	750	4.875%	September 2024
September 22, 2010	756	EUR	750	3.5%	March 2021
April 4, 2012	199	EUR	200	TEC10 + 2.125%	March 2022
September 4, 2013	506	EUR	500	3.25%	September 2020
March 20, 2014	773	EUR	750	3.125%	March 2023
April 23, 2019	740	EUR	750	3.375%	April 2026
TOTAL	**3,743**				

The fair value of these bond debts was 3,975 million euros at December 31, 2019.

PAYMENT FLOWS

December 31, 2019

(in millions of euros)	Balance sheet value	**Total payment flows**	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years
Bond debts (*)	3,815	**3,815**	578	756	199	773	769	740
Bank borrowings	5	**5**	-	-	-	-	-	5
Interest-bearing advances	157	**157**	-	-	-	-	-	157
Short-term bank facilities and current accounts in credit	72	72	72	-	-	-	-	-
Miscellaneous debt	36	36	34	-	-	-	-	2
Future interest on financial liabilities	-	642	133	117	87	85	62	159
Total borrowings (excluding derivatives)	**4,085**	**4,727**	**816**	**872**	**286**	**858**	**831**	**1,063**
Derivatives – assets	(31)	**(31)**						
Derivatives – liabilities	68	68						
Total net derivatives	**37**	**37**	34	11	6	(14)		
Total	**4,122**	**4,764**	**850**	**883**	**292**	**844**	**831**	**1,063**

(*) including 72 million euros in accrued interest not yet due.

December 31, 2018

(in millions of euros)	Balance sheet value	**Total payment flows**	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years
Bond debts (*)	4,073	**4,073**	801	514	760	199	777	1,022
Bank borrowings	4	**4**	-	-	-	-	-	4
Interest-bearing advances	143	**143**	-	-	-	-	-	143
Short-term bank facilities and current accounts in credit	74	**74**	74	-	-	-	-	-
Miscellaneous debt	70	**70**	-	2	7	5	8	47
Future interest on financial liabilities	-	**696**	153	125	107	75	72	164
Total borrowings (excluding derivatives)	**4,364**	**5,060**	**1,028**	**642**	**873**	**279**	**858**	**1,380**
Derivatives – assets	(83)	**(83)**						
Derivatives – liabilities	52	**52**						
Total net derivatives	**(31)**	**(31)**	(19)	11	(3)	(8)	(13)	
Total	**4,332**	**5,028**	**1,009**	**653**	**870**	**271**	**845**	**1,380**

(*) including 52 million euros in accrued interest not yet due **.**

Note 27 – OTHER OPERATING LIABILITIES

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Tax debt (excluding corporate income tax)	247	212
Social security liabilities	455	472
Financial instruments	39	67
Other	199	220
Other operating liabilities	**940**	**972**

As of December 31, 2019, other operating liabilities included 97 million euros maturing in more than one year.

Note 28 - RELATED PARTY TRANSACTIONS

Transactions between the parent company Orano SA and its subsidiaries, as well as those between the group's subsidiaries and joint activities are eliminated on consolidation, and are therefore not presented in the tables below.

Related party transactions presented below include:

- current transactions with non-consolidated companies, associates, joint ventures and companies controlled by the French State;
- the gross compensation and benefits granted to directors and the members of the Executive Committee.

December 31, 2019

(in millions of euros)	Interests held by the French State	Associates and joint ventures	Total
Operating income	1,746	16	**1,762**
Operating expenses	88	124	**212**
Trade accounts receivable and other	236	123	**359**
Trade accounts payable and other	2,471	22	**2,493**

December 31, 2018

(in millions of euros)	Interests held by the French State	Associates and joint ventures	Total
Operating income	1,633	19	**1,652**
Operating expenses	47	132	**179**
Trade accounts receivable and other	491	122	**613**
Trade accounts payable and other	2,517	20	**2,536**

RELATIONS WITH THE FRENCH STATE AND STATE-OWNED COMPANIES

The French State was the majority shareholder, directly and indirectly, via AREVA SA, in the capital of Orano at December 31, 2019. The French State accordingly has the faculty, like any shareholder, to control the decisions requiring the approval of the shareholders. In accordance with the laws applicable to all companies in which the French State is a shareholder, Orano is subject to certain control procedures, in particular the economic and financial control of the French State, the control procedures of the Court of Auditors and the Parliament, and audits of the General Inspectorate of Finance.

The group has close relationships with companies controlled by the French State, including:

- Transactions with the CEA pertain to the dismantling work on the CEA's nuclear facilities. The CEA receivable related to the end-of-lifecycle operations at December 31, 2018 was reimbursed in 2019 (see Note 13);
- Transactions with AREVA relate in particular to tax, IT and real estate services;
- Transactions with EDF concern the front end of the nuclear fuel cycle (uranium sales, conversion and enrichment services) and the back end of the cycle (spent fuel shipping, storage, treatment and recycling services). The group has a master treatment/recycling agreement known as the "ATR Contract" with EDF, which specifies the terms of the industrial cooperation between them in the field of treatment/recycling until 2040. As part of this agreement, in February 2016 Orano and EDF signed a new implementation contract defining the technical and financial conditions for this master agreement for the 2016-2023 period;
- Transactions with ANDRA (National Agency for the Management of Radioactive Waste) cover the management, operation and monitoring of low- and intermediate-level radioactive waste disposal facilities at

the ANDRA centers in the Manche and Aube departments, as well as the funding of CIGEO via the additional tax and the special contribution.

ASSOCIATES AND JOINT VENTURES

The group's significant joint ventures are ETC and SIner-GIE (see Note 14).

ETC's main activity is to build, assemble and install centrifuges and associated piping systems enabling its customers to enrich uranium. ETC is also involved in the design of ultracentrifugation enrichment plants to meet its customers' needs and in project management for the construction of these facilities. Orano buys the centrifuges of its enrichment plant Georges Besse 2 from ETC; ETC also maintains this plant.

SI-nerGIE is a consortium (*groupement d'intérêt économique* – GIE) created at the time of the restructuring of AREVA; it is owned by Orano and Framatome (owned by EDF). Its purpose is to share the infrastructure and certain applications of a joint information system, and as such to avoid the additional costs and operational risks relating to information systems.

JOINT OPERATIONS

Orano Canada Inc. holds interests in uranium deposits and ore processing plants. These investments are classified as joint operations. They are accordingly consolidated in proportion to the share held by Orano Canada Inc. The most significant investments are:

Cigar Lake
Cigar Lake is owned by Cameco Corporation (50.025%), Orano (37.1%), Idemitsu Uranium Exploration Canada Ltd (7.875%) and TEPCO Resources Inc (5%). The deposit is operated by Cameco and the ore is processed at the JEB-McClean Lake mill, operated by Orano. This deposit is an underground mine. Mining uses land freezing techniques combined with high-pressure water-jet boring (jet bore mining).

McClean Lake
McClean Lake is owned and operated by Orano (70%), with Denison Mines Ltd (22.5%) and Ourd (7.5%) as partners. This joint activity operates the JEB mill, which processes the ore from Cigar Lake using the dynamic leaching method.

McArthur River
McArthur River is owned by Cameco Corporation (69.8%) and Orano (30.2%). The mined ore is processed at the Key Lake mill. This deposit is mined underground using ground freezing techniques combined with mechanical extraction (raise boring) or explosives (long hole stopping).

Key Lake
This plant is owned by Cameco Corporation (83.33%) and Orano (16.67%). It processes the ore from McArthur River. A decision was taken in 2018 to undertake temporary care and maintenance work on the McArthur River mine and its Key Lake mill.

COMPENSATION PAID TO KEY EXECUTIVES

(in thousands of euros)	December 31, 2019	December 31, 2018
Short-term benefits	5,068	4,318
Termination benefits	680	40
Post-employment benefits	212	(16)
TOTAL	**5,960**	**4,342**

Key executives are:

- the Chairman of the Board of Directors and the Chief Executive Officer appointed by the Board of Directors;
- members of the Executive Committee.

Note 29 - FINANCIAL INSTRUMENTS

Orano uses financial derivatives to manage its exposure to foreign exchange and interest rate risk. These instruments are generally qualified as hedges of assets, liabilities or specific commitments.

Orano manages all risks associated with these instruments by centralizing the commitment and implementing procedures setting out the limits and characteristics of the counterparties.

FOREIGN EXCHANGE RISK MANAGEMENT

The change in the exchange rate of the US dollar against the euro may affect the group's income in the medium term.

In view of the geographic diversity of its locations and operations, the group is exposed to fluctuations in exchange rates, particularly the dollar-euro exchange rate. The volatility of exchange rates may impact the group's currency translation adjustments, equity and income.

Currency translation risk: the group does not hedge the currency translation risk into euros of consolidated financial statements of subsidiaries that use a currency other than the euro, to the extent that this risk does not result in a flow. Only dividends expected from subsidiaries for the following year are hedged as soon as the amount is known.

Financing risk: The group finances its subsidiaries in their functional currencies to minimize the foreign exchange risk from financial assets and liabilities issued in foreign currencies. Loans and advances granted to subsidiaries by the department of Treasury Management, which centralizes financing, are then systematically converted into euros through foreign exchange swaps or cross currency swaps.

To limit the currency risk for long-term investments generating future cash flows in foreign currencies, the group uses a liability in the same currency to offset the asset whenever possible.

Trade exposure: The principal foreign exchange exposure concerns fluctuations in the euro/US dollar exchange rate. The group's policy, which was approved by the Executive Committee, is to systematically hedge foreign exchange risk generated by sales transactions, whether certain or potential (in the event of hedging during the proposal phase), so as to minimize the impact of exchange rate fluctuations on net income.

To hedge transactional foreign exchange risk, including trade receivables and payables, firm off-balance sheet commitments (customer and supplier orders), highly probable future flows (sales or purchasing budgets, projected margins on contracts) and calls for proposals in foreign currencies, Orano purchases financial derivatives (mainly currency futures) or specific insurance contracts issued by Coface. Hedging transactions are accordingly backed by underlying transactions in identical amounts and maturities, and are generally documented and eligible for hedge accounting (excluding possible hedges of tenders submitted in foreign currencies).

Financial derivatives set up to hedge foreign exchange risk at December 31, 2019

	Notional amounts by maturity date							Market value
(in millions of euros)	**< 1 year**	**1 to 2 years**	**2 to 3 years**	**3 to 4 years**	**4 to 5 years**	**> 5 years**	**Total**	
Forward exchange transactions and currency swaps	1,967	737	482	208	0	-	**3,395**	**(83)**
Currency options	-	-	-	-	-	-	**-**	**-**
Cross-currency swaps	-	-	-	-	-	-	**-**	**-**
TOTAL	**1,967**	**737**	**482**	**208**	**0**	**-**	**3,395**	**(83)**

Financial derivatives set up to hedge foreign exchange risk at December 31, 2018

	Notional amounts by maturity date							Market value
(in millions of euros)	**< 1 year**	**1 to 2 years**	**2 to 3 years**	**3 to 4 years**	**4 to 5 years**	**> 5 years**	**Total**	
Forward exchange transactions and currency swaps	1,580	77	525	303	17	-	**3,202**	**(50)**
Currency options	-	-	-	-	-	-	**-**	**-**
Cross-currency swaps	346	-	-	-	-	-	**346**	**34**
TOTAL	**1,926**	**777**	**525**	**303**	**17**	**-**	**3,548**	**(17)**

At December 31, 2019, financial derivatives used to hedge foreign currency exposure broke down by type of hedging strategy as follows:

(in millions of euros)	**Notional amounts in absolute value**	**Market value**
Cash flow hedges	**2,517**	**(74)**
Forward exchange transactions and currency swaps	2,517	(74)
Fair value hedges	**754**	**(9)**
Forward exchange transactions and currency swaps	754	(9)
Cross-currency swaps	-	-
Derivatives not qualifying as hedges	**124**	**0**
Forward exchange transactions and currency swaps	124	0
Total	**3,395**	**(83)**

At December 31, 2018, financial derivatives used to hedge foreign currency exposure broke down by type of hedging strategy as follows:

(in millions of euros)	**Notional amounts in absolute value**	**Market value**
Cash flow hedges	**2,498**	**(50)**
Forward exchange transactions and currency swaps	2,498	(50)
Fair value hedges	**971**	**33**
Forward exchange transactions and currency swaps	625	(0)
Cross-currency swaps	346	34
Derivatives not qualifying as hedges	**79**	**(0)**
Forward exchange transactions and currency swaps	79	(0)
Total	**3,548**	**(17)**

LIQUIDITY RISK

Liquidity risk is managed by the Financing and Treasury Operations Department ("DOFT"), which provides the appropriate short- and long-term financing resources.

Cash management optimization is based on a centralized system to provide liquidity and manage cash surpluses. Management is provided by DOFT chiefly through cash-pooling agreements and intragroup loans, subject to local regulations. Cash is managed to optimize financial returns while ensuring that the financial instruments used are liquid.

The next significant maturity is September 4, 2020. It relates to a bond issued in a nominal amount of 500 million euros.
Orano had a gross cash position of 1,492 million euros as of December 31, 2019 to meet these commitments and ensure longer-term operating continuity (see Note 20) and cash management financial assets of 439 million euros (see Note 15). The group also has a syndicated line of credit with a pool of 11 international banks in the amount of 940 million euros maturing in July 2022, with a one-year extension option.

COUNTERPARTY RISK

Orano is exposed to counterparty risk in respect of cash deposits with banks and the use of derivative financial instruments to hedge its risks.

To minimize this risk, Orano deals with a diversified group of front-ranking counterparties confined to those with investment grade ratings awarded by Standard & Poor's and Moody's.

INTEREST RATE RISK

Orano hedges its exposure to changes in the value of its fixed rate debt through the use of fixed/variable interest rate swaps.

Financial derivatives set up to hedge interest rate risk at December 31, 2019

	Notional amounts by maturity date							
(in millions of euros)	**Total**	**< 1 year**	**1 to 2 years**	**2 to 3 years**	**3 to 4 years**	**4 to 5 years**	**> 5 years**	**Market value (1)**
Interest rate swaps – EUR variable lender								
EUR fixed borrower	**200**	-	-	200	-	-	-	**(4)**
EUR variable borrower	**100**	-	-	100	-	-	-	**(1)**
CAD variable borrower	**-**	-	-	-	-	-	-	**-**
Interest rate swaps – EUR fixed lender								
EUR variable borrower	**500**	150	150	-	200	-	-	**18**
Inflation rate swaps								
variable lender – USD fixed borrower	**159**	-	159	-	-	-	-	**(13)**
TOTAL	**959**	**150**	**309**	**300**	**200**	**-**	**-**	**(1)**

(1) Foreign exchange portion

At December 31, 2019, financial derivatives used to hedge interest rate exposure broke down by type of hedging strategy as follows:

	Nominal amount of contract	**Market value of contracts (1)**			
(in millions of euros)		**Cash flow hedges (CFH)**	**Fair value hedges (FVH)**	**Not formally documented (Trading)**	**Total**
Interest rate swaps – EUR variable lender					
EUR fixed borrower	200	-	-	(4)	(4)
EUR variable borrower	100	-	-	(1)	(1)
CAD variable borrower	-	-	-		-
Interest rate swaps – EUR fixed lender					
EUR variable borrower	500	-	18	-	18
Inflation rate swaps – USD variable lender					
USD fixed borrower	159	-	-	(13)	(13)
TOTAL	**959**	**-**	**18**	**(19)**	**(1)**

(1) Interest rate portion

The following tables summarize the group's net exposure to interest rate risk, before and after management transactions:

Maturities of the group's financial assets and borrowings at December 31, 2019

(in millions of euros)	**Less than 1 year**	**1 year to 2 years**	**2 years to 3 years**	**3 years to 4 years**	**4 years to 5 years**	**More than 5 years**	**Total**
Financial assets	**1,529**	**-**	**-**	**-**	**-**	**-**	**1,529**
including fixed rate assets	-	-	-	-	-	-	-
including floating rate assets	1,527	-	-	-	-	-	1,527
including non-interest-bearing assets	2	-	-	-	-	-	2
Borrowings	**(746)**	**(755)**	**(205)**	**(773)**	**(769)**	**(904)**	**(4,153)**
including fixed rate borrowings	(511)	(755)	(199)	(773)	(769)	(904)	(3,912)
including floating rate borrowings	(103)	-	-	-	-	-	(103)
including non-interest-bearing borrowings	(133)	-	(6)	-	-	-	(138)
Net exposure before hedging	**783**	**(755)**	**(205)**	**(773)**	**(769)**	**(904)**	**(2,624)**
share exposed to fixed rates	(511)	(755)	(199)	(773)	(769)	(904)	(3,912)
share exposed to floating rates	1,424	-	-	-	-	-	1,424
non-interest-bearing share	(130)	-	(6)	-	-	-	(136)
Off-balance sheet hedging							
on borrowings: fixed rate swaps	150	150	(200)	200	-	-	300
on borrowings: floating rate swaps	(150)	(150)	200	(200)	-	-	(300)
Net exposure after hedging	**783**	**(755)**	**(205)**	**(773)**	**(769)**	**(904)**	**(2,624)**
share exposed to fixed rates	(361)	(605)	(399)	(573)	(769)	(904)	(3,612)
share exposed to floating rates	1,274	(150)	200	(200)	-	-	1,124
non-interest-bearing share	(130)	-	(6)	-	-	-	(136)

On the basis of exposure at the end of December 2019, a 1% increase in interest rates over a full year would have an adverse impact of 11 million euros on financial net debt, and as such on the group's consolidated pre-tax income.

Maturities of the group's financial assets and borrowings at December 31, 2018

(in millions of euros)	**Less than 1 year**	**1 year to 2 years**	**2 years to 3 years**	**3 years to 4 years**	**4 years to 5 years**	**More than 5 years**	**Total**
Financial assets	**2,131**	**-**	**-**	**-**	**-**	**-**	**2,131**
including fixed rate assets	-	-	-	-	-	-	-
including floating rate assets	2,048	-	-	-	-	-	2,048
including non-interest-bearing assets	83	-	-	-	-	-	83
Borrowings	**(922)**	**(517)**	**(767)**	**(205)**	**(786)**	**(1,220)**	**(4,415)**
including fixed rate borrowings	(752)	(514)	(760)	(0)	(777)	(1,169)	(3,973)
including floating rate borrowings	(70)	(9)	(7)	(205)	(8)	(47)	(346)
including non-interest-bearing borrowings	(99)	7	-	-	-	(5)	(97)
Net exposure before hedging	**1,209**	**(517)**	**(767)**	**(205)**	**(786)**	**(1,220)**	**(2,285)**
share exposed to fixed rates	(752)	(514)	(760)	(0)	(777)	(1,169)	(3,973)
share exposed to floating rates	1,978	(9)	(7)	(205)	(8)	(47)	1,702
non-interest-bearing share	(17)	7	-	-	-	(5)	(14)
Off-balance sheet hedging							
on borrowings: fixed rate swaps	50	150	150	(200)	200	-	350
on borrowings: floating rate swaps	(50)	(150)	(150)	200	(200)	-	(350)
Net exposure after hedging	**1,209**	**(517)**	**(767)**	**(205)**	**(786)**	**(1,220)**	**(2,285)**
share exposed to fixed rates	(702)	(364)	(610)	(200)	(577)	(1,169)	(3,623)
share exposed to floating rates	1,928	(159)	(157)	(5)	(208)	(47)	1,352
non-interest-bearing share	(17)	7	-	-	-	(5)	(14)

EQUITY RISK

The group holds a significant amount of publicly traded shares and is exposed to fluctuations in the financial markets. Those traded shares are subject to a risk of volatility inherent in the financial markets. They are presented in the investment portfolio earmarked for end-of-lifecycle operations (see Note 13).

Note 30 - ADDITIONAL INFORMATION ON FINANCIAL INSTRUMENTS

FINANCIAL ASSETS AND LIABILITIES BY CATEGORY

December 31, 2019

Assets

(in millions of euros)	Balance sheet value	Non-financial assets	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Fair value of financial assets
Non-current assets	**7,577**	**37**	**690**	**6,850**	**7,714**
Financial assets earmarked for end- of-lifecycle operations	7,471		657 (*)	6,815	7,646
Other non-current assets	106	37	33	35	68
Current assets	**3,120**	**490**	**2,092**	**538**	**2,630**
Trade accounts receivable and related accounts	617		617		617
Other operating receivables	518	446	51	21	72
Other non-operating receivables	45	44	1		1
Other current financial assets	448		7	441	448
Cash and cash equivalents	1,492		1,416	76	1,492
Total assets	**10,697**	**527**	**2,782**	**7,388**	**10,345**

(*) of which 457 million euros in investment funds with a fair value of 632 million euros.

Breakdown of assets recognized at fair value by valuation technique

(in millions of euros)	**Level 1** Listed prices, unadjusted	**Level 2** Observable inputs	**Level 3** Non-observable inputs	**TOTAL**
Non-current assets	**6,669**	**806**	**7**	**7,482**
Financial assets earmarked for end- of-lifecycle operations	6,669	778	-	7,446
Other non-current financial assets		29	7	35
Current assets	**515**	**23**	**-**	**538**
Other operating receivables	-	21	-	21
Other current financial assets	439	2	-	441
Cash and cash equivalents	76	-	-	76
Total assets	**7,184**	**830**	**7**	**8,020**

Liabilities and equity

(in millions of euros)	Balance sheet value	Non-financial liabilities	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss (*)	Fair value of financial liabilities
Non-current liabilities	**3,468**		**3,462**	**6**	**3,694**
Long-term borrowings	3,407		3,401	6	3,633
Long-term lease liabilities	62		62		62
Current liabilities	**2,555**	**248**	**2,203**	**104**	**2,307**
Short-term borrowings	746		675	71	746
Short-term lease liabilities	20		20		20
Trade accounts payable and related accounts	842		842		842
Other operating liabilities	940	247	660	33	693
Other non-operating liabilities	6	1	5		5
Total liabilities	**6,023**	**248**	**5,665**	**110**	**6,001**

(*) Level 2

December 31, 2018

Assets

(in millions of euros)	Balance sheet value	Non-financial assets	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Fair value of financial assets
Non-current assets	**6,811**	**33**	**699**	**6,079**	**6,882**
Financial assets earmarked for end- of-lifecycle operations	6,693		658 (*)	6,035	6,797
Other non-current assets	118	33	41	44	85
Current assets	**3,424**	**625**	**2,167**	**632**	**2,799**
Trade accounts receivable and related accounts	625		625		625
Other operating receivables	657	579	56	22	78
Other non-operating receivables	48	46	2		2
Other current financial assets	66		21	46	66
Cash and cash equivalents	2,027		1,463	564	2,027
Total assets	**10,234**	**657**	**2,866**	**6,711**	**9,681**

(*) of which 372 million euros in investment funds with a fair value of 476 million euros.

Breakdown of assets recognized at fair value by valuation technique

(in millions of euros)	**Level 1** Listed prices, unadjusted	**Level 2** Observable inputs	**Level 3** Non-observable inputs	**TOTAL**
Non-current assets	**6,308**	**240**	**7**	**6,555**
Financial assets earmarked for end- of-lifecycle operations	6,308	203		6,511
Other non-current financial assets		37	7	44
Current assets	**564**	**68**		**632**
Other operating receivables		22		22
Other current financial assets		46		46
Cash and cash equivalents	564			564
Total assets	**6,872**	**309**	**7**	**7,187**

Liabilities and equity

(in millions of euros)	**Balance sheet value**	**Non-financial liabilities**	**Financial liabilities at amortized cost**	**Financial liabilities at fair value through profit or loss (*)**	**Fair value of financial liabilities**
Non-current liabilities	**3,494**		**3,489**	**5**	**3,399**
Long-term borrowings	3,494		3,489	5	3,399
Current liabilities	**2,551**	**214**	**2,251**	**87**	**2,354**
Short-term borrowings	922		883	39	938
Trade accounts payable and related accounts	652		652		652
Other operating liabilities	972	213	710	48	758
Other non-operating liabilities	6	1	6		6
Total liabilities	**6,045**	**214**	**5,740**	**91**	**5,753**

(*) Level 2

NET GAINS AND LOSSES ON FINANCIAL INSTRUMENTS

Securities at fair value through profit or loss

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Interest income and dividends	191	116
Other income and expenses	0	0
Change in fair value	659	(406)

Loans and receivables

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Interest	3	3
Impairment	(4)	9
Forgiveness of debt	0	(8)

Financial assets and liabilities at amortized cost

(in millions of euros)	**December 31, 2019**	**December 31, 2018**
Interest income and expense and commissions	(200)	(135)
Other income and expenses	0	0
Gain (loss) from disposal	(0)	-
Impairment	-	-

Cash flow hedges

(in millions of euros)	**Value before tax at December 31, 2018**	New transactions	Change in value	Recognized in profit or loss	**Value before tax at December 31, 2019**
Cash flow hedging instruments	**(12)**	8	(2)	(1)	**(6)**

Note 31 - OFF-STATEMENT OF POSITION COMMITMENTS

(in millions of euros)	**December 31, 2019**	*Less than 1 year*	*From 1 to 5 years*	*More than 5 years*	**December 31, 2018**
Commitments given	**491**	**62**	**243**	**186**	**426**
Operating commitments given	429	56	227	147	330
• *Contract guarantees given*	*376*	*53*	*176*	*147*	*296*
• *Other guarantees and guarantees related to operating activities*	*53*	*2*	*51*	-	*34*
Commitments given on financing	49	5	14	30	80
Other commitments given	13	2	2	9	16
Commitments received	**97**	**93**	**4**	**-**	**108**
Operating commitments received	97	93	4	-	108
Commitments received on collateral	-	-	-	-	-
Other commitments received	-	-	-	-	-
Reciprocal commitments	**1,378**	**149**	**1,229**	**-**	**1,338**

Reciprocal commitments bear chiefly on unused lines of credit and investment orders.

Note 32 - BACKLOG

At December 31, 2019, Orano's backlog amounted to 29.9 billion euros, and its breakdown by maturity is as follows:

(in billions of euros)	**Total**	Less than 1 year	From 1 to 5 years	From 6 to 10 years	More than 10 years
December 31, 2019	**29.9**	3.6	12.0	10.3	4.0

Note 33 - DISPUTES AND CONTINGENT LIABILITIES

Orano may be party to certain regulatory, judicial or arbitration proceedings in the normal course of business. The group is also the subject of certain claims, lawsuits or regulatory proceedings which go beyond the ordinary course of business, the most significant of which are summarized below.

URAMIN CASE

In June 2018, Orano SA and Orano Mining entered into the "acquisition" part of the judicial investigation in the Uramin case. AREVA SA, the former holding company of the AREVA group, filed a civil suit as part of this investigation following a "notice to victim" received from the investigating magistrate in charge of the case in 2015. The Orano group intends to defend its interests through Orano SA and Orano Mining. The judicial investigation is still in progress and no date concerning a possible judgment has been put forward to date.

INVESTIGATIONS

The company has been aware since November 28, 2017 of a preliminary investigation opened by the French National Financial Prosecutor's Office in late July 2015 concerning a uranium trading transaction performed in 2011, and since August 27, 2018 of an investigation into the circumstances surrounding the granting of mining licenses in Mongolia. Orano is collaborating with the judicial authorities in the context of these legal proceedings. No entity of the Orano group has been implicated to date.

APPEALS AGAINST CERTAIN ADMINISTRATIVE DECISIONS CONCERNING THE ACTIVITIES OF THE ORANO GROUP

The activities of the Orano Group require the receipt of various authorizations or administrative decisions (such as prefectural orders, building permits, etc.). These decisions are sometimes challenged, in France and on the part of NGOs, which in certain cases can have an impact on the timetable for carrying out the relevant activities.

COMUF

On January 30, 2019, an association of former workers assigned COMUF (Compagnie Minière d'Uranium de Franceville), a subsidiary of Orano Mining, before the Civil Court of Libreville (Gabon) alleging a breach of the safety of former workers, who were allegedly exposed to chemicals and radiation from uranium matter. By a judgment of May 14, 2019, the suit brought by MATRAC was dropped due to a procedural irregularity in the summons. However, as this decision did not reflect the merits, the NGO has the possibility of filing again subject to the statute of limitations. Orano has always made the protection of its employees a priority. The evidentiary items disclosed to date do not demonstrate the existence of damage attributable to COMUF, nor the admissibility of the action. However, given the partial nature of the evidence it has seen, Orano cannot exclude the possibility that it may have cause to reconsider its position in the light of further items.

RELEASE OF ARLIT HOSTAGES

On October 6, 2016, the manager of a protection company sued AREVA SA and Orano Cycle SA before the Nanterre Tribunal de Grande Instance to obtain payment of compensation that he claims to be due for services he claims to have rendered to the AREVA group in Niger between September 2010 and October 2013. AREVA SA and Orano Cycle SA consider these claims to be unfounded and, as a preliminary point, challenged the jurisdiction of the Tribunal de Grande Instance to hear this dispute. The Tribunal rejected this argument and declared itself competent in a ruling handed down on February 6, 2018. This ruling was upheld on appeal. AREVA and Orano have brought an appeal in cassation. In parallel with these proceedings, the parties attempted to settle their dispute by means of judicial mediation, which, despite the efforts of AREVA and Orano to find a compromise, was unsuccessful. The substantive proceedings will therefore resume in 2020. Even if the court were not to accept the Orano group's position, the financial impact would be limited. However, there could be other indirect consequences such as negative media coverage.

Moreover, since the group includes a great many entities located in other countries, it is regularly audited by the tax authorities. Several audits and tax-related proceedings or disputes have been initiated or are currently being conducted by those authorities or in the courts, but none are expected to give rise to or has given rise to material tax expense that could have a significant impact on the financial statements as the group considers that it has sound means of defense and that it employs the legal procedures available to it to prevent any unfavorable outcome.

Note 34 - AUDITORS' FEES

December 31, 2019

(in thousands of euros)	**PwC Audit**	**KPMG Audit**
	Amount excl. tax	Amount excl. tax
Independent audit, certification & examination of the separate and consolidated financial statements		
Orano	516	371
Consolidated French subsidiaries	782	712
Sub-Total	**1,298**	**1,083**
Services other than auditing the financial statements		
Orano SA	38	36
Consolidated French subsidiaries	21	169
Sub-total	**58**	**204**
TOTAL	**1,356**	**1,287**

Services other than auditing the financial statements mainly concern:

- the review of environmental, social and societal information;
- declarations required by law;
- other services.

December 31, 2018

(in thousands of euros)	**PwC Audit**	**KPMG Audit**
	Amount excl. tax	Amount excl. tax
Independent audit, certification & examination of the separate and consolidated financial statements		
Orano SA	385	320
Consolidated French subsidiaries	726	730
Sub-total	**1,111**	**1,050**
Services other than auditing the financial statements		
Orano SA	-	9
Consolidated French subsidiaries	178	54
Sub-total	**178**	**63**
TOTAL	**1,289**	**1,113**

Note 35 – SUBSEQUENT EVENTS

On February 12, 2020, Orano was informed by letter from the Minister of ecological and solidary transition and the Minister of the economy and finances of their decision to amend certain regulatory provisions relating to the securing of the funding of nuclear expenses. These changes will relate to:

- the regulatory ceiling for the discount rate, which will henceforth be expressed as an actual value (discount rate net of inflation) based on the Ultimate Forward Rate applicable on the date in question as published by the European Insurance and Occupational Pensions Authority, plus 150 basis points. This change will take place gradually over five years;
- the maximum delay granted to the operator to rectify its situation in the case of insufficient cover: this period will be changed to five years;
- removal of the requirement to increase earmarked assets when the rate of cover is between 100% and 110% in certain cases of changes in provisions. However, the threshold above which withdrawals from earmarked funds will be possible will be changed to 120%.

These amendments have no impact on the group's financial statements as of December 31, 2019.

NOTE 36 - TRANSITION OF 2018 FINANCIAL STATEMENTS AS REPORTED TO RESTATED 2018 FINANCIAL STATEMENTS

This note summarizes the main impacts of the first-time application of IFRS 16 as of January 1, 2019, as well as the change in presentation of end-of-lifecycle operations in the statement of income, with the reclassification of dismantling costs net of provisions/reversals of provisions for end-of-lifecycle operations from “gross margin” to “other operating expenses” (see Note 1.3.1).

TRANSITION FROM THE STATEMENT OF FINANCIAL POSITION AS REPORTED AT DECEMBER 31, 2018 TO THE RESTATED STATEMENT OF FINANCIAL POSITION AT JANUARY 1, 2019

Assets *(in millions of euros)*	**December 31, 2018 Reported**	IFRS 16 adjustments	**JANUARY 1, 2019 Restated**
NON-CURRENT ASSETS	**17,681**	**50**	**17,731**
Goodwill	1,229		1,229
Intangible assets	1,278		1,278
Property, plant and equipment	8,120		8,120
Right of use – leases	-	50	50
End-of-lifecycle assets (third party share)	139		139
Financial assets earmarked for end-of-lifecycle operations	6,693		6,693
Investments in joint ventures and associates	1		1
Other non-current assets	118		118
Deferred tax assets	104		104
CURRENT ASSETS	**4,859**		**4,859**
Inventories and work-in-process	1,301		1,301
Trade accounts receivable and related accounts	625		625
Contract assets	97		97
Other operating receivables	657		657
Other non-operating receivables	48		48
Current tax assets	37		37
Other current financial assets	66		66
Cash and cash equivalents	2,027		2,027
TOTAL ASSETS	**22,540**	**50**	**22,590**

SHAREHOLDERS' EQUITY AND LIABILITIES *(in millions of euros)*	December 31, 2018 Reported	IFRS 16 adjustments	JANUARY 1, 2019 Restated
EQUITY	**723**		**723**
NON-CURRENT LIABILITIES	**12,799**	**34**	**12,834**
Employee benefits	1,088		1,088
Provisions for end-of-lifecycle operations	7,881		7,881
Other non-current provisions	279		279
Share in negative net equity of joint ventures and associates	45		45
Long-term borrowings	3,494		3,494
Long-term lease liabilities	-	34	34
Deferred tax liabilities	13		13
CURRENT LIABILITIES	**9,017**	**16**	**9,033**
Current provisions	1,933		1,933
Short-term borrowings	922		922
Short-term lease liabilities	-	16	16
Trade accounts payable and related accounts	652		652
Contract liabilities	4,514		4,514
Other operating liabilities	972		972
Other non-operating liabilities	7		7
Current tax liabilities	19		19
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	**22,540**	**50**	**22,590**

TRANSITION FROM REPORTED STATEMENT OF INCOME TO RESTATED STATEMENT OF INCOME FOR THE YEAR ENDED DECEMBER 31, 2018

(in millions of euros)		Change in presentation	
Revenue	**3,623**	**-**	**3,623**
Cost of sales	(3,047)	40	(3,007)
Gross margin	**576**	**40**	**617**
Research and development expenses	(97)	-	(97)
Marketing and sales expenses	(38)	-	(38)
General expenses	(103)	-	(103)
Other operating income	344	-	344
Other operating expenses	(186)	(40)	(206)
Operating income	**517**	**-**	**517**
Share in net income of joint ventures and associates	(10)	-	(10)
Operating income after share in net income of joint ventures and associates	**506**	**-**	**506**
Net financial income	**(978)**	**-**	**(978)**
Income tax	**(70)**	**-**	**(70)**
Net income from continuing operations	**(542)**	**-**	**(542)**
Net income for the period	**(542)**	**-**	**(542)**

8.2 Company financial statements – Financial year ended December 31, 2019

Orano

COMPANY FINANCIAL STATEMENTS

Financial year ended December 31, 2019

Note: Tables are generally expressed in thousands of euros. Rounding may in some cases lead to differences in totals or in changes.

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STATEMENT OF FINANCIAL POSITION

Assets *In thousands of euros*	Note Appendix	2019 Gross	2019 Depreciation/Amortization	2019 Net	2018 Net
Uncalled share capital					
Non-current assets					
Research and development expenses					
Concessions, patents, licenses, software and similar		216	3	212	
Leasehold					
Other intangible assets					
Intangible assets in progress					
Advances and prepayments					
Total intangible assets		**216**	**3**	**212**	
Land					
Buildings					
Plant, equipment and tooling					
Other property, plant and equipment (PPE)		13,978	221	13,757	
Plant, property and equipment in progress					37
Advances and prepayments on PPE					
Total property, plant and equipment	**5.1/5.2**	**13,978**	**221**	**13,757**	**37**
Associates		6,514,526	677,090	5,837,435	5,348,169
Loans to associates		3,001,009	113,371	2,887,639	3,146,797
Long-term shareholdings in trading portfolio					
Other long-term securities					
Loans					
Other long-term investments		7,061		7,061	7,061
Total long-term investments	**5.3/5.4**	**9,522,596**	**790,461**	**8,732,135**	**8,502,028**
Total non-current assets		**9,536,790**	**790,686**	**8,746,104**	**8,502,065**
Current assets					
Raw materials and supplies					
Goods in process					
Intermediate and finished products					
Goods					
Total inventories and work-in-process					
Advances and prepayments on orders		**630**		**630**	
Accounts receivable and related accounts		7,867		7,867	5,482
Other accounts receivable		214,880		214,880	163,423
Subscribed capital called for, unpaid					
Total receivables	**5.5**	**222,747**		**222,747**	**168,905**
Marketable securities		914,165	115	914,050	1,011,493
Cash instruments					33,547
Cash and cash equivalents and non-trade current		718,935		718,935	980,672
Total cash and marketable securities	**5.7**	**1,633,100**	**115**	**1,632,985**	**2,025,712**
Prepaid expenses					
Total current assets		**1,856,477**	**115**	**1,856,362**	**2,194,617**
Deferred charges		10,412		10,412	7,715
Bond redemption premiums		10,262		10,262	8,247
Unrealized foreign exchange gains					
TOTAL ASSETS		**11,413,941**	**790,801**	**10,623,140**	**10,712,644**

Shareholders' equity and liabilities

In thousands of euros	Note Appendix	2019	2018
Share capital	**5.8**	**132,076**	**132,076**
Additional paid-in capital, merger premiums, share premiums		3,550,601	3,550,601
Legal reserve		13,208	10,886
Reserves in accordance with the articles of association			
Other reserves		4,041	4,041
Retained earnings		333,207	-225,436
Net income for the financial year (profit or loss)		**-276,611**	**560,964**
Government grants			
Tax-driven provisions			
Total shareholders' equity	**5.9**	**3,756,522**	**4,033,133**
Other shareholders' equity			
Proceeds from issues of equity securities			
Advances subject to covenants			
Total other shareholders' equity			
Provisions for contingencies and charges			
Provisions for contingencies		6,566	4,554
Provisions for charges		1,428	3,243
Total provisions for contingencies and charges	**5.10**	**7,994**	**7,797**
Liabilities			
Convertible bond debt			
Other bond debt		3,771,447	4,012,787
Bank borrowings		1	27
Miscellaneous loans and borrowings		1,206	2,400,879
Advances and prepayments on orders			
Trade accounts payable and related accounts		43,111	33,445
Taxes and employee-related liabilities		2,119	1,322
Accounts payable on non-current assets and related accounts			
Other liabilities		2,993,208	155,224
Financial instruments		4,058	2,691
Deferred income		43,475	65,342
Total liabilities	**5.11**	**6,858,625**	**6,671,714**
Unrealized foreign exchange losses			
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		**10,623,140**	**10,712,644**

STATEMENT OF INCOME

In thousands of euros	Note Appendi	2019	2018
Operating income			
Sales of goods			
Sales of products			
Services performed		122,317	121,086
Revenue (1)		**122,317**	**121,086**
Production in inventory			
Self-constructed assets			
Operating subsidies			
Reversals of provisions, amortization and depreciation		1,826	
Transferred expenses		6,561	3,880
Other income			
Total operating income		**130,705**	**124,966**
Operating expenses			
Purchase of goods			
Change in inventory (goods)			
Purchases of raw materials and other supplies			
Change in inventory (raw materials and supplies)			
Other purchases and expenses		172,308	148,141
Taxes and related expenses		655	545
Salaries and other compensation		1,136	1,028
Social security taxes		707	691
Amortization, depreciation and provisions		3,448	5,263
Other expenses		384	531
Total operating expenses		**178,639**	**156,200**
Operating income	**6.1**	**-47,934**	**-31,233**
Share of net income from joint operations			
Profit allocated or loss transferred		42	
Loss allocated or profit transferred			4,839
Financial income			
From equity interests		271,410	116,880
From other marketable securities and capitalized receivables			
Other interest and related income		145,908	122,773
Reversals of provisions, amortization and depreciation		22,034	436,686
Transferred expenses			
Foreign exchange gains		136,320	253,355
Net income from disposals of marketable securities			
Total financial income		**575,673**	**929,695**
Financial expenses			
Amortization, depreciation and provisions		488,405	13,230
Interest and related expenses		291,405	260,331
Foreign exchange losses		136,722	246,146
Net loss on disposals of marketable securities		883	1,916
Total financial expenses		**917,415**	**521,623**
NET FINANCIAL INCOME	**6.2**	**-341,742**	**408,072**
INCOME BEFORE TAX		**-389,635**	**372,000**
(1) Including direct exports		***7,583***	***7,691***

STATEMENT OF INCOME (continued)

In thousands of euros	Note Appendi	2019	2018
Exceptional income			
On financial management transactions		561	
On capital or non-current asset transactions			5
Reversals of provisions, amortization and depreciation			
Transferred expenses			
Total exceptional income		**561**	**5**
Exceptional expenses			
On financial management transactions		132	2
On capital or non-current asset transactions		31,537	18
Amortization, depreciation and provisions			
Total exceptional expenses		**31,669**	**20**
Exceptional items	**6.3**	**-31,107**	**-15**
Employee profit-sharing		-9	30
Income tax	**6.4**	-144,122	-189,010
NET INCOME		**-276,611**	**560,964**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

The notes hereunder supplement the statement of financial position for the financial year ended December 31, 2019 showing total assets of 10,623,140 thousand euros, and the statement of income, showing a net loss of 276,611 thousand euros. These statements are for the 12-month financial year beginning January 1 and ending December 31, 2019.

These notes to the financial statements include:

- Highlights of the financial year;
- Accounting principles and methods;
- Changes in accounting methods;
- Notes to the statement of financial position;
- Notes to the statement of income;
- Additional information.

These notes and tables form an integral part of the annual financial statements to December 31, 2019 approved by the Board of Directors on February 27, 2020.

1. CONTEXT OF THE STATEMENTS AND HIGHLIGHTS OF THE PERIOD

1.1. Relocation of the registered office of Orano SA

Since September 15, 2019 the Orano SA registered office has been located at 125 avenue de Paris in Chatillon, in Hauts-de-Seine.

1.2. Funding

On April 9, 2019, Orano successfully issued a maiden 750 million euro 7-year bond (maturity 2026) bearing an annual coupon of 3.375% (yield of 3.50% on issue).

In parallel with this issue, Orano launched a partial redemption offer on the 2023 and 2024 bonds issued by Areva and contributed to Orano in 2016. The maximum amount of acceptance of redeemed securities was 250 million euros, allocated entirely to the 2024 bond.

With these transactions, Orano was able to strengthen the group's liquidity position, renew its long-term funding and as such optimize its borrowing profile.

1.3. Liquidity position and continuity of operations

Continuity of operations is assessed for the entire Orano group insofar as Orano SA, as the group's centralizing cash-pooling company, must ensure the financing of its subsidiaries' requirements.

Orano's short-term borrowings amounted to 571 million euros as of December 31, 2019, including:

- the maturity of a 500 million euro bond on September 4, 2020; and
- accrued interest not due in the amount of 71 million euros.

Beyond a 12-month period, the first significant debt maturity is a 750 million euros bond due on March 22, 2021.

Orano had a gross cash position of 1,633 million euros as of December 31, 2019 to meet these commitments and ensure the continuity of its operations over the longer term. Additionally, the Group has a syndicated line of credit of 940 million euros with a pool of 11 international banks.

1.4. Capital increase of Orano Cycle

On December 30, 2019, Orano subscribed to the full capital increase of its subsidiary Orano Cycle in the amount of 950,000 thousand euros.

1.5. Write-down of investments in associates and loans to associates

As described in Note 2.2., at the end of each financial year, each Group activity is valued according to its projected profitability.

The recoverable amounts are translated into the financial statements by an adjustment of the write-down of certain investments in associates, of non-trade current accounts, of loans to associates held by Orano SA (see Note 5.4), and of provisions for financial risks (see Note 5.10). The main expense for impairment of securities recorded during the financial year involved Orano Mining in the amount of 471,768 thousand euros, arising from the decrease in the value in use of Orano Mining, mainly related to the change over time in the uranium price curve.

2. ACCOUNTING PRINCIPLES AND METHODS

The annual financial statements of Orano SA for the year ended December 31, 2019 were prepared in accordance with French accounting standards as defined in Articles 121-1 and 121-5 et seq. of the French GAAP (*plan comptable général*). The accounting policies were applied in compliance with the French Commercial Code, the Accounting Decree of November 29, 1983, ANC Regulation No. 2014-03 and ANC Regulation No. 2018-07 related to the redrafting of the French GAAP applicable to year-end closing.

2.1. Valuation of property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets are valued at their acquisition or production cost, including start-up expenses.

They are depreciated based on the approach deemed most representative of the loss of economic value of each component, with each component depreciated based on its own useful life. Depreciation is calculated using the straight-line method and rates normally applicable to these categories of assets.

The maximum depreciation periods are as follows:

- five years for off-the-shelf software;
- ten years for building improvements and office furniture; and
- five years for office equipment and IT hardware.

Depreciation may be supplemented for certain assets when the value in use becomes less than its net carrying amount. The resulting net carrying amount may be considered to be economically justified.

2.2. Long-term investments

Long-term investments appear on the assets side of the statement of financial position at their transfer value or acquisition cost. The acquisition cost means the purchase price plus costs directly related to the purchase, in particular commissions paid to acquire the investment.

At each year-end, investments in associates are measured at their value in use. An impairment loss is recognized when their value in use, assessed individually for each interest, falls below their historical cost.

The value in use is determined

- based on the percentage share of the subsidiary's net assets at the end of the financial year
- on the basis of the present value of the projected future cash flows, based on the strategic plan approved by the governance bodies and its underlying assumptions, plus its terminal value, which corresponds to the present value, discounted to infinity, of the cash flows for the "normative year" estimated at the end of the period covered by the future cash flow projections. However, certain activities have a finite useful life (for example due to the finite mineral resources in the mines or the limited duration of the operating permits in nuclear activities); in this case, the cash flows taken into account to measure their value in use are not discounted to infinity, but rather to the end of their expected useful life.

The write-down is calculated based on the share of net assets held at the end of the financial year.

Loans to associates are recorded at face value. A provision for impairment is recognized if necessary to reflect the actual value at year end.

2.3. Receivables and borrowings

Receivables and borrowings are valued at face value. Receivables may be written down by a provision to reflect potential collection difficulties based on information available at closing.

Receivables and borrowings in foreign currencies are translated and recorded in euros based on exchange rates in effect at year end. Unrealized gains and losses are recorded on the balance sheet as currency translation differences. Receivables and borrowings in foreign currencies whose exchange rates have been hedged are recorded in euros based on the hedged rate. Unrealized foreign exchange losses are recognized through a contingency provision.

2.4. Financial instruments

Orano SA uses derivatives to hedge foreign exchange risks and interest rate risks both for its own transactions and those carried out by its subsidiaries. The derivatives used predominantly consist of: forward exchange contracts, currency and interest rate swaps, inflation swaps and currency options. The company has applied ANC Regulation No. 2015-05 since January 1, 2017. This change had no material impact at the time it was applied.

The risks hedged relate to receivables, borrowings and firm commitments in foreign currencies. The derivatives traded to hedge subsidiaries' exposure are systematically backed by symmetrical instruments with banking counterparties to hedge the exposure of Orano SA.

Accounting principles:

- Gains and losses on derivatives traded to hedge the subsidiaries' exposure are recognized through profit and loss at maturity, thus matching the gains and losses recognized on the derivatives negotiated by Orano SA with the banks;
- The interest rate derivatives negotiated by Orano SA are qualified as hedging instruments in the company financial statements. Accrued interest not yet due is recognized in the statement of financial position with an offsetting entry to the statement of income.

2.5. Non-trade current accounts

Non-trade current accounts are reported under "Other accounts receivable" when they appear on the assets side of the statement of financial position. Otherwise, they appear on the liabilities side under "Other liabilities". The previous years such non-trade current accounts were presented under "Cash and cash equivalents and non-trade current accounts" on the debit side and under "Financial liabilities" on the credit side.

2.6. Marketable securities

Marketable securities are valued at the lower of their acquisition cost or their net carrying amount. A provision for impairment is recorded when the valuation at the end of the period shows an overall capital loss by class of securities. The net carrying amount is equal to the average closing market price of the securities for the last month of the period.

2.7. Bond debt

Bond debt is recognized as borrowings, as provided in generally accepted accounting principles in the French GAAP (*plan comptable général*).

Redemption premiums and deferred charges related to bond debt are amortized in a straight line over the term of the issue.

2.8. Provisions for contingencies and charges

Provisions for contingencies and charges are established whenever there is a probable outflow of resources resulting from a past event, in accordance with the French accounting board rules on liabilities dated December 7, 2000 (CRC 2000-06).

AREVA SA records provisions for contingencies and charges, for instance to cover restructuring or litigation expenses.

Contingent liabilities represent obligations that are neither probable nor certain at the date of closing, or obligations that are probable but where no resource is likely to be expended. Contingent liabilities are not recognized in provisions, but rather disclosed in the notes (see Note 5.10).

2.9. Exceptional items

Items related to the company's ordinary operations are recognized in operating income even if they are exceptional in terms of frequency or amount. Only items that are not related to the company's ordinary operations are recognized as exceptional items in the statement of income, in addition to transactions specifically qualified as exceptional items under French GAAP (regulated provisions, reversals of investment subsidies, gains on disposals of certain assets, etc.).

2.10. Tax information

From September 1, 2017, Orano SA opted to be solely responsible for income tax due on the combined income of the group consisting of Orano SA and the subsidiaries in which it holds at least 95% of the share capital, as provided for in Article 223A of the French General Tax Code. This regime remains in effect for the financial year ended December 31, 2019.

Under the tax consolidation, Orano SA signed an agreement with each of its subsidiaries to manage their relationship in terms of recognizing income tax expense, paying any taxes, and identifying and transferring tax credits. This agreement observes neutrality, in that it stipulates that each consolidated company determines its tax liability as if it had been taxed separately. It lays out the rules that will apply should a subsidiary leave the tax consolidation, and that will continue to uphold neutrality, and refers to the future creation of a withdrawal agreement if that should happen.

3. CHANGES IN ACCOUNTING METHODS

The valuation methods applied are identical to those used in the previous year.

4. EVENTS SUBSEQUENT TO YEAR-END CLOSING

No events subsequent to year-end closing have been identified as likely to have a significant impact on the company's accounts.

5. NOTES TO THE STATEMENT OF FINANCIAL POSITION

5.1. Gross values of property, plant and equipment and intangible assets

Gross amount *In thousands of euros*	Note Appendix	2018	Merger Contribution Spin-off	Increase	Decrease	Change from one line	2019
Intangible assets							
Research and development expenses							
Concessions, patents, licenses, software				216			**216**
Leasehold							
Other intangible assets							
Intangible assets in progress							
Advances and prepayments							
Total intangible assets	**5.1.1**			**216**			**216**
Property, plant and equipment							
Land							
Buildings:							
- Buildings erected on owned land							
- Buildings erected on third-party land							
- Buildings, facilities, fixtures							
Plant, equipment and tooling:							
- Plant, equipment and tooling							
- End-of-lifecycle assets							
Other property, plant and equipment:							
- Miscellaneous facilities, fixtures and improvements				9,447			**9,447**
- Transportation equipment							
- Office equipment, computer equipment and furniture				4,531			**4,531**
- Other property, plant and equipment							
Plant, property and equipment in progress		37			37		
Advances and prepayments on property, plant and equipment							
Total property, plant and equipment	**5.1.1**	**37**		**13,978**	**37**		**13,978**

5.1.1 Acquisitions of intangible assets and property, plant and equipment in connection with the new registered office in Chatillon.

5.2. Amortization, depreciation and impairment of property, plant and equipment and intangible assets

Amortization and depreciation *In thousands of euros*	**Note Appendix**	**2018**	**Merger Contribution Spin-off**	**Increase**	**Decrease**	**Change from one line to another**	**2019**
Intangible assets							
Research and development expenses							
Concessions, patents, licenses, software				3			**3**
Leasehold							
Other intangible assets							
Intangible assets in progress							
Total intangible assets				**3**			**3**
Property, plant and equipment							
Land and improvements							
Buildings:							
- Buildings erected on owned land							
- Buildings erected on third-party land							
- Buildings, facilities, fixtures							
Plant, equipment and tooling:							
- Plant, equipment and tooling							
- End-of-lifecycle assets							
Other property, plant and equipment:							
- Miscellaneous facilities, fixtures and				146			**146**
- Transportation equipment							
- Office equipment, computer equipment and furniture				76			**76**
- Other property, plant and equipment							
Plant, property and equipment in progress							
Total property, plant and equipment				**221**			**221**

5.3. Long-term investments

Gross amount *In thousands of euros*	**Note Appendix**	**2018**	**Increase**	**Decrease**	**2019**
Associates	**5.3.1**	**5,564,406**	950,120		**6,514,526**
Loans to associates	**5.3.2**	**3,254,074**	173,701	426,766	**3,001,009**
Investment portfolio					
Other long-term securities					
Loans					
Other long-term investments:					
- Receivables related to end-of-lifecycle operations					
- End-of-lifecycle assets - Third-party share					
- Miscellaneous long-term investments	**5.3.3**	**7,061**			**7,061**
TOTAL LONG-TERM INVESTMENTS		**8,825,541**	**1,123,821**	**426,766**	**9,522,596**

5.3.1 The "Associates" item amounted to 6,514,526 thousand euros. It consists mainly of the following equity investments:

- Orano Cycle 3,468,292 thousand euros;
- Orano Mining 2,356,194 thousand euros;
- Orano USA LLC 358,391 thousand euros;
- Orano Support 122,069 thousand euros;
- Orano Med 108,782 thousand euros;
- Orano Projets 63,844 thousand euros.

The change mostly reflects the subscription to the capital increase of its subsidiary Orano Cycle in the amount of 950,000 thousand euros in December 2019.

5.3.2 The "Loans to associates" item in the amount of 3,001,009 thousand euros concerns medium-term loans granted to companies of the group, including accrued interest (see Note 5.6.1). The companies concerned at December 31, 2019 were mainly:

- Société Enrichissement Tricastin 1,740,169 thousand euros;
- Orano Canada Inc 570,246 thousand euros (832,446 KCAD);
- Orano Mining 350,391 thousand euros;
- Orano Ressources Centrafrique 113,371 thousand euros;
- CFMM 100,000 thousand euros;
- TN America LLC 53,421 thousand euros (60,013 KUSD);
- Orano USA LLC 34,256 thousand euros (38,483 KUSD);
- EURODIF SA 30,002 thousand euros.

Increases in the financial year primarily involved loans granted during the 2019 financial year to CFMM of 100,000 thousand euros and to TN America of 53,421 thousand euros.

The decreases over the period concern foreign exchange movements and the repayments made during the 2019 financial year for the following companies:

- Société Enrichissement Tricastin 260,062 thousand euros;
- EURODIF SA 100,010 thousand euros;
- Orano Mining 50,095 thousand euros;
- SOMAÏR 9,483 thousand euros.

5.3.3 The "Other long-term investments" item includes Orano SA's equity interest in mutual insurance company European Liability Insurance for Nuclear Industry (ELINI), representing 6,741 thousand euros at December 31, 2019, and in the mutual insurance company BlueRE in the amount of 320 thousand euros.

5.4. Write-downs of long-term investments

Write-downs *In thousands of euros*	**Note Appendix**	**2018**	**Increase**	**Decrease**	**2019**
Associates	**5.4.1**	216,236	471,913	11,059	677,090
Loans to associates	**5.4.2**	107,276	6,094		113,371
Investment portfolio					
Other long-term securities					
Loans					
Other long-term investments:					
- Receivables related to end-of-lifecycle operations					
- End-of-lifecycle assets - Third-party share					
- Miscellaneous long-term investments					
TOTAL LONG-TERM INVESTMENTS		**323,513**	**478,007**	**11,059**	**790,461**

5.4.1 Based on the principles given in Note 2.2.,
impairment charges mainly correspond to provisions on the following securities:

- Orano Mining 471,768 thousand euros.

the reversals of depreciation mainly correspond to provisions on the following securities:

- Orano Support 11,059 thousand euros.

This impairment charge to Orano Mining securities arises from the decrease in the value in use of certain of mining assets, mainly related to the change over time in the price curve.

5.4.2 The write-downs of receivables for loans to associates concern only Orano Ressources Centrafrique. The change of 6,094 thousand euros corresponds to the incorporation of the amount in the current account into the line item for loans.

5.5. Statement of receivables

In thousands of euros	Note Appendix	Gross amount	Term due within one year	Term due past 1 year
Non-current assets				
Loans to associates	5.3.2	3,001,009	233,802	2,767,207
Loans				
Other long-term investments:				
- Receivables related to end-of-lifecycle operations				
- End-of-lifecycle assets - Third-party share				
- Miscellaneous long-term investments		7,061		7,061
Total capitalized receivables		**3,008,070**	**233,802**	**2,774,268**
Current assets				
Suppliers: advances and prepayments made		**630**	**630**	
Working capital: receivables				
Doubtful accounts				
Other trade accounts receivable		7,867	7,867	
Accounts payable to employees and related accounts				
Social security administration and other social institutions				
French State and local governments:				
- Income tax	5.5.1	83,822	2,238	81,584
- Value added tax		8,807	8,807	
- Other taxes and related expenses				
- Miscellaneous French State				
Group and associates	5.5.2	43,717	43,717	
Trade accounts and other receivables		78,534	51,999	26,534
Total gross receivables – working capital		**222,747**	**114,628**	**108,118**
Prepaid expenses				
TOTAL GROSS RECEIVABLES		**3,231,447**	**349,061**	**2,882,386**

5.5.1 Income tax receivables refer to the tax installments for the 2019 financial year paid by the Group to the treasury in the amount of 63,918 thousand euros and to tax credits of 19,830 thousand euros.

Against that, as the parent company of the tax consolidation group, Orano SA recognizes liabilities to the consolidation subsidiaries for their share of payments made and their entitlement to tax credits (see Note 5.11.3).

5.5.2 Non-trade current accounts amounted to 43,717 thousand euros. The companies concerned at December 31, 2019 were mainly:

- Orano UK Ltd 14,536 thousand euros;
- Orano Delfi 5,476 thousand euros;
- Orano Temis 5,066 thousand euros;
- Orano Med LLC 4,956 thousand euros;
- Orano Ressources Southern Africa 3,234 thousand euros;
- Orano D&D Operations LLC 3,194 thousand euros;
- Société Enrichissement Tricastin 2,393 thousand euros.

5.6. Accrued income

(French Decree No. 83-1020 of November 29, 1983 - Article 23)

In thousands of euros	Note Appendix	2019	2018
Long-term investments			
Loans to associates	**5.6.1**	7,863	7,039
Other long-term investments			
Total long-term investments		**7,863**	**7,039**
Working capital: receivables			
Trade accounts receivable and related accounts		4,319	2,953
Accounts payable to employees and related accounts			
Social security administration and other social institutions			
French State and local governments			
Trade accounts and other receivables	**5.6.2**	70,247	97,749
Total receivables – working capital		**74,566**	**100,702**
Marketable securities		**108**	**174**
Cash and cash equivalents			
TOTAL ACCRUED INCOME		**82,537**	**107,916**

5.6.1 This item concerns accrued interest on loans to associates, in particular:

- Orano Canada 5,100 thousand euros;
- Orano USA LLC 2,186 thousand euros.

5.6.2 The change in trade accounts and other receivables is essentially due to the revaluation of financial hedging instruments at the closing rate.

5.7. Net cash

In thousands of euros	Note Appendix	2019	2018
Other marketable securities		914,165	1,011,905
Write-downs		-115	-412
	5.7.1	**914,050**	**1,011,493**
Cash instruments			33,547
Non-trade current accounts	**5.7.2**		139,523
Write-downs			-6,010
			133,513
Cash and cash equivalents		718,935	847,158
TOTAL CASH AND MARKETABLE SECURITIES		**1,632,985**	**2,025,712**

5.7.1 At December 31, 2019, other marketable securities consisted primarily of money market funds and treasury bonds in the amount of 914,165 thousand euros.

5.7.2 As stated in the accounting rules and methods, non-trade current accounts are now presented under “Other accounts receivable” (see Note 5.5.2).

5.8. Share structure

(French Decree No. 83-1020 of November 29, 1983 - Article 24-12)

Category of shares	par value	Number of shares			
		At the beginning of the year	Increase	Decrease	At year-end
Ordinary shares	0.50 euros	264,152,778			264,152,778

The authorized share capital presented above of Orano SA at December 31, 2019 breaks down as follows:

	2019	2018
French State	50% + 1 share	50% + 1 share
AREVA SA	20%	20%
NATIXIS (*)	10%	10%
Caisse des Dépôts (*)	10%	10%
CEA	1 share	1 share
MHI	5%	5%
JNFL	5%	5%
Total	**100%**	100%

(*) Under a trust agreement and as security on behalf of certain AREVA SA lenders, AREVA SA transferred 10% of the capital of Orano SA to Caisse des Dépôts and 10% of the capital of Orano SA to Natixis. Pursuant to the shareholders' agreement, it was nevertheless agreed that the voting rights held by Caisse des Dépôts and Natixis will be exercised exclusively in accordance with the instructions given by AREVA SA, pursuant to the provisions of the agreement.

5.9. Equity

In thousands of euros	Note Appendix	2018	Allocation Net income	Net income for the financial	Increase	Decrease	2019
Subscribed capital		132,076					132,076
Additional paid-in capital, share premiums		3,550,601					3,550,601
Revaluation surplus							
Legal reserve		10,886	2,321				13,208
Restricted reserves							
Regulated reserves							
Other reserves		4,041					4,041
Retained earnings		-225,436	558,643				333,207
Unallocated income		-					-
Net income for the financial year		560,964	-560,964	-276,611			-276,611
Net investment subsidies							
Tax-driven provisions							
TOTAL SHAREHOLDERS' EQUITY		**4,033,133**	**-**	**-276,611**			**3,756,522**

5.10. Provisions for contingencies and charges

In thousands of euros	Note Appendix	2018	Increase	Decrease	Reclassifications	2019
Provisions for contingencies						
Provisions for litigation						
Provisions for customer guarantees						
Provisions for taxes						
Provisions for foreign exchange losses						
Other provisions for contingencies	**5.10.1.**	4,554	6,566	4,554		6,566
Total provisions for contingencies		**4,554**	**6,566**	**4,554**		**6,566**
Provisions for charges						
Provisions for retirement and similar benefits		45	11			56
Provisions for taxes						
Provisions for work completion						
Provisions for accrued expenses						
Provisions for mining site reclamation						
End-of-lifecycle provisions						
Provisions for decontamination of tooling						
Other provisions for charges	**5.10.2.**	3,198		1,826		**1,372**
Total provisions for charges		**3,243**	**11**	**1,826**		**1,428**
TOTAL PROVISIONS FOR CONTINGENCIES AND CHARGES		**7,797**	**6,577**	**6,380**		**7,994**
Including charges and reversals						
- Operating			9	1,826		
- Financial			6,568	4,554		
- Exceptional						

5.10.1 Other provisions for contingencies reflect:

- underlying losses on rate swaps in the amount of 5,829 thousand euros;
- the share in the deficit of the Si-nerGiE consortium in the amount of 737 thousand euros.

Reversals in the period consisted of:

- the provision for underlying (unrealized) losses on rate swaps in the amount of 4,554 thousand euros.

5.10.2 Other provisions for expenses mainly involve the impacts of the expiring sublease on the Courbevoie premises.

5.11. Statement of liabilities

In thousands of euros	Note Appendix	Gross amount	Term due within 1 year	Term from 1 to 5 years	Term more than 5 years
Borrowings					
Convertible bond debt					
Other bond debt	**5.11.1**	3,771,447	571,697	2,449,750	750,000
Bank borrowings		1	1		
Miscellaneous loans and borrowings:	**5.11.2**	1,206	1,206		
Total borrowings		**3,772,653**	**572,903**	**2,449,750**	**750,000**
Advances and prepayments on orders					
Other liabilities					
Trade accounts payable and related accounts		43,111	43,111		
Taxes and employee-related liabilities:					
- Accounts payable to employees and related		580	580		
- Social security administration and other social		244	244		
- French State and local governments:					
- Value added tax		1,045	1,045		
- Other taxes		250	250		
- Income tax					
Accounts payable on non-current assets and related					
Group and associates	**5.11.3**	2,928,547	2,871,735	56,813	
Other liabilities		64,661	38,072	26,589	
Cash instruments		4,058	4,058		
Total other liabilities		**3,042,496**	**2,959,094**	**83,402**	
Deferred income	**5.11.4**	43,475	15,674	27,801	
Total unearned income		**43,475**	**15,674**	**27,801**	
TOTAL GROSS LIABILITIES		**6,858,625**	**3,547,672**	**2,560,953**	**750,000**

5.11.1 Bond debt

The balance of bond debt consists of the 3,699,750 thousand euros nominal value of the bond issues plus accrued interest not yet due of 71,697 thousand euros (see Note 5.12.1). An outstanding of 800 million euros in interest rate swaps was backed by these bonds.

Issue date *(in currency thousands)*	Nominal	Currency	Nominal rate	Term/ Expiration
September 23, 2009	749,750	EUR	4.875%	09/2024
September 22, 2010	750,000	EUR	3.500%	03/2021
April 4, 2012	200,000	EUR	CMT 10 +2.125%	03/2022
September 4, 2013	500,000	EUR	3.250%	09/2020
March 20, 2014	750,000	EUR	3.125%	03/2023
April 23, 2019	750,000	EUR	3.375%	04/2026
Total	**3,699,750**	EUR		

On April 9, 2019, Orano successfully issued a maiden 750 million euro 7-year bond (maturity 2026) bearing an annual coupon of 3.375% (yield of 3.50% on issue).

In parallel with this issue, Orano launched a partial redemption offer on the 2023 and 2024 bonds issued by Areva. The maximum amount of acceptance of redeemed securities was 250 million euros, allocated entirely to the 2024 bond.

Bond issues with a nominal value of 750 million euros were redeemed as planned upon maturity on November 6, 2019.

5.11.2 Miscellaneous loans and borrowings

At December 31, 2019, this item amounted to 1,206 thousand euros, consisting of liabilities associated with investment in the associate Orano Japan.

5.11.3 Group and associates

This item consists of

- Orano's liabilities to consolidated French subsidiaries, after calculating the tax consolidation, of 12,781 thousand euros and tax credit liabilities to those subsidiaries of 61,966 thousand euros.
- non-trade current liabilities in the amount of 2,853,801 thousand euros. The companies concerned at December 31, 2019 were mainly:
  - Orano Cycle 1,968,403 thousand euros;
  - TN International 244,223 thousand euros;
  - Société Enrichissement Tricastin 169,436 thousand euros;
  - Orano Federal Services 69,514 thousand euros;
  - ETC 56,221 thousand euros;
  - Orano Assurance et Réassurance 46,340 thousand euros;
  - Orano Support 44,896 thousand euros;
  - Urangesellschaft 31,163 thousand euros;
  - Orano USA LLC 29,969 thousand euros;
  - Orano Mining Namibia 27,702 thousand euros;
  - Orano Projets 25,035 thousand euros;
  - Orano Mining 18,181 thousand euros;
  - EURODIF 14,813 thousand euros;
  - Orano Processing (Namibia) 14,813 thousand euros;
  - SET Holding 14,024 thousand euros;
  - TN America 12,251 thousand euros.

5.11.4 Unearned income

	2019	2018
Unearned financial income	43,475	65,342
Total	**43,475**	**65,342**

The unearned income relates to interest rate swap terminations spread out over the remaining period of the borrowings to reflect their effective interest rate over their term.

5.12. Accrued expenses

In thousands of euros	Note Appendix	2019	2018
Borrowings			
Convertible bond debt			
Other bond debt	**5.12.1**	71,697	62,787
Bank borrowings			
Miscellaneous loans and borrowings			
Total borrowings		**71,697**	**62,787**
Other liabilities			
Trade accounts payable and related accounts	**5.12.2**	23,776	7,669
Taxes and employee-related liabilities		1,012	499
Accounts payable on non-current assets and related accounts			
Other liabilities	**5.12.3**	63,667	81,564
Total other liabilities		**88,455**	**89,733**
TOTAL ACCRUED EXPENSES		**160,151**	**152,519**

5.12.1 This item includes the accrued interest not yet due on bond issues.

5.12.2 The change in trade accounts payable mainly concerns the charge-back by Orano Support of central division costs.

5.12.3 The change in other liabilities is mainly due to the revaluation of financial instruments at the closing rate.

6. NOTES TO THE STATEMENT OF INCOME

6.1. Current operating income

Revenue notably includes:

- charge-backs to the subsidiaries of corporate services for a total amount of 106,794 thousand euros; and
- the revenue from real estate operations in the amount of 8,377 thousand euros.

Operating expenses comprise charge-backs from Orano Support of central division costs, leases and expenses related to the Saint-Quentin site in Yvelines, costs related to the transformation of the Group and as other direct purchases relating to its corporate purpose. Operating losses amount to 47,934 thousand euros.

6.2. Net financial income

Net financial income in the amount of -341,742 thousand euros includes mainly:

- dividends from investments in associates .... 164,070 thousand euros (1);
- net income on non-trade accounts and loans to associates .... 106,740 thousand euros;
- net income on financial instruments .... 14,484 thousand euros;
- interest expenses on loans .... -159,381 thousand euros;
- foreign exchange gains/losses .... -402 thousand euros;
- charges to provisions for investments in associates .... -471,913 thousand euros (2);
- reversals of provisions for investments in associates .... 11,059 thousand euros (3);
- charges to provisions for loans to associates .... -6,094 thousand euros (4);
- reversals of provisions for current accounts .... 6,010 thousand euros (4);
- net charges to provisions for other financial risks .... -2,021 thousand euros;
- amortization expense for redemption premiums
  on bond issues .... -3,715 thousand euros.

(1) Orano Mining and Orano Assurance et Réassurance
(2) Mainly Orano Mining (see Note 5.4.1)
(3) Orano Support
(4) Orano Ressources Centrafrique

6.3. Exceptional items

The negative net income from exceptional items of -31,107 thousand euros largely equates to the payment made following the partial redemption of the bond issue maturing in 2024.

6.4. Income tax

In accordance with the provisions of Article 223A of the French General Tax Code, Orano SA opted to be solely responsible for income tax due on the comprehensive income of the consolidated group in France beginning September 1, 2017.

In the 2019 financial year, Orano SA and its consolidated subsidiaries generated a comprehensive loss of 46,264 thousand euros.

The tax income recognized for the 2019 financial year came to 144,122 thousand euros and consisted of:

- tax savings generated by tax consolidation .... 157,849 thousand euros;
- income tax on earnings from all previous financial years .... -11,338 thousand euros;
- the loss of foreign tax credits .... -2,389 thousand euros.

7. ADDITIONAL INFORMATION

7.1. Workforce

The average workforce of the company was six people at December 31, 2019, as indicated in the following table:

	2019	2018
Management personnel	4	3
Supervisors	2	2
Employees	-	-
TOTAL	**6**	**5**

7.2. Company exposure to market risk

• General objectives

Orano SA uses financial derivatives to manage its exposure to foreign exchange and interest rate risk. These instruments are generally qualified as hedges of assets, liabilities or specific commitments.

Orano SA manages all risks associated with these instruments by centralizing the commitment and implementing procedures setting out the limits and characteristics of the counterparties.

• Foreign exchange risk

The volatility of exchange rates may impact Orano SA's currency translation adjustments, equity and income.

Financing risk: Loans and borrowings granted by Orano SA to its subsidiaries are systematically converted into euros through currency swaps.

To limit currency risk for long-term investments generating future cash flows in foreign currencies, Orano SA uses a liability in the same currency to offset the asset whenever possible.

Trade exposure: The Orano SA policy approved by the Executive Committee seeks to systematically hedge the certain foreign exchange risks generated by its operations, and those of its subsidiaries, to minimize the impact of exchange rate fluctuations on net income.

Orano SA uses financial derivatives (principally forward exchange contracts) to hedge its foreign exchange exposure from trade, including accounts receivable and payable and confirmed off-balance sheet commitments. These hedges are backed by underlying transactions for identical amounts and maturities and, as a general rule, are documented and eligible for hedge accounting.

The Financial Operations and Treasury Management Department covers these exposures directly with its banking counterparties. A system of strict limits, particularly concerning results, marked to market, and foreign exchange positions that may be taken by the Orano SA trading desk, is monitored daily by specialized teams that are also charged with the valuation of the transactions. In addition, analyses of sensitivity to changes in exchange rates are periodically performed.

At December 31, 2019, the financial derivatives used by Orano SA to manage foreign exchange risk were as follows:

In millions of euros

(Notional amounts by maturity date at December 31, 2019)	< 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	> 5 years	Total	Market value
Forward exchange transactions and currency swaps	4,694	1,193	709	313	-	-	**6,909**	**-2**
Cross-currency swaps	-						-	-
TOTAL	**4,694**	**1,193**	**709**	**313**	**-**	**-**	**6,909**	**-2**

• **Interest rate risk**

Orano SA is exposed to interest rate fluctuations mainly on its floating rate borrowings and on its financial investments. The Financial Operations and Treasury Management Department manages all interest rate risks.

Orano SA uses several types of derivative instruments, depending on market conditions, to allocate its borrowings and investments between fixed rates and floating rates, with the goal being mainly to reduce its borrowing costs while optimizing the management of its cash surpluses.

At December 31, 2019, interest rate swaps were the main financial instruments used in the management of external debt. Receiver inflation rate swaps in US dollars were set up with banks to cover payer inflation rate swaps in US dollars set up with Orano Mining.

The amount of the commitments and the sensitivity of the positions taken by the Orano SA trading desk in connection with rate management are subject to limits based on the type of transaction involved.

At December 31, 2019, the following financial instruments were used to hedge interest rate exposure:

Interest rate instruments		**Notional amounts by maturity date at December 31, 2019**						
(in millions of euros)	**TOTAL**	**< 1 year**	**1 to 2 years**	**2 to 3 years**	**3 to 4 years**	**4 to 5 years**	**> 5 years**	**Market value**
Interest rate swaps – EUR variable lender								
EUR fixed borrower	**200**			200				**-4**
Interest rate swaps – EUR variable lender								
EUR variable borrower	**100**			100				**-1**
CAD variable borrower	**-**	-						**-**
Interest rate swaps – EUR fixed lender								
EUR variable borrower	**500**	150	150		200			**18**
Inflation rate swaps								
Variable lender – USD fixed borrower	**159**	159						**-13**
Variable borrower - USD fixed lender	**-159**	-159						**13**
GRAND TOTAL	**800**	**150**	**150**	**300**	**200**			**12**

• **Commodity risk**

Orano SA had no exposure to raw materials risk at December 31, 2019.

• **Equity risk**

To manage its long-term investment positions, Orano SA may elect to use puts and calls backed by portfolio equities. No such transaction was pending at December 31, 2019.

• **Counterparty risk**

Orano SA is exposed to the credit risk of counterparties linked to its use of financial derivatives to cover its risks. Orano SA uses different types of financial derivatives to manage its exposure to foreign exchange and interest rate risks. Orano SA primarily uses forward buy/sell currency and rate derivative products (such as swaps, futures and options) to cover these types of risk. These transactions expose Orano SA to counterparty risk when the contracts are concluded over the counter.

To minimize this risk, Orano SA's Financial Operations and Treasury Management Department deals only with diversified, top quality counterparties based on their ratings in the Standard & Poor's and Moody's rating systems, with a minimum rating of Investment Grade. A legal framework agreement is always signed with these counterparties.

The limits allowed for each counterparty are determined based on its rating and the type and maturity of the instruments traded. Assuming the rating of the counterparty is not downgraded earlier, the limits are reviewed at least once a year and approved by the Chief Financial Officer. The limits are verified in a specific report produced by the internal control teams of the Treasury Management Department. During periods of significant financial instability that may involve an increased risk of bank default, which may be underestimated by ratings agencies, Orano SA monitors advanced indicators such as the value of the credit default swaps (CDS) of the eligible counterparties to determine if the limits should be adjusted.

When conditions warrant (rising counterparty risk, longer term transactions, etc.), market transactions are managed by margin calls that reduce Orano SA's counterparty risk to a predetermined threshold: the Credit Support Annex for trades documented under an ISDA master agreement, or the Collateral Annex for trades documented under a French Banking Federation (FBF) master agreement.

• Market value of financial instruments
The market value of financial instruments pertaining to currency and rates is calculated based on market data at the closing date, using discounted future cash flows, or on prices provided by financial institutions. The use of different market assumptions could have a significant impact on the estimated market values.

• Liquidity risk
The Financial Operations and Treasury Management Department is in charge of liquidity risk management and provides appropriate long-term and short-term financing resources.

Cash management optimization is based on a centralized system to provide liquidity and manage cash surpluses. Management is provided by the Financial Operations and Treasury Management Department, chiefly through cash-pooling agreements and intragroup loans, subject to local regulations. Cash surpluses are managed to optimize financial returns while ensuring that the financial instruments used are liquid.

The next significant maturity is September 4, 2020. It relates to a bond issued in a nominal amount of 500 million euros.

Orano had a gross cash position of 1,633 million euros as of December 31, 2019 to meet these commitments and to ensure the continuity of its operations over the longer term. Additionally, the Group has a syndicated line of credit of 940 million euros with a pool of 11 international banks.

7.3. Related parties

The company did not enter into significant transactions with related parties not entered into under normal market conditions, following the criteria noted below.

A transaction is deemed significant if a lack of disclosure or an erroneous disclosure may have an influence on economic decisions by third parties who rely on the financial statements. Whether a transaction is significant or not depends on the nature and/or the amount of the transaction.

Conditions may be considered “normal” when they are customarily employed by the company in its dealings with third parties, such that the beneficiary of the transaction does not receive a more favorable treatment than other third parties dealing with the company, taking into account the practices of other companies in the same sector.

7.4. Off-balance-sheet commitments

In thousands of euros	Note Appendix	Total	< 1 year	From 1 to 5 years	> 5 years
Commitments given					
Bid guarantees					
Performance warranties		58,768		58,768	
Down payment guarantees					
Guarantees for waivers of warranty retentions					
After-sales warranties					
Other operating commitments		1,697	1,697		
Total operating commitments given		**60,465**	**1,697**	**58,768**	
Comfort letters given					
Guarantees and surety					
Liens given					
Mortgages given					
Other funding guarantees		34,034	29,987	2,711	1,335
Total commitments and collateral given on financing		**34,034**	**29,987**	**2,711**	**1,335**
Guarantees of assets and liabilities					
Guarantees pertaining to rental obligations given					
Other commitments given		2,080		2,080	
Total other commitments given		**2,080**		**2,080**	
I. Total commitments given		**96,579**	**31,684**	**63,559**	**1,335**
Commitments received					
Market guarantees received					
Vendor warranties received					
Other commitments received					
II. Total commitments received					
Reciprocal commitments					
Firm multiyear purchase commitments					
Firm multiyear sales commitments					
Unused lines of credit	**7.4.1**	**940,000**		940,000	
Other reciprocal commitments					
III. Total reciprocal commitments		**940,000**		**940,000**	

7.4.1 Unused lines of credit

In July 2018, the group set up a 780 million euro syndicated line of credit, increased by 60 million euros in December 2018 and 100 million in March 2019. This new facility, signed with a pool of 11 international banks, has a term of three years, with two one-year extension options.

At December 31, 2019 this line had not been drawn down.

7.5. Compensation of corporate officers

The compensation paid to the Chairman of the Board and the Chief Executive Officer of the Group for the period from January 1, 2019 to December 31, 2019 amounts to 0.57 million euros.

7.6. Disputes and potential liabilities

Orano may be party to certain regulatory, judicial or arbitration proceedings in the normal course of business. The group is also the subject of certain claims, lawsuits or regulatory proceedings which go beyond the ordinary course of business, the most significant of which are summarized below.

URAMIN case
In June 2018, Orano SA and Orano Mining entered into the “acquisition” part of the judicial investigation in the Uramin case. AREVA SA, the former holding company of the AREVA group, filed a civil suit as part of this investigation following a “notice to victim” received from the investigating magistrate in charge of the case in 2015. The Orano group intends to defend its interests through Orano SA and Orano Mining. The judicial investigation is still in progress and no date concerning a possible judgment has been put forward to date.

INVESTIGATIONS
The company has been aware since November 28, 2017 of a preliminary investigation opened by the French National Financial Prosecutor’s Office in late July 2015 concerning a uranium trading transaction performed in 2011, and since August 27, 2018 of an investigation into the circumstances surrounding the granting of mining licenses in Mongolia. Orano is collaborating with the judicial authorities as part of these judicial proceedings. No entity of the Orano group is currently implicated.

LIBERATION OF THE ARLIT HOSTAGES
On October 6, 2016, the manager of a protection services company sued AREVA SA and Orano Cycle SA before the Nanterre *Tribunal de Grande Instance* to obtain payment of a success fee that he claims to be due for services he claims to have rendered to the Orano group in Niger between September 2010 and October 2013. AREVA SA and Orano Cycle SA consider these claims to be unfounded and, as a preliminary point, challenged the jurisdiction of the *Tribunal de Grande Instance* to hear this dispute. The Tribunal rejected this argument and declared itself competent in a ruling handed down on February 6, 2018. This ruling was upheld on appeal. AREVA and Orano filed an appeal with France’s highest court of appeal. Along with that proceeding, the parties to the suit tried to settle under court-appointed mediation. Despite the efforts of AREVA and Orano to find a compromise, this was without result. The trial on the merits will thus resume in 2020. Even if the court should not accept the Orano group’s position, the financial impact would be limited, though it could entail other, indirect consequences, such as in the media.

7.7. Subsidiaries and associates

(Article L.233-15 of the French Commercial Code)

	Share of equity owned (as %)	Share capital	Equity other than share capital	Book value of shares owned		Loans and advances granted and outstanding	Amount of guarantees given	Sales revenue excl. VAT of the last financial year ended	Net income of the last financial year ended	Dividends received
				Gross	Net					
A - Detailed financial information on subsidiaries and associates (net carrying amount exceeds 1% of the company's equity)										
1- Subsidiaries (more than 50% of the equity held)										
Orano Cycle 125 avenue de Paris - 92320 Chatillon – France	100.00	305,209	416,602	3,468,292	3,468,292			2,395,210	-534,006	
Orano Mining 125 avenue de Paris - 92320 Chatillon – France	100.00	25,207	363,471	2,356,194	1,792,041	350,391		1,133,486	74,590	160,067
(1) **Orano USA LLC** 1155 F Street, DC 20004 Washington – United States	100.00	248,455	-154,348	358,391	358,391	34,256		18,025	871	
Orano Support 125 avenue de Paris - 92320 Chatillon – France	100.00	490	-71	122,069	11,478			164,413	11,059	
Orano Projets 125 avenue de Paris - 92320 Chatillon – France	100.00	12,769	46,660	63,844	63,844			238,804	13,432	
Orano Med 125 avenue de Paris - 92320 Chatillon – France	100.00	17,055	15,722	108,782	108,782			497	-10,693	
France Orano Assurance et Réassurance 125 avenue de Paris - 92320 Chatillon – France	100.00	6,375	96,065	30,940	30,940			-	3,436	4,004
OranoDelfi 125 avenue de Paris - 92320 Chatillon – France	100.00	456	-215	2,534	241			-	156	
2 -Associates (10% to 50% of the equity held)										
GIE Si-nerGiE Tour AREVA - 92084 Paris La Défense Cedex – France	50.00					7,001		160,709	- 1,474	
B - Summary information on other subsidiaries and associates										
1- Subsidiaries not included in section A 1										
French subsidiaries				158	105					
Foreign subsidiaries				3,323	3,323					
2 - Associates not included in section A 2										
French companies				-	-					
Foreign companies				-	-					

(1) 1 EUR = 1.1234 USD.

8.3 Statutory Auditors' report on the consolidated financial statements for the financial year ended December 31, 2019

Orano SA

Statutory Auditors' report
on the consolidated financial statements

Year ended December 31, 2019

PricewaterhouseCoopers Audit
63 rue de Villiers
92208 Neuilly-sur-Seine, France

KPMG SA
Tour Eqho – 2 avenue Gambetta
92066 Paris La Défense, France

Statutory Auditors' report on the consolidated financial statements

Year ended December 31, 2019

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report includes information specifically required by European regulations or French law, such as information about the appointment of Statutory Auditors. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Orano SA
125 avenue de Paris
92320 Chatillon, France

To the Shareholders,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of Orano SA for the year ended December 31, 2019.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group at December 31, 2019 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Ethics Committee.

Basis for opinion

Audit framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under these standards are further described in the "Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements" section of our report.

Independence

We conducted our audit engagement in compliance with the independence rules applicable to us, for the period from January 1, 2019 to the date of our report, and, in particular, we did not provide any non-audit services prohibited by Article 5(1) of Regulation (EU) No. 537/2014 or the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

Emphasis of matter

Without qualifying our opinion, we draw your attention to Note 36 "Transition from the 2018 published financial statements to the 2018 restated financial statements" to the consolidated financial statements, which describes the impacts of the first-time application of IFRS 16 – Leases on the opening balance sheet and the impacts of the change in presentation in the income statement of end-of-life-cycle operations.

Justification of assessments – Key audit matters

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to the risks of material misstatement that, in our professional judgment, were the most significant in our audit of the consolidated financial statements, as well as how we addressed those risks.

These matters were addressed as part of our audit of the consolidated financial statements as a whole, and therefore contributed to the opinion we formed as expressed above. We do not provide a separate opinion on specific items of the consolidated financial statements.

- **Measurement of the goodwill, property, plant and equipment and intangible assets of the Group's Mining and Front End activities**

Description of risk

At December 31, 2019, the carrying amount of goodwill, intangible assets and property, plant and equipment relating to the Group's Mining and Front End activities amounted to €7,032 million. Impairment losses were recorded on certain assets in the years prior to 2019.

As stated in Note 1.3.7.5 "Impairment of property, plant and equipment, intangible assets and goodwill" to the consolidated financial statements, the Group performs impairment tests on goodwill and intangible assets with indefinite useful lives at least once a year and whenever there is an indication that they may be impaired. The Group also performs impairment tests on property, plant and equipment and intangible assets with a definite useful life when there are indications of a loss or increase in value.

For the Group's Mining and Front End activities, these tests are implemented in the following manner, as described in Notes 9 "Goodwill", 10 "Intangible assets" and 11 "Property, plant and equipment" to the consolidated financial statements:

- With respect to the Mining Business Unit:
  - the cash-generating units (CGUs) of the Mining BU correspond to the mining sites operated by the Group, solely or in partnership. The impairment test on goodwill – which amounts to €858 million – is performed at the level of the Mining BU's group of CGUs;
  - the property, plant and equipment and intangible assets of the mining sites making up the CGUs of the Mining segment are tested for impairment at each year-end, taking into account the continually deteriorating conditions of the uranium market.
- With respect to Front End activities, a distinction should be made between:
  - the Enrichment activity corresponding to a single CGU and including goodwill in the amount of €161 million and intangible assets and property, plant and equipment;
  - the other activities to which no goodwill is allocated. The property, plant and equipment and intangible assets related to these activities are tested at the level of each CGU and are tested for impairment at each year-end, taking into account the improvement in conversion market conditions and the commissioning of the Philippe Coste plant. The impairment test on the Conversion CGU (Comurhex I and Philippe Coste plants) resulted in the recognition of an impairment reversal in the amount of €62 million during the year.

The impairment tests are based on the estimate of the recoverable amount corresponding to the higher of:

- fair value less costs to sell; this fair value is based on observable data (recent transactions, offers received from potential buyers, reported ratios for comparable companies, multiples of uranium resources in the ground); and
- value in use, which is equal to the present value of projected future cash flows.

The future cash flow projections established for these tests are based on fundamental assumptions and estimates such as:

- assumptions as to the price of uranium, conversion and enrichment based on the prices in the order book and derived from projected curves based on the Group's view of the trends in supply and demand for uranium and for conversion and enrichment services;
- forecast production and cost data;
- discount rates applied to future cash flows.

We deemed the measurement of goodwill, intangible assets and property, plant and equipment related to the Mining and Front End activities to be a key audit matter due to:

- the potentially significant impact of impairment tests on the income statement;
- uncertainties surrounding certain assumptions, particularly those that could be impacted by exogenous factors (uranium prices, conversion and enrichment prices, exchange rates and market environments, especially multiples of uranium resources in the ground);
- the high sensitivity of measurements to operating, macro-economic, sectoral and financial assumptions;
- the high degree of judgment required by management with respect to these estimates and assessments.

How our audit addressed this risk

We assessed the methodology's compliance with the applicable accounting standards and gained an understanding of the methods used to carry out impairment tests.

In particular, we assessed the methods used to determine the groups of CGUs as well as the level at which goodwill is tested.

For all impairment tests we:

- gained an understanding of indications of a loss or increase in value;
- assessed the consistency of the forecast data used in the impairment tests with the budget and medium-term plan ("financial projections") prepared by management and approved by the Board of Directors;
- assessed, with the help of our experts, the consistency of the cash flow projections with the information sources available to us (order books, mining plans, operational life of assets, market comparisons, etc.) and with past outcomes;
- with regard to assumptions of uranium, conversion and enrichment prices:
    - confirmed, using sampling techniques, the consistency of current prices, used as a benchmark, with contractual data derived from the fixed component of the backlog,
    - gained an understanding of the analyses prepared by the Group or external experts to construct projected price curves,
    - compared the assumptions used to construct these projected curves with the available market data,
    - analyzed the changes in the prices used compared to those of the previous year;
- studied, with the help of our experts, the impairment tests' calculation methodology and assessed the reasonableness of the measurement inputs used (discount rate and long-term inflation rate);
- reconciled the carrying amount of the net economic assets tested with the underlying accounting items;
- critically examined management's sensitivity tests, particularly assumptions regarding selling prices, exchange rates (especially the euro/dollar exchange rate) and the discount rate.

In relation to the Mining BU, we assessed the consistency of the projected data used in the impairment tests with the mining plans prepared for each mine. In addition, for mineral deposits that have not yet been mined, we studied the resale value assumptions measured on the basis of observable data (recent transactions, offers received from buyers, reported ratios for comparable companies in relation to the levels of reserves and stated deposit resources).

In relation to the Conversion activity, we assessed how future cash flows of circumstantial items related to the context of industrial stabilization and the production ramp up at the Philippe Coste plant were taken into account.

Lastly, we assessed the appropriateness of the disclosures provided in Notes 1.1 "Highlights", 1.3.7.5 "Impairment of property, plant and equipment, intangible assets and goodwill", 9 "Goodwill", 10 "Intangible Assets" and 11 "Property, plant and equipment" to the consolidated financial statements.

- **Recognition of revenue and margin on treatment-recycling contracts**

Description of risk

As indicated in Note 1.3.6 to the consolidated financial statements, the Group operates in the different stages of the fuel cycle, by offering treatment-recycling services in respect of which revenue is recognized according to the degree of completion of the services provided.

The Group is committed by a master agreement with the French utility group EDF (the "ATR Contract") which specifies the terms of industrial cooperation with regard to treatment-recycling up to 2040. As part of this agreement, Orano and EDF signed an implementation contract in February 2016 defining the technical and financial conditions for the transportation and treatment-recycling of EDF's spent fuel for the period 2016-2023.

The measurement of the percentage of completion of the services provided under the treatment-recycling contracts is determined by the ratio of costs incurred in relation to costs at completion. The amount of revenue and, by extension, margin to be recognized for the year from treatment-recycling service contracts therefore depends on the entity's ability to:

- measure the costs incurred under the contract and to reliably estimate the remaining future costs required to complete the contract. These future costs result from budgetary projections and the analytical structure developed by the Group which is used to allocate costs from the different industrial facilities to a given contract;
- measure the selling price at the completion of the contract, which may depend on indexation or variability clauses included in the contracts or commercial negotiations with the customer.

In certain cases, the revenue recognized in relation to these contracts may include several additional components:

- The customer may participate in the financing of the construction of an asset that is necessary in order to provide the treatment-recycling services covered by the contract. The revenue relating to the financing received is then recognized according to the degree of completion of the underlying services over the useful life of the asset, except if the customer takes control of the asset upon completion.
- The payment terms of the contract price may result in significant timing differences between revenue collected and the gradual completion of the services marking the recognition of revenue. These situations may require revenue to be adjusted due to the potentially significant fair value of the financing advantage benefiting one of the two parties (the contract's "financial component").

The analysis of the contracts' terms therefore requires special attention in order to decide on the procedures for measuring and recognizing the revenue associated with each contract. Determining the financial component is a source of complexity because it requires reconstituting, at the effective date of the contract, the implied credit facility (corresponding to the difference between the collection inflows and the revenue flows) and determining the applicable interest rate while taking into account the credit risk and maturity of the credit facility, which can be very long.

We deemed the translation of the contractual provisions of the treatment-recycling contracts into the recognition of revenue (analysis and determination of the contract's different components) and the high degree of judgment required by management in implementing revenue and margin recognition (estimating the price and the costs on completion, allocating costs among contracts, percentage of completion) to be a key audit matter.

How our audit addressed this risk

With regard to the treatment-recycling contracts, and in particular the ATR contract, we performed a critical review of the correct recognition of revenue and the margin on completion through the following procedures:

- gaining an understanding of the analytical structure in place at the sites concerned for these contracts and the policies for allocating costs incurred to date and estimated future costs to the contracts;
- reconciling the analytical income statement broken down by contract with the financial accounting data;
- gaining an understanding of the procedures and performing a critical review of the key controls in relation to the measurement of the margin on completion (revenue and costs) and the measurement of the percentage of completion of contracts;
- for a selection of contracts, gaining an understanding of the contract and management's analysis describing the methods of recognizing revenue (identifying the contract's various components, defining revenue on completion and determining the model for recognizing revenue);
- recalculating the revenue on completion on the basis of the contractual items, letters of agreement and items supporting negotiations periodically carried out with the customers;
- assessing the key assumptions used by management, particularly the risks and opportunities and variable items of revenue on completion, through business reviews with project managers;
- assessing the reasonableness of the main assumptions on which the estimates of future costs are based by comparing, using sampling techniques, historical forecast data to actual data and analyzing the consequences of discrepancies on future costs and performance plans in progress;
- assessing the consistency of the contract management data (revenue and costs on completion, costs incurred) with the analytical income statement;
- assessing, where applicable, the measurement of the financial components;
- recalculating, where applicable, the gradual recognition of the financial component within revenue and in financial income (expense).

- **Measurement of provisions for end-of-life-cycle obligations and provisions for contract completion**

Description of risk

As a nuclear operator, the Group has a legal obligation to:

- following the final shut-down of its industrial facilities which are classified as regulated nuclear facilities, dismantle these facilities;
- manage the recovery and packaging of radioactive waste; and
- ensure the maintenance and monitoring of all facilities storing radioactive waste.

The Group must therefore set aside provisions to cover the future costs related to the dismantling of its facilities as well as the intermediate storage, recovery, packaging, transportation and storage of waste and monitoring of the sites (called "Provisions for end-of-life-cycle operations – within the scope of the Law"). Under the law on securing the funding of nuclear expenses, the Group is also required to allocate, exclusively for this purpose, the necessary financial assets to cover these different costs.

The Group also owns other industrial facilities that are considered, according to the regulations, as facilities classified for environmental protection and therefore also subject, upon their final shutdown,

to safety, rehabilitation and waste management obligations, which require provisions (called "Provisions for end-of-life-cycle operations – outside the scope of the Law") to be set aside. The law on securing the funding of nuclear expenses does not apply to this category of facilities.
In addition, the future costs of intermediate storage, treatment, packaging, transportation and storage of materials or other waste and scrap derived from operating activities also result in the setting aside of provisions (called "Provisions for contract completion").

At December 31, 2019, provisions for end-of-life-cycle operations amounted to €8,010 million (of which €7,689 million in provisions for end-of-life-cycle operations – within the scope of the Law and €322 million in provisions for end-of-life-cycle operations – outside the scope of the Law). Provisions for contract completion amounted to €1,520 million. The market value of the assets dedicated to the coverage of the provisions for end-of-life-cycle operations – within the scope of the Law is €7,702 million.

The accounting policies and treatments applied, the methods for measuring these provisions, the assumptions used and the related uncertainties are described in Notes 1.2, 1.3.11, 1.3.12, 13 and 25 to the consolidated financial statements.

We deemed the measurement of provisions for end-of-life-cycle operations and provisions for contract completion to be a key audit matter given:

- the material amount of these provisions in the financial statements;
- the complexity of the models for estimating costs related in particular to the long-term horizon and limited past experience of such operations as well as the complexity of the scenarios and technical solutions considered;
- the potentially material impact on the amount of the provisions of uncertainties related to changes in the regulations or requirements of safety authorities, the scenarios and technical procedures considered, waste removal and storage methods and their availability, knowledge of the initial condition of the facilities and their intended final condition, the facilities' operating life, future disbursement schedules, procedures for final shut-down and changes in inflation and discount rates; and
- the negative effects on the Group's financial position in the event of an increase in provisions for end-of-life-cycle operations – within the scope of the Law (mobilization of additional funds to increase the amount of assets dedicated to the coverage of these provisions in order to satisfy the regulatory coverage rate within the required deadline.

How our audit addressed this risk

We assessed the compliance of the methodology for measuring these different provisions with the accounting, legal and regulatory provisions and examined the methods for measuring them.

In particular, we:

- gained an understanding of the legal and regulatory context as well as the exchanges with the administrative authority (particularly follow-up letters from the French Department of Energy and Climate) in relation to these provisions;
- took into consideration the classification of the different types of waste (provisions for end-of-life-cycle operations – within the scope of the Law, provisions for end-of-life-cycle

operations – outside the scope of the Law, and provisions for contract completion) in relation to the Group's interpretation of the current regulations;

- gained an understanding of the processes for measuring provisions, the existing controls and the associated governance principles and in particular assessed the implementation of certain key controls (such as the existence of a robust and relevant body of documentation, summary and risk analysis notes made by management, and the validation of the provisions by management through dedicated committees: the Cleanup and Dismantling Fund Monitoring Committee and the Committee for Monitoring End-of-Life-Cycle Obligations);
- gained an understanding, with the help of our experts, of the IT general controls relating to the application used by Orano to calculate the provisions in relation to facilities in operation and assessed the arithmetical functioning of the computational model developed in this application based on the certification report issued by an independent expert;
- assessed the consistency over time of the models used for estimating provisions;
- assessed the type of costs and assumptions used in determining these provisions;
- assessed, for a selection of operations and on the basis of analytical documents and interviews with the managers concerned, the validity of the assumptions used in determining costs on completion and disbursement schedules, the percentage of completion of ongoing work, modifications of estimates and the level of risk used;
- assessed the processes for measuring and validating the quantities of waste and scrap resulting from operations;
- assessed, with the help of our experts, the methodologies applied to determine the discount and inflation rates used as well as their compliance with accounting standards and the applicable regulatory provisions;
- confirmed, with the support of our experts, the methodology applied to calculate the effects of inflation, discounting and reverse discounting;
- assessed the compliance of the accounting treatment of the effects related to changes in estimates, inflation and discount rates and reverse discounting with the applicable accounting principles;
- assessed the consistency of the data provided by the systems for reporting provisions with the accounting data;
- performed a critical review of management's sensitivity tests.

Lastly, we assessed the appropriateness of the disclosures provided in the notes to the consolidated financial statements concerning the end-of-life-cycle provisions and the provisions for contract completion, particularly in terms of the uncertainties concerning certain assumptions and the sensitivity of the measurement of these provisions to certain financial inputs.

Specific verifications

As required by legal and regulatory provisions and in accordance with professional standards applicable in France, we have also verified the information pertaining to the Group presented in the Board of Directors' management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the management report includes the consolidated non-financial information statement required under Article L.225-102-1 of the French Commercial Code. However, in accordance with Article L.823-10 of the French Commercial Code, we have not verified the fair presentation and consistency with the consolidated financial statements of the information given in that statement, which will be the subject of a report by an independent third party.

Report on other legal and regulatory requirements

Appointment of the Statutory Auditors

We were appointed Statutory Auditors of Orano SA by the Annual General Meeting of May 24, 2018.

At December 31, 2019, PricewaterhouseCoopers Audit and KPMG SA were in the second consecutive year of their engagement.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for preparing consolidated financial statements giving a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and for implementing the internal control procedures it deems necessary for the preparation of consolidated financial statements that are free of material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern, and using the going concern basis of accounting, unless it expects to liquidate the Company or to cease operations.

The Audit and Ethics Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems, as well as, where applicable, any internal audit systems, relating to accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements

Objective and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free of material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions taken by users on the basis of these consolidated financial statements.

As specified in Article L.823-10-1 of the French Commercial Code, our audit does not include assurance on the viability or quality of the Company's management.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditors exercise professional judgment throughout the audit.
They also:

- identify and assess the risks of material misstatement in the consolidated financial statements, whether due to fraud or error, design and perform audit procedures in response to those risks, and obtain audit evidence considered to be sufficient and appropriate to provide a basis for their opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- obtain an understanding of the internal control procedures relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management and the related disclosures in the notes to the consolidated financial statements;

- assess the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditors conclude that a material uncertainty exists, they are required to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or are inadequate, to issue a qualified opinion or a disclaimer of opinion;

- evaluate the overall presentation of the consolidated financial statements and assess whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;

- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The Statutory Auditors are responsible for the management, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed thereon.

Report to the Audit and Ethics Committee

We submit a report to the Audit and Ethics Committee which includes, in particular, a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Audit and Ethics Committee includes the risks of material misstatement that, in our professional judgment, were the most significant for the audit of the consolidated financial statements and which constitute the key audit matters that we are required to describe in this report.

We also provide the Audit and Ethics Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France, as defined in particular in Articles L.822-10 to L.822-14 of the French Commercial Code and in the French Code of Ethics for Statutory Auditors. Where appropriate, we discuss any risks to our independence and the related safeguard measures with the Audit and Ethics Committee.

Neuilly-sur-Seine and Paris La Défense, February 28, 2020

The Statutory Auditors

PricewaterhouseCoopers Audit	KPMG SA
Partners	Partners
Séverine Scheer Laurent Daniel	Jean-Paul Thill Laurent Genin

8.4 Statutory Auditors’ report on the company financial statements for the financial year ended December 31, 2019

Orano SA

Statutory Auditors' report
on the financial statements

Year ended December 31, 2019

PricewaterhouseCoopers Audit
63 rue de Villiers
92208 Neuilly-sur-Seine, France

KPMG SA
Tour Eqho – 2 avenue Gambetta
92066 Paris La Défense, France

Statutory Auditors' report on the financial statements

Year ended December 31, 2019

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report includes information specifically required by European regulations or French law, such as information about the appointment of Statutory Auditors. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Orano SA
125 avenue de Paris
92320 Chatillon, France

To the Shareholders,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying financial statements of Orano SA for the year ended December 31, 2019.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company at December 31, 2019 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Ethics Committee.

Basis for opinion

Audit framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under these standards are further described in the "Responsibilities of the Statutory Auditors relating to the audit of the financial statements" section of our report.

Independence

We conducted our audit engagement in compliance with the independence rules applicable to us, for the period from January 1, 2019 to the date of our report, and, in particular, we did not provide any non-audit services prohibited by Article 5(1) of Regulation (EU) No. 537/2014 or the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

Justification of assessments – Key audit matters

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to the risks of material misstatement that, in our professional judgment, were the most significant in our audit of the financial statements, as well as how we addressed those risks.

These matters were addressed as part of our audit of the financial statements as a whole, and therefore contributed to the opinion we formed as expressed above. We do not provide a separate opinion on specific items of the financial statements.

- **Measurement of equity interests and related receivables**

Description of risk

At December 31, 2019, the carrying amount of the Company's equity interests and related receivables amounted to €8,725 million and represented 82% of total assets. Equity interests are recognized at their transfer value or their purchase price plus directly attributable costs (in particular investment acquisition expenses).

As described in Note 2.2 to the financial statements, equity interests are measured at each reporting date at their value in use. An impairment loss is recognized when their value in use, assessed individually for each interest, falls below their historical cost.

In order to assess the profitability of the interest, its value in use is based on either:

- the Group's equity in the underlying net assets of the investee; or
- the present value of the projected future cash flows, based on the strategic plan approved by the governance bodies and its underlying assumptions, plus its terminal value, which corresponds to the present value, discounted to infinity, of the cash flows for the "normative year" estimated at the end of the period covered by the future cash flow projections. However, certain activities have a finite useful life (for example due to the finite mineral resources in the mines or the limited duration of the operating permits in nuclear activities); in this case, the cash flows taken into account to measure their value in use are not discounted to infinity, but rather to the end of their expected useful life.

This impairment is calculated on the basis of the share of the net assets held at the end of the year.

Estimating the value in use of equity interests requires management to exercise significant judgment in the choice of measurement methods and items to consider, which may be historical (particularly equity values) or projected (cash flow assumptions).

Given the significant amount of equity interests, the judgment used to estimate values in use and the sensitivity of these values to changes in the data and assumptions on which they are based, we deemed the measurement of equity interests and related receivables to be a key audit matter.

How our audit addressed this risk

Our audit procedures mainly consisted in:

- assessing, on the basis of the information provided by management, the measurement methods used by the Company;

- comparing the data used to test the equity interests for impairment with the subsidiaries' accounting data, where applicable;
- assessing the methodology and assumptions used to determine the value in use of the equity interests when said value takes into account the subsidiaries' projected profitability;
- verifying the arithmetical accuracy of the value in use calculations used by the Company;
- assessing, with the help of our experts, the sensitivity of the estimates of value in use used to the assumptions (particularly cash flow, discount rates and the long-term growth rate);
- assessing the recoverability of the related receivables in light of the analyses performed on the equity interests; and
- assessing the appropriateness of the disclosures provided in Notes 2.2 and 5.3 to the financial statements.

Specific verifications

In accordance with professional standards applicable in France, we have also performed the specific verifications required by French legal and regulatory provisions.

Information given in the management report and in the other documents provided to the shareholders with respect to the Company's financial position and the financial statements

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the Board of Directors' management report and in the other documents provided to the shareholders with respect to the Company's financial position and the financial statements.

We attest to the fair presentation and the consistency with the financial statements of the information about the payment terms referred to in Article D.441-4 of the French Commercial Code.

Information with respect to corporate governance

We attest that the section of Board of Directors' report relating to corporate governance sets out the information required by Article L.225-37-4 of the French Commercial Code.

Report on other legal and regulatory requirements

Appointment of the Statutory Auditors

We were appointed Statutory Auditors of Orano SA by the Annual General Meeting of May 24, 2018.

At December 31, 2019, PricewaterhouseCoopers Audit and KPMG SA were in the second consecutive year of their engagement.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for preparing financial statements giving a true and fair view in accordance with French accounting principles, and for implementing the internal control procedures it deems necessary for the preparation of financial statements that are free of material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern, and using the going concern basis of accounting, unless it expects to liquidate the Company or to cease operations.

The Audit and Ethics Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems, as well as, where applicable, any internal audit systems, relating to accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Responsibilities of the Statutory Auditors relating to the audit of the financial statements

Objective and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free of material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions taken by users on the basis of these financial statements.

As specified in Article L.823-10-1 of the French Commercial Code, our audit does not include assurance on the viability or quality of the Company's management.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditors exercise professional judgment throughout the audit. They also:

- identify and assess the risks of material misstatement in the financial statements, whether due to fraud or error, design and perform audit procedures in response to those risks, and obtain audit evidence considered to be sufficient and appropriate to provide a basis for their opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- obtain an understanding of the internal control procedures relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management and the related disclosures in the notes to the financial statements;

- assess the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditors conclude that a material uncertainty exists, they are required to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or are inadequate, to issue a qualified opinion or a disclaimer of opinion;

- evaluate the overall presentation of the financial statements and assess whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit and Ethics Committee

We submit a report to the Audit and Ethics Committee which includes, in particular, a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Audit and Ethics Committee includes the risks of material misstatement that, in our professional judgment, were the most significant for the audit of the financial statements and which constitute the key audit matters that we are required to describe in this report.

We also provide the Audit and Ethics Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France, as defined in particular in Articles L.822-10 to L.822-14 of the French Commercial Code and in the French Code of Ethics for Statutory Auditors. Where appropriate, we discuss any risks to our independence and the related safeguard measures with the Audit and Ethics Committee.

Neuilly-sur-Seine and Paris La Défense, February 28, 2020

The Statutory Auditors

PricewaterhouseCoopers Audit	KPMG SA
Partners	Partners
Séverine Scheer Laurent Daniel	Jean-Paul Thill Laurent Genin

8.5 Five-year financial summary

(in thousands of euros)

	Nature of the indications	2016	2017-08	2017-12	2018	**2019**
I - Share capital at year-end						
a)	Share capital	52,831	118,869	118,869	132,076	132,076
b)	Number of ordinary shares outstanding	105,661,110	237,737,500	237,737,500	264,152,178	264,152,178
c)	Number of preferred shares	-	-	-	-	-
II - Operations and net income for the year						
a)	Revenue before tax	-	28,593	10,531	121,086	122,317
b)	Income before tax, employee profit-sharing and amortization, depreciation and provisions (including reversals)	- 28,885	- 85,308	- 57,261	- 46,239	47,260
c)	Income tax	- 1,252	- 1,737	68,641	189,010	144,1227
d)	Employee profit-sharing for the financial year	-	-	-	- 30	9
e)	Income after tax, employee profit-sharing and amortization, depreciation and provisions (including reversals)	101,633	- 887,479	563,468	560,964	- 276,611
f)	Net income distributed	-	-	-	-	-(*)
III - Earnings per share (in euros)						
a)	Income after tax and employee profit-sharing, before amortization, depreciation and provisions (including reversals)	- 0.29	- 0.37	0.05	0.54	0.72
b)	Income after tax, employee profit-sharing and amortization, depreciation and provisions (including reversals)	0.96	- 3.73	2.37	2.12	- 1.05
c)	Dividend per share (rounded to the nearest euro cent)	0.00	0.00	0.00	0.00	0.00
IV - Personnel						
a)	Average number of salaried employees during the financial year	-	0.25	4.25	5.00	5.92
b)	Total payroll for the financial year	-	229	325	1,028	1,136
c)	Payroll taxes and other benefit expenses for the financial year (social security, benefits programs, etc.)	-	82	118	481	500

(*) Provisional data not yet approved

8.6 Subsidiaries and associates

Please refer to the table of subsidiaries and associates in Note 7.7 to the company financial statements (Appendix 8.2 of the 2019 Annual Activity Report).

8.7 List of French companies controlled indirectly by Orano as at December 31, 2019

COMPANY OR TRADING NAME	LEGAL FORM	SHARE CAPITAL (€)	BUSINESS REGISTER	ADDRESS	MAJORITY SHAREHOLDER	ORANO'S INDIRECT FINANCIAL INTEREST IN THE COMPANY %
CFM – Compagnie Française de Mokta [1]	Limited liability company with a Board of Directors	6,630,830	Nanterre business register 552 112 716	125 avenue de Paris 92320 CHATILLON France	Orano Mining	100.00
CFMM – Compagnie Française de Mines et de Métaux	Simplified joint stock company with a sole shareholder	28,594,600	Nanterre business register 300 574 894	125 avenue de Paris 92320 CHATILLON France	Orano Mining	100.00
CNS – Compagnie Nucléaire de Services	Limited liability company with a Board of Directors	6,573,400	Nanterre business register 401 649 363	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	51.00
Eurodif	Limited liability company with a Supervisory Board	170,310,210	Nanterre business register 723 001 889	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	100.00
Eurodif Production [2]	Limited liability company with a Board of Directors	205,875,000	Valence business register 307 146 472	Georges Besse Plant, Tricastin Site 26700 PIERRELATTE France	Eurodif	100.00
GIE USLH 2 – Groupement Utilité du Site de La Hague 2 [3]	Economic interest grouping	0	Cherbourg business register 810 153 445	901 route Départementale 50440 HERQUEVILLE France	Orano Cycle	50.00
LEA (Laboratoire d'Etalons d'Activités)	Simplified joint stock company with a sole shareholder	250,000	Nanterre business register 538 613 613	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	100.00
Lemaréchal Célestin	Simplified joint stock company with a sole shareholder	1,361,710	Cherbourg business register 582 650 297	Rue des Entrepreneurs ZA d'Armanville 50700 VALOGNES France	TN International (Orano TN)	100.00
Orano DA – Diagnostic Amiante	Simplified joint stock company with a sole shareholder	357,500	Evry business register 814 304 291	1 route de la Noue Zac de Courcelles 91196 GIF-SUR-YVETTE Cedex, France	Orano DS	73.86
Orano DS – Démantèlement et Services	Limited liability company with a Board of Directors	7,259,000	Evry business register 672 008 489	1 route de la Noue Zac de Courcelles 91196 GIF-SUR-YVETTE Cedex France	CNS	73.86
Orano Expansion	Simplified joint stock company	97,348,891.20	Nanterre business register 501 472 492	125 avenue de Paris 92320 CHATILLON France	CFMM	95.28
Orano Temis	Simplified joint stock company with a sole shareholder	1,300,000	Cherbourg business register 350 357 596	Z.A. d'Armanville 50700 VALOGNES France	Orano Cycle	100.00
Saint Dizier Parc Energie	Limited liability company with a	400,000	Chaumont business register 502 699 556	Zone de Référence de Haute Marne 52100 BETTANCOURT-LA-FERREE	OranoDelfi	59.95

1 Dissolution without liquidation and total transmission of assets and liabilities of this entity to Orano Mining at December 31, 2019.
2 This entity merged with Orano Cycle on December 31, 2019.
3 The EIG was dissolved in December 2019. The liquidation is in progress.

COMPANY OR TRADING NAME	LEGAL FORM	SHARE CAPITAL (€)	BUSINESS REGISTER	ADDRESS	MAJORITY SHAREHOLDER	ORANO'S INDIRECT FINANCIAL INTEREST IN THE COMPANY %
	Board of Directors			France		
SC CREGU - Centre de recherche sur la géologie des matières premières Minérales et Energétiques	Professional partnership	15,244.91	Nancy business register 315 335 950	4 rue Piroux – Immeuble Thiers –9e étage 54000 NANCY France	Orano Mining	50.10
SCI Du Pont de Celles – Société Civile Immobilière Du Pont de Celles	Property partnership	15,000	Montpellier business register 317 898 815	41 avenue de Fumel 34700 LODEVE France	SEPIS	100.00
SCI Socimar – SCI du Site de Marcoule	Property partnership	2,000	Nanterre business register 443 324 306	125 avenue de Paris 92320 CHATILLON France	SEPIS	100.00
SCI Soparim	Property partnership	1,500,000	Nanterre business register 331 981 415	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	100.00
SEPIS - Société d'étude de procédés industriels spéciaux	Private limited liability company	7,800	Nanterre business register 310 232 889	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	100.00
SET - Société d'Enrichissement du Tricastin	Simplified joint stock company with a sole shareholder	464,590,000	Nanterre business register 440 252 666	125 avenue de Paris 92320 CHATILLON France	SET Holding	95.00
SET Holding – Société d'Enrichissement du Tricastin Holding	Simplified joint stock company	440,087,530	Nanterre business register 503 993 149	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	95.00
SICN – Société Industrielle de Combustible Nucléaire	Simplified joint stock company with a sole shareholder	750,000	Annecy business register 325 720 209	4 rue du Radar 74000 ANNECY France	Orano Cycle	100.00
SOFIDIF - Société franco-iranienne pour l'enrichissement de l'uranium par diffusion gazeuse	Limited liability company with a Board of Directors	20,968,750	Nanterre business register 303 587 216	125 avenue de Paris 92320 CHATILLON France	Orano Cycle	60.00
SOVAGIC – Société pour la Valorisation et la Gestion d'Infrastructures Communes	Private limited liability company	30,500	Cherbourg business register 327 194 866	Zone Industrielle de Digulleville – Beaumont BP 710 50440 DIGULLEVILLE France	Orano Cycle	100.00
TN International (Orano TN)	Limited liability company with a Board of Directors	30,291,000	Versailles business register 602 039 299	1 rue des Hérons 78180 MONTIGNY-LE-BRETONNEUX France	Orano Cycle	100.00
Trihom	Simplified joint stock company	52,566.75	Tours business register 378 649 040	Belliparc rue Yvette Cauchois Parc d'activité du Veron Sud 37420 BEAUMONT-EN-VERON France	Orano DS	48.75

8.8 Report of the Board of Directors on the principles and criteria for determining, distributing and allocating the fixed, variable and exceptional components of the total compensation and benefits of any kind attributable to the corporate officers of the Company

MEETING OF THE BOARD OF DIRECTORS OF ORANO ON FEBRUARY 27, 2020

REPORT OF THE BOARD OF DIRECTORS ON THE PRINCIPLES AND CRITERIA FOR DETERMINING, DISTRIBUTING, AND ALLOCATING THE FIXED, VARIABLE, AND EXCEPTIONAL COMPONENTS OF THE TOTAL COMPENSATION AND BENEFITS OF ANY KIND THAT MAY BE ALLOCATED TO CORPORATE OFFICERS OF THE COMPANY

Dear Shareholders,

The General Meeting of Shareholders of Orano (the "**Company**") was convened by the Board of Directors for May 14, 2020 at 2:00 p.m. at the Company's head office (the "**General Meeting**").

In this report, prepared voluntarily for the purposes of transparency and good governance, we present you with the principles and criteria for determining, distributing and allocating the fixed, variable, and exceptional components of the total compensation and benefits of any kind that may be allocated to the corporate officers for their terms of office in the Company.

The amounts resulting from the implementation of these principles and criteria will be submitted for the shareholders' approval at the meeting convened to approve the financial statements for the past financial year.

1. General principles of the compensation policy applicable to corporate officers

The general principles of the compensation policy for the Company's corporate officers were laid down by the General Meeting of the Company on July 27, 2017, and rolled out by the Company's Board of Directors that same day, upon the recommendation of the Compensation and Nominating Committee.

This policy is established in accordance with Article 3 of Decree No. 53-707 of August 9, 1953, pertaining to State control over national public companies and certain organizations with an economic or social purpose, as amended by Decree No. 2012-915 of July 26, 2012, subjecting to ministerial authorization the amount of compensation paid out to corporate officers and capping the compensation of senior executives at 450,000 euros gross (the **Cap**). (1)

The Group's compensation policy and the manner in which it is implemented by the Board is reviewed each year by the Compensation and Nominating Committee, which verifies that such policy complies with, and remains, in the corporate interest of the Company and its employees and contributes to the sustainability, the business strategy and to the long-term performance of the Company. If necessary, the Compensation and Nominating Committee may submit recommendations to the Board, for approval, where appropriate, by the General Meeting.

No element of remuneration of any nature whatsoever may be determined, allocated, or paid by the Company if it does not comply with this policy. However, in exceptional circumstances, the Board of Directors may depart from to this policy on a temporary basis, provided such derogation is in the company's interest, and necessary for guaranteeing the continuity or viability of the Company. In addition, the performance of ad hoc assignments by a corporate officer may result in the payment of special compensation, which shall then be subject to the legal regime applicable to regulated agreements.

Pursuant to the Company's current governance structure, corporate officers of the Company include all members of the Company's Board of Directors. Executive corporate officers include:

- the Chairman of the Board of Directors (non-executive corporate officer), and
- the Chief Executive Officer (executive officer).

Corporate officers may notify the Company of their wish to forgo the compensation that may be allocated to them in their capacity as a member of the Company's Board of Directors.

Furthermore, the compensation paid to the representative of the French State and/or to members of the Board nominated pursuant to a proposal by the French State and having the status of public officials shall be paid directly to the French State, as provided under Articles 5 and 6 of Order No. 2014-948 of August 20, 2014.

Lastly, directors representing employees may request that the compensation allocated to them be paid to their respective labor unions.

2. Principles and criteria for determining, distributing and allocating the components that make up the compensation of corporate officers of the Company

2.1 Total amount of compensation allocated to directors

The General Meeting on July 27, 2017 decided to set at 600,000 euros the annual budget for attendance fees and thus for the overall compensation allocated to members of the Board of Directors for each financial year. This decision stands until a new decision is adopted by the General Meeting.

This decision was approved on September 7, 2017 by the Minister of the Economy and Finance in accordance with Article 3 of Decree No. 53-707 of August 9, 1953 as amended concerning the French state's control of domestic public-sector companies and certain organizations with an economic or social purpose.

It is proposed that this amount remain unchanged for the period beginning January 1, 2020 and ending with the close of financial year 2020.

2.2 Criteria for distributing and allocating directors' remuneration

At its meeting on July 27, 2017, based on a recommendation from the Compensation and Nominating Committee, the Board of Directors decided to set the compensation allocated to the Company's directors in accordance with the terms presented below.

[(1)] *This concerns the attendance fees or payments awarded to directors, as well as the components of compensation paid to executive corporate officers for their activity. Benefits of any kind related to activities, as well as the compensation components, indemnities or benefits payable or likely to be payable to officers upon the cessation of their activities or upon a change in their positions, or thereafter, are not taken into account in the calculation of this Cap but remain subject to ministerial authorization.*

In order to recognize directors' participation to the Board, and thus their contribution to the successful implementation of the Company's business strategy and continuity, this compensation includes a fixed and a variable part, this latter being indexed to the actual presence of each director at meetings of the Board and of its Committees. The allocation between the fixed and the variable part of this remuneration was set such that the variable part be overall dominant, especially for those directors who are members of a Board Committees.

(i) For meetings of the Board of Directors:

a) A flat annual fee intended to reflect the responsibility attached to the appointment, which fee may be withheld in the event of repeated absences. This fee is of 10,000 euros per financial year.

In the event of departure or appointment of a new director during the financial year, this fee is pro-rated;

b) An amount of 1,500 euros per meeting;

(ii) For meetings of the Committees of the Board (including the Restricted Committee and non-permanent committees):

a) An amount of 3,000 euros per meeting for the chairman of the Audit and Ethics Committee;

b) An amount of 2,500 euros per meeting for each committee chairman (including the Restricted Committee and non-permanent committees);

c) An amount of 1,500 euros per meeting for each committee member, other than the committee chairman (including the Restricted Committee and non-permanent committees).

With regard to members residing outside of France, the amounts indicated in points (i)b and (ii) are doubled when they attend meetings physically.

Payment will be made within 45 days of the end of the fiscal year.

Directors attending a meeting of the Board of Directors or of a committee via teleconferencing or videoconferencing shall receive a fee equivalent to half of the fee paid to a Director resident in France and physically attending the meeting.

As a matter of exception, if the Board of Directors meets on the same date as the General Meeting of Shareholders, either before or after said Meeting, a single attendance fee will be paid in respect of the two sessions.

Moreover, each Director is entitled to reimbursement, on presentation of receipts, of reasonable travel expenses incurred in carrying out his or her duties.

3. Principles and criteria for determining, distributing and allocating the components that make up the compensation of executive corporate officers of the Company

3.1 - Chairman of the Board of Directors

A - Fixed compensation

The Chairman of the Board of Directors receives a annual fixed remuneration within the limit of the Cap, excluding any other compensation except for such compensation as he/she may receive in his/her capacity as a member of the Board of Directors.

The amount of this fixed remuneration is determined with due regard to the Chairman's personal experience (including past work experience, length of service and responsibilities), industry-specific criteria, and criteria related to the general economic environment and the fact that the Company is publically owned.

It is be proposed that the fixed annual remuneration of Mr. Philippe Varin, Chairman of the Board of Directors, be set at 120,000 euros per year as from the date of the decision of the Board of Directors, meeting on July 27, 2017, and for the remainder of his term of office.

This decision was approved in principle for the entire term of office of the Chairman of the Board of Directors on September 7, 2017 by the Minister of the Economy and Finance in accordance with Article 3 of Decree No. 53-707 of August 9, 1953 as amended concerning the French State's control of domestic public-sector companies and certain organizations with an economic or social purpose.

B - Compensation allocated to the Chairman in his/her capacity as a director

Pursuant to the decision of the General Meeting of July 27, 2017, approved on September 7, 2017 by the French Minister for the Economy and Finance, in accordance with Article 3 of Decree No. 53-707 of August 9, 1953, as amended, the Chairman may receive compensation for his/her directorship, within the limit of the Cap.

Based on his request to the Board, Philippe Varin receives no compensation in his capacity as a member of the Board of Directors. Therefore, there is no multiple compensation in this respect.

C – Other

The Chairman of the Board of Directors does not receive any other compensation or benefit within the meaning of the Afep-Medef Code.

3.2 - Chief Executive Officer

A - Fixed compensation

The Chief Executive Officer receives fixed annual compensation within the limit of the Cap.

The amount of this fixed component is determined on the basis of personal criteria (including work history, experience, length of service and responsibilities), industry-specific criteria, and criteria related to the general economic environment and the Company's public shareholding position.

Mr. Philippe Knoche, Chief Executive Officer, benefits from fixed annual compensation of 420,000 euros as from the date of the decision of the Board of Directors, meeting on July 27, 2017, and for the remainder of his term of office.

This decision was approved in principle for the entire term of office of the Chief Executive Officer on September 7, 2017 by the Minister of the Economy and Finance in accordance with Article 3 of Decree No. 53-707 of August 9, 1953 as amended concerning the French state's control of domestic public-sector companies and certain organizations with an economic or social purpose.

B - Variable compensation

In order to adjust the Chief Executive Officer's remuneration to the environment, strategy and performance of the Company, and thereby contribute to the good implementation of the Company's commercial strategy and to the continuity of its operations, an annual variable component linked to performance may be paid to the Chief Executive Officer in addition to its fixed compensation, within the limits of the Cap.

In light of the Cap imposed by decree, this annual variable compensation shall remain limited and capped at 30,000 euros gross. It is paid based on the achievement of quantitative (60%) and qualitative (40%) objectives approved for each financial year by the Board of Directors.

Each year the Board of Directors sets the qualitative and quantitative criteria necessary for the determination the variable part of Mr. Knoche's compensation. Those criteria must be precise and established beforehand.

That variable portion is paid in cash, once a year.

This decision was approved in principle for the entire term of office of the Chief Executive Officer on September 7, 2017 by the Minister of the Economy and Finance in accordance with Article 3 of Decree No. 53-707 of August 9, 1953 as amended concerning the French state's control of domestic public-sector companies and certain organizations with an economic or social purpose.

C- Exceptional compensation

In the interest of the group and of its stakeholders, exceptional compensation may be paid to officers under specific circumstances. The payment of such compensation, within the limit of the Cap, must be justified and the reasons for such payment must be explained.

In all cases, such compensation must comply with the requirements of the Afep-Medef Code and the principles of reasonableness and proper balance between the various interests at stake.

Mr. Philippe Knoche, Chief Executive Officer, does not benefit from any exceptional compensation.

D - Compensation allocated to the Chief Executive Officer in his capacity as a director

Pursuant to the decision of the General Meeting of July 27, 2017, approved on September 7, 2017 by the French Minister for the Economy and Finance, in accordance with Article 3 of Decree No. 53-707 of August 9, 1953, as amended, the Chief Executive Officer may receive compensation for his/her directorship, within the limit of the Cap.

Based on his request to the Board, Mr. Philippe Knoche receives no compensation in his capacity as a member of the Board of Directors. Therefore, there is no multiple compensation in this respect.

E- Benefits in kind

The Chief Executive Officer may receive a non-cash benefit in the form of a company vehicle. This non-cash benefit is not part of the capped compensation.

Mr. Philippe Knoche, Chief Executive Officer, receives an annual non-cash benefit in the form of a company vehicle. The value of this vehicle at December 1, 2019 was estimated at 4,488 euros.

F - Long-term compensation: free share allocation and allocation of share options

Performance shares and share options cannot be awarded to executive corporate officers.

G- Severance payments

The Chief Executive Officer may be granted a severance payment capped at twice the total amount of his annual compensation on the date of cessation of his duties.

The Chief Executive Officer shall not be eligible for any severance payment if he (i) intends to claim his pension rights shortly after the ending of his term of office for whatever reason, even dismissal, or (ii) comes to hold another position within the group.

The above-mentioned severance payment shall only be paid in the event of dismissal of the Chief Executive Officer, except for just cause.

The severance payment shall be subject to performance conditions, in accordance with the following criteria:

- if the rate of fulfillment of the quantitative and qualitative objectives set for the last two full financial years averages out to at least 60%, the severance payment shall automatically be paid;
- if the rate of fulfillment of the quantitative and qualitative objectives set for the last two full fiscal years averages out to less than 60%, the Board of Directors shall appraise the performance of the person in question in view of the circumstances that affected the operation of the Company during the fiscal year ended.

The performance objectives shall be set every year by the Board of Directors.

This decision was approved in principle on September 7, 2017 by the Minister of the Economy and Finance in accordance with Article 3 of Decree No. 53-707 of August 9, 1953 as amended concerning the French state’s control of domestic public-sector companies and certain organizations with an economic or social purpose.

Moreover, the Board of Directors may decide to grant the Chief Executive Officer an indemnity in return for a non-compete clause. The amount of this indemnity shall be deducted from the amount of any severance payment that may be granted to the Chief Executive Officer under the above terms and conditions. In the absence of any severance payment, the amount of the non-competition indemnity shall be set by the Board of Directors in accordance with usual practices. The Chief Executive Officer cannot sign a non-competition agreement at the time of departure from the Company.

Mr. Philippe Knoche, Chief Executive Officer, does not benefit from a non-competition payment.

Such payments are not part of the capped compensation.

H - Other

Mr. Philippe Knoche, Chief Executive Officer is additionally entitled to:

- unemployment insurance as provided by the Medef scheme (Garantie Sociale des Chefs et Dirigeants d'Entreprise – GSC), for which he pays part of the contributions;

- the supplemental retirement scheme applicable to the management personnel of the Company.

He receives no multi-year or deferred compensation and is awarded no stock options or performance stock.

In respect of the foregoing, we invite you to approve the compensation policy concerning the Chairman of the Board of Directors and the Chief Executive Officer as presented in this report.

The Board of Directors of Orano

8.9 Cross-reference table of the data required in the statement of non-financial performance (articles L. 225-102-1 and R. 225-104 to R. 225-105-2 of the French Commercial Code) and those required by the French Corporate Duty of Care Act (article L. 225-102-4 of the French Commercial Code)

	Statement of non-financial performance Article L. 225-102-1 of the French Commercial Code	**Corporate duty of care** Article L. 225-102-4 of the French Commercial Code	**Sections of the Activity Report 12/31//2019**
Business model and Situation and activities of the Company and its subsidiaries	✓	-	**Company profile Chapter 2**
System of internal controls	✓	✓	**Section 3.1**
Risk mapping and risk management processes	✓	✓	**Section 3.2**
Main CSR risks linked to the Company's business	✓	✓	**Section 3.3**
Labor information			**Section 4.1**
Employment	✓	✓	Section 4.1.1
Work organization	✓	✓	Section 4.1.5
Labor relations	✓	✓	Section 4.1.5
Health and safety	✓	✓	Section 4.1.6
Training	✓	✓	Section 4.1.3
Equal treatment	✓	✓	Section 4.1.5
Environmental information			**Section 4.2**
General environmental policy	✓	✓	Section 4.2.1
Pollution	✓	✓	Section 4.2.2
Circular economy: waste prevention and management, sustainable use of resources	✓	✓	Section 4.2.2
Climate change	✓	✓	Section 3.3.3.2
Biodiversity	✓	✓	Section 4.2.2
Societal information			**Section 4.3**
System for the prevention of corruption and influence peddling	✓		Section 4.3.1
Supplier relations and responsible purchasing		✓	Section 4.3.2
Local, economic and labor impacts of the company	✓		Section 4.3.3

The corporate duty of care plan is described in Section 3.4.

8.10 Reporting methodology for the statement of non-financial performance

The indicators published in Chapter 4 of this report measure the main social, environmental, and societal impacts and issues connected with Orano's operations.

These were developed by a group of experts representing the group's various functions and business lines, according to the regulatory framework of Articles R. 225-105, R. 225-105-1 and L. 225-102-1 of the French Commercial Code, and applicable international standards like the GRI [1] and the WBSCD [2].

Scope and consolidation

Reporting period: the reporting period is the calendar year (January 1 to December 31).

Scope: the reporting scope covers all of the group's operations around the world. The term "group" means Orano, its subsidiaries, and all its operational and functional entities present at December 31, 2019 and in which Orano's interest is 50% or greater. Certain minority-owned subsidiaries are, by exception, consolidated in the same way as majority-owned subsidiaries because of the group's operational involvement (e.g. Cominak in Niger, for environmental indicators). Units whose irreversible disposal was pending in 2019 were excluded from the scope. Newly-acquired entities are not consolidated the same year they are acquired, so that collection and entry structures can be set up and data made more reliable.

Tertiary establishments with less than 1,000 m2 in total surface area must, at a minimum, report indicators on security, health, employment, and dosimetry (if applicable), and, if possible, on the protocol's other disciplines, if the issues are significant.

Consolidation rule: regarding "Environment, Health, and Safety" data, the consolidation method applied is full consolidation (data on majority-owned subsidiaries are fully consolidated). Human resources data are aligned, for the calculation of the scope and, concerning workforce, for the consolidation method, with the financial consolidation rules. With regard to projects performed on the customer's premises, social data (safety, health, workforce, and dosimetry) are consolidated at group level. For Orano investment projects (e.g. Comurhex II and Georges Besse II), all environment, health, safety, and social data are consolidated at group level.

Change in consolidated group: for the 2019 financial year, the merger of the Tricastin operators (Comhurex Pierrelatte, Orano Cycle Pierrelatte, Eurodif Production, SET Exploitation (GB2), Socatri) into one entity, Orano Cycle Tricastin was taken into account. The entity LEA was also included in the 2019 scope separately from Tricastin.

Methodology

Standards: the methods for calculating environmental, health and safety indicators, as well as the associated reporting procedures, are formalized in a HSE data measurement and reporting protocol. This protocol, which is updated each year, is distributed to everyone involved, at every level of data development and reporting.

Software used: the various indicators presented in Chapter 4 are reported by the use of dedicated software (dedicated SharePoint for environmental and dosimetry indicators, AHEAD for safety, and POLYPHEME for social data, and OPUS for France training).

Internal control: data reported by the establishments are checked for consistency by site managers and HSE or HR managers of the Business Units.

External audit: the group had its statement of non-financial performance audited for compliance and accuracy by an independent third-party body, pursuant to Article L. 225-102-1 of the French Commercial Code. The audit encompassed the consolidated social, environmental, and societal data presented in Chapter 4 of this Annual Activity Report. The report of the independent third-party body is presented in Appendix 8.11.

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[1] *Global Reporting Initiative (www.globalreporting.org).*

[2] *The GHG Protocol was developed by the WBCSD (World Business Council for Sustainable Development, www.wbcsd.org) and the WRI (World Resources Institute).*

Clarification of certain indicators

Dosimetry: the dosimetry indicators are collected annually and cover a reference period of 12 consecutive months, with a six-month delay due to the time it takes to obtain results (for example, for the annual campaign carried out in January 2020, the data cover the period from July 2018 to June 2019).

Calculation of the average dose (internal and external) for the group's employees and subcontractors includes all persons being monitored, including those whose radiation dose is zero or undetectable.

Occupational injuries with lost time: in the event of occupational injuries with lost time, the number of days lost is counted for the year in which the injury is sustained, regardless of which month it was sustained in or the number of days. An occupational injury with lost time refused by the Occupational Injury Management Administrative Authority impacts the data for the year in which the accident occurs, if it is refused during the year, or the following year, if it refused during the following year.

Consumption of energy and water: water and energy consumption taken into account in the reporting includes that of subcontractors that are independent from Orano but whose business is directly and entirely dedicated to Orano.

Training: due to the time it takes to produce information, the number of training hours in France is published for the 2017 financial year. The software mentioned in Section 4.1.3 will considerably reduce these times. Outside France, this indicator is not consolidated.

Direct greenhouse gas emissions: the following gases are taken into account: CO_2, CH_4, N_2O, and halogen compounds (CFC, HCFC, HFC, PFC, SF_6 and NF_3). The values included in this report do not include indirect greenhouse gas emissions related to electricity, heat, or cold purchases.

The sources of the emissions factors used in calculating greenhouse gas emissions are as follows:

- scope 1: fuels: OMINEA National Inventory Report (16th edition – May 2019, CITEPA); Order of October 31, 2012 on the verification and quantification of emissions reported under the greenhouse gas emissions quota exchange system for its third period (2013-2020); GWP by type of gas: IPCC Fifth Assessment Report; refrigerants: IPCC Fifth Assessment Report; waste: OMINEA National Inventory Report (16th edition – May 2019, CITEPA);
- scope 2: http://www.eea.europa.eu; http://www.ontarioenergyreport.ca/pdfs/5924_IESO_Q2OER2016_Electricity.pdf; ADEME [French National Energy Agency] Database (France).

8.11 Report of the independent third party on the statement of non-financial performance

KPMG S.A.
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Tour EQHO
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France

Telephone: +33 (0)1 55 68 86 66
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Orano S.A

Report by one of the Statutory Auditors, appointed as independent third party, on the consolidated non-financial statement

For the year ended 31 December 2019
Orano S.A
125 avenue de Paris, 92329 Châtillon
This report contains 8 pages

Orano S.A
Registered office: 125 avenue de Paris, 92329 Châtillon

Report by one of the Statutory Auditors, appointed as independent third party, on the consolidated non-financial statement

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This is a free English translation of the Statutory Auditor's report issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

For the year ended 31 December 2019

To the Annual General Meeting,

In our capacity as Statutory Auditor of your company (hereinafter the "entity") appointed as independent third party, and accredited by the French Accreditation Committee (*Comité Français d'Accréditation* or COFRAC) under number 3-1049[1] and, as a member firm of the KPMG International network, one of your statutory auditors, we hereby report to you on the consolidated non-financial statement for the year ended 31 December 2019 (hereinafter the "Statement"), included in the Group Management Report pursuant to the requirements of articles L.225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code de commerce*).

Responsibility of the entity

The Board of Directors is responsible for preparing the Statement, including a presentation of the business model, a description of the principal non-financial risks, a presentation of the policies implemented considering those risks and the outcomes of said policies, including key performance indicators.

The Statement has been prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), the main elements of which are presented in the Statement and available upon request at the entity's head office.

[1] Accreditation scope available at www.cofrac.fr

Independence and quality control

Our independence is defined by the requirements of article L.822-11-3 of the French Commercial Code and the French Code of Ethics (*Code de déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with applicable legal and regulatory requirements, the ethical requirements and French professional guidance.

Responsibility of the Statutory Auditor appointed as independent third party

On the basis of our work, our responsibility is to provide a report expressing a limited assurance conclusion on:

- the compliance of the Statement with the requirements of article R. 225-105 of the French Commercial Code;
- the fairness of the information provided in accordance with article R.225-105 I, 3° and II of the French Commercial Code, i.e., the outcomes, including key performance indicators, and the measures implemented considering the principal risks (hereinafter the "Information").

Our responsibility is also to provide a report expressing, at the request of the entity and outside of the scope of accreditation, a reasonable assurance conclusion that information selected by the entity, presented in Appendix and identified with the symbol √ in chapter "4. Social, environmental and societal commitments" has been prepared, in all material respects, in accordance with the Guidelines.

However, it is not our responsibility to comment on the entity's compliance with other applicable legal and regulatory requirements, in particular the French duty of care law and anti-corruption and tax avoidance legislation, nor on the compliance of products and services with the applicable regulations.

Nature and scope of our work

The work described below was performed in accordance with the provisions of Article A.225-1 *et seq.* of the French Commercial Code, as well as with the professional guidance of the French Institute of Statutory Auditors (*Compagnie nationale des commissaires aux comptes* or CNCC) applicable to such engagements and with ISAE 3000[2]:

- We obtained an understanding of all the consolidated entities' activities, and the description of the principal risks associated;
- We assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, where appropriate;
- We verified that the Statement includes each category of social and environmental information set out in article L.225-102-1 III as well as information regarding compliance with human rights and anti-corruption and tax avoidance legislation;
- We verified that the Statement provides the information required under article R. 225-105 II of the French Commercial Code, where relevant with respect to the principal risks, and includes, where applicable, an explanation for the absence of the information required under article L.225-102-1 III, paragraph 2 of the French Commercial Code;
- We verified that the Statement presents the business model and a description of principal risks associated with all the consolidated entities' activities, including where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the principal risks;
- We referred to documentary sources and conducted interviews to:
  - assess the process used to identify and confirm the principal risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the principal risks and the policies presented;
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important presented in Appendix. Concerning certain risks[3] our work was carried out on the consolidating entity. For the other risks, our work was carried out on the consolidating entity and on a selection of entities[4].
- We verified that the Statement covers the scope of consolidation, i.e. all the consolidated entities in accordance with article L. 233-16 of the French Commercial Code within the limitations set out in the Statement;

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[2] ISAE 3000: international standard on assurance engagements other than audits or reviews of historical financial information
[3] Risks related to subcontracting and suppliers; Risks associated with corruption and influence peddling; Risks of tax evasion
[4] Orano S.A. head office, Orano Cycle La Hague (France); Katco (Kazakhstan) ; Somaïr (Niger).

- We obtained an understanding of internal control and risk management procedures the entity has put in place and assessed the data collection process to ensure the completeness and fairness of the Information;
- For the key performance indicators and other quantitative outcomes that we considered to be the most important presented in Appendix, we implemented:
  - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data;
  - tests of details, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities[4] and covers between 18% and 100% of the consolidated data selected for these tests;
- We assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.

We believe that the work carried out, based on our professional judgment, is sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our work was carried out by a team of five people between November 2019 and February 2020 and took a total of six weeks.

We were assisted in our work by our specialists in sustainable development and corporate social responsibility. We conducted some ten interviews with the people responsible for preparing the Statement.

Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the non-financial statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.

Comments

Without modifying our conclusion and in accordance with article A. 225-3 of the French Commercial Code, we have the following comments:

- As indicated in the Reporting Methodology, information regarding radiation protection published in the Statement has been calculated for the period from 1 July 2018 to 30 June 2019 due to the time needed to obtain analysis results.

- The environmental outcomes disclosed with regard to the "Nuclear safety and environmental impacts" risk do not include any key performance indicators.

Reasonable assurance report on a selection of non-financial information

Nature and scope of our work

With regard to the information selected by the entity presented in Appendix and identified with the symbol √ in chapter "4. Social, environmental and societal commitments", we conducted the same procedures as those described in the paragraph "Nature and scope of our work" (for the most important non-financial information). However, these procedures were more in-depth, particularly regarding the number of tests.

Consequently, the selected sample represents between 45% and 61% of the information identified with the symbol √.

We believe that these procedures enable us to express reasonable assurance regarding the information selected by the entity and identified with the symbol √.

Conclusion

In our opinion, the information selected by the entity and identified with the symbol √ in chapter "4. Social, environmental and societal commitments" has been prepared, in all material respects, in accordance with the Guidelines.

Paris-La Défense, on 28 February 2020

KPMG S.A.

Anne Garans
Partner
Sustainability Services

Laurent Genin
Partner

Appendix

Qualitative information (actions and results) considered most important
Relationship with local stakeholders, in the nuclear and the mining extraction sectors
Monitoring systems for facilities safety and critical events
Management systems for nuclear and other hazardous waste
Actions to reduce environmental impact
Evaluation process for new suppliers
Systems implemented for sustainable purchasing
Skills management and employee development systems
Employee well-being evaluation systems
Policies and actions implemented to promote diversity
Organisation of social dialogue
Diversity and equal opportunity policies
Collective agreements related to work organisation, equal opportunities and well-being at work
Measures taken with regard to the health and safety of employees
Ethics and anti-corruption policy and systems implemented
Policy and measures implemented in the fight against tax evasion

Key performance indicators and other quantitative results considered most important	Level of assurance
Total workforce, hires and leavings	Limited
Employee satisfaction (OranoVox results)	
Accident frequency rate with lost time (excluding commuting accidents)	
Accident severity rate (accidents reported during the year, excluding commuting accidents)	
Number of fatal accidents	
Average employee exposure to radiation over 12 consecutive months	
Total individual internal and external dose for Orano employees over 12 consecutive months	
Quantity of energy consumed	
Quantity of water tapped	
Total tonnage of conventional waste (normal and exceptional operations)	
Volatile organic compounds emissions	
Direct greenhouse gas emissions (scope 1)	Reasonable
Indirect greenhouse gas emissions (scope 2)	

8.12 Code of Ethics

8.12 Code of Ethics

This document is a translation of the document CM ORN DIR CPL1 R0 Code Ethique d'Orano

With a presence in numerous countries, the **Orano** group is called upon to operate in complex environments. In this context, the realization of our ambitions and the long-term sustainability of our businesses are founded on a common set of shared values that guide our actions in all our areas of activity:

CUSTOMER SATISFACTION
CONTINUOUS IMPROVEMENT
RESPECT AND PEOPLE DEVELOPMENT
COHESION AND TEAM SPIRIT
LEADING BY EXAMPLE, INTEGRITY, RESPONSIBILITY

Our Code of Ethics states the principles and rules of conduct to be followed to ensure that these values are respected on a daily basis. It is a reflection of our culture and expresses our commitments with regard to all of our stakeholders, with a particular focus on fostering sustainable development and upholding respect for human rights. It serves as a point of reference for all of our employees and managers and presents our expectations and the high standards that we demand of each person who wishes to play a part in the success of our business activities.

In this Code of Ethics, which is accessible to everyone on the Intranet and Internet, the group also reaffirms its commitment to and policy of "zero tolerance" when fighting the risks that corruption and fraud pose to the quality of our products and services and the success of our business activities.

As a responsible company, our actions are governed by two basic principles considered to be a matter of priority, namely:

- **compliance with the most demanding requirements as appropriate to accomplish our goals in matters of nuclear and occupational safety in the conduct of our activities, and with those for the protection of health and the environment; and**
- **compliance with the strictest standards of integrity and an unfailing commitment in the fight against corruption, fraud and in compliance with antitrust rules.**

It is the responsibility of each and every one of us, both managers and employees, across all entities of the group, as well as those of our industrial and commercial partners, to ensure that these values are properly disseminated and that our principles are respected.

The group's Compliance Department is available to answer any questions you may have on how to apply this Code of Ethics in the course of exercising your professional duties.

We, the Executive Committee, and the Board of Directors are counting on each and every one of you to strictly apply this Code of Ethics so that together we build a sustainable and profitable growth by creating value for our customers and our partners.

Philippe KNOCHE
Chief Executive Officer

Philippe VARIN
Chairman of the
Board of Directors

1. Preamble

Orano wishes to be an exemplary group in terms of Ethics and Compliance.

This Code presents our values and describes the worldwide ethical rules applicable to all employees under all circumstances. Orano is committed to ensuring that its industrial and commercial partners, including suppliers and subcontractors comply with these same values and rules.

Orano has, within the framework of its business plan, also defined the values which must be complied with by all of its employees. Among these values, integrity, nuclear safety and occupational safety govern practices and decisions in all circumstances.

Our group conducts its activities in strict compliance with Human Rights, as defined in the *Universal Declaration of Human Rights* approved by the United Nations. It scrupulously observes the laws and regulations of the countries where it operates, as well as its own internal rules. It respects the rights of its employees. The Orano group seeks in all situations to apply the highest standards in relation to the matter at hand.

Accountability, fairness and openness to dialogue characterize Orano's conduct. The group endeavors to provide accurate and relevant information enabling objective assessment of its performance in terms of environmental, economic, social and societal responsibility.

2. Values

Nuclear safety and occupational safety are among the fundamental principles of the Orano group and must be a priority for each and every one of us.

Moreover, we all share the following set of common values:

- customer satisfaction: listening, pragmatism, anticipation, responsiveness, being proactive;
- continuous improvement: delegation of tasks, the right to make mistakes, initiative, creativity, seeking results, being oriented towards the outside world, seeking acceptable solutions to challenges;
- respect and people development: listening, high expectations, goodwill, respect of differences, personal and professional development;
- cohesion and team spirit: cooperation, transparency, problem solving, teamwork;
- leading by example, integrity, responsibility: managerial courage, presence in the field, compliance with standards, priority given to safety, compliance with the law and the rules of the company, and respect for employees' rights.

3. Orano's commitments to its stakeholders

3.1 With regard to the Countries where the group operates

Orano scrupulously observes the laws and regulations in the Countries where it operates, including the requirements of safety and regulatory authorities.

3.2 With regard to its customers

To satisfy and anticipate the requirements of its customers, the group is constantly receptive to them. We endeavor to fully honor our commitments towards them, by supplying them with products and services that fully meet their technical and quality requirements.

Orano respects its Customers' culture and protects their image and interests. Orano protects the confidentiality of the data or know-how to which its customers and partners grant access, within the legal and regulatory framework, as if it were its own.

3.3 With regard to its employees

Employees include all company officers, managers, employees, trainees and apprentices employed by all entities of the Orano group. Company officers and managers must demonstrate exemplary conduct.

Orano makes its employment decisions and actions without discrimination, be it related to age, gender, sexual orientation, ethnic or other origin, nationality, religion, political opinions, physical appearance or disability.

Orano respects the privacy of its employees and remains neutral with regard to their political opinions and philosophical or religious beliefs. Reciprocally, any indoctrination in the workplace is prohibited.

Orano is committed to dialogue between management and staff and conducts it in a fair and upright manner.

Orano offers its employees training plans aimed at maintaining their level of expertise in all areas that their job requires and contributing to their professional development.

3.4 With regard to its shareholders

Orano respects the principles of corporate governance, particularly aiming to guarantee its shareholders optimal growth and return on their investment. It is especially careful to treat them equally and provide them with accurate and relevant financial information.

3.5 With regard to its suppliers and subcontractors

Within a competitive framework, Orano sets out to forge sustainable partner relationships with its suppliers and subcontractors, with a view to providing services of the highest standards to its customers.

We thus undertake to maintain loyal, fair and objective relations marked by mutual respect with all of our suppliers, subcontractors and partners.

Orano protects the image of its suppliers and their confidential data as if they were its own.

3.6 With regard to the public

For Orano, protecting the environment as a common good encompasses all aspects of human well-being in its interactions with nature. Our environmental policy and risk control programs are underpinned by this principle and aim to reduce the environmental footprint of our activities and protect biodiversity wherever the group is engaged in industrial or mining activities. The preservation of natural resources, through recycling raw materials (in particular water), also demonstrates Orano's respect for the planet.

Orano asserts its willingness to engage with and take part in public debate. We take care to honestly explain our strategic and technological choices and to inform decision-makers and citizens of our activities. In this context, we observe ethical conduct in the use of means of information and communication.

3.7 Respect of human rights and other commitments

Orano upholds the principles of the United Nations Global Compact, complies with the Guiding Principles of the OECD for multinationals and supports the Extractive Industries Transparency Initiative (EITE). Under the terms of these commitments, Orano undertakes to promote and respect international law relating to Human Rights and not participate in any form of human trafficking, forced or compulsory labor, or to any child labor practices. Orano requires the same undertaking from its suppliers and subcontractors.

4. Orano's expectations

4.1 With regard to its employees

All group employees conduct their activities in compliance with Human Rights, as defined in the Universal Declaration of Human Rights adopted by the UN.

Employees are honest and comply with the laws and regulations in the countries where they work: the Orano Code of Ethics, the group's Compliance Policies and procedures and with rules relating to quality. They manage Orano's resources with the same rigor as if they were their own. This same attitude is expected of temporary workers.

Employees are motivated by Orano's commitment to its customers. They demonstrate professional conscientiousness, competence and rigor. The operations they carry out or outsource are the subject of complete traceability.

Employees are mindful of the excellence of Orano's products and services. They implement knowledge that is useful to the activities. Previous experience is systematically put to good use.

4.2 With regard to its suppliers and subcontractors

Orano endeavors to ensure that its regular suppliers, subcontractors, financial partners, consultants and selling intermediaries (distributors, agents, *etc.*) subscribe to the group's Code of Ethics. Their own suppliers or subcontractors, as well as the group's industrial and commercial partners are also obliged to subscribe to it.

Orano reserves the right to verify that the practices of its suppliers and subcontractors comply with Orano's Code of Ethics at all times, and throughout the goods and services supply chain.

5. Rules of conduct in force at Orano

The following rules of conduct are binding on all Orano employees and on Orano suppliers and subcontractors. Where appropriate, they are clarified by compliance policies and procedures.

5.1 Protection of life and property

Employees shall immediately notify their hierarchy of any irregularity or concerns they observe with regard to the protection of life and property.

5.1.1 People, health, quality, safety and the environment

The group conducts its activities in strict compliance with human dignity, proscribing *inter alia* any form of harassment and any violation of human rights or the rights of the child.

Orano takes care to ensure that the activities carried out on its sites comply with current rules and group policies relating to health, quality, safety and protection of the environment.

Any breach of these obligations must be reported to the relevant level – and to the Compliance Department where appropriate – which shall take immediate measures to verify the reality of the offending practices, conduct the necessary audits and promptly put an end to any such substantiated misconduct.

5.1.2 Reputation and brand image

Orano's reputation is an essential part of its heritage.

Its employees are obliged on a daily basis not to do or say anything that could harm Orano's reputation, image or credibility.

In national and international relations, due respect prohibits any denigration and ostentatious, uncivil or offhand conduct towards others.

5.1.3 Intangible heritage

Employees shall take care to protect the group's confidential data, whether or not marked "Confidential" or "Restricted", against any intrusion, theft, loss, damage, misappropriation, disclosure, reproduction, forgery, use for personal, unlawful or occult purposes, particularly on the Internet, the Intranet and on social networks.

This includes protecting technical and management data, customer, prospective customer and supplier files, software, passwords, documentation and drawings, methods and know-how, trade secrets, technical adjustments, intellectual and industrial property, forecasts, contracts and agreements, cost and selling prices not in catalogues, strategic or commercial plans, Research and Development material and information relating to innovation, financial and corporate information, the names and contact details of specialists and experts.

5.1.4 Protection of personal data

Orano takes care to ensure the protection of personal data and implements arrangements which are compliant with the provisions of the General Data Protection Regulation (GDPR).

5.2 Competition

Orano and its employees shall not directly or indirectly subvert the free play of competition within the framework of the group's activities and, in particular, in any commercial transactions in which they may participate. They shall also refrain from participating in illegal arrangements or abusing the position of strength which the group may find itself in, and, more generally, from any unfair conduct towards competitors.

Orano and its employees shall comply with applicable French, European and international competition law and the law of all countries where the group operates.

Any information relating to third parties, in particular Orano's competitors must only be collected and used in strict compliance with all applicable rules.

5.3 Export controls

With regard to nuclear activities, the group only supplies goods, services and technologies to Countries and companies within such Countries that are in compliance with current international provisions governing non-proliferation and with IAEA guarantees and export controls. It undertakes not to work under any other conditions.

The group satisfies all applicable national requirements governing export control of the countries in which it operates. This includes dual-use items, as well as the applicable laws and regulations governing international sanctions and embargoes.

5.4 Conflicts of interest

All group employees shall demonstrate loyalty, and promptly declare any conflicts of interests and in writing to their superiors, with a copy provided to the group's Compliance Department. Further instructions for reporting are provided in the "Anti-corruption code of conduct" attached as an Appendix hereto, concerning any situation in the course of an employee's duties in which his or her personal interest or that of his or her relatives could interfere with the interests of the Orano group.

Employees shall take care not to deliberately put themselves in a situation of conflict of interest and shall not participate in any analysis, meetings or decisions concerning matters subject to a conflict of interests.

5.5 Corruption, influence peddling, gifts and undue advantages

Integrity governs the relationship between group employees and governmental organizations and with group customers, suppliers and partners. Orano prohibits corruption in all its forms throughout the world, be it public or private, active or passive. Any influence peddling is also prohibited.

The "Anti-corruption code of conduct" attached as an Appendix hereto demonstrates the willingness of the Management of Orano to commit the group to a clear and unequivocal approach to the prevention and detection of acts of corruption and trafficking in influence. It describes the prohibited acts in this regard and details the internal whistleblower system for gathering reports from employees relating to the existence of acts or situations which are contrary to the group's code of conduct.

5.6 Insider dealing

All group personnel are made aware of all requirements of professional confidentiality and are informed of their duty of discretion *vis-à-vis* their relatives. They are warned about the risks of insider dealing that could occur in the course of business and must adhere to the group's policy in the governing the treatment of inside information.

Company officers undertake to acquire or sell, directly or indirectly, securities admitted to trading and issued by the group, and, in particular, shares in Orano or in debt instruments issued by Orano, or shares in listed or unlisted subsidiaries solely in accordance with group policy governing the protection of inside information, and undertake to inform the company's governing bodies thereof without delay.

5.7 Ethical alerts and primacy of the Code of Ethics

If any questionable activity or breach of a statutory or regulatory obligation or violation of this Code of Ethics or group compliance policies is observed, an immediate alert is a duty of all employees. There are neither hierarchical barriers to the internal circulation of such information, nor any requisite rank for anyone alerting their superiors forthwith.

If an employee has any questions or concerns of an ethical nature, they are to discuss them with Orano personnel who are in a position to provide answers to them. Accordingly, employees may choose to discuss concerns with their direct or indirect hierarchical manager, contact the compliance officer for their department or unit, or alternatively contact the group's Chief Compliance Officer. The Compliance network should be consulted on and is responsible for the handling of ethical issues. Contact details for the Compliance Network can be found on the group website www.orano.group and on the Intranet. In accordance with French law and the laws of many of the countries in which it operates, Orano guarantees confidentiality and immunity for whistleblowers of good faith.

It is the duty of any employee who receives an order that appears, in good faith, to be clearly contrary to Orano's Code of Ethics, or its compliance policies and procedures, to not follow such order, and seek clarification. He or she must immediately refer the matter to group Management to duly record the fact, and cannot be reprimanded for not implementing such order while seeking clarification.

5.8 Sanctions

A violation of the group's Code of Ethics or compliance policies and procedures exposes the person or persons responsible to disciplinary action (the nature of which will depend on the breach and may range from a warning to dismissal for misconduct, in accordance with internal company rules where applicable), or even a judicial sanction. Disciplinary sanctions applied locally must be compliant with the labor regulations in force.

6. Compliance Organization

The implementation of the Orano Code of Ethics is the responsibility of each and every employee. Managers are expected to adopt exemplary ethical conduct and to answer questions that their teams may have on matters of ethics and compliance, or direct them to the compliance officers for their department or unit, by using the ethical alert system described in Section 5.7 of this code.

The Compliance Department provides management with support and disseminates the group Compliance policy and the specific Compliance policies relating to different areas: prevention of corruption and of trafficking in influence, legislation and regulation of competition, regulations concerning the export of dual-use items, economic and commercial sanctions, *etc*.

The Orano group may also carry out compliance audits in order to ensure the proper implementation of the Code of Ethics or of compliance policies and procedures. These audits are conducted in compliance with the IT Charter of the Orano group.

7. Appendix to the Orano Code of Ethics

ANTI-CORRUPTION CODE OF CONDUCT

Preamble

The prevention of corruption and of influence peddling is a matter of major importance for the entire Orano group. Like our Code of Ethics, this Anti-corruption code of conduct is aimed not just at all Orano personnel and company officers worldwide, but also at its industrial and commercial partners, to ensure that we act together to eradicate practices which are contrary to our values of integrity and leading by example, and to our governing principle of transparency.

This code of conduct aims to help employees identify potential at-risk situations, and to enable them to respond in a manner which is appropriate to the context. More detailed procedures are available on the Intranet and, where necessary, the Compliance Department and Compliance Officers can provide any further clarification or assistance required.

7.1 Principles

Integrity governs the relationship between employees, corporate officers and other representatives of the Orano group and the public authorities, its customers, suppliers and established or potential business partners.

Orano prohibits corruption in all forms throughout the world, public or private, active or passive, and intends to apply the principle of "zero tolerance" where acts of corruption or of trafficking in influence are detected.

Orano also prohibits any influence peddling with a public authority or government body, whether it be French, international or foreign organization, or with their officials.

Lastly, Orano provides the assurance that conflicts of interests shall be treated in appropriate ways and not lead to a violation of the Code of Ethics.

7.2 Rules

7.2.1 Prohibited acts

Orano forbids itself and others to directly or indirectly make, offer, promise or solicit a payment or service, gift or leisure activity of more than a modest value (if allowed under applicable laws), to any politicians, state or private-sector officials, with a view to illegally winning or retaining a contract or competitive advantage; acts which are constitutive of the criminal offense of active corruption.

Likewise, Orano forbids itself and others from yielding to requests or demands, or from proffering, at any time, directly or indirectly any offer, promise, donation, gift or reward to a person, on its own behalf or the behalf of others, so that that person may unlawfully use his or her real or supposed influence with a view to obtaining distinctions, jobs, contracts or any other favorable decision from a public authority or administration; acts which are constitutive of the criminal offense of trafficking in influence punishable under French law.

Likewise, it is strictly prohibited for employees and partners of Orano to accept or request any offers, promises, donations, gifts or rewards of any kind so that they may abuse their position to unduly grant jobs, contracts, or any other favorable decision; acts which are constitutive of the criminal offense of passive corruption punishable by law.

Employees must avoid any situation in which they, even momentarily, find themselves in debt to a third party, or any merely ambiguous situations and any equivocal allusions of that nature.

A group policy describes the system of prevention of corruption and of trafficking in influence that it has put in place and with which everyone must comply.

7.2.2 Gifts, invitations and organization of events

Orano recognizes that occasional gifts of modest value accepted or given can sometimes legitimately contribute to good business relations.

Accordingly, both in the public and the private sector, modest gifts or invitations are sometimes made or received by employees. Such gifts and invitations must be in strict compliance with the applicable laws and regulations and in an entirely transparent manner, justified for a professional and unequivocal purpose. They must never influence decision-making, nor can they be perceived as having any such influence on the donor and beneficiaries. Gifts and invitations must be documented and recorded in the accounting books of the entity concerned.

In this respect, employees must demonstrate sound judgment and a keen sense of responsibility. In the case of any doubt, the employee must refuse the gift or the invitation or request authorization in advance from his or her manager or from the Compliance Department.

Under certain circumstances, should an employee find himself or herself in a situation where it is necessary to accept or make a gift or invitation of some value (beyond a modest value), for example, to abide by local customs or for reasons of protocol, he or she must inform his or her management and request prior written approval, where appropriate.

The following is strictly prohibited: payments in cash; personal services; loans; invitations and gifts which are inappropriate, or are provided in circumstances which are inappropriate for business relations.

Internally, gifts and any other intercompany selling expenses between Business Units or subsidiaries are also banned.

Events organized on an occasional basis for customers must serve a legitimate commercial purpose and all arrangements for them must be approved in advance at the appropriate level.

How should I react if…?

- *a supplier invites me to an exclusive event in the hope that I will make “the right decision” as part of an ongoing call-for-tenders process:*
  - any gift or invitation which is liable to influence or could be perceived as being liable to influence a commercial decision should be refused politely, and you should alert your hierarchical manager or your compliance officer accordingly;
- *a salesperson from my team suggests that an employee of a customer be invited to dinner with his/her spouse to obtain information on a forthcoming and as yet to be published call for tenders:*
  - you should explain to the salesperson that this type of practice is not compliant with group policy, and enroll him/her in a training course. Managers and company officers should remind teams of the principles of the Code of Ethics and the group’s compliance policies on a regular basis.

7.2.3 Conflicts of interest

All employees shall demonstrate loyalty, and promptly declare in writing any conflicts of interests to their superiors, with a copy to the Compliance Department. A conflict of interest or potential conflict of interest is any situation in which an employee’s personal interest or that of his or her relatives could interfere with the interests of the Orano group. This principally concerns relationships with suppliers, customers, identified competitors and any organization or person having or seeking to have dealings with Orano.

Employees shall take care not to deliberately put themselves in a conflict of interest situation and shall not participate in any analysis, meetings or decisions concerning matters subject to a conflict of interest. In particular, a friend, spouse, child or relative of a group employee may only be hired or commissioned if the employee’s superior agrees, and the same rules apply to said person on objective criteria, in order to avoid any ambiguity or suspicion of favoritism. The group employee concerned cannot take part in the process of selecting his or her friend or relative. Equally, a friend, spouse, child or relative of a group employee cannot be placed under the latter’s direct or indirect line of authority.

Conflicts of interest reported to management are analyzed on a case-by-case basis by the next two higher levels of management above the employee in question, which settle the conflict in accordance with current laws and regulations.

The following situations that could be a source of potential conflicts of interest must be reported (a non-exhaustive list):

- a company officer or one of his or her relatives has personal interests in a customer or supplier company – including consultants, financial partners and others – or group competitors;
- a staff member or one of his or her relatives is a director or corporate officer of an independent firm having dealings with the group;
- a staff member or one of his or her relatives is a consultant, or holds a management position or is a member of the sales or purchasing department of another company having or seeking to have dealings with the group;
- a staff member or one of his or her relatives puts premises, equipment or personal property at the disposal of the group for a consideration.

How should I react if…?

- *I notice that a member of my family represents a supplier that is submitting a bid as part of a call for tenders for which I am involved in the selection process:*
  - you should inform your L+1 and L+2 line managers of the conflict of interest and withdraw from the project.

7.2.4 Payments and relations with third parties

All group entities and managers must be able in all circumstances to substantiate the real source and use of any sum.

No payments may be made or received if their purpose has not been fully and accurately described in their supporting contractual documents and accounting records.

No payment techniques which conceal, or aim to conceal, the identity of a payer or payee are permitted.

Any facilitating payments are banned.

Depending on the level of risk identified, the third parties with which Orano interacts are subject to specific verifications with the aim of ensuring their integrity.

How should I react if…?

- *a supplier asks for a payment to be made to a bank account in another country:*
  - in principle, the supplier's bank account should be domiciled in a country which is related to the place where the business is being conducted. If this is not the case, you should request an explanation of the reasons for this request in order to assess whether it is acceptable;
- *a public official tells me that the formalities would be completed more quickly if I were to pay directly with a surcharge:*
  - this is a facilitating payment. The group's policy is to refuse to make any facilitating payment, even in countries where such practices are not illegal.

7.2.5 Selling intermediaries

The group may call upon reputable selling intermediaries and agents in order to secure commercial contracts, to perform follow-up for these contracts, or to carry out studies or any other initiatives with a view to developing the group's activities. Periodic checks should be performed to ensure that the intermediaries with which we work carry out their actions in accordance with our values, local laws and with the same principles of integrity. The selection of selling intermediaries requires particular attention, notably in terms of due diligences and contractual remuneration.

In accordance with the procedures in force, entering into relations with a selling intermediary requires prior verifications and approval, and the contracting process must be subject to specific review to ensure that provisions relating to the fight against corruption, as well as arrangements for checking execution of the contract, are incorporated into the contract.

How should I react if…?

- *I have noticed that our agent is re-invoicing higher and higher costs and expenses:*
  - the arrangements for the reimbursement of costs and expenses are in principle stipulated in the contract. They must be justified in the same way as any other service. Receipts should be requested and the agent should be asked to provide explanations;
- *I call upon the services of an intermediary which says that it will take care of the administrative formalities to ensure our activities run smoothly:*
  - in order to avoid the possibility that this intermediary may pay bribes to third parties, which could implicate the group in indirect corruption, it is necessary to ensure that its services are clearly defined and documented, and that the price invoiced by the intermediary corresponds to the fair market price. Furthermore, the contract may stipulate that an audit may be conducted.

7.2.6 Representation of interests and political party funding

The representation of interests to public authorities, commonly referred to as lobbying, is governed by laws and regulations which are specific to different countries and international organizations. In France, it is necessary to comply with the law relating to the representation of interests and the procedure in force applicable to any employee or corporate officer who contacts a person in authority in order to attempt to alter a decision.

Regarding the funding of political parties, no group company funds or provides services to a political party, a public servant or candidate to such a post.

Notwithstanding the previous paragraph, in OECD member countries where such corporate contributions are legal, contributions to election campaigns may be made in accordance with current legislation in the State concerned. Such contributions are subject to the written consent of the corporate officer of the subsidiary concerned, who shall make a point of limiting them to a minimum.

The sums and their recipients must be disclosed in the executive summary enclosed with the annual ethics report drafted by the subsidiary's designated company representative.

How should I react if…?

- *a parliamentary representative to whom I have just explained the benefits of nuclear energy ask me once the interview is over if it would be possible to finance a sports center in his constituency:*
  - you should refuse politely pointing out that sponsorship activities are governed by group policy and are subject to an approval process. Such a request could fall within the scope of trafficking in influence.

7.2.7 Corporate sponsorship, donations, humanitarian aid

The group's sponsorship policy and its action program are defined at the group level, which *inter alia* takes into consideration the involvement of employees in such programs.

Spirit: Orano's interventions reflect the values of the group. They are characterized by the lack of a *quid pro quo* of an administrative or commercial nature.

Arrangements: The group only intervenes as a supporter, with no responsibility as prime contractor or operator, and only backs projects or programs that are led by their initiators, after accomplishing all of the requisite legal and administrative formalities and obtaining the necessary permissions and guarantees.

Orano's corporate sponsorship excludes any gift to a State or regional administration or any natural persons, and any cash payments.

How should I react if…?

- *a politician asks me to fund a charity for the education of young girls. The association is managed by his wife:*
  - any support for an association must be validated in advance. Funding of this type could be considered to be a form of corruption.

7.3 Applicability

The code of conduct is applicable to all employees of the group, as well as to external and occasional contractors.

It is applicable everywhere when the Orano group conducts its activities, in all countries worldwide, and shall not serve as a substitute for the application of more demanding anti-corruption rules, where imposed by applicable laws or regulations.

7.4 Training

Orano ensures that its employees and corporate officers receive appropriate training with regard to their exposure to the risk of corruption or of influence peddling and that this training is updated on a regular basis. Each of these employees and corporate officers may receive additional information from the group's compliance teams.

7.5 Reporting

Any observed cases of active or passive corruption, trafficking in influence, or any solicitation of a third party tending towards such corruption, shall immediately be reported to direct or indirect management and/or to the Compliance Officer of the Department or of the Unit concerned and/or to the group Chief Compliance Officer, who are the persons to be consulted for the handling of ethical issues, in accordance with French law, and whose contact details can be found on the group website and on the Intranet. They shall immediately take the measures needed to ascertain the reality of such cases, *inter alia* by carrying out the appropriate audits, and promptly put an end to any such misconduct.

The law guarantees that the confidentiality of the identity of the author of an uninterested report made in good faith shall be preserved, when he or she denounces criminal acts or misdemeanors of which he or she has personal knowledge. Applicable laws may also protect the immunity of the person making the report from sanctions or discriminations or retaliation of any kind, for having reported the facts in compliance with the procedure above.

It should also be remembered that if applicable law so provides, except in the case of serious and imminent danger or risk of irreversible damages, the law prohibits the public disclosure of an alert, for a period of three months, and may only be made public once this period has elapsed, and in the event that it has not given rise to any subsequent action.

7.6 Sanctions

All the acts prohibited by this code of conduct, or any violation of the rules and principles stated in this Anti-corruption code of conduct shall expose the person responsible to disciplinary action (which may range, depending on the nature of the breach, from a warning to dismissal for misconduct, in accordance with internal company rules where applicable), or even a judicial sanction. Disciplinary sanctions applied locally must be compliant with the labor regulations in force.

Florence ASCHER
Chief Compliance Officer

Philippe KNOCHE
Chief Executive Officer

8.13 Financial glossary

Operating working capital requirement (Operating WCR):

Operating WCR represents all of the current assets and liabilities related directly to operations. It includes the following items:

- inventories and work-in-process;
- trade accounts receivable and related accounts;
- advances paid;
- other accounts receivable, accrued income and prepaid expenses;
- minus: trade accounts payable and related accounts, trade advances and prepayments received (excluding interest bearing advances), other operating liabilities, accrued expenses, and deferred income.

Note: Operating WCR does not include non-operating receivables and payables such as income tax liabilities, amounts receivable on the sale of non-current assets, and liabilities in respect of the purchase of non-current assets.

Backlog

The backlog is determined on the basis of firm orders, excluding unconfirmed options, using the contractually set prices for the fixed component of the backlog and, for the variable component, the market prices based on the forecast price curves prepared and updated by Orano. Orders in hedged foreign currencies are valued at the rate hedged. Non-hedged orders are valued at the rate in effect on the last day of the period. The backlog reported for long- term contracts recorded under the percentage of completion method and partially performed as of the reporting date is equal to the difference between (a) the projected sales revenue from the contract at completion and (b) the sales revenue already recognized for this particular contract. Accordingly, the backlog takes into account escalation and price revision assumptions used by the group to determine the projected revenue at completion.

Net cash flow from company operations:

Net cash flow from company operations is equal to the sum of the following items:

- operating cash flow;
- cash flow from end-of-lifecycle operations;
- change in non-operating receivables and liabilities;
- financial income;
- tax on financial income;
- dividends paid to minority shareholders of consolidated subsidiaries;
- net cash flow from operations sold, discontinued and held for sale, and cash flow from the sale of those operations;
- acquisitions and disposals of current and non-current financial assets, with the exception of bank deposits held for margin calls on derivative instruments or collateral backed by structured financing and cash management financial assets.

Therefore, net cash flow from company operations corresponds to the change in net debt (i) with the exception of transactions with Orano SA shareholders, accrued interest not due yet for the financial year and currency translation adjustments, and (ii) including the accrued interest not due from financial year N-1.

Operating cash flow (OCF):

Represents the amount of cash flow generated by operating activities before income tax. It is equal to the sum of the following items:

- EBITDA;
- plus losses or minus gains on disposals of property, plant and equipment and intangible assets included in operating income;
- plus the decrease or minus the increase in operating working capital requirement between the beginning and the end of the period (excluding reclassifications, currency translation adjustments and changes in consolidation scope);
- minus acquisitions of property, plant and equipment and intangible assets, net of changes in accounts payable related to fixed assets;
- plus sales of property, plant and equipment and intangible assets included in operating income, net of changes in receivables on the sale of fixed assets;
- plus prepayments received from customers during the period on non-current assets;
- plus acquisitions (or disposals) of consolidated companies (excluding equity associates), net of the cash acquired.

Net debt:

Net debt is defined as the sum of all short and long-term borrowings, less cash and cash equivalents, financial instruments recorded on the assets side of the balance sheet including borrowings, bank deposits constituted for margin calls on derivative instruments and collateral backed by structured financing and cash management financial assets.

Earnings before interest, taxes, depreciation and amortization (EBITDA):

EBITDA is equal to operating income after depreciation, depletion, amortization and provisions, net of reversals. EBITDA is restated to exclude the cost of end-of-lifecycle operations performed in nuclear facilities during the financial year (facility dismantling, waste retrieval and packaging). It should be noted that the cash flows linked to end-of-lifecycle operations are presented separately.

Cash flows from end-of-lifecycle operations:

This indicator encompasses all of the cash flows linked to end-of-lifecycle operations and to assets earmarked to cover those operations. It is equal to the sum of the following items:

- revenue from the portfolio of earmarked assets, cash from disposals of earmarked assets;
- full and final payments received for facility dismantling;
- minus acquisitions of earmarked assets;
- minus cash spent during the financial year on end-of-lifecycle operations;
- minus full and final payments paid for facility dismantling.

Adjusted net income attributable to owners of the parent:

This indicator is used to reflect Orano's industrial performance independently of the impact of financial markets and regulatory changes in respect of end-of-lifecycle commitments. It comprises net income attributable to owners of the parent, adjusted for the following items:

- return on earmarked assets;
- impact of changes in discount and inflation rates;
- undiscontinuing of end-of-lifecycle operations (regulated scope);
- significant impacts of regulatory changes on end-of-lifecycle commitment estimates (adjustment impacting operating income);
- related tax effects.