2018 Registration document

This is a non binding translation into English. The French language version of this document was filed with the French Financial Markets Authority (Autorité des marchés financiers) on 3 April 2019.

AUTORITÉ DES MARCHÉS FINANCIERS

AMF

This Registration Document was filed with the Autorité des marchés financiers (AMF) on 3 April 2019 in accordance with Article 212-13 of its general regulations. It may be used in support of a financial transaction if it is supplemented by a briefing note approved by the AMF. This document was prepared by the issuer and is the responsibility of its signatories.

Public limited company with capital of €81,239,446.20
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Paris Trade and Companies Register
No. 632 045 381

The French language version of this document cancels and replaces the French language version of the document de reference filed under number D. 19-0259 on 3 April 2019 and posted on website on the same day where words were missing as follows: on page 26 first column *« electrolytic manganese metal »* and *« flakes »*, 2nd column *« dry metric ton unit »*; on page 27 *« spot »* in 1st and 2nd columns; on page 32 *« spot »* twice in the 1st column; on page 33 1st column *« revampings »*; on page 34 *« London Metal Exchange »* in the 1st column and *« cash seller and settlement »* in the 2nd column; on page 40 2nd column *« Contract of Work »*, *« prevailing laws and regulations »* and *« off-take »*; on page 41 1st column *« nickel pig iron »*, in the 2nd column *« cash cost » « break-even cost »* and *« cash cost »* twice; on page 42 1st column *« break-even cash »* and *« break-even »* and in the 2nd column *« off-take »*; on page 43 1st column *« chloride process »*; on page 47 1st column *« high purity pig iron »*; on page 49 2nd column *« a minima »* and *« salars »*. Except for these changes, no other change was made to the French language version of the document.

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Christel Bories
Chairman and CEO

A New Momentum

"In 2018, we constructed our vision for the future. This vision includes a strong ambition: to be the best in the business activities we choose to pursue and to be a responsible company that creates value and is admired for its strategic, managerial and social model.

This vision will now be symbolised by a new brand identity that embodies our momentum, energy and journey into the future.

In 2018, we launched a number of initiatives to improve our operational performance and our commitment as a responsible company. We achieved strong results for the second year in a row, with sales of €3.8 billion and current operating income of €581 million. We achieved new production records in our mining operations and took 100% control of TiZir. We also made safety a priority at Group level, with a focus on prevention and awareness campaigns to increase vigilance across the board and to continue to reduce the number of workplace accidents. And we also defined an ambitious CSR roadmap for the next five years to make Eramet a socially responsible, committed and contributory corporate citizen.

However, these initiatives and successes did not always lead to results that match our ambitions. Indeed, some of our business activities performed below our expectations and are facing major challenges. To this end, 2019 will be a crucial year for the effective implementation of SLN's rescue plan, for the improvement of the Sandouville plant's results and for laying the foundations for better future performance of our High Performance Alloys Division.

The main focus of 2019 will be the progress of two strategic projects: the extension of the Moanda mine in Gabon and the development of lithium in Argentina. These projects, which will be reviewed by the Board of Directors in 2019, aim to make Eramet's model more robust, more sustainable, more profitable and more promising in terms of growth.

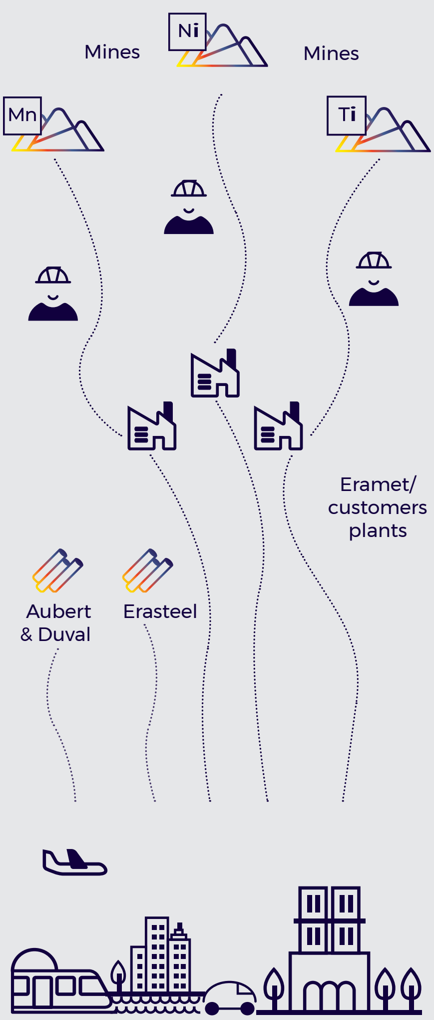
2019 will therefore be the year of acceleration of the in-depth transformation of our activities initiated 18 months ago in order to build a sustainable, high-performance and recognised global player in responsible mining and metallurgy and energy transition.

A new Eramet is emerging, embodied by the momentum and commitment of its 13,000 employees, by its partners, and by the support of its shareholders."

1.2 A diversified mining and metallurgical of activity

WHO WE ARE

Eramet is a key player in metals mining and transformation, activitivies as well as high performance alloys manufacturing.



Eramet also develops strong growth potential activities such as lithium extraction and recycling, which will play a critical role for the energy transition and tomorrow's mobility.

OUR AMBITION

> Developing a **selective portfolio of value-accretive** mining and metallurgical activities.

FINANCIAL STRENGTH

€843m EBITDA

€2.5 bn financial liquidity

PHYSICAL ASSETS

39 mining and metallurgical industrial sites worldwide

€281m industrial CAPEX

NATURAL RESOURCES

For several decades

269 Mt Manganese ore (Gabon)

190 Mt Nickel ore (New Caledonia)

25.7 Mt Heavy Mineral sands content (Senegal)

9.9 Mt Lithium (« LCE**) drainable resources (Argentina)

9 Mt Ni content (held at 43% by Eramet) Weda Bay Indonesia

OUR PEOPLE

The main driver of our performance

13,000 people in 20 countries

22% of female managers

RESEARCH AND DEVELOPMENT

Integrated R&D centers, across the value chain from mining to products, including digital transformation

€60m R&D spend

300 people (in-house R&D)

STAKEHOLDERS AND RELATIONSHIP

shareholders, customers, suppliers, people, local communities, government and regulators

SBF 120 listed company

Local territories as shareholders of our main subsidiaries: 34% New Caledonia (SLN), 29% Gabon (Comilog), 10% Senegal (GCO)

Long term relationship *with customers*

** Eramet Resources includes 6 'capitals' in line with IIRC recommendations.*

*** LCE : Lithium Carbonate Equivalent.*

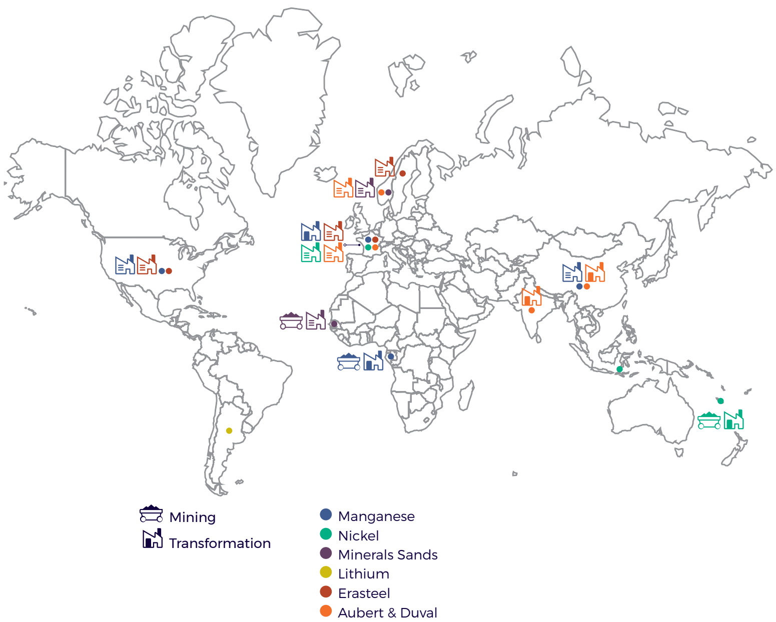
group and a leader in its areas

> Being **among the best** in each of our businesses, in terms of performance, profitability and innovation.

> Being **admired** for our strategic model, our management system and our societal commitment.

WHAT WE DO

Our activities



OUR VALUE CREATION

SHAREHOLDERS

22% ROCE*** (2018)

€2.3 per share paid in 2018

CUSTOMERS / SUPPLIERS

€3.8bn Turnover

€2.3bn Group purchases

91% of decarbonated power purchased

COMMUNITY

€122m paid by our companies active in the extractive industry to local government (mainly taxes and royalties) in 2017****)

€7,4m spent through local CSR partnerships

EMPLOYEES

-23 % FR2 in recordable accidents

71 % employees trained

R&D AND INNOVATION PARTNERS

25 ongoing European collaborative projects

WHERE WE WANT TO BE IN 2023

Sustainable value creator

Business partner of choice

Committed & contributive corporate citizen

Home for best talents

Entrepreneur

*** *ROCE: current operating income/capital employed.*

**** *yearly updating issued in June.*

The above graphic shows the Group's business model: Group resources, activities, value created for its various stakeholders, strategy.

Chapter 2 provides a more detailed discussion of the activities and markets in which the Group operates.

The Eramet Group holds leading global positions in each of its businesses: the extraction and recovery of metals (manganese, nickel, mineral sands) and the production and processing of high value-added alloys (high-speed steels, high-performance steels, superalloys, aluminium or titanium alloys).

Specific positioning of the Eramet Group

World-class deposits

Mn	Gabon — Comilog Manganese — Resources for over 40 years In operation for more than 50 years
Ni	New Caledonia — SLN Nickel — Resources estimated at ~ 50 years In operation since the end of the 19^{th} century
Ni	Indonesia — Weda Bay Nickel Nickel — Over 50 years of resources Beginning of operations planned for late 2020
Ti	Senegal — TiZir Zircon and ilmenite — More than 30 years of resources In operation since 2014
Li	Argentina – Eramine Sudamerica Lithium — More than 50 years of resources Project

Leading positions in each area of our businesses

- Eramet is the world's second largest producer of high-grade manganese ore at its mine in Moanda (Gabon), the world's second largest producer of manganese alloys and the largest producer of high value-added alloys or "refined" alloys.
- Eramet operates nickel mines in New Caledonia and processes most of its own ore, while some is also sold for export. The Group is the world's largest producer of high-grade ferronickel and a worldwide producer of high-purity nickel.
- Eramet is also a key player in mineral sands. Since 2014, Eramet has been operating a mine in Senegal which produces zircon and titanium raw materials (ilmenite, leucoxene and rutile). The transformation of ilmenite in titanium slag is then performed by pyrometallurgy at the TiZir plant in Norway. The Group is the world's fifth largest producer of titanium raw materials and the fourth largest producer of zircon.
- In Argentina, the Group acquired in 2014 perpetual mining rights on a major lithium concession, in natural brines, located in the province of Salta in the Andes cordillera. Lithium plays a critical role for energy transition and digital transformation.
- Finally, Eramet is the world's second largest producer of high-power closed-die forged parts. The Group is also one of the main producers of high-performance special steels and one of the world leaders in the metallurgy of gas atomised powders.

Eramet is positioned as the preferred partner of its customers in the steel, stainless steel, aeronautics, pigment, energy and new generation batteries sectors.

Based on operational excellence, the quality of its investments and the know-how of its employees, the Group relies on a virtuous and value-creating industrial, managerial and societal model. As a corporate citizen and contributor, Eramet works towards industry that is sustainable and responsible.

1.3 High 2018 results, driven by a favourable price environment

The consolidated performance indicators used for the financial reporting of the Group's results and economic performance and presented in this document are restated data taken from the Group's reporting and monitored by the Executive Committee. In accordance with the accounting principles adopted for the Group's reporting, the operating performance of the joint ventures is accounted for under proportionate consolidation: the TiZir subgroup (Mineral Sands BU, Mining and Metals division) until 30 June 2018 and UKAD (High Performance Alloys division). A reconciliation with the published data is presented in Note 4 of Chapter 3 (page 89).

The Eramet Group's results are high for the 2018 financial year.

Group sales were up 5% versus 2017 to €3,825 million. At constant scope(1) and exchange rates(2), the change in Group sales is approximately 8%.

The Group's current operating income ended at €581 million, down 4%. The good operating performance from manganese ore activities (Comilog) and mineral sands (TiZir), as well as Erasteel's progress, were offset by the negative squeeze effect on manganese alloys margins, an underperforming SLN due to societal difficulties in New Caledonia, and losses incurred by the Sandouville plant and Aubert & Duval.

Net income — Group share amounted to €53 million, versus €203 million in 2017. A non-recurring charge of €265 million was booked for Aubert & Duval (asset impairment of €200 million announced in H1 2018, and a non-current provision of €65 million for the cost of the quality process review). This was partially offset by a €147 million net profit from other non-recurring income and expenses, mainly related to the disposal of Guilin, the waiver of conditions required to establish the Weda Bay Nickel partnership agreement and the reversal of an impairment charge on TiZir.

Free cash flow, excluding the TiZir acquisition, ended at +€162 million in 2018. It amounted to -€211 million, after taking into account the full consolidation of TiZir, following the successful takeover bid in July for a total of €373 million, including the payment of the acquisition cost (€220 million) and the consolidation of TiZir's debt. Capex remained moderate at €281 million in 2018.

In addition, the payment of dividends in 2018 in respect of 2017 results to Eramet shareholders (€61m) and Comilog minority shareholders (€59m) amounted to €120 million. A dividend payment of €0.60 per share maintaining a 30% pay-out ratio will be submitted for approval at the General Shareholders' Meeting on 23 May, 2019.

Net debt stood at €717 million at 31 December, 2018, corresponding to a gearing of 38%, versus €376 million at end-2017. Excluding the TiZir acquisition, net debt decreased by €32 million compared to 2017.

In February 2018, the RCF was extended for €981 million with a five-year maturity (new term in 2023). In February 2019, maturity was extended to 2024. No amount of this RCF has been drawn down to date.

To boost its R&D, modernisation and digital transformation spending, Eramet signed a deal with the European Investment Bank in October for €120 million in funding, with a 10-year maturity.

At 31 December, 2018, Eramet's financial liquidity remained high at €2.5 billion.

Given the volatile and cyclical characteristics of Eramet's markets, the Group is aiming to:

- have a minimum amount of free cash available at all times of €500 million to protect against a low cycle risk;
- maintain the net debt-to-equity ratio ("gearing") below 100%.

At end-2018, the Group largely complied with these thresholds with available cash of €1.4 billion and a gearing of 38%.

Lastly, in 2018, Eramet continued its detailed feasibility study to expand the Moanda mine in Gabon, as well as the development of its lithium deposit(3) in Argentina. Investment decision is expected to be made in spring 2019.

Subject to the decision made regarding investments in spring 2019, Comilog has mandated the World Bank to syndicate the financing of its organic growth, and as regards the Lithium project, the objective is to obtain new specific funding.

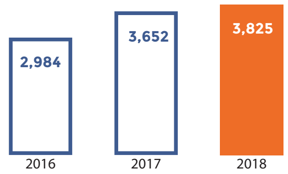
(1) The scope effect is mainly owing to the full consolidation of the Mineral Sands activity as of 1 July 2018, following the acquisition of shares in Mineral Deposits Limited, an Australian company that held a 50% stake in TiZir.

(2) See financial glossary.

(3) See Section 1.6 "A major step forward in the Group's strategic transformation in 2018".

1.3.1 Key business figures

SALES
(€ MILLION)

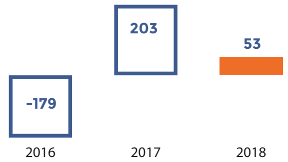


Sales up 5% compared with 2017 at €3,825 million.

CURRENT OPERATING INCOME
(€ MILLION)

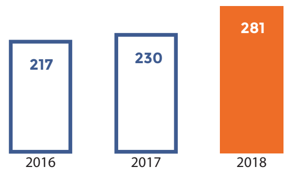
The current operating income of the Group is high, at €581 million.

NET INCOME, GROUP SHARE
(€ MILLION)



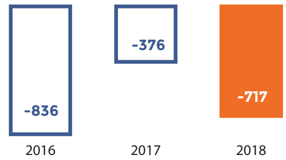
Positive net income, Group share, at €53 million, impacted by non-recurring income and expenses.

INDUSTRIAL INVESTMENTS
(€ MILLION)



Industrial investments of €281 million, mainly dedicated to safety, the environment, productivity and the maintenance of industrial tools.

NET FINANCIAL DEBT
(€ MILLION)



A net debt level of €717 million at 31 December 2018, impacted by the acquisition of TiZir at 100% and the payment of dividends.

BREAKDOWN OF CURRENT OPERATING INCOME BY BUSINESS SEGMENT

	2018	2017
Mining and Metals Division		
Manganese BU	699	719
Nickel BU	(111)	(125)
Mineral Sands[(1)] BU	35	19
High Performance Alloys Division	(8)	32
Holding	(34)	(37)
Total	581	608

(1) TiZir at 50% until 30 June 2018, 100% from 1 July 2018.

BREAKDOWN OF INDUSTRIAL INVESTMENTS BY BUSINESS SEGMENT

	2018	2017
Mining and Metals Division		
Manganese BU	140	84
Nickel BU	57	80
Mineral Sands BU	12	5
High Performance Alloys Division	63	59
Holding	9	2
Total	281	230

22%

Second year of strong value creation with a 22% ROCE.

€2.5bn

At 31 December, 2018, Eramet's financial liquidity remained high at €2.5 billion.

1.3.2 Summary of consolidated financial statements

KEY FIGURES FOR ERAMET GROUP

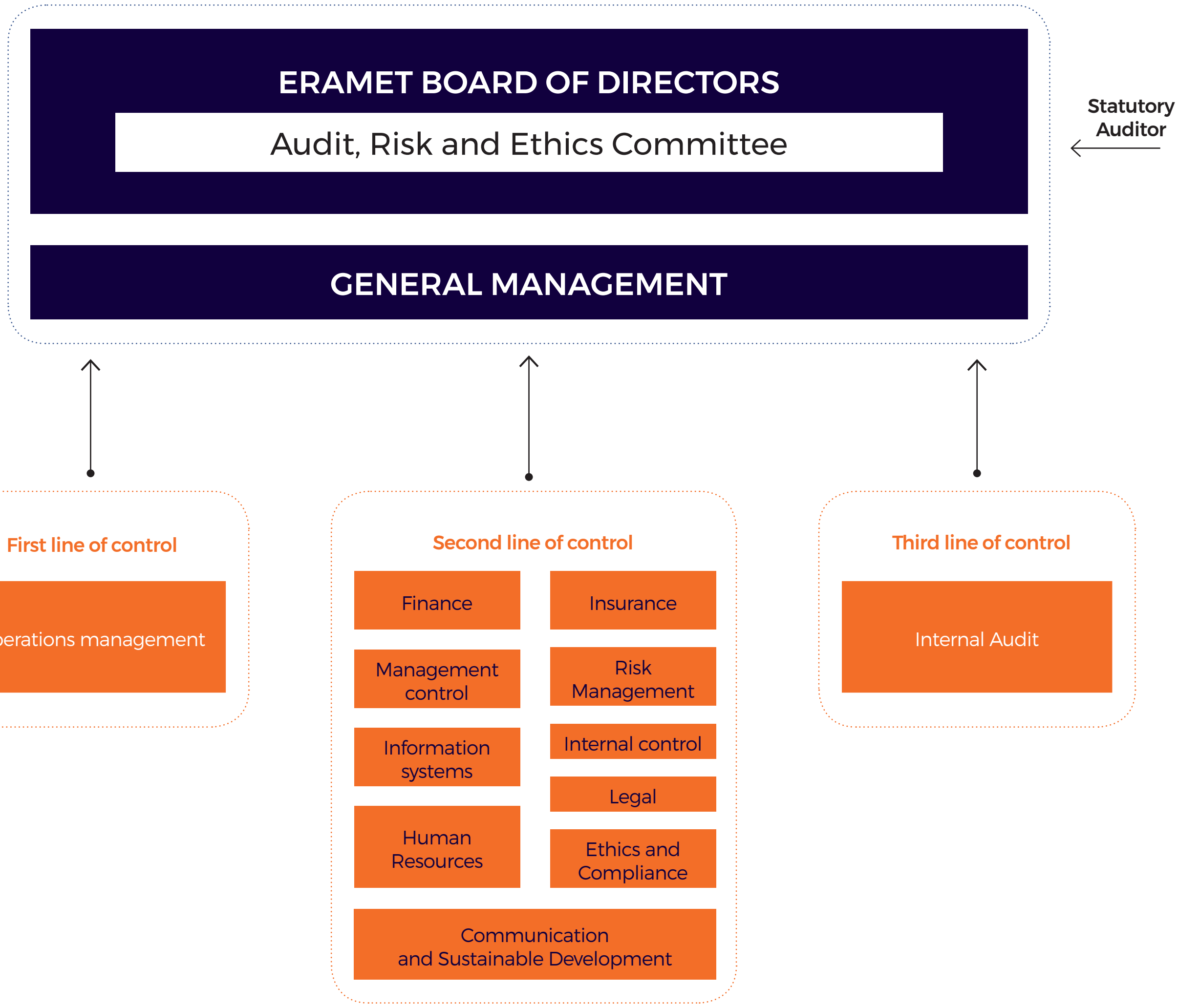
(€ MILLION)[1]	2018	2017	CHANGE (€ MILLION)	CHANGE[5] (%)
Sales	3,825	3,652	+173	+5%
EBITDA	843	871	-28	-3%
Current operating income (COI)	581	608	-27	-4%
Net income – Group share	53	203	-150	-74%
Free Cash-Flow (excluding TiZir acquisition)[2]	162	477	-315	-66%
Net debt (net cash)	717	376	+341	+91%
Shareholders' equity	1,908	1,980	-72	-4%
Gearing[3]	38%	19%	+19 pts	Na
ROCE (COI/capital employed[4] for previous year)	22%	21%	+1 pt	Na

(1) Adjusted data from Group reporting in which joint ventures are accounted for using proportionate consolidation. The reconciliation with the published financial statements is presented in the appendices.
(2) Free-cash-flow for FY 2018 ended at -€211 million and was impacted by €373 million from the acquisition of Mineral Deposit Limited, an Australian company that held a 50% stake in TiZir.
(3) Net debt-to-equity ratio.
(4) Total shareholders' equity, net debt, provisions for site rehabilitation, restructuring and other social risks, less financial fixed assets, excluding Weda Bay Nickel capital employed.
(5) Data rounded up to higher or lower %.

1.4 Risk governance based on a cross-functional system

The Group operates in a constantly changing economic and regulatory environment with increasingly volatile cycles. It is therefore exposed to risks whose occurrence could negatively impact its activities, results, financial position, image and outlook. The purpose of the Eramet Group's risk management system is to identify these risks, qualify them, and reduce their probability of occurrence and potential impact in order to allow risk-taking to improve the Group's performance and provide better opportunities.

Risk governance system



The implementation of the Risk Management process led in 2018 to the mapping of the major risks to which the Group is exposed due to its business model and the business activities carried out.

CRITICALITY / TYPOLOGY	HIGH	AVERAGE	LOW
Strategic	• Risk of non-recovery (or failure to recover) certain assets which returns are insufficient or to reposition competitively some entities on the cost scale • Geopolitical risks	• Risks of social and environmental acceptability • Risk of non-execution of the chosen strategy of profitable growth with a diversified portfolio of activities	
Operational	• Supply chain risk • Risks inherent in production reliability and the development of new metallurgical products	• Health and safety risks of human resources • Risk of failure of information systems, protection of information and cyber attacks • Risks related to industrial and environmental safety • Risks related to security • Risks related to attracting and retaining talent, and industrial relations	
Legal		• Risk of non-compliance with regulations • Risk of the strengthening of legislative and regulatory requirements	• Significant disputes
Financial			• Liquidity risk • Market risk • Counterparty risk

For more information:
2018 Registration Document, Chapter 5.

1.5 A commitment to CSR at the heart of the strategic vision

Due to the nature of its mining and industrial activities, and aware of its strong interaction with the local areas in which it operates, Eramet is resolutely focused on all matters related to sustainable development and corporate social responsibility (CSR). The Group has long been committed to an approach of continuous progress and improvement. Its ambition: to be a company admired for its strategic model, management system and social commitment.

The expectations of Eramet's business stakeholders converge on the identification and control of risks. In this context, Eramet strengthened and formalised the mapping of its CSR risks, whether generated by the Group's own activities or those of the participants in its supply chain. Three areas are the subject of specific mapping: environment, human rights and fight against corruption. These risk maps make it possible to refine the knowledge of the CSR issues that the Group must manage. In so doing, Eramet relies in particular on its Ethics Charter, its Sustainable Development policy and its CSR roadmap.

In its roadmap for the period 2018-2023, in line with the United Nations Sustainable Development Goals (SDGs) and the Group's five-year vision, Eramet has set itself ambitious and measurable objectives that reflect its commitment to being a socially responsible, committed and contributing company.

In all its regions of operation, Eramet strives to be:

- a committed player for women and men (health, safety, dialogue and development of our employees and host communities);
- a responsible economic player (ethical compliance, responsible management, development of metals in the energy transition, circular economy);
- a committed player for the planet (risk management, reduction of our footprint and energy).

The latest version of these objectives, targets and action plans were validated by the Executive Committee and the Group Strategy and CSR Committee in 2018. Actions are implemented with all the Group's Divisions and operational entities and their successful implementation is monitored by several working groups and cross-functional thematic committees: CSR, biodiversity, mining environment, responsible purchasing, responsible sales, human rights, ethics. Eramet's ethics compliance programme, which also includes multi-year objectives and is managed by the Ethics and Compliance Department, supplements this system.

At the same time, the Group pays particular attention to the integration of social, environmental, health and safety, cultural and societal criteria in the design and development of its projects. By referring to the most demanding international standards, the Group aims to build long-lasting relationships with its stakeholders wherever it establishes a base, in accordance with specific rules and cultures, and current scientific knowledge.

The Communication and Sustainable Development Director and the Human Resources, Health, Safety and Security Director, both members of the Group's Executive Committee, propose, support and monitor the multi-year objectives and associated action plans. They report regularly to the Executive Committee.

The effective inclusion of CSR requirements in the Group's activities is also closely monitored by Eramet's Board of Directors, in particular through two of its Committees, the Strategy and CSR Committee, and the Audit, Risks and Ethics Committee.

For more information:
2018 Registration Document, Chapter 6 and Appendix: Vigilance Plan.

1.6 A major step forward in the Group's strategic transformation in 2018

1.6.1 Summary of strategic orientations for the Group at the end of 2018

2017 marked a milestone for the Group. The rebound in manganese prices, and more modestly those of nickel, combined with the productivity efforts of the year, led to a **significant improvement in our financial results.** That same year, Eramet also launched **a major programme of strategic and managerial transformation** with a view to repositioning it competitively in its rapidly changing environment and to enable it to create value in the long term, in particular through a return to growth.

This strategic transformation continued to gain momentum in 2018. It is divided into **three areas:**

- **The first area is the fixing/repositioning of the least performing assets.** This is key to the sustainability of the portfolio in the long term. This is reflected in a plan to rescue SLN with a new objective of reducing the cost price by USD 1.30/lb of nickel in 2021, and a project to transform our Erasteel and Aubert & Duval activities with a project for recovery based on a new industrial and commercial organisation built around three business units. For these assets, solutions go through a change in models which will bring significant intrinsic progress, but they may also lead Eramet to consider consolidation movements. If the performance targets set cannot be met, their exit from portfolio may have to be considered.

  In response to the many internal and external challenges in New Caledonia, a plan for rescuing SLN was defined at the end of 2018. Its success requires the involvement of all stakeholders in the first few months of 2019, within a narrow time frame. This plan is based on the effective implementation of the new economic model, including an increase in the volume of ore exported, progress in improving internal performance and the short-term reduction in energy prices.

  The new economic model, rebalanced in two businesses — mining and metallurgy — will increase the Company's revenues by improving the value of the current mining sector and reduce cash cost accordingly. The success of this model is based on a volume target of 4 Mt of ore exported per year, with this rate being reached in 2021. This is subject to obtaining authorisations of new export applications, which will be submitted during the first quarter of 2019. SLN has a target of 1.5 Mt of ore exports as of 2019.

The rescue plan aims to achieve an intrinsic cash cost improvement of USD 1.30/lb by 2021.

Its implementation is essential, otherwise the loans granted by Eramet and the French government could be exhausted in 2020 under current market conditions. To achieve this, SLN is in constant dialogue with all relevant stakeholders, including local authorities and the social partners.

In addition, the 2018 strategic review conducted within the High-Performance Alloys division made it possible to:

- focus the Division's activities on six major strategic market segments: aeronautics, land-based turbines, defence, nuclear, powder metallurgy high-speed steels and additive manufacturing;
- define a project to structure Aubert & Duval and Erasteel's activities into three distinct business units ("BU") in charge of their own performance: Closed-Die Forged Parts BU, Forged and Rolled Products BU and High-Speed Steels and Recycling BU;
- design a project to reorganise plants and support functions.

The objective of each business unit is to improve results within a more agile scope and to win new market shares in strategic segments. This is particularly true in the aeronautics sector for single-aisle programmes, both for engine and structural parts and for long products.

- **The second area is organic or external growth, in our attractive businesses** and where the Group has or can have a competitive advantage. Targeted areas include:
  - manganese ore through the expansion of our mining activities in Gabon and the search for value-creating acquisitions;
  - the exploitation of the Weda Bay nickel deposit;
  - opportunistic developments in other metals offering complementarities with our existing positions, and notably in mineral sands.

Regarding growth in manganese ore.

In Gabon the increased target is to reach 7 Mt of manganese ore production by the end of 2023, representing more than 50% growth compared to 2018, through the development of the Okouma plateau in parallel with the Bangombé plateau, which is currently being mined. The total investment amount is estimated at nearly €600 million over five years and the final decision is expected in spring 2019 when the technical and economic studies are completed.

In this context, an alternative dry processing process for part of the Bangombé plateau ore was launched in late 2018. This process allows flexibility in the operation of the Moanda mine by extending the life of the current plateau, as well as an increase in short-term production volumes. On this basis, and without significant investment, the production target for 2019 is already 4.5 Mt of manganese ore, reflecting a major step forward in Comilog's organic growth.

This growth momentum is supported by the programme to renovate the railway line with the doubling of the transport capacity of Transgabonais, operated by Setrag, a wholly-owned subsidiary of Comilog. Since the programme began in 2016, capacity has increased by more than 30%.

2019 will mark a new stage in the renovation programme, particularly in terms of digital transformation, with the establishment of the new control centre equipped with digital means of communication with the trains.

Regarding the development of the Weda Bay nickel deposit:

The Weda Bay project in Indonesia is based on a world-class ore deposit, jointly developed with the Chinese company Tsingshan which is the world's first stainless steel producer. It is planned to produce a low grade nickel ferroalloy from the Weda Bay ore ("NPI[(1)]"), with a planned capacity of 30 kilotonnes (kt) of nickel content per year. This type of low grade nickel ferroalloy is in great demand in the stainless steel industry. Eramet holds 43% of the shares of the joint-venture company which holds this asset and Tsingshan holds the other 57%. As from the start of production, planned at the end of 2020, Eramet will benefit from an off-take of 43% of production.

Regarding mineral sands:

In 2018, Eramet also reinforced its business portfolio in the attractive business of mineral sands. The Group took a 100% control of TiZir as of 1 July, further to the success of the takeover bid launched in April on MDL securities (Australian company which held 50% of the TiZir joint-venture). TiZir is a key player of the mineral sands industry, thanks to the quality of the mine in Senegal and the ore enrichment capacities at the plant in Norway.

(1) Nickel Pig Iron ("NPI").

- **The third area is the expansion of the portfolio into metals for energy transition:** lithium, nickel salts and cobalt salts. Eramet has serious scientific, industrial and commercial advantages in relation to these metals, whose demand is expected to grow in the coming years thanks to the demand for rechargeable batteries and, more generally, with the growth and development of the energy transition. This redeployment should enable the Group to diversify its asset base both geographically and financially through:
  - lithium, especially via the development of the Eramet deposit in Argentina;
  - increasing the Group's exposure to nickel salts and cobalt salts through the study of the diversification of the valuation of the Weda Bay deposit;
  - the development in the recycling of Li-ion batteries (lithium, nickel, cobalt) with the launch of an R&D programme.

Concerning the lithium project in Argentina, since its discovery at the beginning of the decade, geological work has increased the quantities of drainable resources to 9.9 Mt LCE (Lithium Carbonate Equivalent).

The investment decision for building a lithium production plant is expected to be made in spring 2019, following the completion of the detailed engineering studies currently in the final phase and the administrative approval process in Argentina.

The targeted production capacity is 24 kt LCE per year, having been revised upwards in 2018, for an investment of around €500 million over three years. Subject to the decision, production is expected to start at the end of 2021.

The Group's ambition and vision are also based on a managerial and digital transformation, together constituting a cross-functional lever for growth and performance.

A deep managerial transformation is taking place, which is a prerequisite for the successful execution of the strategy. It aims to deploy managerial and operational excellence at all levels of the organisation: upward revision of the level of ambition; light, flexible and responsive structures; strengthening of leadership skills, empowerment and performance management; rigour in execution; focus on results. This transformation must improve performance and facilitate the achievement of our strategic ambitions. Eramet reinforced its competences with new competences, which have a key role in succeeding in this transformation, with more than half of top management teams having been renewed with new managers coming from the Group or from outside the Group over the last 18 months.

Today, thanks to the exponential increase in computing power, digital technologies are making it possible to rethink the ways we operate — in the mines and plants, and even to transform business models. Digital transformation will be one of the major areas of value creation for Eramet, both in improving the performance of existing assets and in the evolution of the Group's positioning. The targeted investments amount to roughly ~10% of the current Capex per year over five years.

1.6.2 Investments

The aim is both to strengthen competitiveness and to develop the activities of the two Divisions (Mining and Metals, High-Performance Alloys). The investment policy is based on product or process differentiation with a focus on markets with structural medium to long-term growth. In 2018 again, investment approvals have principally been limited to safety, environmental and maintenance related projects.

Industrial investments recognised at Group level totalled €267 million in 2015, €217 million in 2016, €230 million in 2017 and €281 million in 2018.

Each major project may be financed in a different way (own resources, bank borrowings and finance leases). Current investments are generally financed from own resources.

1.7 Outlook for the Group in 2019

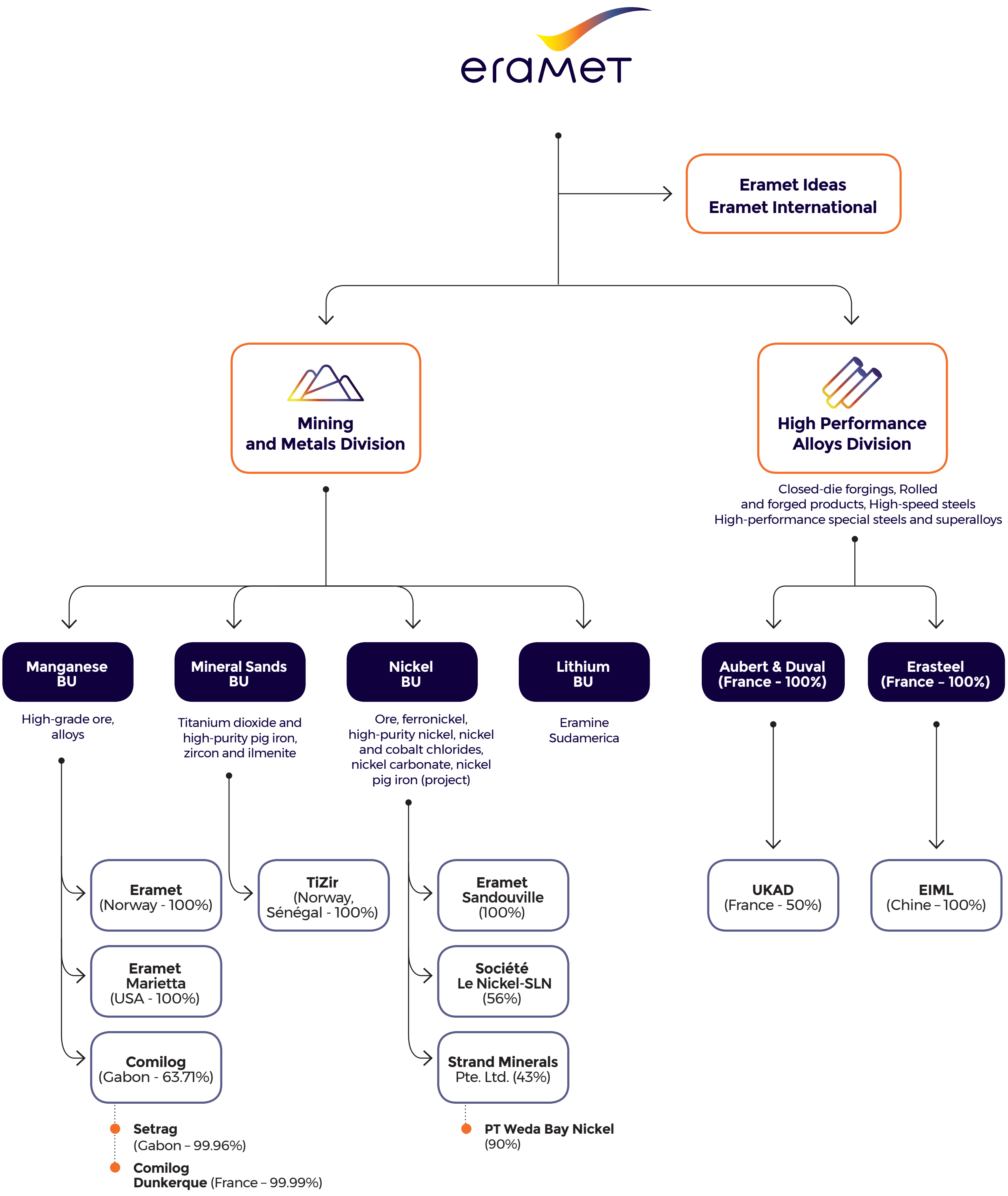
Foreseeable outlook

For the current financial year, intrinsic growth and expected productivity gains should offset the current deterioration in market conditions, which would result in a forecast EBITDA close to that of 2018, Assuming the market conditions of January 2019.

II. Activities

II

Group structure



2.1 Mining and Metals division

2.1.1 Manganese BU

2.1.1.1 The manganese market

2.1.1.1.1 Demand for manganese

Main applications

Steel

Over 90% of the world's manganese is used for the production of steel. All steel producers use manganese in their production processes — an average of 6-7 kg per tonne of steel. Manganese is used in steel in the form of manganese metal or as an alloy (ferromanganese or silicomanganese) with an average content of 70% manganese: 1.8 tonnes of ore with roughly 40% manganese content are required to produce one tonne of alloy.

Manganese is mostly used in manganese alloys and accounts for a very small portion of the cost of steel production. It is mainly used as an alloying element to improve hardness, abrasion resistance, elasticity and surface condition for rolling. It is also used for desoxidation and desulphurisation during production.

Other applications

- Batteries: mainly alkaline batteries. A less significant application is in salt water batteries, which have an inferior performance. Manganese derivatives are also used in rechargeable lithium batteries;
- Ferrites: used in electronic circuits;
- Agriculture: fertiliser and animal feed;
- Various chemicals: pigments, fine chemicals;
- Other metallurgical uses: mainly as a hardening agent for aluminium (beverage cans).

Carbon steel, main market

Demand for manganese largely depends on changes in the global production of carbon steel. The economic take-off of China, which has experienced rapid urbanisation with growing demands on its infrastructure, has also contributed significantly to the strong period of growth in steel production and demand for manganese over the last decade.

World gross production of carbon steel, the main outlet for manganese, increased by 4.5% from 2017, standing at 1,802 Mt, an all-time record. China accounts for more than 50% of global production.

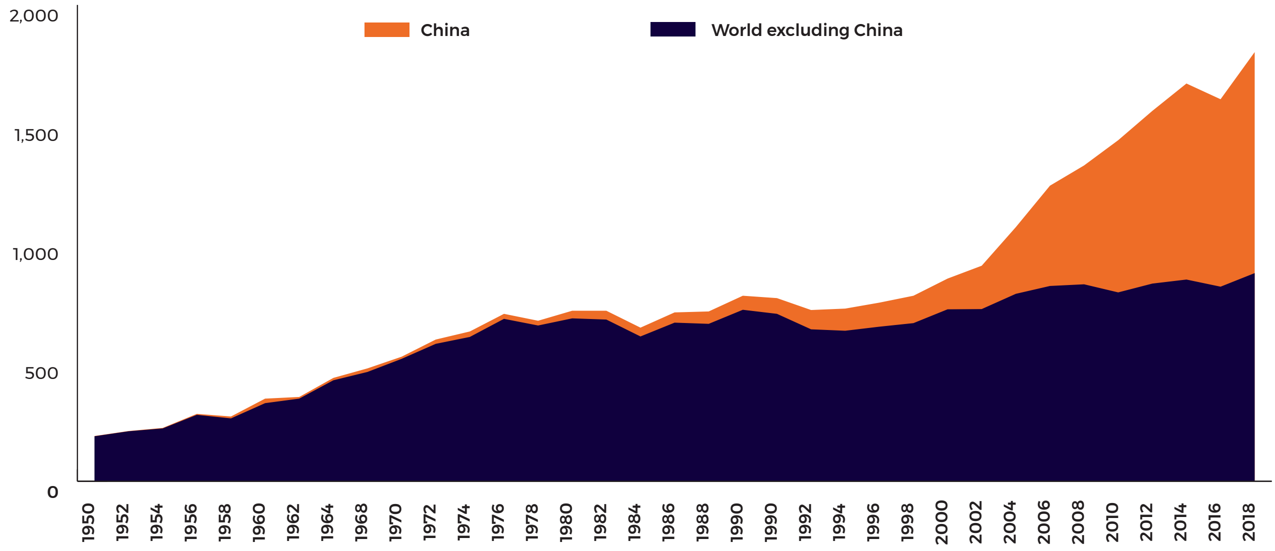
The medium and long-term outlook remain positive. Demand for steel will continue to be driven by developing countries, particularly India.

BREAKDOWN OF GLOBAL CRUDE STEEL PRODUCTION

GLOBAL PRODUCTION OF RAW STEEL	VOLUMES (MILLIONS OF TONNES)					% ANNUAL GROWTH				
	2014	2015	2016	2017	2018E	2014	2015	2016	2017	2018E
European Union	169.3	166.2	162.3	168.5	168.0	1.8%	-1.8%	-2.3%	3.8%	-0.3%
Other Europe (including Turkey)	36.2	34.0	36.0	40.6	40.8	-0.8%	-6.1%	5.8%	13.0%	0.5%
CIS	105.9	101.4	102.2	100.9	101.1	-2.0%	-4.3%	0.8%	-1.3%	0.1%
North America	121.2	110.9	111.0	115.8	120.5	1.9%	-8.4%	0.0%	4.3%	4.1%
South America	45.0	43.9	39.2	43.7	44.3	-1.7%	-2.5%	-10.6%	11.4%	1.5%
Africa	14.2	12.8	12.2	13.6	14.5	-9.2%	-10.2%	-4.7%	11.5%	6.9%
Middle East	28.0	27.0	29.0	32.0	36.1	7.8%	-3.8%	7.6%	10.3%	12.6%
China	822.8	798.8	808.4	870.9	928.3	0.9%	-2.9%	1.2%	7.7%	6.6%
India	87.3	89.0	95.6	101.5	106.5	7.4%	2.0%	7.4%	6.1%	4.9%
Other Asia and Oceania	217.3	208.5	208.1	225.0	229.6	6.3%	-4.1%	-0.2%	8.1%	2.0%
65 countries	1,647.2	1,592.5	1,604.0	1,712.5	1,789.6	1.8%	-3.3%	0.7%	6.8%	4.5%

Source: World Steel Association.

TRENDS IN GLOBAL CRUDE STEEL PRODUCTION (MILLIONS OF TONNES)



Source: World Steel Association, Eramet.

2.1.1.1.2 Manganese supply

Manganese ore

The supply of manganese ore is made up of several types of ores of varying quality. A distinction is generally made between the supply of medium to high-grade ores (30-48% manganese content), which is profitable to transport and export, and low-grade ore, which is consumed locally. Even though these two types of ores are used in combination by alloys producers, the use value of high-grade ores is far greater than that of lower-grade ores.

Global ore production in 2018 was estimated at approximately 20 million tonnes of manganese content.

MANGANESE ORE PRODUCTION (MILLIONS OF TONNES CONTAINED)

	2013	2014	2015	2016	2017	2018
South Africa	4.4	5.4	4.7	4.5	6.2	7.0
Australia	3.2	3.2	3.0	2.3	2.6	3.5
China	3.6	4.2	3.3	2.4	1.7	1.3
Gabon	1.5	1.4	1.6	1.4	2.0	2.1
Brazil	1.0	1.0	1.0	1.0	1.2	1.3
India	0.9	0.8	0.7	0.7	0.6	0.8
Kazakhstan	1.0	0.9	0.6	0.5	0.5	0.6
Ghana	0.5	0.4	0.4	0.5	0.8	1.2
Ukraine	0.4	0.4	0.3	0.5	0.4	0.4
Malaysia	0.3	0.3	0.2	0.2	0.4	0.4
Other	0.9	1.2	0.6	0.7	0.9	0.7
Worldwide	17.7	18.9	16.4	14.7	17.3	19.3

Source: producer reports, Eramet estimates.

Manganese alloys

Manganese alloys are produced by reducing manganese ore at a temperature of approximately 1,600°C. This process is carried out by adding coke to furnaces, which are mostly electric. However, some producers, mainly based in China, use blast furnaces but this process is less and less used, given the price of coke. Outside of China, blast furnaces can also be found in Japan and Eastern Europe.

There are four families of manganese alloys:

- high carbon ferromanganese (HCFeMn) contains 65-79% manganese and 6-8% carbon. It can be produced using an electric furnace or a blast furnace;
- silicomanganese (SiMn) contains 60-77% manganese. It can only be produced by reduction in an electric furnace using ore, possibly supplemented by an addition of FeMn slag;
- refined ferromanganese (MCFeMn and LCFeMn) is a higher value-added product containing less carbon. It is mainly produced by transferring molten HCFeMn alloy to an oxygen converter which reduces the carbon content to the desired level, or by a high temperature reaction between silicomanganese, which is intrinsically low in carbon, and calcined ore. A distinction is made between medium carbon ferromanganese (1.5% carbon: MCFeMn) and low carbon ferromanganese (0.5% carbon: LCFeMn), mainly used in the production of flat steels and special steels;
- refined silicomanganese (low carbon, LCSiMn) is primarily used to produce stainless steel.

Manganese BU is the world's leading producer of refined alloys.

MANGANESE ALLOY PRODUCTION (MILLIONS OF TONNES GROSS)

	2013	2014	2015	2016	2017	2018e
China	10.3	10.8	7.7	9.0	9.5	11.7
India	2.4	2.3	2.2	2.1	2.4	2.6
Ukraine	0.6	1.0	0.8	0.9	0.9	0.9
Norway	0.6	0.6	0.6	0.6	0.7	0.6
Japan	0.5	0.5	0.5	0.7	0.7	0.7
South Korea	0.7	0.8	0.7	0.6	0.6	0.6
Russia	0.3	0.4	0.3	0.4	0.5	0.5
South Africa	0.8	0.9	0.6	0.4	0.4	0.4
Brazil	0.2	0.2	0.2	0.3	0.3	0.3
Australia	0.3	0.3	0.3	0.2	0.2	0.3
Spain	0.3	0.3	0.3	0.2	0.3	0.2
Mexico	0.2	0.2	0.2	0.2	0.2	0.2
Georgia	0.2	0.2	0.2	0.2	0.2	0.2
France	0.2	0.2	0.2	0.2	0.2	0.2
United States	0.2	0.2	0.2	0.2	0.2	0.2
Kazakhstan	0.2	0.2	0.2	0.1	0.1	0.1
Other	0.4	0.5	0.4	0.5	1.0	1.1
World	18.4	19.4	15.5	16.8	18.3	21.0

BREAKDOWN OF GLOBAL MANGANESE ALLOY PRODUCTION

	2013	2014	2015	2016	2017	2018e
Silicomanganese	65%	66%	69%	73%	70%	73%
High-carbon ferromanganese	25%	26%	23%	20%	22%	20%
Refined ferromanganese	10%	8%	9%	7%	8%	7%

Source: International Manganese Institute, producer reports, Eramet estimates.

Silicomanganese has experienced the strongest growth of all the standard alloys. The availability in China (as well as in India and Ukraine) of local low-grade ore, which can easily be used to produce silicomanganese, has favoured its development. However, low-grade ores are always mixed with rich imported ores in an ongoing attempt to achieve a price/performance balance.

The Chinese market is characterised by a large number of alloys producers that are very dependent on high-grade imported ores, which consume more than 60% of global ore flows. As a result of the introduction of export taxes in 2008, China is not a significant player in the international alloys market, unlike India, which is a major exporter of commodities (SiMn and HCFeMn). However, the Chinese export tax was lifted in 2012 for Electrolytic Manganese Metal, a competitive product to refined alloys.

Manganese metal

Manganese metal is produced using a hydrometallurgical process involving electrolysis (Electrolytic Manganese Metal or EMM). It is an extremely pure manganese product (over 99% Mn content), generally produced in the form of flakes. Since the hydrometallurgical process is adapted to the treatment of low-grade ores, EMM production is concentrated in China, the main exporter of metal with a traditionally very fragmented industry, but which has been highly concentrated in the last five years with the emergence of one producer that alone accounts for more than 50% of global production capacity. Apart from China, the only other country producing manganese metal is Gabon, where the Eramet Manganese BU is currently ramping up the Moanda Metallurgical Complex (CMM).

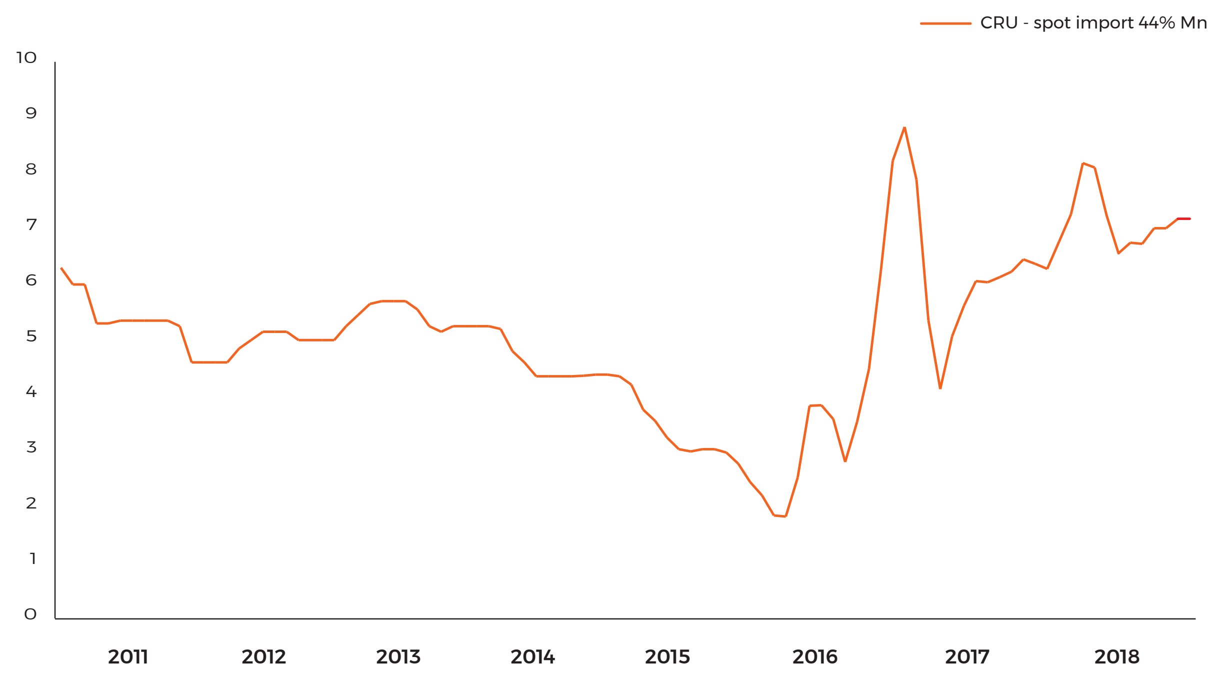
The main markets for manganese metal are carbon steel, stainless steel and aluminium production. Global manganese metal production varies between 1.1 and 1.5 million tonnes annually, depending on the year.

2.1.1.1.3 Recent market and price trends

Formation and monitoring of manganese ore prices

The sale price of manganese ore is the result of direct negotiations between buyers and sellers. It is conventionally expressed in USD/dmtu (dry metric tonne unit). One dmtu corresponds to 10 kg of manganese content. The dmtu price is higher for high-grade ores, and also depends on particle size and the possible presence of impurities.

MONTHLY PRICE OF MANGANESE ORE 44% CIF CHINA (USD/DMTU)



Source: CRU.

Formation and monitoring of manganese alloy prices

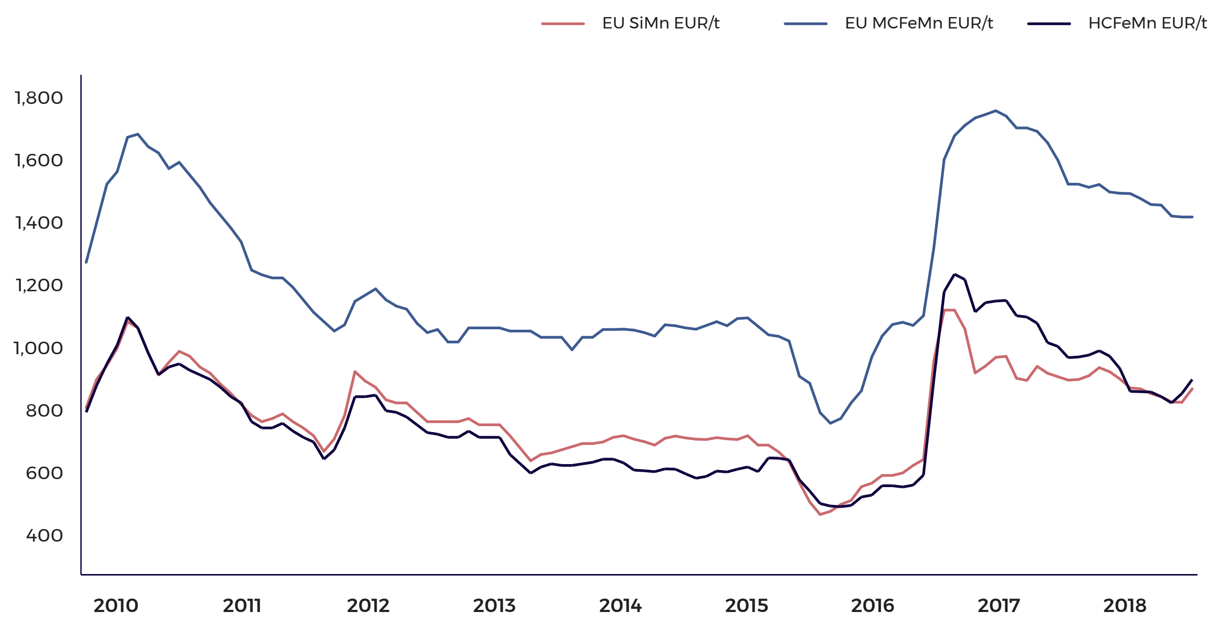
There is no market as such for manganese alloys. Prices are negotiated directly between producers and customers. As far as scheduled sales are concerned, alloy prices are often negotiated on a quarterly basis. Non-scheduled sales are often negotiated on the basis of spot prices.

The manganese alloys market is above all a highly competitive global market. However, the movement of alloys between large areas is relatively limited, due to shipment costs. Prices may vary between major geographic areas (Europe, North America and Asia) due to changes in exchange rates or lags in economic cycles.

There are also discrepancies between the different alloys families due to differences in value in use. Refined alloys in particular have a much higher sale price than standard alloys.

There are several publications specialising in metals, which track trends in manganese alloys prices using monthly spot price surveys. The graph below is based on data published by CRU (London).

PRICE OF MANGANESE ALLOYS IN EUROPE (€/T)



Generally speaking, fluctuations in the price of manganese alloys reflect those of ore. However, the ability of producers to preserve their margins largely depends on supply and demand regional balances for each type of alloy.

Recent market and price trends

In 2018, steel production increased by 4.5% compared to the previous year.

In 2018, manganese ore production increased by 10% in wet tonnes (57.1 Mt). Australia was the driving force behind this growth thanks to record production by GEMCO (South32) and the reopening of Woodie-Woodie, owned by Chinese shareholder TMI. The latter's other mine, Nsuta in Ghana, experienced a sharp increase in export volumes (+1.5 Mt).

Continuing its growth, South Africa exported a record 17.7 Mt of ore, an increase of 13% compared to 2017.

The Manganese BU was the only contributor to the production increase in Gabon, with stable production by CITIC and Noga. Finally, Brazil experienced slow growth due to the depletion of the Azul (Vale) mine, barely compensated by the increase achieved by the country's other major producer, Buritirama.

Manganese ore stocks in Chinese ports hit a low in February, then gradually increased, stabilising below 3 Mt (+1.3 Mt), which appears to reflect a market in a slight surplus.

After an increase of 27% during the first quarter of 2018, the price of manganese ore experienced an adjustment in April and May. It then gradually increased again, reaching USD 7.20/dmtu (44% CIF China) in early December 2018.

The price of manganese metal surged by over 66% between January and July 2018, peaking at USD 3,000, then fell to USD 2,200 by the end of the year.

Prices of silicomanganese slumped by 7.3% (USD -75) in 2018.

2.1.1.1.4 Market outlook

The market for manganese, used primarily in carbon steel (90% of demand), is a mature market, with limited but relatively strong growth prospects. Currently at a high level (around 1,800 million tonnes per year), demand for carbon steel is expected to grow at around 1% per year over the next few years, driven by emerging and developing countries.

2.1.1.2 Manganese BU overview

2.1.1.2.1 Manganese BU: a global leader in manganese ore across the entire value chain

The main business activity is the Manganese business, which includes ore extraction by Comilog in Gabon, its transportation by rail (including other transport activities related to the Transgabonais railway concession) and its loading at the port, as well as ore recovery activities, mainly in the form of manganese alloys for the steel industry. The Manganese BU is a leading global player in the manganese industry, both in mining and ore processing — through its majority stake in Comilog along with the Republic of Gabon and through several plants located close to consumption zones, it is:

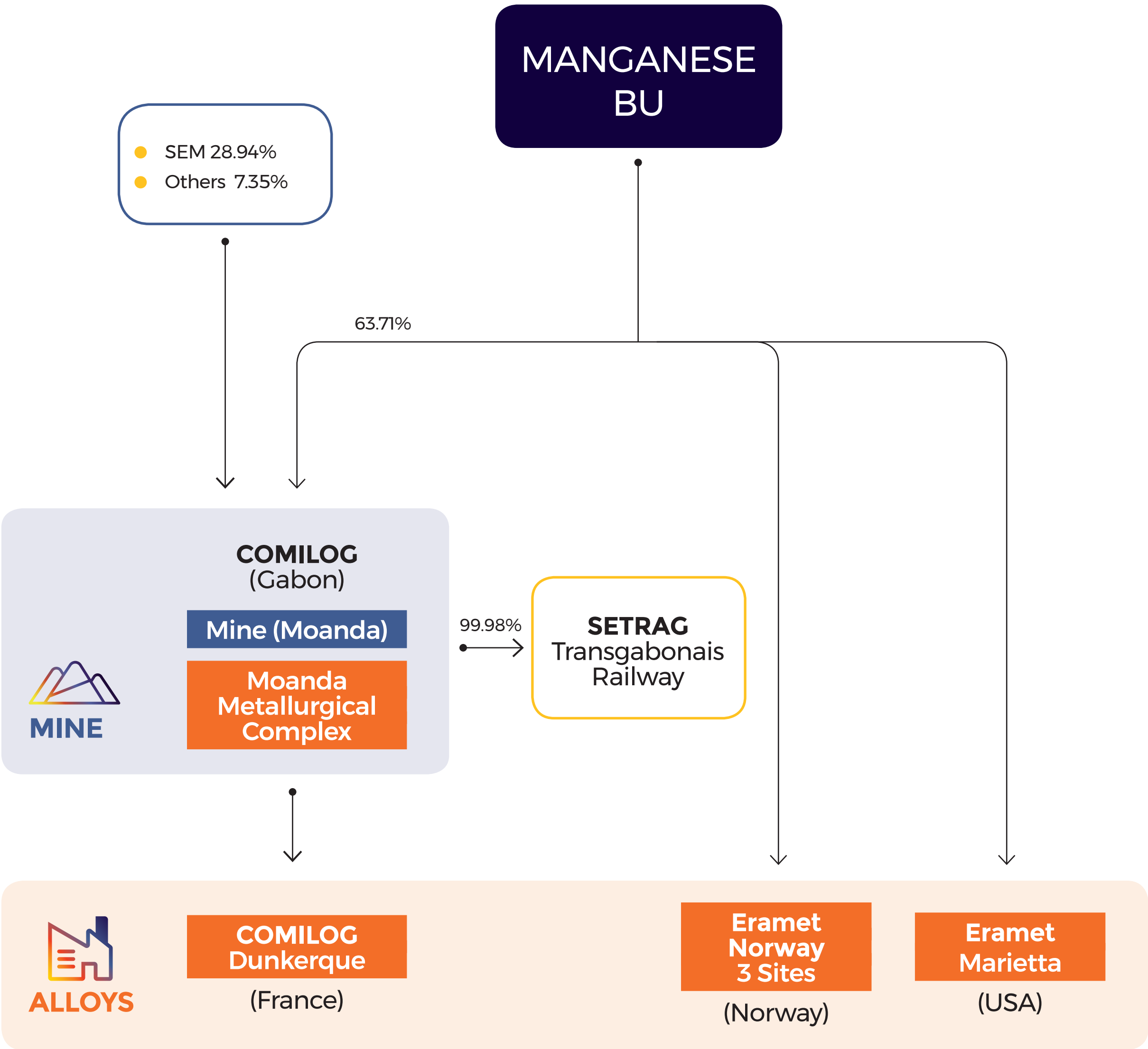
- the world's second largest producer of high-grade manganese ore;
- the world's second largest producer of manganese alloys;
- the world's largest producer of refined alloys.

2.1.1.2.2 Structure

Organisation at 31 December 2018

The Manganese BU is currently organised in accordance with the diagram shown below:

(100% OWNED UNLESS OTHERWISE STATED)



- Comilog is a company operating under Gabonese law and Eramet owns 63.71% of its shares. Its activities include:
  - operation of the manganese mine and sinter plant in Moanda (Gabon);
  - operation of Setrag (concession holder of the Transgabonais Railway);
  - production of manganese alloys in Moanda (Gabon) and Dunkerque (France);
  - the Maboumine (niobium/phosphates) project in Gabon.
- Eramet Norway has three alloys plants in Porsgrunn, Sauda and Kvinesdal (Norway).
- Eramet Marietta (United States) produces manganese alloys.

2.1.1.2.3 Manganese BU's activities

Manganese mining operations and processing (manganese alloys)

The mine, sinter plant and metallurgical complex in Moanda (C2M)

The Moanda mine is one of the richest manganese deposits in the world. The ore content averages about 46%. The mine's reserves are discussed at the end of this section.

Mining operations are carried out in open pits. The layer of overburden covering the ore is a few metres thick. The run-of-mine ore is extracted using excavators and loaded onto 100-tonne trucks. Ore is processed at the Moanda beneficiation unit. The resulting enriched ore is transported by conveyor to Moanda railway station.

The Moanda industrial complex processes the fine by-products of beneficiation, as well as manganiferous sediments extracted from the bed of the River Moulili. The fine products are enriched by density or high-intensity magnetic separation so as to increase their manganese content from 35% to a little over 50%. Part of the concentrates produced by this process is sold directly, while the rest is mixed with coke and sintered at a temperature of 1,300°C to achieve a product with approximately 56% manganese content. This product is then transported by conveyor and loaded onto goods wagons at Moanda railway station. The sinter plant has a production capacity of 600,000 tonnes per year.

The Moanda Metallurgical Complex (C2M) began production in late 2014. Its target production is 60,000 tonnes of silicomanganese and 20,000 tonnes of manganese metal.

The Transgabonais Railway transports Comilog's manganese ore, as well as wood, general cargo and passengers, between Franceville and Libreville, a distance of more than 600 kilometres. Comilog owns and operates its own locomotives and goods wagons.

As of November 2005, Comilog obtained the concession for the Transgabonais Railway for a duration of 30 years. This allows it to secure its connections and ensure the shipment of sharply growing quantities of ore. In 2016, the Company embarked on a major railway renovation programme which will take nearly 10 years, the first stages of which have already allowed it to make significant progress in terms of logistics.

Through its subsidiary, Port Minéralier d'Owendo, Comilog is a concession holder for its ore carrier port, the port of Owendo, with a storage capacity equal to roughly one month's production. The port can accommodate 55,000-tonne ships and load them in three days.

Manganese alloys production

The Group is the world's second largest producer of manganese alloys and the world's largest producer of refined alloys, products with high added value.

The Group produces a wide range of alloys: high-carbon ferromanganese, silicomanganese, low and medium-carbon ferromanganese and low-carbon silicomanganese. The Manganese BU has been gradually increasing the proportion of refined alloys it produces. In 2014, the Moanda Metallurgy Complex (CMM) in Gabon added manganese metal to its range of products.

ERAMET MANGANESE'S PRODUCTION OF MANGANESE ALLOYS

(THOUSANDS OF TONNES)	2018	2017	2016	2015	2014	2013	2012
High-carbon ferromanganese	54	60	76	62	68	118	144
Standard silicomanganese	281	265	268	278	237	267	236
Refined alloys	385	391	359	370	389	366	350
Total	720	716	703	710	694	750	730

MANGANESE ALLOY PRODUCTION SITES

SITE	COUNTRY	PRODUCTION CAPACITY	TYPE OF FURNACE	PRODUCTS
Dunkerque	France	70 kt	Electric furnace	SiMn
Sauda	Norway	210 kt	Electric furnace	HC, MC, LC FeMn, SiMn
Porsgrunn	Norway	165 kt	Electric furnace	HC, MC, LC FeMn, SiMn, LC SiMn
Kvinesdal	Norway	165 kt	Electric furnace	SiMn, LCSiMn
Marietta	United States	120 kt	Electric furnace	HC, MC, LC FeMn, SiMn
Moanda	Gabon	65 kt	Electric furnace	SiMn
Moanda	Gabon	20 kt	Hydrometallurgy	Metal manganese

In Europe, three alloy plants are located in Norway. The fourth plant is located in France (Dunkerque).

In the United States, Eramet Marietta is the larger of the two local manganese alloy producers.

Manganese BU marketing policy

Thanks to its industrial presence, the Manganese BU can offer a very comprehensive range of products and a flexible response to its customers' various manganese-related needs.

The Group maintains partnerships with its customers, providing significant technical and sales support in order to help them derive maximum benefit from their products in their own production processes. The marketing policy is managed by Eramet Comilog Manganese, which relies on the Eramet Group's international sales network, Eramet International, in a number of countries such as China, Japan, Korea and India.

2.1.1.2.4 Manganese BU in 2018

(€ MILLION)	2018	2017[1]
Sales	1,857	1,919
EBITDA	784	861
Current operating income	699	738
Net cash generated by operating activities	499	722
Capital employed	854	1,125
Industrial investments	140	89

(1) Including the Mineral Sands BU, which was part of the Manganese BU until 2017.

OPERATIONAL INDICATORS

(THOUSANDS OF TONNES)	FY 2018	FY 2017
Manganese ore and sinter production	4,338	4,163
Volume of ore and sinter transported	4,060	4,068
Manganese alloy production	719	716
Manganese alloy sales	703	699

Manganese activity

Manganese BU sales (excluding Mineral Sands activity), which account for approximately 49% of consolidated sales, grew 2% to €1,857 million in 2018 versus 2017. Despite the resilience of ore prices, current operating income declined 3% to €699 million, penalised by the squeeze effect on manganese alloy margins.

Global production for carbon steel, the main end-product for manganese, achieved a new historic record in 2018 at 1,802 Mt, up 4.4%[2] compared to 2017. This growth was not only driven by demand in China (+6.6%[2]), which accounts for approximately 52% of global production, but also by India (+4.9%[2]) and North America (+4.1%[2]).

Demand in China was also propelled by new regulations favouring higher quality steel grades requiring more manganese.

(2) Eramet estimations based on Worldsteel production data available until end-December 2018.

To meet this strong demand for ore, all global producers operated at full capacity, with a slight surplus over market requirements at year-end. Ore stocks in Chinese ports therefore amounted to 3.1 Mt at end-2018, up 1.3 Mt over the year.

The average price of CIF China 44% manganese ore remained high at USD 7.16/dmtu[1] over the year, up 20%[1] from 2017.

However, the increase in the Manganese BU's sales does not fully reflect the resilience seen in the average spot price of the manganese ore market during the year, particularly given the unfavourable impact of the €/USD exchange rate in 2018 versus 2017 and sales in early 2017, concluded on the basis of the very high spot prices in December 2016.

In Gabon, Comilog set a new ore production record of 4.3 Mt in 2018, up 4% from 2017. Ore volumes transported reached only 4 Mt despite progress in rail logistics, due to seven derailments during the year, including two involving Comilog trains. External sales of ore increased by 2% to 3.4 Mt during the same period.

In 2018, manganese alloy prices in Europe declined compared to 2017, particularly for refined ferromanganese (-12%[1]. This is reflected in the continued squeeze effect[2] on manganese alloy margins, which impacted 2018 results by €133 million.

Manganese alloy production totalled 720 kt in 2018. Sales volumes increased to 703 kt, with a record for refined ferromanganese alloy sales (+6% to 313 kt).

In 2018, Eramet continued its detailed feasibility study to expand the Moanda mine in Gabon. The target has been raised to 7 Mt by end-2023, more than 50% growth versus 2018, thanks to the development of the Okouma plateau in parallel with the Bangombé plateau currently in operation. The total amount of the investment is estimated at nearly €600 million spread over five financial years, and the final decision should be made in spring 2019 when the technical and economic studies are completed.

In this context, an alternative dry mineral process for part of the Bangombé plateau ore started at end-2018. This process offers flexibility to the Moanda mine operations by extending the mine life of the plateau currently in operation. It also increases volumes produced in the short term. On this basis, and without substantial investment, the production target for 2019 is already set at 4.5 Mt of manganese ore, reflecting an important milestone in organic growth for Comilog.

This growth momentum is bolstered by the railway renovation programme, which will see the Transgabonais railway transport capacity doubled. The Transgabonais railway is operated by Setrag, a 100% subsidiary of Comilog. Since the start of the programme in 2016, capacity has increased 30%.

2019 will mark a new milestone in the renovation programme, particularly in terms of digital transformation with a new inspection centre equipped with digital communication resources with mobile trains.

Return on capital employed for the Manganese BU

ROCE: Profit from recurring operations/Capital employed at 31 December of year N-1 (equity, net financial debt, provisions for restoration of sites, provisions for restructuring and other social risks, less non-current financial assets, excluding investment in the Moanda Metallurgy Complex at 31 December 2010 and 2013 for the 2011 to 2014 ROCE).

MANGANESE ROCE (BEFORE TAXES)

YEAR	2013	2014	2015	2016	2017	2018
%	15.6	9.7	3.5	13.8	55.1	81.9

2.1.1.2.5 Detail of investments

(€ MILLION)	2013	2014	2015	2016	2017	2018[1]
Industrial investments	346	199	164	104	89	140

(1) Excluding the Mineral Sands BU, which was part of the Manganese BU until 2017.

Until 2016, the historical series included the mineral sands activity.

In 2018, the Manganese BU benefited from the continuation of favourable market conditions to intensify its investments, focusing in particular on strategic items, safety and the environment, and on maintaining its industrial facilities.

Renovation of the Setrag railway line

The investment package required to increase the reliability of the Transgabonais railway and strengthen its logistical capacity was continued in 2018 with the implementation of a multi-year plan for the refurbishment of the railway line. In particular, the manufacture of new rails (172,000 pieces produced by the end of 2018) and the renewal of the track superstructure

(1) Change calculated based on average monthly prices: CRU index (manganese ore and alloys).
(2) Increase in material cost, decrease in selling prices.

(71 km renewed by the end of 2018) are progressing at full capacity. The aim of Setrag's proposed renovation is to restore and then increase the original transport capacity of the Transgabonais railway. Spread out over almost 10 years, the cost of this operation is approximately €400 million, of which more than a hundred will be financed by the Gabonese government. The remainder will be borne by Setrag, which benefits from international financing obtained via IFC (World Bank) and Proparco (subsidiary of the French Development Agency), with Comilog's guarantee.

As provided in the amendment to the Concession Agreement signed in October 2015, the Gabonese State and Setrag funded the remedial investment plan as follows:

- the Gabonese government, with the signing of a Financing Agreement with the French Development Agency (AFD) in December 2016;
- Setrag, with the signing in June 2016 of the first tranche of a credit of €85 million over a period of 15 years with the International Finance Corporation (IFC — World Bank) and Proparco (Promotion et Participation pour la Coopération Économique — a subsidiary of the French Development Agency, AFD) with guarantee and commitment of support from Comilog.

The year 2018 was marked by the beginning of work on the consolidation of the rail platform (work to be carried out by the Gabonese state), which will continue until 2020, and the installation of the necessary equipment for the new railway signalling system (TCS), which will be put into service in the first half of 2019.

In addition to this project, funds were provided to improve safety, reduce the environmental impact and boost the productivity of production facilities.

In a context of regulatory changes concerning emissions by pyrometallurgical industries based in the United States, Eramet Marietta successfully completed work to bring its two furnaces and its refining facility into compliance, allowing the entity to comply with the new regulations.

Thus, within the manganese alloy plants, the main investments have been directed towards maintaining the main production tools, in particular with the revamping of two furnaces at Eramet Norway but also by implementing new installations aimed at improving environmental performance (Eramet Marietta in particular).

Dry processing of ore

In 2018, Comilog invested in two mobile screening machines enabling it to carry out dry processing of part of its ore. This treatment complements the existing wet processing method and aims to increase short-term production.

2.1.2 Nickel BU

2.1.2.1 The nickel market

2.1.2.1.1 Uses for nickel

Nickel is primarily used to make many special steels in the broadest sense (stainless steels, steel alloys and superalloys), which together account for roughly 85% of nickel uses. Its rich and varied properties also lend it to smaller-volume uses, such as electroplating, the process of forming a thin coherent metal coating using electrochemistry on valves or auto parts. Another booming application for nickel is its use in rechargeable batteries and in particular for electric vehicles. Finally, nickel also has catalytic properties. In 2018, global primary nickel consumption, estimated at around 2.3 million tonnes, was distributed as follows:

- Stainless steel: 69%;
- Nickel-based alloys: 10%;
- Electroplating: 7%;
- Casting and alloy steels: 6%;
- Batteries: 6%;
- Other uses (including catalysis and pigments): 2%.

Sources: Eramet estimates.

Stainless steel

The stainless steel industry is by far the largest consumer of nickel. Combining nickel with chromium makes it corrosion-resistant, more ductile and much more malleable. The primary uses for stainless steel are:

- food safety and hygiene: household equipment (e.g. sinks, cutlery, pots), electrical appliances (e.g. washing machines, microwave ovens) and also the food industry, with tanks and pipes for milk and wine production, pharmaceutical preparations and surgical equipment;
- core industries for corrosion resistance: chemicals, petrochemicals, paper, energy production, etc.;
- building and construction industry (aesthetics, durability and low maintenance costs): lifts, hand rails, street furniture, building accessories;
- transport (limitation of corrosion, low maintenance costs): trains, ships, tanker trucks, aeronautics and automotive catalytic converters.

Nickel-based alloys

Superalloys used in aerospace are able to retain their mechanical properties at increasingly high engine operating temperatures. To achieve this level of mechanical performance, superalloys contain more than 45% nickel along with other metals, such as cobalt and chromium.

Nickel-iron alloys are used for the production and transportation of industrial gases as well as liquefied natural gas. The very low temperatures used in these processes make the use of certain nickel-iron alloys essential.

Other nickel-based alloys are primarily used for their resistance to corrosion in chemical industries and environmental protection facilities, such as smoke and gas processing and wastewater treatment.

Nickel recycling

Nickel is infinitely recyclable and its high economic value makes it profitable to collect and recycle. The structure of the nickel recycling industry has been in place for many years. Nickel is most commonly recycled in the production of stainless steel.

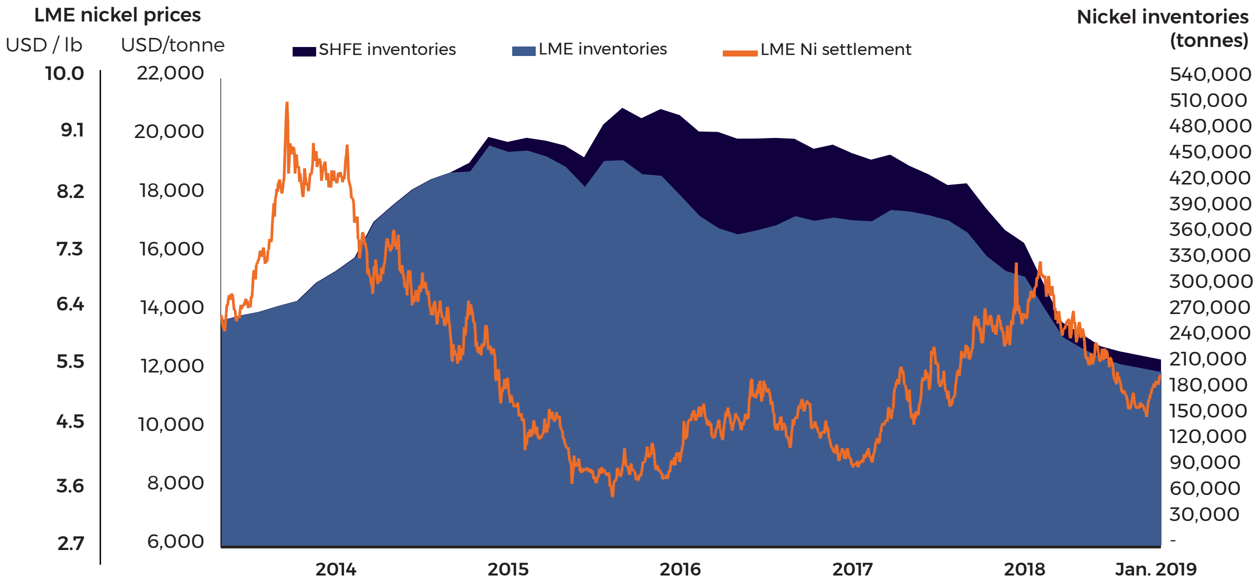
2.1.2.1.2 Recent trends in nickel prices

Nickel is listed on the London Metal Exchange (LME). This market offers the option but not the obligation to deliver or take delivery of physical metal associated with futures contracts. As of the end of March 2015, nickel is also listed on the Chinese SHFE (Shanghai Futures Exchange).

Premiums or discounts are applied to this base price according to the quality of the products, their degree of processing, their location and the equilibrium of the physical market at the time. Nickel prices are presented in the form of "cash seller and settlement" contracts.

Supported at the end of 2017 by a fall in LME and SHFE inventories and a strong enthusiasm for the developing prospects for electric vehicle batteries, the price of nickel continued to rise in the first quarter of 2018. It was driven by strong growth in stainless steel production (+8.5% compared to the first quarter of 2017), declining inventories and lower supply compared to the last quarter of 2017, notably related to environmental inspections of nickel pig iron (NPI) plants in China. The second quarter saw a continuation of this upward trend, with prices peaking briefly at USD 16,500/t (USD 7.49/lb) in April. At the same time, LME and SHFE inventories continued to fall (-112 kt over the first half of the year) in a context of strong demand mainly due to the surge in stainless steel production in Indonesia.

From July onwards, the price of nickel began to drop after successive announcements by the United States and China of the imposition of customs duties, raising fears of a trade war between the world's two largest powers. It continued to plunge in the last quarter to reach a nickel market close to balance, at a time when some European, Taiwanese and Indian stainless steel producers were suffering from Indonesia's competitiveness. Moreover, the market's enthusiasm for batteries eased in a market whose impact on a mass scale is still a few years away. The average price in 2018 was USD 13,122/t (USD 5.95/lb), up from USD 10,411/t (USD 4.72/lb) in 2017.



2.1.2.1.3 Top nickel-producing countries

PRODUCTION OF ORE (THOUSANDS OF TONNES OF NICKEL CONTENT)

	2012 YEAR	2013 YEAR	2014 YEAR	2015 YEAR	2016 YEAR	2017 YEAR	2017 01-NOV	2018 01-NOV
Indonesia	648.4	834.2	177.1	129.6	198.9	345.0	314.5	530.5
Philippines	322.4	315.6	443.9	470.0	348.9	366.0	337.0	330.6
New Caledonia	131.7	163.9	175.2	193.2	204.2	215.4	201.9	201.9
Russia	270.0	264.0	264.0	261.0	223.0	221.0	202.6	199.8
Canada	204.5	223.3	235.0	234.9	235.7	211.2	194.0	160.2
Australia	243.6	234.2	244.7	224.2	203.1	178.9	165.7	151.9
China	103.7	107.2	100.0	93.0	90.0	94.5	86.7	89.5
Brazil	109.0	108.0	102.0	94.8	86.4	87.6	80.6	72.6
Cuba	68.0	55.6	51.6	53.8	51.4	52.8	48.4	48.2
Colombia	77.9	74.4	62.2	41.1	41.1	45.6	41.8	43.8
Finland	20.2	19.4	18.7	9.7	23.5	39.7	36.0	43.3
Guatemala	2.4	10.2	46.8	56.4	45.9	53.7	49.8	39.4
South Africa	45.9	51.2	55.0	56.7	49.0	48.4	44.1	38.1
Madagascar	8.4	29.2	40.3	49.0	45.7	37.1	34.3	32.9
Papua New Guinea	5.3	11.4	21.0	25.6	22.3	34.7	31.6	32.3
Myanmar	0.0	6.1	21.0	26.4	22.8	22.8	20.9	23.1
United States	0.0	0.0	4.3	27.2	24.1	22.1	20.6	16.4
Botswana	32.4	30.0	29.1	23.8	12.0	0.0	0.0	0.0
Other	64.5	57.5	71.3	75.6	66.8	76.6	70.1	76.9
World	2,358.2	2,595.5	2,163.0	2,146.1	1,994.9	2,152.8	1,980.7	2,131.6

Source: INSG (International Nickel Study Group).

PRODUCTION OF FINISHED PRODUCTS (FERRONICKEL, NICKEL PIG IRON, NICKEL METAL, BRIQUETTES, NICKEL SALTS, OTHER PRIMARY NICKEL PRODUCTS) (THOUSANDS OF TONNES OF NICKEL)

	2012 YEAR	2013 YEAR	2014 YEAR	2015 YEAR	2016 YEAR	2017 YEAR	2017 01-NOV	2018 01-NOV
China	519.2	693.5	690.5	600.0	573.4	635.0	578.7	629.0
Indonesia	18.4	21.0	21.8	38.3	116.3	204.8	187.8	267.2
Japan	169.5	178.0	177.6	193.8	191.8	187.6	172.5	169.6
Canada	152.0	153.1	150.0	159.3	158.3	154.2	139.9	123.5
Russia	254.0	242.0	239.4	231.9	192.0	155.0	141.0	137.9
Australia	128.8	141.5	138.7	132.5	115.8	112.1	102.4	104.6
New Caledonia	45.4	48.4	62.0	77.5	96.0	104.1	94.4	99.3
Norway	91.7	91.0	90.5	91.2	92.7	86.5	79.4	83.4
Brazil	53.5	57.5	79.6	77.7	77.1	68.5	62.7	60.1
Finland	45.5	44.3	42.6	43.5	53.7	59.7	54.0	55.8
Korea	20.9	25.4	22.8	39.0	45.6	47.4	43.2	43.6
South Africa	32.9	31.3	33.3	41.9	42.1	43.0	39.0	36.3
Colombia	51.6	49.3	41.2	36.7	37.0	40.6	37.2	39.6
Other	33.8	22.0	25.4	29.6	24.5	29.4	27.3	21.3
United Kingdom	39.4	42.4	39.1	39.1	43.1	37.1	33.6	34.7
Madagascar	5.7	25.1	37.1	47.3	42.1	35.5	32.4	29.7
Myanmar	0.0	3.1	19.0	23.0	19.6	20.0	18.4	19.8
Greece	18.6	16.8	18.5	17.1	17.1	16.8	15.3	14.4
Ukraine	20.6	21.2	18.6	18.0	18.1	15.3	14.0	13.5
Cuba	25.7	16.6	13.3	14.7	15.0	14.4	13.2	15.4
Macedonia	19.2	20.0	18.1	17.7	10.6	7.3	7.3	9.0
France	13.2	12.1	8.4	6.5	4.6	2.3	2.2	3.3
World	1,759.7	1,955.1	1,987.9	1,976.3	1,986.5	2,076.6	1,895.9	2,011.0

Source: INSG (International Nickel Study Group).

2.1.2.1.4 Market outlook

Stainless steel will remain the largest consumer of nickel, but sustained growth prospects for nickel demand are driven by batteries for the automotive industry.

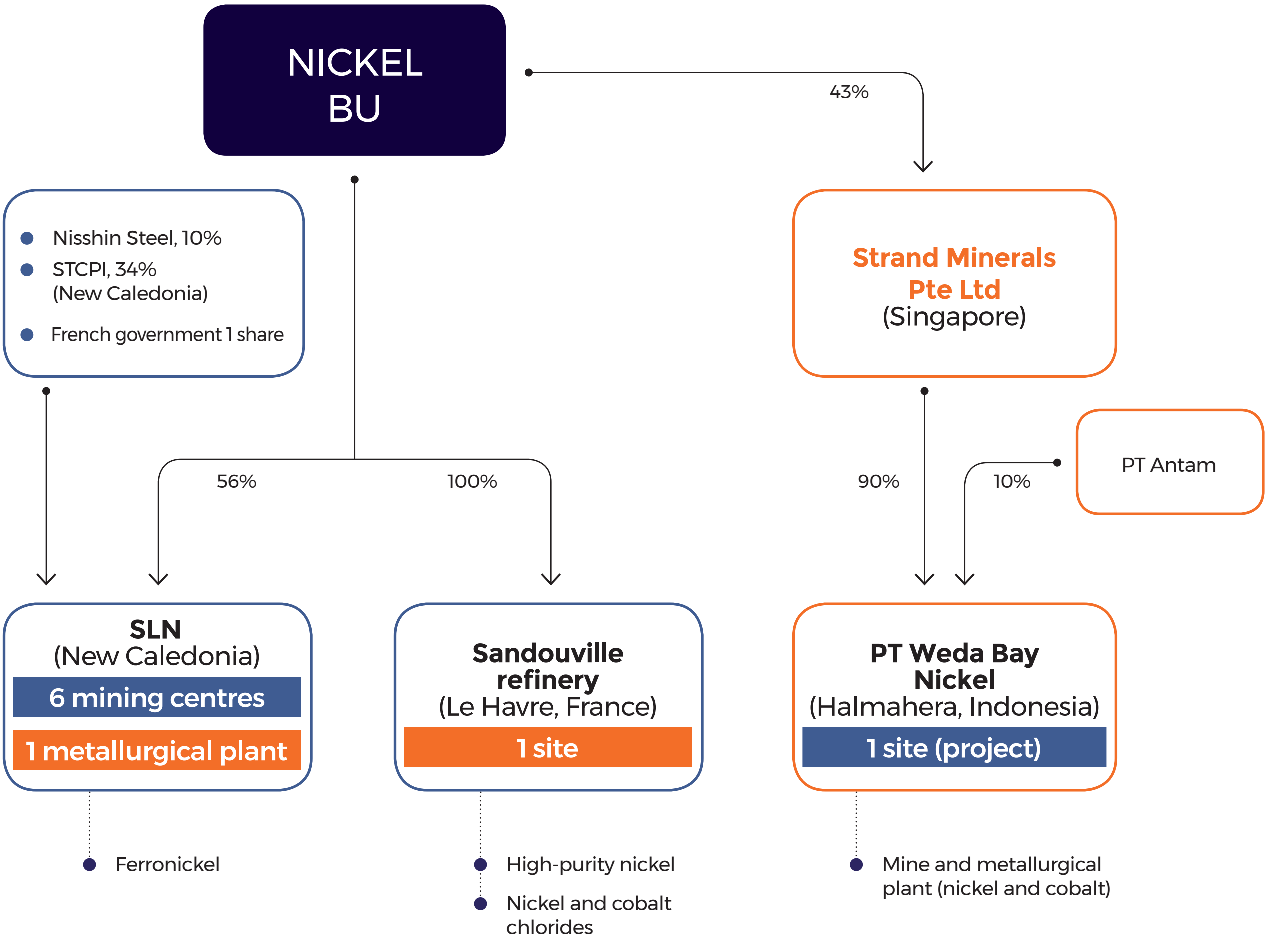
The consumption of primary nickel in stainless steel is expected to continue to grow at a rate of 2-3% per year over the next five years, driven by end-use applications.

Nickel demand is also now supported by the very good prospects offered by the development of the Lithium-ion battery sector, primarily for electric and hybrid vehicles. Eramet estimates that demand for nickel excluding stainless steel is likely to grow by approximately 7% per year over the next five years, of which around 25% per year will be in the battery sector.

2.1.2.2 Nickel BU structure

The Nickel BU pursues the strategy of valorising ores locally and positioning itself on high value-added products, relying on the Eramet Group's internal R&D. The BU currently consists of:

- Société Le Nickel-SLN in New Caledonia, a 56% owned subsidiary and the main mining and metallurgical centre, produces high-grade ferronickel at the Doniambo plant;
- the Le Havre Sandouville nickel refinery, specialising in high value-added products (nickel salts, high-purity electrolytic nickel, cobalt salts), has been supplied with nickel matte by a new European source since mid-2017;
- the Weda Bay project in Indonesia, based on world-class deposits, developed in partnership with the Chinese company Tsingshan, the leading producer of stainless steel. A low-grade nickel pig iron ("NPI") will be produced from Weda Bay ore.



2.1.2.2.1 Société Le Nickel

Eramet has a long-standing presence (since 1880) in New Caledonia through Société Le Nickel (SLN), its 56%-owned subsidiary. The other shareholders as at 31 December 2018 were:

- STCPI with 34%, a structure representing the interests of New Caledonia's three provinces;
- Nisshin Steel with 10%, an important client producer of stainless steel in Japan;
- the French government, which holds one share in SLN.

The mines operated by SLN are high quality in terms of their nickel content and their reserves. As is the case for the entire mining industry, their operating conditions have evolved over the last few years, primarily due to the recovery of larger volumes of waste rock, which has impacted production costs. However, the Group's research centre (Eramet Ideas in Trappes) has enabled the Group to adapt its metallurgical process to these changes while continuing to enhance the operating efficiency of its mines and invest in scaled-up mining equipment.

All of Eramet's metallurgical products are made using ore from its own mines. The Doniambo plant in New Caledonia mainly produces ferronickel. Since 2017, SLN has focused its production on ferronickel, having produced its last batch of matte in August 2016.

Eramet markets all Société Le Nickel (SLN) products, including low-grade nickel ores. Eramet also provides technical support to Société Le Nickel (SLN) in a number of areas, particularly in procurement management, research, engineering, and legal and financial requirements.

Société Le Nickel (SLN) sells all of its Doniambo metallurgical production to Eramet. The sale price of the ferronickel sold by SLN to Eramet depends on the average price at which Eramet sells to its customers, minus marketing costs and a sales margin for Eramet.

SLN's governance system closely involves the stakeholders of New Caledonia.

In order to guarantee its future, SLN aims to recast its model by strengthening it and rebalancing it on its two pillars of mining and metallurgy:

- Metallurgy must be strengthened: this is the current transformation and productivity plan for the Doniambo plant in New Caledonia, which can still be improved with competitive energy costs. It will be completed by reflecting on the evolution of technology in relation to the renewal of furnaces.
- The mining sector must be better exploited: moving from a mining model exclusively in the service of Doniambo's metallurgy operations, with strong environmental impacts, to a mining exploitation that optimises the resource extracted thanks to the strengthening of exports is absolutely necessary to make the SLN model competitive and sustainable, with benefits for the environment and the territory.

Nickel mines

Société Le Nickel-SLN's garnierite and saprolite oxide deposits are mined in open pits. They are generally located at altitudes of 500 to 1,000 metres. SLN has extensive experience in mining deposits in New Caledonia. These deposits are defined by geological, geochemical and geophysical surveys and their geological structures are modelled. Deposits are extracted using hydraulic excavators based on mine planning geology. The ore is then transported by trucks with payloads of 50 to 100 tonnes, depending on the model.

Eramet's internationally recognised mining techniques are designed to preserve the environment: storage of tailings in stabilised heaps, control of water run-off, revegetation, etc.

Népoui and Tiébaghi beneficiation plants

In Népoui, ore is hydraulically sent to the beneficiation plant using a seven-kilometre pipeline. The plant was opened in 1994 and uses a technology that was innovative at that time, which is based on sorting by particle size and density to increase ore content. This allows a larger proportion of the deposit to be exploited (by including lower-grade ores), thus extending the lifespan of the reserves. A similar process was adapted to process ore from the Tiébaghi mine. The Tiébaghi beneficiation plant was opened in November 2008.

Transportation of ore

The mining production is mostly sent to the Doniambo plant. The first stage of ore transportation is from the mine to the coastal storage areas, either by truck, or in the case of Kouaoua via an 11-kilometre conveyor, or in the case of Népoui and Tiébaghi in the form of slurry to feed the beneficiation plants. At the port, the ore is stored and homogeneously blended before being loaded onto ships for transfer to the Doniambo plant.

Doniambo metallurgy plant

The Doniambo plant produces directly marketable ferronickel. The ore mined is homogeneously blended and then dried. It is then calcined in five rotary kilns. The following step is melting the ore in three Demag electric furnaces. The resulting product is transformed into marketable ferronickel (SLN 25) by ladle refining followed by transformation into shots.

The Doniambo plant is one of the two largest ferronickel production sites in the world. Its location close to the port of Nouméa allows direct access to ore carriers and cargo ships.

A major plan to modernise the Doniambo production equipment has been implemented. Four of the five rotary kilns and two of the three electric furnaces have been replaced in recent years. The ore drying facilities have also been modernised. Significant investments have also been made to protect the environment.

2.1.2.2.2 Sandouville refinery

The Le Havre-Sandouville refinery uses a hydrometallurgical process specially developed by Eramet Ideas teams. Nickel matte is supplied under a long-term contract with a European metallurgist. 2017 was a year of transition, as previously the raw material had been supplied entirely by the Société Le Nickel-SLN metallurgical plant in Doniambo, New Caledonia.

The nickel matte is crushed and then dissolved using a chloride solution. Several successive extraction stages in mixer-settlers separate out iron in the form of ferric chloride (commercial product), and cobalt in the form of cobalt chloride (commercial product). The remaining impurities are then removed. The resulting pure nickel chloride solution can be marketed as it is (liquid nickel chloride), in the form of nickel salts (nickel carbonate, nickel chloride hexahydrate or anhydrous) or fed into a series of electrolytic cells. The result is a very pure nickel cathode (over 99.97% nickel content).

2.1.2.2.3 Nickel BU sales network

The Group maintains long-term partnerships with its customers. It has its own global sales network: Eramet International. The Group provides significant technical and sales support to its customers in order to help them derive maximum benefit from its products in their own production processes:

- The Group's entire ferronickel production (SLN 25) is sold to stainless steel producers, for which the Group supplies both nickel (20 to 25% of the gross weight) and iron of excellent quality. The Group generally operates under medium or long-term contracts, providing for commitments of volume in accordance with periodically negotiated prices. These contracts ensure relatively regular shipments for Eramet.
- Nickel metal, or NICKEL HP, is produced in the form of high-purity nickel cathodes that meet the most stringent requirements and are mainly sold to nickel alloys manufacturers (superalloys for aerospace and nuclear power) and nickel electroplating workshops (nickel plating).
- Nickel chloride, or SELNIC, is used in nickel plating and in the chemical industry (catalysts). Some of the nickel chloride is converted into anhydrous nickel for the electronics industries.
- Nickel carbonate ("Nickel ONE™") is primarily used in the oil-refining industry to manufacture catalysts and in the ceramics industry as a pigment.
- Cobalt chloride is used in the tyre industry, in the chemical industry as catalysts and also in powder metallurgy.

2.1.2.3 Major events

Through SLN in New Caledonia, Nickel BU is the world's tenth largest nickel producer, with an output that has stabilised over the last few years at around 55,000 tonnes.

In 2018, SLN produced 54,250 tonnes, consolidating its position as the world's leading producer of ferronickel for the stainless steel market.

METALLURGICAL PRODUCTION (FERRONICKEL + MATTE) FROM THE DONIAMBO PLANT

	(TONNES OF NICKEL CONTENT)
2012	56,447
2013	53,015
2014	55,012
2015	53,369
2016	55,227
2017	56,707
2018	54,250

Following on from 2017, a year of transition in terms of the raw material being fed into the Sandouville plant, 2018 was dedicated to increasing the power of the installations implemented to be able to adapt to this change of matte. Nickel production (including all nickel products) amounted to 3,667 tonnes in 2018.

2.1.2.4 Specific activities

Electricity supply to Société Le Nickel-SLN

Electricity at Doniambo is currently supplied by an old oil-fired power plant which will be replaced in the coming years in order to reduce the energy costs for the plant. The scheme adopted in the second half of 2016 is to install a new natural gas-fired electricity generation plant on the island. The project will be managed by a newly created public structure in New Caledonia. The investment will be guaranteed by the State under the provisions adopted by the French Parliament in December 2016 up to an amount of €320 million and should not affect Eramet's balance sheet.

A sustainability plan for the existing plant has been initiated. The plan, totalling €21 million, includes investments to replace the critical units of the current plant over five years.

2.1.2.5 Weda Bay Nickel in Indonesia

Shareholding, governance and regulatory framework

The Indonesian company, Pt Weda Bay Nickel, is the project and exploration company created to develop the nickel deposit in Weda Bay, one of the world's largest nickel deposits, situated on the island of Halmahera in Indonesia.

This company is 90% owned by Strand Minerals (Indonesia) Pte Ltd. ("Strand"), based in Singapore, and 10% owned by the Indonesian public company Pt Antam Tbk ("Antam"), a company specialising in exploration, mining operations, refining and distribution of mining products, including nickel, gold and bauxite.

On 8 June 2017, after approval by Eramet's Board of Directors, a partnership agreement was signed with the Chinese steel group Tsingshan, the world's largest producer of stainless steel, in order to create maximum value from this mining asset. This partnership should enable the production of nickel ferroalloy, in Indonesia, from the ore mined from the Weda Bay deposit, by using a pyrometallurgical process, for a volume of about 30,000 tonnes of nickel content per year.

On 21 September 2017, the preconditions for Tsingshan to participate in Strand's capital through Tsingshan's subsidiary Newstride Ltd. Co ("Newstride") were lifted. On that date, Newstride acquired 57% of Strand's capital through a reserved capital increase, partially paid up.

On 19 May 2018, as the conditions for the confirmation of the partnership between Tsingshan and Eramet had been satisfied, the increase in Strand's capital reserved for Newstride was fully paid up. As a result, Eramet holds 43% of Strand's shares and the Tsingshan Group holds 57%.

Antam and Eramet are each represented by a director on the Board of Pt Weda Bay Nickel, out of a total of five directors, of whom three represent Newstride.

Eramet is represented by two members of the Board of Strand, out of a total of five directors, of whom three represent Newstride.

The Weda Bay project is governed by a Contract of Work ("COW") defining, among other things, the tax regime applicable to production activity at the start of the site's operations. This COW was amended on 14 March 2018 and is currently aligned with the prevailing laws and regulations on issues related to state revenues (royalties, tax incentives, VAT) as well as divestment obligations to Indonesian interests. A ministerial decree of 14 November 2017 confirmed the start of the period of exploitation of the deposit within the framework of the COW which will extend until 27 February 2048.

It should be noted that Antam has several purchase options allowing it to increase its holding, the terms and conditions of which are in the process of renegotiation, following the amendment of the COW.

Progress of the project for the development of the Weda Bay nickel deposit

Following the creation of the Tsingshan partnership within Strand, the Weda Bay nickel deposit development project was relaunched in the summer of 2018, with the start of engineering works for the construction of roads and engineering works for access to mining sites, their opening, and transporting the ore to the plant.

At the same time, Tsingshan formed an Indonesian company called Pt IWIP (Pt Indonesia Weda Bay Industrial Park), which in the summer of 2018 started work on the construction of an industrial park on the Weda Bay site on Halmahera Island, which will house, among other things, the Pt Weda Bay plant for the transformation of Pt Weda Bay ore into nickel ferroalloy.

Pt Weda Bay is expected to start mining operations at the end of 2019, and the ferroalloy plant is expected to start up in the first half of 2020.

Under its partnership agreements with Pt Weda Bay, each of Strand's shareholders (and thus Eramet for 43%) will have a contractual off-take right to Pt Weda Bay's production of nickel ferroalloys based on market conditions.

The desire to implement strong environmental and societal commitments for this project is an integral part of the objectives set out in the agreements signed between Eramet and Tsingshan.

2.1.2.6 Nickel BU in 2018

(€ MILLION)	2018	2017
Sales	739	644
EBITDA	(18)	(44)
Current operating income	(111)	(125)
Net cash generated by operating activities	(21)	(69)
Capital employed	711	710
Industrial investments	57	80

Operational indicators

(MILLIONS OF TONNES)	FY 2018	FY 2017
Nickel production[1]	54,250	59,183
Nickel sales[2]	55,260	58,488

(1) Ferronickel and high-purity nickel.
(2) Finished products.

2018 was particularly difficult in terms of productivity for Nickel activity given the disrupted social and societal context in New Caledonia, and an underperforming Sandouville plant.

Sales amounted to €738 million, up 15% versus 2017, and the BU's current operating income was -€111 million. SLN posted a COI of -€64 million, up sharply (+€31 million), driven mainly by the rise in nickel prices and growth in exported ore volumes. The Sandouville plant's performance once again weighed heavily on results, with a loss of €57 million.

Global stainless steel production increased by 4.8%[1] in 2018 compared to 2017. It remained generally robust over the year, with, however, a sharp increase in H1 (+9.7%[1] compared to H1 2017) and a stable H2 (+0.4%[1]). Production in China indeed declined -0.5%[1] in H2 due to a slowdown in the automotive and construction sectors, offset by strong growth of integrated producers in Indonesia, whose volumes increased threefold[1] between 2017 and 2018.

Demand for primary nickel was up 3.4%[1] over the period, boosted by both stainless steel and the good outlook offered by the development of the electric vehicle battery sector, which grew by 62%[1] in 2018 (to 135 kt of primary nickel).

Global primary nickel production was also up 5.3%[1] in 2018 versus 2017, driven by continued growth in NPI ("nickel pig iron"[2]) particularly in Indonesia.

However, this production increase was not enough to meet the change in demand, and the nickel supply/demand balance remains in deficit in 2018, as in 2017, with a deficit of more than 100 kt[1] of nickel. Therefore, nickel stocks on the LME[3] and SHFE[3] declined steadily and sharply throughout the year to 222 kt at end-December 2018 (-46% from end-December 2017).

The average LME price increased by 26% in 2018 to USD 5.95/lb (USD 13,118/t), versus an average of USD 4.72/lb (USD 10,407/t) in 2017. Following a sharp increase in H1, the threat of tensions in international trade weighed on growth prospects in H2, particularly in China, adversely impacting prices. The latter were also supported by the weakened dollar price during the year.

In New Caledonia, the blockade of the Kouaoua mining centre between August and October generated an impact on the Group's current operating income of €11 million for the 2018 financial year.

Thanks to solid mining production (excluding Kouaoua), SLN nonetheless achieved a record level of 1.2 Mt of exported ore in 2018, +36% year-to-date. Exported ore is lower-grade in nickel and cannot be used for local metallurgical production. Metallurgical nickel production at Doniambo was down 4% in 2018 versus 2017, while ferronickel sales volumes remained stable, ending at 55.3 kt.

SLN's cash-cost[4] at real economic conditions stood at USD 5.7/lb[5] at H2 2018 and USD 5.8/lb[5] in 2018, largely penalised by changes in the euro/US dollar exchange rate, the rise in the price of fuel oil, and difficulties in mining operations. The breakeven cost[4] ended at USD 6.5/lb in 2018.

Faced with these internal and external challenges, a rescue plan for SLN was defined at end-2018. Its success depends on the commitment of all stakeholders in the first few months of 2019, with a tight schedule. The plan is based on the effective implementation of a new business model, including an increase of exported ore quantities, on progress in improving internal performance, and on the short-term reduction in energy prices.

The new business model is rebalanced on two activities, mining and metallurgy. It will allow to increase the Company's revenue through improved valuation in its current mining deposits and reduce cash-cost accordingly. The success of this model is based on a target volume of 4 Mt ore exported, on an annual basis, with achievement of this pace as of H2 2020. The latter is subject to obtaining authorisations for new export applications, which will be submitted during Q1 2019. SLN is targeting 1.5 Mt in ore exports as of 2019.

The rescue plan is targeting an intrinsic improvement in cash-cost of USD 1.30/lb by 2021.

Implementation is key, without which the loans granted by Eramet and the French government will run out in 2020 in current market conditions. To achieve this, SLN is in constant dialogue with all concerned stakeholders, particularly local authorities and social partners.

(1) International Stainless Steel forum (ISSF) and Eramet estimations.
(2) Low grade nickel ferroalloy.
(3) LME: London Metal Exchange; SHFE: Shanghai Futures Exchange.
(4) See Financial glossary.
(5) At real economic conditions: fuel and exchange rate impact; at constant economic conditions (early 2016) ("CEC 2016": Brent at USD 45/bbl and exchange rate at €/USD 1.10), the cash-cost ended at USD 5.0/lb in H2 2018, at USD 5.0/lb in 2018.

After the annual mid-year shutdown for major maintenance work, the Sandouville plant's activity restarted slowly, rising from a 20 to 60% operating rate in 2018. Operating performance has not, however, achieved breakeven cash to date, and in doing so, the plant has added further losses. Technical reinforcements have been assigned to Sandouville and the Group is making every effort to deliver significant progress, targeting an operating rate of 80% to achieve breakeven.

In Indonesia, the implementation of the Weda Bay Nickel project resulted in the start of construction work of the NPI (nickel pig iron) production plant. The first tonnes produced are expected at end-2020 with a long-term production capacity of 30 kt of NPI, and an off-take of 43% for Eramet.

Return on capital employed for the Nickel BU

ROCE: Current operating income/capital employed at 31 December of year N-1 (equity, net financial debt, provisions for restoration of sites, provisions for restructuring and other social risks, less non-current financial assets, excluding capital employed at Weda Bay).

YEAR	2013	2014	2015	2016	2017	2018
%	(28.5)	(6.3)	(27.0)	(18.3)	(17.9)	(15.6)

2.1.2.7 Detail of investments

(€ MILLION)	2013	2014	2015	2016	2017	2018
Industrial investments	172	97	56	56	51	49

Improvement of production equipment

In 2018, the Nickel BU's investments were stable compared to previous years, including major renewal or renovation investment projects. Strict criteria were used to appraise projects to be undertaken in order to ensure they met the priority needs of safety and environmental protection, improved productivity, or were used to replace obsolete equipment. As part of this systematic search for performance, in a context of a limitation on the sums available to invest, the most important investment projects were given priority:

- For Société Le Nickel-SLN, investments concerned mines, specifically the maintenance of mining equipment and the installation of a new system for the management of the mining machines fleet in Népoui (FMS), as well as the Doniambo plant, in particular the completion of works for the replacement of critical elements for power plant B and the replacement of ore carrier unloaders with the commissioning of the new cranes in July 2018.
- At the Sandouville refinery, investments were dedicated to finalising the modification of the nickel matte treatment process in order to adapt it to the new matte now supplied to the plant.

2.1.3 Mineral Sands BU

Mineral sands are mineral raw materials that contain heavy minerals concentrated over time in an alluvial environment (rivers, coasts and lakes) or a windy environment (dunes). Deposits of mineral sands are thus old beaches, dunes or river beds. These sands contain titaniferous ore deposits, mainly found in the form of ilmenite ($FeTiO_3$), but also rutile (TiO_2), and to a lesser extent leucoxene (ilmenite partially changed into rutile) and zircon ($ZrSiO_4$).

The levels of these ores in the sand are often in the order of a few percent. One of the most economical methods of extraction entails using a floating dredge in a basin. However, this is only possible if the sands contain very few clay particles, which is the case at the TiZir mine in Senegal (Grande Côte Opérations — GCO). Otherwise, more conventional mining methods (hydraulic excavators and dumpers or dozers) are used — for rocky titaniferous ore, for example.

Ilmenite is the main titaniferous ore in terms of tonnage, but its titanium dioxide (TiO_2) content is relatively low. As a result, it is often enriched by transformation into TiO_2 slag or synthetic rutile, as at the TiZir Titanium and Iron (TTI) plant in Norway, before being used mainly by pigment producers.

2.1.3.1 Markets of the Mineral Sands BU

2.1.3.1.1 The titanium dioxide market

While titanium metal is well known for aerospace uses, as is the case in the High Performance Alloys division, it accounts for only 6% of the TiO_2 units sold in terms of consumption. The white pigment industry alone accounts for 90% of the demand for titanium dioxide.

The producers of white pigments make extensive use of a raw material rich in TiO_2. TiO_2 gives the pigment two exceptional properties, which are essential: opacity and pure whiteness. It is widely used in paint, plastics, textiles and paper.

Use of TiO_2-based white pigment:

- Paint: 57% (about two thirds for construction and one third for industry);
- Plastics: 24%;
- Paper: 8%;
- Other: 11%.

The six leading producers of TiO_2-based pigments produce two thirds of global production[(1)]:

- Chemours: 18%;
- Cristal[(2)]: 12%;
- Venator: 10%;
- Lomon Billions: 9%;
- Kronos: 9%;
- Tronox: 8%.

The vast majority of TiO_2 pigments are produced through two processes:

- the sulphate process is used in China and partly in Europe;
- the chloride process is used in North America and partly in Europe. In recent years, the leading Chinese producers have been trying to implement this technology.

The chloride process (CP) requires richer raw materials such as CP ilmenite, leucoxene, CP slag and enriched CP slag, and natural or synthetic rutile. TiZir mainly sells these types of products.

Since 2013, the demand for titanium raw materials has surged at an average annual growth rate of 3.5%.

The top eight producers of titanium-containing raw materials outside China account for about 60% of the world's production of TiO_2[(1)] units:

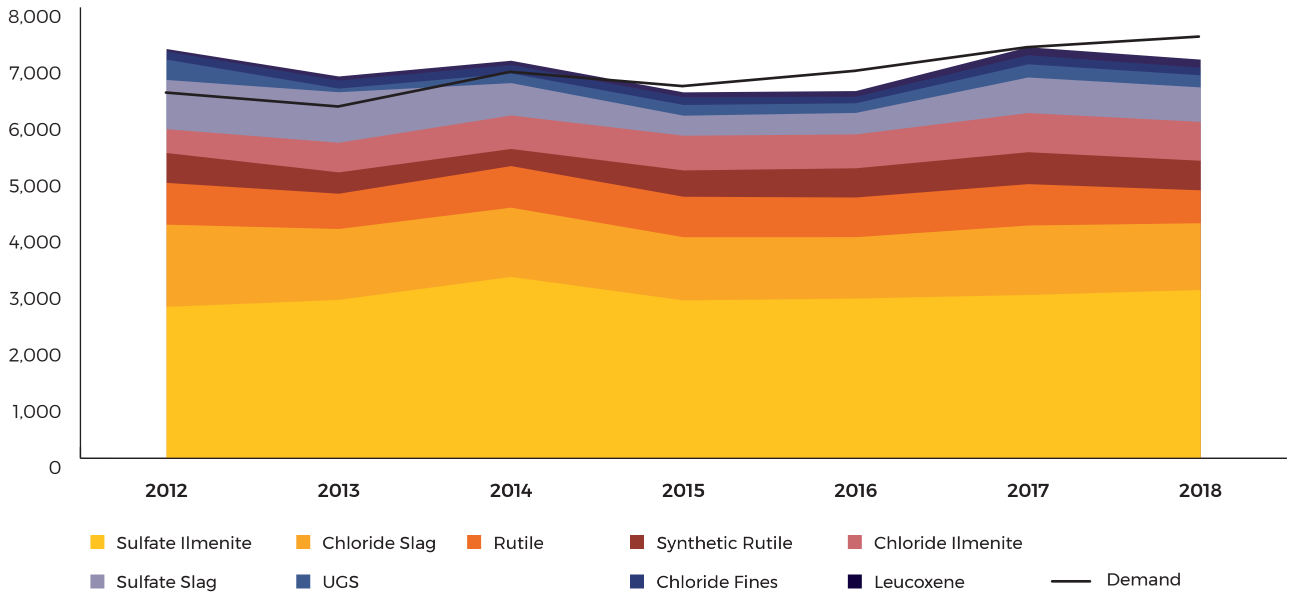
- Rio Tinto: 18%;
- Tronox: 8%;
- Kenmare Resources: 7%;
- TiZir: 7%;
- Iluka: 6%;
- Cristal: 5%;
- Base Resources: 4%;
- Kronos: 4%.

Following a long period of stability followed by a surge in prices between 2010 and early 2012, the titanium dioxide industry has experienced difficult conditions characterised by overproduction and low prices during 2015. The balance between supply and demand restored gradually, starting from 2016, leading to a turn-up in ilmenite prices.

The other titanium-containing raw materials, and especially the higher value ones produced by TiZir (CP slag, CP ilmenite, rutile, leucoxene), have seen their prices increase significantly since the beginning of 2018: the global decline in rutile production, as well as incidents experienced by some CP slag producers, led to a supply deficit, with robust demand, especially during the first half of 2018. This market tension spurred a rise in prices for higher-value products. The market showed a supply shortfall in 2018.

Since the second half of 2018, the decline in end-market demand for pigment, partly due to trade tensions between the US and China, has led to a downstream destocking of the value chain which, so far, has had no impact on TiZir's sales.

TITANIUM-CONTAINING RAW MATERIALS – OFFER AND DEMAND



(1) Data for the year 2017 from TZMI.
(2) In the process of being acquired by Tronox.

2.1.3.1.2 The zircon market

The main application for zircon (about 51% of global consumption) is for the ceramics industry, where its whiteness properties are unmatched, especially for surfaces or in tiles and sanitary equipment. Zircon is thus used as a fine or micronised powder in sintering, glazing or enamelling processes.

Zircon's second property, which makes it a material of choice for industry, is its refractory nature (accounting for about 27% of consumption). It is thus used in the production of refractory materials or as a mould for the production of high-precision castings.

The chemical derivatives of zircon (accounting for about 20% of consumption) include many different applications, such as abrasive or abrasion-resistant materials, jewellery (zirconium dioxide), nuclear (zirconium metal), certain catalysts and dental prostheses.

Since 2013, the demand for zircon has grown steadily, at an annual rate of approximately 2.5%.

The top five producers of premium or standard quality zircon[1] produce around 60% of global production:

- Iluka;
- Rio Tinto;
- Tronox;
- TiZir;
- Cristal.

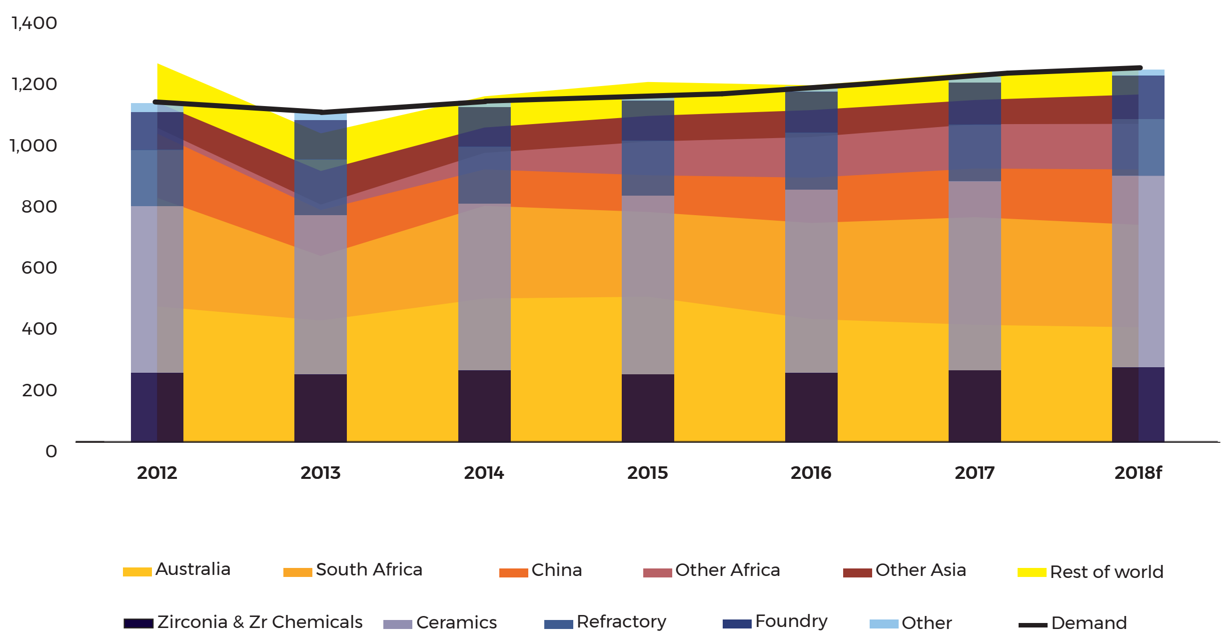
TiZir has a market share of approximately 5%.

As with titanium dioxide, the zircon market experienced a period of very high prices at the beginning of the decade. In 2013, the trend was reversed due to a decline in underlying demand, accentuated by a partial and long-term substitution of zircon for certain uses. At the same time, the period of high prices led to an increase in production capacity, which resulted in a surplus. The combination of these factors led to the build-up of stocks held by producers between 2013 and 2015. As a result, prices fell sharply in 2013. They were relatively stable in 2014 and 2015, and continued their decline in 2016, under the pressure of a decrease in ceramic tile production in China. Midway through 2016, the average price of zircon imported into China was about USD 900/t[2], with an annual average of USD 940/t.

By mid-2017, surplus stocks had been cleared (lower primary supply and strong demand) and prices resumed an upward trend. The average import price in China increased by 17% in 2017 and 33% in 2018 (USD 1,466/t CIF China).

In the last quarter of 2018, the market seemed to have reached equilibrium following a slight decrease in global demand, especially in Asia.

ZIRCON – SUPPLY BY REGION AND DEMAND BY USE



(1) *Excluding the production of zircon concentrates with lower refined content in China.*
(2) *Source: FerroAlloyNet.com and Eramet's analysis.*

2.1.3.1.3 The high-purity pig iron market

Pig iron is a particularly pure source of iron. It dilutes impurities from recycled scrap metal for casting or carbon steel production. In casting, in particular, the quality of the raw material is important to guarantee low levels of unwanted trace elements and to guarantee the properties of the pieces.

There are three main types of pig iron quality, depending on the raw materials (ore and coke) used:

- basic pig iron, which accounts for 60% of global production, is used in electric furnaces for steel production;
- hematite pig iron (20% of the market), which allows for the production of grey pig iron, is alloyed with Cu, Ni or Si;
- nodular or malleable pig iron (20% of the market) is characterised by low manganese, phosphorus or sulphur content. It is produced in a blast furnace from iron ore or in an electric furnace from ilmenite and is used mainly in casting.

Global pig iron production amounts to 12.5 million tonnes. The main producers are Russian, Ukrainian and Brazilian. These three countries account for 75% of global production.

The nodule-type pig iron produced by TTI is intended for the European foundry market. A large part of the production is high-purity pig iron with a particularly low trace element content.

In the first half of 2018, the price of pig iron rose along with the prices of iron ore and coking coal. In the second half of the year, the fall in scrap prices put downward pressure on pig iron prices, which TTI was able to offset by the improvement in the average quality of pig iron produced.

2.1.3.1.4 Market prospects for the Mineral Sands BU

Prospects for the beginning of 2019 continue to show a positive trend for TiZir's markets:

- Although the end markets for mineral sands are currently experiencing a slight slowdown, demand for TiZir's products remains good and it has a good order backlog for the year.
  - the excellent quality of GCO's zircon means it has good value in use, and benefits from strong demand;
  - the decrease in global production of rutile has increased demand for CP slag, such as that produced by TTI.
- In the longer term, real demand for TiZir's products appears to be strong with multi-year growth forecasts ranging from 2 to 4%. This should also lead to the launch of new mining projects to meet this future demand.

2.1.3.2 Presentation of the Mineral Sands BU

2.1.3.2.1 Presentation of the Mineral Sands BU

TiZir was formed in 2011 by Eramet and the Australian company Mineral Deposits Limited. Each shareholder held 50% of the joint venture. Following the success of Eramet's tender offer for MDL's shares in August 2018, Eramet now owns TiZir in its entirety.

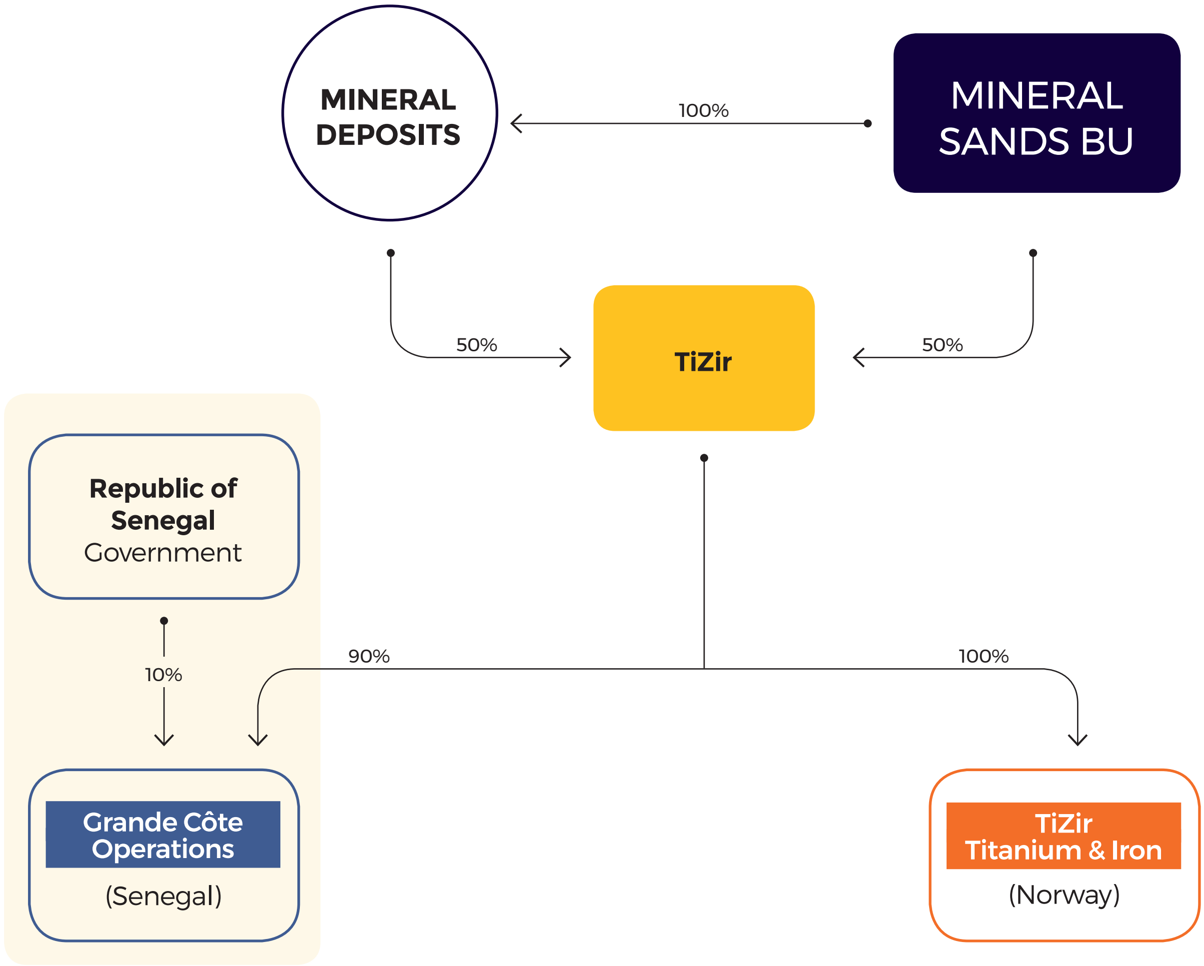
TiZir has two sites:

- Grande Côte Opérations (GCO) in Senegal, which operates a mineral sands deposit and mainly produces ilmenite and zircon;
- the TiZir Titanium and Iron plant (TTI) in Tyssedal, Norway, which recovers ilmenite to produce titanium dioxide slag for the pigments industry and high-purity pig iron.

Together, these two assets constitute a vertically integrated entity which is a major player in the mineral sands industry: TTI benefits from the security of its supply of high-quality ilmenite by GCO, which in turn guarantees long-term sales of a significant portion of its production.

SITE	COUNTRY	PRODUCTS
GCO	Senegal	Mineral sands: titaniferous ore (ilmenite, rutile, leucoxene) and zircon
TTI	Norway	Titanium dioxide slag (pigment industry) High-purity pig iron (casting)

2.1.3.2.2 Structure of the Mineral Sands BU



2.1.3.2.3 Activities of the Mineral Sands BU

Grande Côte Opérations (GCO)
The Grande Côte mineral sands mine is located along a stretch of the Senegalese coast.

The concession begins about 50 km north of Dakar and stretches north for more than 100 km.

Construction of the project began in the second quarter of 2011. Industrial production began in April 2014 and was ramped up for two and a half years. Since the end of 2016, mining production has continued to grow gradually as a result of operational improvements.

The industrial facilities include:

- a dredge and a floating concentration unit that produces a concentrate containing the heavy minerals;
- a heavy mineral separation plant producing ilmenite, rutile, leucoxene and various grades of zircon;
- a power plant;
- a railway line of which GCO is the concession holder, together with the associated railway equipment;
- port and storage infrastructure in Dakar.

The site employs approximately 1,600 people (including subcontractors), 97% of whom are Senegalese nationals.

TiZir Titanium & Iron Plant (TTI)
The TTI plant in Tyssedal, Norway, produces titanium dioxide slag, used as a raw material for the production of titanium dioxide pigments. The plant has an annual capacity of 230 kt of titanium dioxide slag. TTI also produces high-purity pig iron with an annual capacity of 95 kt.

This plant benefits from cutting-edge technology (only four companies in the world have a mastery of this technology) as well as 30 years of operational experience. The site also benefits from privileged access to hydroelectric power as it is located close to large reserves of water exploited for this purpose. The particularly complex technology used for processing ilmenite, the flexible nature of TTI's production process (the plant can produce slag for the production of pigments using the chloride or sulphate processes) and its unique access to a competitive source of energy make TTI a major asset in the titanium industry.

The site employs approximately 200 people.

2.1.3.2.4 Products of the Mineral Sands BU

GCO produces two qualities of ilmenite (54% TiO_2 and 58% TiO_2). Ilmenite 54, produced in larger quantities, is mainly sold to TTI. In addition, GCO sells a small amount of its rutile (TiO_2) and leucoxene production (the composition of which falls between ilmenite and rutile). These titanium-containing ores, which are not sold to TTI, are directly for pigment producers or the welding flow industry.

GCO also produces two grades of zircon (premium and standard) and a lower-grade zircon concentrate. GCO zircon is of excellent quality and is mainly used in ceramic and chemical applications.

Finally, the TTI plant produces titanium dioxide slag, the most granular part of which is sold to producers of titanium dioxide pigments that use the chloride process or to producers of titanium metal. The finest fraction is sold to producers of titanium dioxide pigments that use the sulphate process.

TTI also produces a variety of high-purity pig iron grades used in casting, including wind turbine production.

2.1.3.3 Mineral Sands BU in 2018

Following the success of the takeover bid in July 2018, TiZir is now 100% integrated into Eramet and this asset has been fully consolidated into the Group's accounts as of 1 July 2018.

In 2018, TiZir (on an annual basis at 100%) achieved sales of €272 million, up significantly (+31%) compared to 2017, in a very favourable price environment, and an ROC of €45 million, up 36%. When the 100% consolidation of TiZir took place, a €10 million adjustment of the book value of the stocks[1] was recognised on the balance sheet, reducing the H2 sales margins by the same amount.

The end markets for TiZir's products were sound in 2018: the ceramics market for zircon (roughly 50% of the market[2]) and the pigments market for titanium products[3] (roughly 90%[2]).

As far as zircon is concerned, the supply/demand balance tightened in 2018, especially for premium zircon, with strong growth in European demand (21% of total demand for zircon[2]). Demand in China, which accounts for nearly half of the market[2], slowed down at the end of the year.

Strong pigment market performance led to strong demand for titanium-containing products, including CP titanium slag[4], manufactured at the TiZir plant in Norway. In 2018, the decline in global production of rutile and incidents involving certain titanium slag producers resulted in higher prices.

The average price of zircon was USD 1,466/t[5] in 2018, up 33% compared to 2017. The average price of CP titanium slag increased by 12% to USD 687/t[6].

Upstream, in Senegal, the annual production of heavy mineral concentrates (titaniferous ore)[7] and zircon) hit a record high at 774 kt, increasing by 7%[8].

Zircon sales volumes edged up 7%[8] to reach 65 kt in 2018. External sales of ilmenite, which were negatively impacted at the start of the year by work on the railway in the Dakar area, rose in H2 to 236 kt, a year-on-year increase of 6%[8].

Downstream, at the Norwegian TiZir plant, the production of titanium slag edged up 4%[8] to reach 189 kt. Sales volumes increased by 26%[8] to 201 kt, given the low level of sales in 2017, following the plant's stock recovery after the furnace shut down in 2016.

(1) Stock valuation at market prices in accordance with accounting standards in the context of an acquisition.
(2) Source: TZMI, Supply/demand report – August 2018.
(3) Titanium slag, ilmenite, leucoxene and rutile.
(4) For use in the manufacturing of pigments by chloride process (CP slag).
(5) Source: FerroAlloyNet.com, Eramet analysis.
(6) Source: Market consulting, Eramet analysis.
(7) Ilmenite, leucoxene and rutile.
(8) On a comparable basis (100%).

(€ MILLION)	2018(1)	2017(2)
Sales	212	NA
EBITDA	62	NA
Current operating income	35	NA
Net cash generated by operating activities	41	NA
Capital employed	269	NA
Industrial investments	12	NA

(1) TiZir at 50% until 30 June 2018, then at 100% from 1 July 2018.

(2) The Mineral Sands BU is incorporated into the Manganese BU for the 2017 figures.

ROCE: Current operating income/capital employed at 31 December of year N-1 (equity, net financial debt, provisions for restoration of sites, provisions for restructuring and other social risks, less non-current financial assets).

ROCE MINERAL SANDS (BEFORE TAXES)

Year	2017	2018
%	N/A	13%

2.1.3.3.1 Financial indicators of the Mineral Sands BU

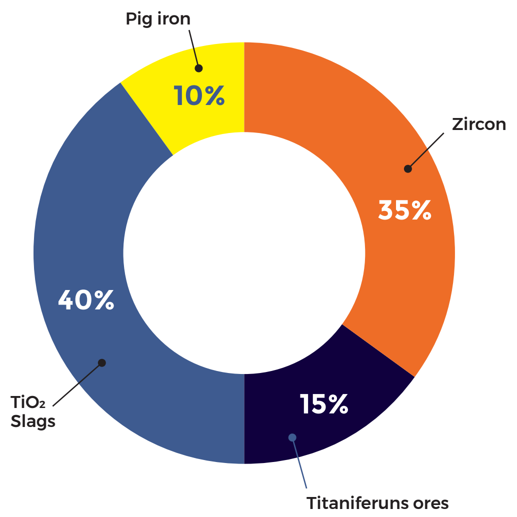
The breakdown of consolidated sales by product group is given below:

- Titanium-containing raw materials: 55%:
  - Titanium-containing ores (GCO): 15%,
  - Titanium dioxide slags (TTI): 40%;
- Zircon (GCO): 35%;
- Pig iron (TTI): 10%.

The contributions of the two operational units to consolidated sales are equal:

- GCO: 50%:
  - Zircon: 35%,
  - Titanium-containing raw materials: 15%;
- TTI: 50%:
  - Titanium dioxide slags: 40%,
  - Pig iron: 10%.

BREAKDOWN OF MINERAL SANDS BU'S SALES



2.1.3.3.2 Operational indicators of the Mineral Sands BU

TIZIR'S PRODUCTION

		2018	2017	2016	2015	2014
GCO – Mine						
Sand extracted	(Mt)	47.0	45.1	39.2	34.8	14.1
Heavy mineral concentrate	(kt)	774	725	614	633	184
GCO – Finished products						
Ilmenite	(kt)	507	492	416	428	101
Zircon	(kt)	64.3	61.6	52.6	45.2	9.0
Zircon concentrate	(kt)	29.3	20.2	0.0	0.0	0.0
Rutile and Leucoxene	(kt)	9.6	10.0	9.7	5.3	0.7
TTI						
Titanium dioxide slag	(kt)	189	181	104	107	184
High-purity pig iron	(kt)	78	74	43	59	103

The increase in GCO production in 2018 compared to 2017 is due to two factors:

- better heavy mineral content in extracted sand;
- improved operational performance.

By 2017, TTI's production was reduced due to the start-up of its new electric furnace. In 2018, the breakdown of a mechanical drive part in the TTI rotary kiln caused the plant to slow down for six weeks. This explains the slight increase in plant production in 2018.

2.1.3.3.3 Main investments of the Mineral Sands BU

TiZir did not make any major investments in 2018.

GCO acquired 15 additional railway carriages to increase its rail capacity and completed a modification to the floating concentration unit to improve the efficiency of mineral sands recovery.

At TTI, the most important investments concern certain components of the rotary kiln and the crusher.

2.1.4 Lithium BU

Lithium has particular physicochemical properties that make it a metal used in various applications: energy storage, glass and ceramics, continuous casting, aluminium lithium alloys, pharmacy, etc.

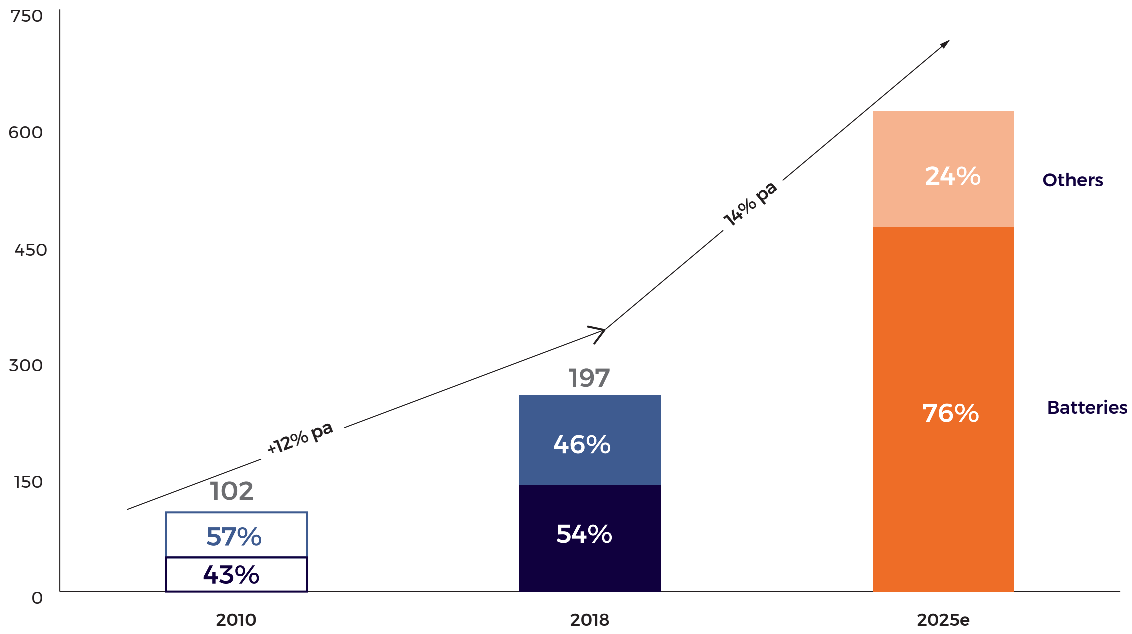
The most dynamic line of business is energy storage in the form of lithium-ion batteries for portable electronics, electric vehicles and the storage of electricity on transport networks. Numerous studies of this market converge to predict that in 2025, the Li-ion battery market will account for about three quarters of the total demand for lithium, compared to 50% in 2018. With the battery market leading the way, the lithium market's annual growth rate is estimated at a minimum of 14% for the next few years (see graph below).

Lithium compounds, of which lithium carbonate is the most widespread, are mainly produced from:

- *salar* brines, which are large salt lakes mostly located in the "Lithium Triangle" in Latin America (Chile, Argentina, Bolivia);
- lithiniferous minerals, mainly spodumene, mined in Australia and processed in China.

Four producers of lithium compounds (SQM, Tianqi, Albemarle and FMC) accounted for 75% of the lithium supply in 2018. The entry of new players, initially on spodumene deposits, and subsequently on brine deposits, will diversify the panorama of producers by 2025.

TRENDS IN LITHIUM DEMAND (KT LCE)



Source Eramet marketing.

2018 major events

In 2018, the lithium project in Argentina entered its final phase of development:

In the first quarter, a series of tests on the direct extraction process were carried out on a semi-industrial scale at the Group's research centre: over 300 kg of battery-grade lithium carbonate was produced from brines extracted from the deposit in which Eramet owns the mining rights in Argentina.

The second half of the year was devoted to carrying out the technical and economic feasibility study in order to determine the investment required, currently estimated at around €500 million for an annual production level now revised upward to 24,000 tonnes of lithium carbonate.

The investment decision is expected in the first half of 2019, for production to start at the end of 2021.

Beyond this project, Eramet is studying other areas of development in lithium, notably in Chile and Europe.

2.2 High Performance Alloys division

Key points on the strategic positioning of the High Performance Alloys division

- A strategy of positioning in high-tech markets requiring a high level of technical expertise and innovation, especially in the development and processing of high-performance metals.
- Leading global position in the high-power production of closed-die forgings for the aerospace industry and land-based turbines.
- Leading European position for forging for the defence and nuclear energy sectors and long products for the aerospace industry.
- Leading global position in high-speed steel produced by powder metallurgy for the cutting tools and cold working markets.
- Industrial investment policy which strengthens its development in strategic markets, as evidenced by the new tower for the atomisation of powders and the new rolling mill at Les Ancizes.
- Structuring of a European aerospace titanium industry, with the UKAD site specialised in ingots forging, MKAD specialised in the machining of finished parts and EcoTitanium using chips and scrap to produce aerospace-grade ingots.

2.2.1 Businesses of the Eramet Group's High Performance Alloys division: a high-end metallurgist supplying strategic industries, notably in the aerospace and defence sectors

The Eramet Group's High Performance Alloys division operates through two main subsidiaries: Aubert & Duval and Erasteel, two renowned experts in the design, development, transformation and manufacture of cutting-edge metallurgical solutions.

- Aubert & Duval supplies products designed for critical applications whose quality of design, development and manufacture require metallurgical expertise, know-how and specialised equipment.

  With its world-class industrial tools, Aubert & Duval is vertically integrated in the manufacture of metals and the processes of hot rolling, forging, closed-die forging of special steels, superalloys, titanium and aluminium alloys, as well as in the production of metal powders. Aubert & Duval's processes meet the specifications of the most demanding industries in terms of rigour, reproducibility and quality.
- Erasteel is one of the major players in high-speed steels and is the leader in the high-end segment of these steels, particularly with its powder metallurgy high-speed steels (PM-HSS), used for cutting and cold-working tools and high-performance mechanical components.

2.2.1.1 Design

Thanks to the globally renowned know-how of its metallurgists, the High Performance Alloys division designs new grades to meet future challenges and continues to optimise standard alloys grades to offer a competitive range to its customers. Production processes are also developed and optimised to guarantee their reliability and repeatability and thus ensure the competitiveness of the products.

Aubert & Duval designs and develops new alloys grades. Among its most recent innovations are: ML340™ (for the shafts of aircraft engines, developed in collaboration with Safran Aircraft Engines), MLX®17 and MLX®19 (stainless steels with structural hardening for the aerospace and motor sport markets) and the superalloy AD730® for high temperature applications. Recently, Aubert & Duval developed ARMAD® a new high-performance steel for the defence market.

To meet the challenges of additive manufacturing, Aubert & Duval today focuses on the optimisation and design of metallic powders, in particular steels, nickel-based superalloys and titanium-based alloys in order to improve their implementation and meet the technical requirements of additive manufacturing.

2.2.1.2 Development

In order to reach the materials right characteristics for the intended applications, the development phase is based on air or vacuum processes in primary production or remelting mode for special steels, high-speed steels, superalloys and titanium alloys.

2.2.1.3 Processing

Ingots are processed at the Division's plants by forging, closed-die forging, rolling or drawing. The plants have high-performance industrial tools to manufacture open and closed-die forged parts, bars, flat products and coils for demanding industries. Aubert & Duval and Erasteel also offer contract work services. In addition, the High Performance Alloys division owns cutting-edge atomisation equipment dedicated to the production of metal powders, high-speed steels, tool steels, stainless steels and superalloys.

The High Performance Alloys division has production facilities in France, Sweden, the United Kingdom, Spain, the United States, China and India.

Aubert & Duval sites

The Ancizes (France) site is specialised in the development of high-performance steels and superalloys and has integrated forging and hot rolling operations as well as the atomisation of superalloy powders for motor applications.

The Pamiers, Issoire and Interforge sites (France) and the SQuAD site (India) are specialised in producing parts for closed-die forging using presses with press powers of between 1,200 and 65,000 tonnes.

The Firminy plant (France) is specialised in open-dieforging and heat treatments to manufacture forgings of long lengths and meet the demanding specifications of the defence and nuclear sectors.

The Imphy site (France) is specialised in cold working and its activities include the special development and atomisation of powders for engine applications.

The Irun unit (Spain) specialises in the manufacture of additive superalloy powders.

Erasteel sites

Söderfors (Sweden) specialises in the production of high-speed steels by powder metallurgy sold as long products and has gas atomisation towers, hot isostatic pressing tools and forging lines.

The Långshyttan and Vikmanshyttan plants (Sweden) specialise in hot and cold rolling.

The Commentry site (France) is specialised in the production of high-speed steels and bar drawing, and has diversified into the recycling of batteries and catalysts.

The Champagnole plant (France) produces flat and square bars of high-speed steels.

Erasteel also has three other drawing plants: Stubs (UK), Tianjin (China) and Boonton (USA).

2.2.2 Investment policy

Several recent investments at the High Performance Alloys division's sites have supported and strengthened its development in strategic markets, notably in the atomisation of superalloy powders at the Les Ancizes site, the rolling of long products with a new rolling mill which will come into operation in 2019, and in the recycling of catalysts thanks to the new equipment installed at the Erasteel site in Commentry.

Over the past five years, the Eramet Group's High Performance Alloys division has developed several strategic partnerships enabling the Group to consolidate its titanium business for the aerospace industry and contribute to the circular economy. It currently includes:

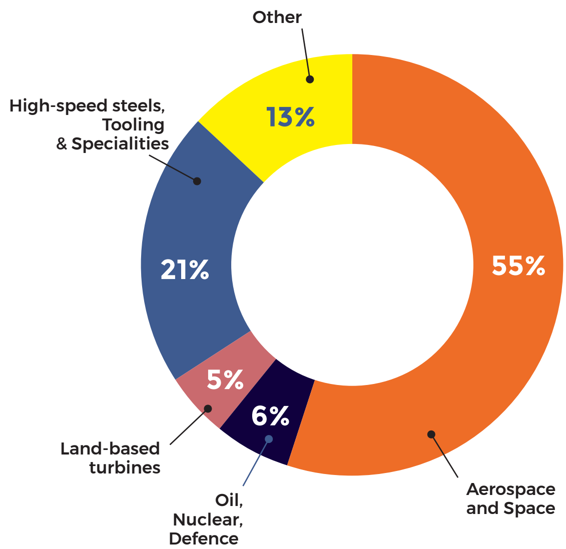
- EcoTitanium, a joint venture by UKAD, ADEME and Crédit Agricole Centre-France, dedicated to the production of aviation-grade titanium ingots from recycled massive scrap and chips;
- UKAD, a joint venture with UKTMP (Kazakhstan) which forges titanium ingots and delivers semi-finished products;
- Aubert & Duval, whose sites specialise in open and closed die-forging, and SQuAD, its joint venture in India which makes forged parts, especially in titanium, for aerospace applications;
- MKAD, a joint venture between Aubert & Duval and Mecachrome for the supply of titanium machined parts.

The integrated nature of this Division allows it to optimise the recovery and recycling of scrap and chips.

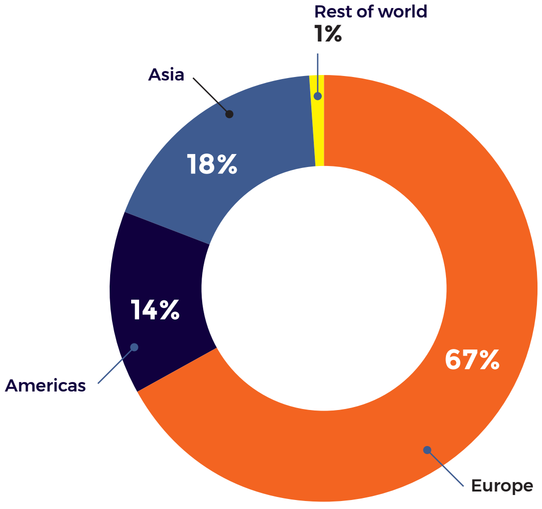
2.2.3 The markets of the High Performance Alloys division

The Division's main markets are: aerospace, space, energy (land-based turbines, nuclear), defence and naval, cutting tools and tooling.

BREAKDOWN OF THE SALES OF THE HIGH PERFORMANCE ALLOYS DIVISION IN 2018



The High Performance Alloys division operates worldwide and holds a strong position in the European market (67% of sales). The Asian market accounts for 18%, followed by the American market at 14%.

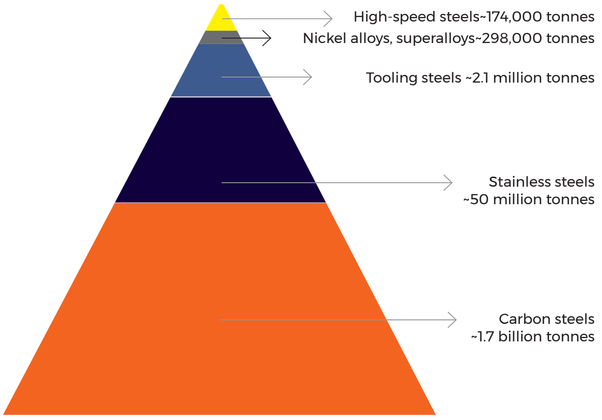


2.2.4 High-end positioning of the High Performance Alloys division

The materials and products marketed by the High Performance Alloys division are positioned in niche markets at the top of the steel pyramid:

- Aubert & Duval is a producer of special steels (stainless steels, tool steels), nickel-based superalloys and is developing its position in aviation-grade titanium alloys;
- Erasteel is a producer of high-speed steels.

GLOBAL PRODUCTION OF THE MAIN STEEL AND ALLOY FAMILIES IN 2018



Eramet estimates.

2.2.5 The product families of the High Performance Alloys division

2.2.5.1 Closed-die forgings

Aubert & Duval is one of the top three producers of high-power closed-die forgings for aerospace structures, landing gears, aircraft engines and land-based turbines. It is one of the only producers that uses die-forging processes for all four types of materials: steels, superalloys, and aluminium and titanium alloys.

2.2.5.2 Open-die forgings

Aubert & Duval is one of the European leaders in forgings for critical applications in defence and nuclear energy. Aubert & Duval produces open-die forged parts of special steels, titanium alloys and superalloys, which are suitable for the most demanding applications.

2.2.5.3 Long products

Bars, wires and sheets made from high-performance steel or nickel-based alloys are designed to be transformed or processed.

Aubert & Duval's products are used for critical applications in the following fields: aerospace, medical, defence, nuclear energy, hot tools and motorsports.

Erasteel's products are intended for cutting tools, cold work tools and mechanical components.

Aubert & Duval also produces compacted powders in the form of semi-finished products for closed-die forging of aerospace turbine discs.

2.2.5.4 Metallic powders for additive manufacturing

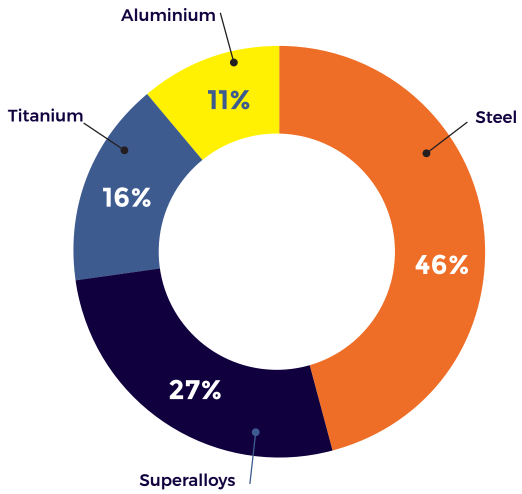
With its metallurgical expertise and solid experience in atomising powders, Aubert & Duval is a recognised supplier of fine metal powders for additive manufacturing, marketed under the Pearl®Micro brand and serving demanding markets such as the aerospace and energy sectors.

2.2.5.5 High-speed steels

High-speed steels (HSS) are particularly used for machining (drills, taps, etc.). These high-alloy steels have high hardness properties and wear resistance due to the significant presence of hard carbide generating elements, such as tungsten and vanadium.

Erasteel is one of the major players in powder metallurgy high-speed steels (PM-HSS), used for cutting and cold working tools and high-performance mechanical components. Erasteel's powder metallurgy high-speed steels are sold under the ASP® brand.

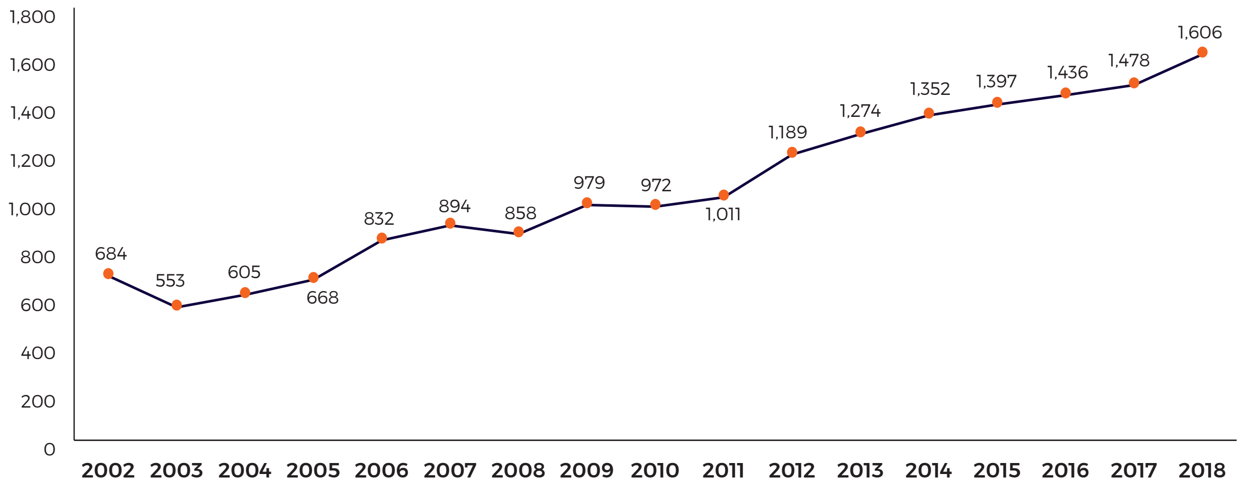
In 2018, the breakdown of sales of the High Performance Alloys division by family of materials was as follows:



2.2.6 Market outlook

Aerospace, the main sector for Aubert & Duval, has enjoyed growth over the last decade.

TRENDS IN THE NUMBER OF AIRCRAFT DELIVERED BY AIRBUS AND BOEING



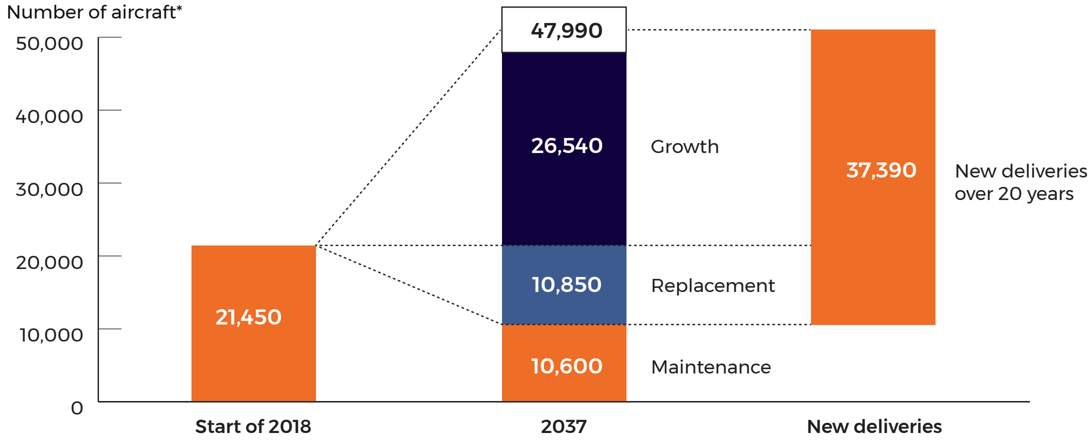
Sources: data published by Airbus and Boeing.

Aubert & Duval supplies parts for new aircraft models (A350, A320NEO, 777X, 787) and new aircraft engine programmes (TXWB, GE9X, LEAP, T7000). Aubert & Duval is particularly well positioned in long-haul programmes due to the demand for large and complex metal parts.

The aerospace industry, the primary market for the High Performance Alloys division's products, remains solid and stable compared to 2017. In 2018, however, there was a decrease in the demand for closed-die forgings for some long-haul programmes.

Medium and long-term prospects remain on a positive trend in terms of demand for aircraft, driven by the increase in global traffic, orders from emerging countries and the renewal of the current aviation fleet, as shown in the diagram below.

EVOLUTION OF THE FLEET OF AIRCRAFT IN SERVICE



Note: Commercial aircraft (≥ 100 seats), freight (≥ 10 tonnes), figures rounded to the nearest 10.
Source: Airbus GMF 2018.

In 2018, the global defence industry became stronger and global military spending continues to increase. In 2019, the field of forged products for defence applications continues to show a positive trend, with forecasts pointing to further growth, driven by the demand for military equipment.

With its metallurgical solutions designed to withstand extreme mechanical strains, Aubert & Duval is a leading supplier and continues to grow in the European and US markets.

The land-based turbine market is experiencing a marked slowdown worldwide in the context of a wait-and-see attitude towards investments in large-scale power stations. Aubert & Duval, however, is well positioned in heavy-duty gas turbines, requiring closed-die forged superalloys of exceptional size and for which few players possess and master the production techniques.

The world market for high-speed steels is growing slightly (around 2% per year) despite the competition from carbide tools, which has gradually stabilised. Erasteel has developed its position in the middle and high end of the market, focusing on the most powerful tools, in particular based on powder metallurgy, or on specific products (e.g. bimetal, which allows for the targeted use of high-speed steel on saw blades). In addition, the demand for tools containing high-speed steels of higher quality has grown significantly in China over the last few half-years, offering new prospects for development in this geographical area.

2.2.7 The competitive environment

The High Performance Alloys division is evolving within a multi-faceted competitive environment and faces competition from many players, depending on the markets, product typology and alloys sold.

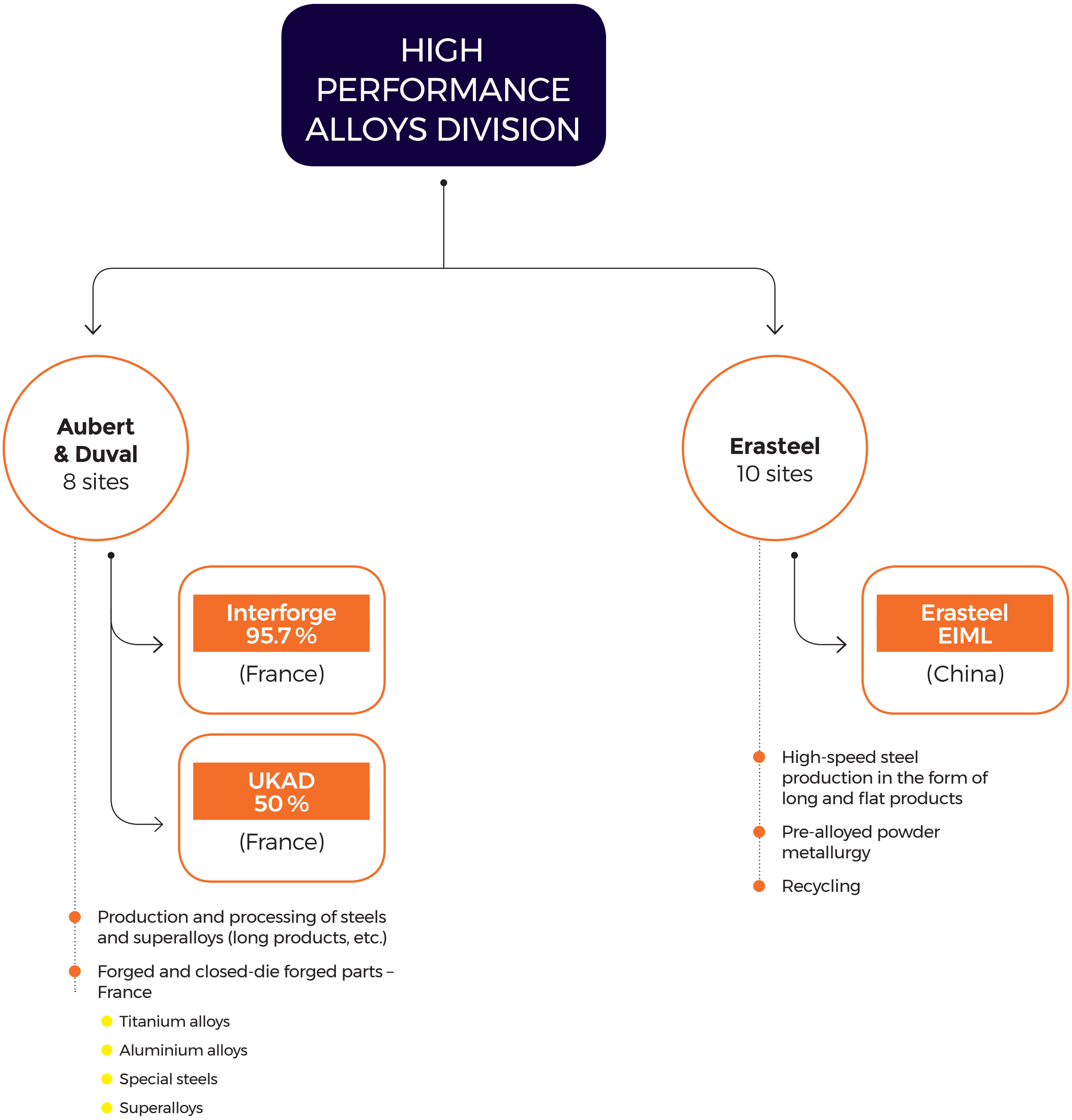
Broadly speaking, the following macro trends are worth noting:

- horizontal and/or vertical consolidation (e.g. development, open-die forging, closed die-forging, casting, machining, powder metallurgy, additive manufacturing);
- multi-material consolidation (e.g. titanium, steels, aluminium, nickel-based superalloys, composites);
- development of domestic competitors supported by government programmes;
- development of new technologies, such as additive manufacturing (3D printing), wire additive deposition and hybrid technologies (3D printing and die-forging).

The main competitors of Eramet's High Performance Alloys division are: Precision Castparts Corporation owned by Berkshire Hathaway, Allegheny Technologies Corporation, VSMPO-AVISMA, Arconic and Otto Fuchs. For long products and high-speed steels, the main competitors are also located in America, Europe and Asia: Voestalpine, Hitachi Metals, Carpenter Technology and Liberty Speciality Steels. For powders for additive manufacturing, the main competitors are Praxair Surface Technologies, Carpenter Technology, Oerlikon and Sandvik Osprey.

2.2.8 Organisational structure at 31 December 2018

(100% owned unless otherwise stated)



2.2.9 High Performance Alloys division in 2018

(€ MILLION)	2018	2017
Sales	1,020	1,087
EBITDA	46	84
Current operating income	(8)	32
Net cash generated by operating activities	(1)	90
Capital employed	751	789
Industrial investments	63	59

Sales for the High Performance Alloys division were down 6% at €1,020 million and the Division's current operating income recorded a loss of €8 million, down €40 million versus 2017, reflecting contrasting business trends. Erasteel's current operating income grew to €4 million in a favourable raw materials price environment, while Aubert & Duval recorded a loss of €12 million.

Aubert & Duval's sales for 2018 ended at €796 million, down 10% versus 2017, impacted by an 11% decline in the aerospace sector (€558 million in 2018).

Aerospace structural and jet engine parts volumes remain impacted by change in the rate of wide bodies aircraft programmes on which the Company is positioned.

Sales of land-based turbine parts also fell by 39% to €46 million, negatively impacted by weak order books from major energy players.

Finally, the 40 kt closed-die forging press of the Pamiers plant experienced a breakdown in Q4 2018 and production resumed end-January 2019.

At end-2018, Aubert & Duval's activity was also affected by bringing into conformity its quality management system, requiring verification procedures and the implementation of a corrective action plan in line with the highest international standards.

In this context, a non-current provision of €65 million has been booked in the Division's accounts to take into account the estimated cost to date of this in-depth review of quality processes, especially expertise costs and the impact of potential scrap. Working together with customers, the additional expertises performed over nearly three months have confirmed to date that there is no impact on the safety of the products in use.

Aubert & Duval's results will continue to be impacted in H1 2019 by the slowdown in shipping as a result of the conformity programme for quality processes and the shutdown of the 40 kt closed die-forging press in Pamiers. For 2018, this impact stood at approximately €14 million on current operating income.

Conversely, Erasteel's sales were up 21% to €227 million, particularly in high-speed steels, driven by raw material prices.

The strategic review conducted within the High Performance Alloys division has enabled to:

- focus the Division's activities and Capex on six key strategic market segments: aerospace, land turbines, defence and nuclear sectors, high-speed steels from powder metallurgy and additive manufacturing;
- define a project to structure Aubert & Duval and Erasteel's activities into three business units ("BU"), each distinct and responsible for their own performance: closed-die forgings BU, Forged and Rolled Products BU and High-Speed Steel and Recycling BU;
- design a project to reorganise plants and support functions.

Each business unit will aim to improve results within a more agile scope, and win new market shares in strategic segments. This especially applies to the aerospace sector for single-aisle programmes, both for engine and structural parts and long products.

Return on capital employed for Eramet Alloys

ROCE: Current operating income/capital employed at 31 December of year N-1 (equity, net financial debt, provisions for restoration of sites, provisions for restructuring and other social risks, less non-current financial assets).

ROCE – ALLOYS (BEFORE TAXES)

YEAR	2013	2014	2015	2016	2017	2018
%	0.5	3.0	3.4	3.4	3.9	(1.1)

2.2.10 Detail of investments

(€ MILLION)	2015	2016	2017	2018
Industrial investments	44	55	59	63

2.3 Holding

The company Eramet S.A., the consolidating parent company, has two main functions operationally:

- a pure holding function called Eramet Holding, bringing together the various support services including the Administrative and Financial Department, the Human Resources Department, the Health, Safety and Security Department, the Communication and Sustainable Development Department, the Legal Department, the Information Systems Department and the Strategy and Investor Relations Department;
- the operational activity of the Nickel BU (excluding personnel costs).

The costs of these different services are billed to the Business Units through management fee contracts. Other operating costs relating to Nickel are directly allocated to the Nickel BU.

Eramet also has directly held subsidiaries, acting on behalf of the various entities or for the parent company. These include:

- Eramet Nickel: a company which brings together the personnel of the support functions of the mining Divisions (General Management, Sales and Industrial Management);
- Eramet Services: a company which includes accounting functions, payroll and IT support for the Group's French companies;
- Eramet Ideas: Eramet's research Centre, responsible for research and development as well as project engineering activities and technologies;
- Eramet International: a company that brings together Eramet's sales network for certain activities of the three Divisions. Eramet International has subsidiaries and branches throughout the world. The activity of Eramet International is generally remunerated by agency commission contracts;
- Metal Securities: the Group's cash management company, which centralises cash surpluses and short-term requirements for the Group as a whole;
- Metal Currencies: the Group's foreign exchange management company, which carries out all foreign exchange hedging operations for the Group as a whole;
- ERAS: reinsurance company.

At the consolidation level, the Holding includes the holding function for Eramet and the consolidated subsidiaries (Metal Securities, Metal Currencies, ERAS, Eramet Ideas and Eramet Services).

2.4 Plants and equipment

The Group mostly owns its sites and their various equipment. Some large items of equipment are financed under finance leases (IV30 and the 40,000 tonne press at the High Performance Alloys division, the Tiébaghi beneficiation plant and the mining equipment at the Nickel BU) and are restated in the consolidated financial statements.

The breakdown of property, plant and equipment by Division and by unit is shown below. Almost 80% of the value of these non-current assets belongs to around ten industrial sites:

(€ MILLION)	GROSS VALUE	%	NET VALUE	%
Société Le Nickel -SLN (New Caledonia)	1,867	30.2%	519	22.5%
Other	138	2.2%	49	2.1%
Nickel BU	**2,005**	**32.5%**	**568**	**24.6%**
Comilog SA (Gabon)	1,021	16.5%	503	21.8%
Eramet Norway A/S (Norway)	387	6.3%	126	5.5%
Setrag (Gabon)	353	5.7%	204	8.8%
Eramet Marietta Inc. (US)	167	2.7%	39	1.7%
Other	68	1.1%	10	0.4%
Manganese BU	**1,996**	**32.3%**	**882**	**38.3%**
Grande Côte Opérations SA (Senegal)	530	8.6%	434	18.8%
TiZir Titanium & Iron (Norway)	92	1.5%	53	2.3%
Tizir (GB)	26	0.4%	22	1.0%
Mineral Sands BU	**648**	**10.5%**	**509**	**22.1%**
Aubert et Duval (France)	975	15.8%	203	8.8%
Erasteel SAS (France)	150	2.4%	36	1.6%
Erasteel Kloster AB (Sweden)	127	2.1%	8	0.3%
Other	230	3.7%	85	3.7%
High Performance Alloys Division	**1,482**	**24.0%**	**332**	**14.4%**
ERAMET Holding (France)	**43**		**14**	
TOTAL	6,174		2,305	

2.5 Innovation/ Reserves and Resources

2.5.1 Innovation by Eramet

Eramet has made innovation a priority for the Group in order to accelerate the performance of the industrial activities and organisations for the benefit of value creation and its international influence. Eramet needs to develop innovative solutions to create more value, produce more and faster, and be more agile. To achieve this, innovation teams must be leaders in the entrepreneurial culture, openness, pragmatism and speed that make Eramet an innovative company.

2.5.1.1 Eramet, an innovative company

The Eramet Group relies on innovation and transformation to maximise its metals value chain, from mining to products, including recycling loops. This value chain covers exploration, mining, extractive metallurgy, metallurgical processing of high-performance alloys (processing, remelting processes, powder metallurgy), as well as open-die and closed-die forging of these alloys. The Group seeks to maximise metal recycling at every stage of this value chain. This integrated positioning of innovation represents a strategic opportunity for the Eramet Group to deliver value-creating solutions at every stage in the production of its finished products.

Specifically, Eramet is active in innovation for the recovery and processing of a significant number of metals in the periodic table and their mineral derivatives. Listed in order by atomic number, they are: lithium, aluminium, titanium, manganese, iron, cobalt, nickel, copper, zirconium and molybdenum. The Group's projects and those of the clients of Eramet Ideas outside the Group also lead the Group to conduct research on a wide range of additional metals, including the following (listed by atomic number): zinc, germanium, lead, niobium, indium, the lanthanide series, including rare-earth metals such as lanthanum, cerium, praseodymium, neodymium, samarium, europium and dysprosium.

Eramet also conducts a number of innovation projects in the field of High Performance Alloys such as superalloys, special steels, aluminium alloys and titanium alloys, as well as powder metallurgy.

This ability to innovate in multiple metals and alloys along the entire value chain contributes to Eramet's unique positioning.

2.5.1.2 Areas of expertise

Eramet's people demonstrate world-class expertise in all aspects of extraction, processing and transformation metallurgy.

The Eramet Group's first area of expertise is focused upstream around the main disciplines of extractive metallurgy, such as mineralogy, mineral processing, hydrometallurgy and pyrometallurgy:

- mineralogy is the identification of the nature and morphology of minerals in ores. This first step is essential as it allows the definition of the phase or phases for processing the metal and it makes it possible to define, a priori, a draft plan for the exploitation of the ore through geometallurgical processes;
- mineral processing consists of separating recoverable fractions from ores by using the physical properties of the minerals in the ore, i.e. density, size, magnetism, electrostatic susceptibility or hydrophobicity, etc.

If ore beneficiation is not (or no longer) possible through mineral processing, the ore may be treated via more complex chemical or thermal processes:

- hydrometallurgy: ore beneficiation through chemical processing;
- pyrometallurgy: ore beneficiation through thermal treatment.

The Eramet Group's second area of expertise is metallurgical processing of alloys and high-performance steels, covering the development of new innovative alloys grades and all processes associated with metallurgical processing. Powder metallurgy occupies an increasingly important role in this field, with new developments occurring in the area of aerospace, particularly in the expanding field of additive manufacturing.

The Eramet Group's third area of expertise is the thermomechanical transformation of alloys by forging and closed die-forging, producing near-net-shape parts, particularly for the aerospace, energy, nuclear and defence markets.

Numerical modelling, applied to areas such as thermodynamics, fluid mechanics, dynamic reactor simulation, chemical engineering and physical metallurgy, are the building blocks of "digital twin" creation to extrapolate the tools in operation and thus accelerate the development and improvement of processes and products. The numerous developments in algorithms as part of the digital transformation are a complementary axis for improving the conduct of industrial operations through interpolation and extrapolation of the current operations. Digital tools such as artificial intelligence and machine learning are developed to create digital applications to assist the operational staff.

Characterisation up to nanometric scales coupled with data processing tools and chemical analysis of the materials processed or produced are elements of digital mineralogy, which is an additional asset for the development of the Eramet Group's projects. Digital mineralogy also enables us to carry out geometallurgical procedures on our deposits. Through robust sampling and comprehensive determination of the minerals present in the samples, geometallurgy can drive the development of complex deposits by improving and accelerating decisions and choices regarding mine workings.

2.5.1.3 Innovation organisation in the Group

The Group's innovation and R&D organisation is managed operationally for each of the areas of expertise. It was reinforced in 2018 with the creation of an Innovation centre in Trappes and the creation of a cross-functional department dedicated to digital transformation.

The Eramet Group's new innovation centre Eramet Ideas (Innovation, Development, Engineering for Advanced Solutions) was launched on 1 July 2018. This centre is the result of the merger of the Eramet Research R&D centre and Eramet Engineering, the Group's company dedicated to engineering. The administrative merger of these two independent companies took effect on 1 January 2019. As a result of this merger, an innovation centre with a staff of 150 people was created, including 140 technicians, engineers, project managers, technology specialists and extractive metallurgy experts. This unique force in the Group has inspired an approach of open innovation towards the Group's sites and major growth projects.

The open innovation process that motivated the organisation of Eramet Ideas involves the following missions:

1. The mission to gather and evaluate opportunities for value creation is organised by the extractive metallurgy experts in the innovation and technology department. Openness is crucial for finding ideas at the Group's plants, in similar industries, at universities across the world, in European research consortia, among suppliers, related industries or consultants.
2. The mission to test, develop and improve the best opportunities is the responsibility of the R&D teams. This mission falls under the responsibility of the business unit for which the opportunity for value creation has been identified.
3. Industrialisation teams are responsible for the mission of industrial implementation. To guarantee the excellence of the industrial equipment installed in our plants, the industrialisation process is ISO 9001 certified. This mission falls under the responsibility of the business unit for which the opportunity for value creation has been identified.
4. To complete this process, there is an innovation feedback loop between the Eramet Ideas teams and the operational teams. This audit makes it possible to define the points of technical and technological improvement but also, and above all, to identify new sources of value creation in order to go even further.

Eramet Ideas is located in Trappes, Yvelines. The innovations teams also benefit from high-performance observational tools, including the first microscope in France with QEMSCAN mineralogy software, advanced laboratory tools to carry out discontinuous metallurgical tests and semi-industrial pilot facilities — rotary kilns, high and low impedance electric furnaces of approximately 1 MW — on which continuous testing campaigns lasting several weeks are regularly conducted.

Reflection on Eramet's digital transformation began in earnest in 2017. In 2018, it led to the creation of a team of 10 people with more than 30 relays across all of the Group's sites. There are three main areas to work on:

- **connecting geology to the economy,** in other words optimising and ensuring the digital continuity of the supply chain in real time, according to the market conditions of the extraction of our metals from the mine to our customers;
- **optimising our metallurgical processes,** through artificial intelligence;
- **ensuring the traceability and quality of our products,** from the design all the way to the customer.

An agile approach called "quick and learn" has been implemented. This approach includes an exploratory phase of "proof of concept" (POC) and a phase of industrialisation of successful POCs.

For extractive metallurgy, the innovation is relayed by the technical centres closest to the plants, which directly support the operational teams:

- Société Le Nickel-SLN's Technical Studies and Investigations Department (DETI), in New Caledonia, employs around 60 people, about half of whom are dedicated to R&D. This department is in charge of the R&D of SLN's mining sites and pyrometallurgical plant;
- the Studies, Investment and Project Department (DEIP) based at Eramet Sandouville is working on the launch and ramp-up of the new Sandouville workshops built to process a new matte;
- the small Eramet Norway Trondheim (ENT) team assists the ferro-alloys factories of the Manganese division, drawing on the extensive resources of the Norwegian Technological University (NTU) and a research institute in metallurgy, SINTEF.

For production metallurgy, i.e. the development of new grades of steel, superalloys, powders and associated production processes (conventional and vacuum steelmaking, remelting, plasma fusion, powder atomisation), the dedicated R&D and innovation team is located in Les Ancizes (Puy-de-Dôme, France). For powder metallurgy, there is also a competence centre for the production of powder metallurgy steels by gas atomisation located in Sweden, where about ten people work. Its name is PEARL (Powder Expertise Analysis and Research Laboratory). Other areas of expertise are also represented at the High Performance Alloys division sites in Irun and Imphy for the production of superalloy powders for additive manufacturing.

For metal processing, the R&D team is based partly at the Les Ancizes site, for open-die forging and developing the simulation of thermomechanical forming processes, and partly at the Pamiers site, for closed-die forging, where the team has a pilot press dedicated to R&D developments.

In total, the Eramet Group employs around 300 people who are completely dedicated to innovation, not counting the operational teams who participate in tests across all the industrial sites. Within the business units, these teams coordinate testing and essential phases of industrialisation for the Group's research projects.

In all, about 1.5% of Eramet's sales is dedicated to innovation, that is around €60 million for 2018, with the aim of increasing the efficiency and effectiveness of innovation activities.

2.5.1.4 Main achievements in 2018

Eramet aims at fostering innovation to meet the demands of its industrial clients, improve its competitiveness, offer new services and create new opportunities for value creation. The environment is a constant focus during the development of new processes, with the aim of reducing the environmental footprint.

Research efficiency is a decisive asset in the Group's activities, from mining to products. In order to meet and even exceed customer expectations, research and development programmes allow the Group to strengthen its positions, even in the most competitive markets.

These programmes are conducted within the business units or at the Eramet Ideas centre. To ensure the results are wholly relevant, the innovation teams work in close collaboration with the operational staff. This allows for considerable efficiency gains, from defining programmes to implementing innovations, whether involving products or the processes themselves, including improving productivity. The main results for 2018 are described below.

Nickel Business Unit

The first area entailed the optimisation of the technical and economic performance of the Group's New Caledonian subsidiary by helping it to adapt its pyrometallurgical process to chemical developments in nickel ores, both current and future. New tools were developed to improve process control. Industrial tests were carried out on ore calcination in order to improve the stability of operations in electric furnaces and its energy efficiency.

The second area of research focused on improving environmental performance by developing a new ferronickel refining process for producing inert slag, and studying methods for recovering by-products from the Doniambo plant in New Caledonia, both internally and externally.

The third area focused on the ramp-up of the high-purity nickel production plant in Sandouville. The aim of this technical assistance is to adjust the operating parameters of the new units in order to process the new raw materials.

Manganese Business Unit

For Comilog, the Eramet Ideas teams worked on optimising the operation of the Moanda Industrial Complex (CIM) to maximise the production of mining products and improve the quality of the agglomerated product.

From an environmental point of view, new treatment processes for mine tailings have been pilot-tested to reduce the environmental footprint of the mine in Moanda.

With regard to manganese alloys, Eramet Research's work has focused on improving plant performance, particularly increasing refining capacity, lowering production costs, improving furnace stability and decreasing costs for energy. Work on manganese metallurgy is carried out in close cooperation with the Eramet Norway R&D team, based in Trondheim.

Lithium Business Unit

The focus of work for the Group's project was the ongoing development of the process of direct extraction of lithium from brine from the salt flats in Argentina. In 2018, the work continued to focus on the large-scale management of the selected innovative process and on monitoring the industrialisation and synthesis of active material allowing for the selective recovery of lithium as opposed to the other elements contained in the lithium brine.

Mineral Sands Business Unit

For the Grande Côte Opérations complex, a thorough mineralogical characterisation of the various titanium-containing finished-product flows led to the discovery of new ways to add value to the minerals derived from the deposit.

High Performance Alloys division

R&D activities are carried out in close cooperation with the Division's business units in order to develop new products with its customers and to improve the performance and competitiveness of existing products. On one hand, these activities cover the development of new steel grades, superalloys and powders, particularly in order to meet the requirements of the additive manufacturing market, and on the other hand, the work on alloy processing, thermomechanical transformation processes (forging, die-forging, etc.) and heat treatments. The R&D projects of the High Performance Alloys division are organised into three areas:

- the first objective concerns developments in the area of materials and processes: The main areas of work in 2018 were engine discs produced with the new generations of superalloys, supporting the qualification of the titanium alloy manufacturing industry, developing new grades of special steels for aerospace, developing new high-speed steels marketed by Erasteel, working on the optimisation of the efficiency of powder atomisation plants, and optimising superalloy powder grades for additive manufacturing;
- the second area focuses on the development of new technologies, particularly on the shaping of materials in order to introduce technological breakthroughs to optimise the range of products and the use of the Division's industrial tools. In 2018, the main topics concerned technologies related to closed-die forging, rolling of long products and additive manufacturing at high deposition velocity;
- the third area concerns digitalisation in the field of materials and processes:
  - the first theme is the development of phase prediction models in steels or superalloys, the prediction of microstructures and the prediction of properties,
  - the second theme, in the processes field, aims to simulate the key characteristics of the processes implemented in industrial sites: simulation of remelting, simulation of heating times, cooling rates, thermomechanical paths during forging operations, and closed-die forging.
    This last point enables Aubert & Duval to continuously improve the responses provided to its customers to optimise the characteristics and costs of parts. This significantly reduces the research, development and production cycles.

The resources of Eramet Ideas, primarily in the area of process modelling and precise characterisation of metallurgical structures, were integrated into these various projects.

2.5.1.5 Collaborations and partnerships

Eramet Group's innovation is enriched by its ongoing collaboration with the academic world and its partnerships with research institutes and other large industrial companies.

In France, and in the field of extractive metallurgy, Eramet has ongoing partnerships with Chimie ParisTech, Mines ParisTech, *École centrale* Paris, *École nationale supérieure de géologie de Nancy, École nationale supérieure des mines de Nancy* and Paul-Sabatier University in Toulouse. For many years, the BRGM (Bureau de Recherches Géologiques et Minières) has conducted studies for Eramet in a variety of areas (geology, resource audits, research projects).

The Group has entered into several partnerships in pyrometallurgy research, notably with the University of Trondheim in Norway, KTH (Royal Institute of Technology) in Sweden, and the Swedish semi-public research centre, MEFOS.

For Eramet Ideas, the year 2018 was marked by its participation in six new European projects relating to some of the Group's key themes, such as the extraction of lithium from geothermal brines for the EuGeLi project and the reduction of carbon dioxide emissions and energy consumption of manganese plants for the PREMA project. In 2018, the Eramet Ideas portfolio of European projects includes 11 projects in the extractive metallurgy area. Significant progress was made with the first industrial-scale tests for the SOLSA project and the preparation of a semi-industrial pilot for ferromanganese production at the Trappes site to demonstrate the industrial feasibility of the Go-4.0 project.

In the field of alloys in France, Eramet maintains a close partnership with academic research centres providing specific expertise on metallic materials (characterisation of micro-structures and properties, production processes, thermomechanical treatments), and is associated with the following engineering schools: Mines Paris Tech, *École nationale supérieure des mines de Nancy, École nationale supérieure des mines de Saint-Etienne, École des mines d'Albi*, SIGMA (Clermont-Ferrand), ENSMA (Poitiers). These partnerships mainly take the form of doctoral thesis work allowing for the development and exchange of expertise and innovative techniques in metallurgy, mechanics and process modelling. Eramet is also involved in projects to develop new alloys and their resulting products, initiated in the competitiveness clusters (ViaMéca, Aerospace Valley, *Pôle nucléaire de Bourgogne*) and in partnership with M2P (Metz, Besançon, Troyes) and Saint-Exupéry (Toulouse) technological research institutes.

Of equal note are the projects undertaken with MetaFensch, a metallurgy research centre in Uckange, with two projects aimed at developing titanium production and recycling processes and titanium alloy powders for additive manufacturing processes.

Outside France, in the field of alloys, the Group continues to maintain its partnership with the University of Strathclyde in Scotland, with an active and permanent presence at the centre for research and development on forging parts for the aerospace industry (AFRC).

Since, for several years now, the European Union has placed a focus on innovation and raw materials, Eramet is currently part of several consortia at European level as part of the EIPRM (European Innovation Partnership for Raw Materials) programme headed by DG Growth. Eramet is involved in these collaborative projects as part of European consortia, either as a coordinator or as a partner, in fields as varied as optimisation of mining surveys with online mineralogical analysis, the recycling of dust from manganese furnaces and the development of new processes in extractive metallurgy. Eramet has teamed up with more than 100 industrial partners, academic partners and European research centres as a "core member" of "KIC" Raw Materials, an innovative scheme aimed at strengthening ties between the worlds of research and education within an industrial framework, to encourage innovation, skills and employment in the area of raw materials.

2.5.1.6 Conclusion

Eramet Group innovation is used across the value chain of its activities, from mining to products. 2018 was a year of transformation for the Group's R&D, which was reorganised to reflect a strong ambition to innovate and create more value. Eramet's Central Laboratory was organised to bring together teams that support the innovation process from collection to industrialisation of innovative solutions, by evaluating and developing the best opportunities. All of the innovation and digital transformation teams are focused on the rapid development of value-creating solutions for the Group's sites and its growth plans. Group innovation is therefore an essential link in the long-term deployment of its strategy, as well as in meeting short-term operational challenges.

2.5.2 Reserves and mineral resources

2.5.2.1 Overview

Definitions

Definitions of mineral resources

A Mineral Resource is a concentration or occurrence of commercially valuable material in or on the Earth's crust in such grade and quantity as to give reasonable likelihood that mining will be economically feasible. The location, quantity, quality, continuity of the deposit and the geological characteristics of its resources are known, estimated or interpreted on the basis of specific geological evidence and expertise. Mineral resources are ranked in order of increasing of geological confidence, as "inferred", "indicated" and "measured".

An Inferred Mineral Resource is the part of a Mineral Resource for which quantity and quality can be estimated on the basis of geological evidence, but with a low level of confidence. Geological and grade continuity are inferred but not verified. The estimate is based on information that is limited or of uncertain quality and reliability, gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An Indicated Mineral Resource is the part of a Mineral Resource for which the quantity, grade or quality, densities, shape and physical characteristics can be estimated with a reasonable level of confidence. The estimate is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too far apart from one another or spaced in a way that makes them inadequate to confirm the geological and grade continuity and/or its quality, but spaced closely enough for geological and grade continuity to be reasonably assumed.

A Measured Mineral Resource is the part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a high level of confidence. The estimate is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity and/or quality as well as the hydrogeological continuity of the facies containing the resource.

Definition of drainable resources (for lithium from brines)

A Drainable Resource is defined as the availability of a given envelope of confidence of brines with a certain lithium content in a medium with a known effective porosity. A cut-off grade can be assigned. In Eramet's case, drainable resource estimates are made in envelopes with a concentration greater than 200 mg/l Li. The level of classification is based on survey patterns which assess the lateral and vertical continuity of the lithology, brine concentrations in lithium and the hydraulic parameters.

An Inferred Drainable Resource is the part of the drainable resource for which only geophysical measurements and potentially some boreholes are available. Hydraulic continuity is not verified. The estimated lithium content is based on information that is limited or whose quality and reliability are uncertain.

An Indicated Drainable Resource is the part of a drainable resource for which lateral continuity is proven at less than 6 km of the aquifer's hydraulic parameters and the brine's lithium content and vertical continuity between two measuring points in a single shaft.

A Measured Drainable Resource is the part of the drainable resource for which the sampling quality, hydraulic parameters and grades can be estimated with a high level of confidence and meet quality criteria (QA/QC). The number of lithium measurements above the cut-off grade in a particular lithological horizon must be more than 3.

The brine's lithium content and the hydrodynamic parameters of the aquifer are determined by pumping tests carried out in the volume being considered, including at least one long-duration test (more than 30 days). The reliability and consistency of the results for content and hydrodynamic parameters are analysed using a conceptional model of brine distribution and a numerical model.

Definition of extractable resources

An Extractable Resource is defined as an available volume of brine with a certain lithium content in a medium with sufficient effective porosity to permit extraction and that can be extracted through one or several pump wells over a given period to meet economic feasibility requirements. The reliability and consistency of the hydrodynamic parameters are analysed and simulated using a conceptional model of brine distribution and a numerical model.

An Inferred Extractable Resource is a modelled volume of brine with a lithium content higher than the cut-off grade extracted by a pumping system from areas where inferred drainable resources have been identified. An initial estimate using numerical modelling of volumes and contents of recovered brine and insufficient level of confidence in geological and hydrological data prevent these resources from being converted into reserves. These resources are excluded from feasibility studies.

An Indicated Extractable Resource is a modelled volume of brine with a lithium content higher than the cut-off grade that can be extracted through one or several pump wells from areas where indicated drainable resources have been identified. Variations in estimates of geological and hydrological parameters can affect the economic feasibility of the pumping field. The volumes and lithium contents of the extracted brines have an accuracy of +/-25%.

A Measured Extractable Resource is a modelled volume of brine with a lithium content higher than the cut-off grade that can be extracted through one or several pump wells from areas where measured drainable resources have been identified. The geological and hydrological parameters are estimated with a sufficient level of confidence such that any variations will not affect the economic feasibility of the pumping field. The volumes and lithium contents of the extracted brines have an accuracy of +/-15%.

Definitions of reserves

A Reserve is the economically exploitable part of the "measured" or "indicated" resources of a deposit. Reserves are estimated based on a preliminary or actual feasibility study (a mining project in the broader sense), which takes account of any technical (pit design, mining dilutions and losses depending on operating methods used, facility performance), economic, commercial, legal, environmental, social and governmental constraints, both existing and foreseeable at the time of estimation. The preliminary or actual feasibility study demonstrates at the time of reporting that extraction is viable. Mineral reserves are categorised in ascending order of confidence as "probable" and "proven" mineral reserves.

A Probable Reserve is the economically exploitable part of an "indicated" resource, and in certain circumstances a "measured" resource, while a Proven Reserve is the economically exploitable part of a "measured" resource.

Exploration results

Exploration Results are the same commercially valuable materials as are assessed for resources and reserves. Exploration indicates that a potential mineralised zone may be found but available recognition information is very tenuous.

Location

Through its subsidiaries, Société Le Nickel-SLN in New Caledonia and Comilog S.A. in Gabon, the Group operates nickel and manganese deposits respectively. With development of the Weda Bay Nickel project in Indonesia, Eramet has opened up prospects for further development.

In New Caledonia, Société Le Nickel-SLN mines open-cast nickel oxide deposits formed by superficial weathering of ultrabasic rocks. Mining and processing now focus on the saprolitic portion of the weathering profile.

In Gabon, Comilog S.A. operates a rich tabular opencast manganese deposit, located under thin caprock and formed by superficial weathering of volcanic-sedimentary rocks.

In Gabon, La Minière de la Mabounié (Maboumine), a 76.14%-held subsidiary of Comilog, carried out exploratory work in relation to a niobium, rare earth, tantalum, uranium and phosphate processing project. In view of the current market outlook for raw materials, the search for ore enriching technology enabling average returns for the associated elements of value guides the search for a partner in order to develop a phosphate and niobium processing project.

In Indonesia, the Weda Bay deposit is made of nickel oxide deposits formed by lateritic weathering of rocks. The necessary conditions for the implementation of the partnership agreement with the Chinese steel group Tsingshan, the world's largest producer of stainless steel, were met on 19 May 2018. This partnership will use a pyrometallurgical process to produce nickel ferroalloy, from the ore mined from the Weda Bay deposit in Indonesia. Eramet now holds 43% of the capital of Strand Minerals (Indonesia) Pte Ltd, the controlling shareholder of Pt Weda Bay Nickel.

In Senegal, the Grande Côte Opérations company (GCO), a 90% indirectly-owned subsidiary of TiZir Ltd, operates a heavy-mineral sand deposit. The Grande Côte deposit, a few dozen kilometres north of Dakar, is a coastal-dune heavy-mineral placer containing large quantities of titanium-bearing minerals (ilmenite, rutile) and zircon. These deposits can be mined by dredging. Production started in 2014.

In Argentina, Eramine Sudamerica SA, a wholly-owned subsidiary of Eramine SAS (wholly owned in turn by Eramet SA), carried out exploratory work on several salt flats before focusing on the Centenario-Ratonès flat north-west of Salta in the Puna region. Exploratory work showed that resources were available in the lithium found in natural brines.

Legal claims

Mining-claim instruments assure the Group's long-term rights over the reserves and resources, for instance:

- New Caledonia: perpetual concessions foreshortened to the expiry date of 31 December 2048 (Article 7 of the New-Caledonian *"Loi de Pays"* Act of 16 April 2009) and of rights conceded for a period of 75 years renewable in successive 25-year periods;
- Gabon: a 75-year concession, expiring on 31 December 2032 and renewable for 10-year periods;
- Indonesia: Contract of Work running until 27 February 2048 and renewable;
- Senegal: the mineral deposits at the Grande Côte project are located in a mining concession assigned to GCO since July 2008 by the Senegalese government for a renewable 25-year term starting from November 2007 (date of issue of the concession);
- Argentina: Eramine SA had 49 consolidated mining claims at year-end 2018, issued on a perpetual basis, subject to the submission of mandatory impact surveys, the payment of annual mining fees and compliance with a development schedule.

The carrying amount of reserves is recognised at historical cost for purchased claims, with no measurement of granted concessions. The balance sheet amount does not necessarily reflect market value.

Estimates

The resource and reserve estimates were drawn up for Le Nickel SLN, Weda Bay Nickel, GCO and Comilog S.A. by professionals who are full-time employees of the Group or its subsidiaries, using conventional or geostatistical methods.

In the case of Eramine SA, they were drawn up by "Qualified Persons" outside the Group.

Geological reconnaissance, resource and reserve estimation, exploitation planning and mining are supplemented by over 40 years' industrial experience. The methods used evolve constantly to take advantage of technical progress in these areas.

Basis of estimates

Estimates are based on sampling that can never be fully representative of the entire deposit. As deposits are explored and/or exploited, estimates may increase or decrease in line with improvements in knowledge of the mineralised mass.

Estimate methodology

In due consideration of the Group's presence in New Caledonia, estimates of the Group's reserves and mineral resources as presented here were drawn up pursuant to the 2012 edition of the JORC Code (Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves) for all aspects relating to estimation methods and classification levels.

The published figures are updated and validated internally by a Board of Referees and by "Competent Persons" as defined by the JORC Code.

Estimates of lithium project drainable and extractable resources are drawn up by an independent firm based in the US, Montgomery and Associated, acting as "Qualified Persons" in the area of lithium-bearing deposits extracted from brine. An audit of resources was also drawn up in February 2015 by M. King, an independent specialist consultant. The Eramine Sudamerica team internalised the estimation process in parallel, after the results were validated by Montgomery.

For Pt Weda Bay Nickel (laterites and saprolites), Société Le Nickel-SLN (saprolites for the Doniambo plant) and Comilog S.A. (manganese ore), external audit conducted in 2018 has certified that the resources and reserves have hereto been evaluated in a satisfactory manner and in compliance with the JORC Code recommendations.

Mineral resources

Resources are calculated with the same cut-off grades as reserves (except where expressly specified otherwise), but without any guarantee that these recoverable resources will be wholly converted into reserves following additional technical-economic and marketing studies.

A drilling and/or intercept is considered positive if:

- it contains at least two metres of ore at a grade equal to or higher than the cut-off grade;
- it is not isolated.

The mineralised mass defined by the drilling intercepts selected on this basis is included in mineral resources if its positioning and its geometric and chemical characteristics are such that it is reasonably likely to be economically feasible.

Drainable resources

Drainable resources are established within a 200 mg/l Li envelope representing the cut-off grade.

The deposit is surveyed by drilling in a pattern that will verify the vertical and lateral continuity of the aquifer's lithological, geochemical and hydraulic parameters with a lithium content in excess of the cut-off grade.

Recoverable mineral resources

Recoverable resources are mineral resources where mining recovery and ore dressing factors have been applied on the basis of experience acquired on those sites.

The nickel or manganese tonnages given correspond to the quantity of metal present in the ores at the outlet point to the mining units when shipped to a metallurgical or chemical processing plant. The mining allowances for mining dilution and losses, and those relating to ore dressing, are established on the basis of mining summaries which compare production to estimates of volumes already extracted.

Recoverable resources are included in mineral resources.

Exploration results

Exploration results follow the same estimation process as resources.

Reserves

Reserve estimates are based on medium/long-term economic conditions (prices of fuel oil, coal, coke, electricity, metal prices and exchange rates etc.), commercial constraints (quality, customers etc.), environmental constraints (permits, mining constraints etc.) and constraints on current and foreseeable technical mining and treatment processes.

Reserves are estimated on the basis of a complete mining project. No assurances can be given as to the total recovery of the reserves announced, as market fluctuations and technical developments may make the recovery of certain deposits or parts of deposits economically feasible or otherwise.

Reserves are included in mineral resources.

Presentation of estimates

Estimates of mineral resource and reserves are given for the mining deposit as a whole. Recoverable resources are carried forward when they are involved in the construction of the long-term plan. Results may also be compared to production levels, thus providing an indication of the remaining mine life.

2.5.2.2 Comilog S.A. reserves and resources

An external audit was carried out in 2014 by Melabar GeoConsulting, which certified that the resources and reserves estimated by Comilog S.A. were evaluated satisfactorily in accordance with the recommendations of the JORC Code.

Mineral resources

The table below shows the figures for Comilog S.A.'s mineral resources, updated to 1 January 2019. The figures are expressed in thousands of tonnes of dry ore (kt), with the associated manganese content (% Mn) and the tonnage of metal content expressed in millions of dry metric tonne units (dmtu.10^6 where 1 dmtu = 10 kg of manganese, i.e. 1 dmtu.10^6 = 10,000 tonnes of manganese).

MINERAL RESOURCES IN MANGANESE ORE AT 1 JANUARY 2019

	MEASURED			INDICATED			INFERRED			TOTAL		
CATEGORY	KT	% MN	DMTU.10^6	KT	% MN	DMTU.10^6	KT	% MN	DMTU.10^6	KT	% MN	DMTU.10^6
Rock ore > 5 mm												
Bangombé	19,102	44.3	847	38,343	45.6	1,748	2,325	40.7	95	59,770	45.0	2,690
Fin-Roc > 1 mm												
Okouma-Bafoula				134,600	44.9	6,044	36,100	43.2	1,559	170,700	44.5	7,603
Massengo							12,000	40.0	480	12,000	40.0	480
Fine 1-5 mm												
Bangombé	7,321	39.9	292	15,565	41.6	648	746	35.9	27	23,632	40.9	967
Moulili	1,091	40.4	44	1,683	40.4	68	123	34.0	4	2,897	40.0	116
Total	27,514	43.0	1,183	190,191	44.7	8,508	51,294	42.2	2,165	268,999	44.1	11,856

Bangombé deposit

For the Bangombé deposit, currently operated, declared resources at 1 January 2019 correspond to the findings of the estimate made over the course of 2018 outside of the zones mined up until 31 December 2018. The purpose of site reconnaissance work included in the estimate is not to extend the mineralised perimeter of the Bangombé deposit, but rather to gain greater knowledge of certain masses. The result is a decrease in mineral resources at 1 January 2019, slightly offset by minor extensions of the mineralised perimeter.

Resources are calculated in two granulometric fractions: “Rock” ore (+5 mm, 9% H_2O) and “Fine” ore (1-5 mm, 12% H_2O). The grain size cut applied to the survey samples is 5 mm for Bangombé’s masses, which ultimately corresponds to a beneficiated grain size of 8 mm. The mineral resources consist of ores with a manganese content in the “Rock” fraction greater than or equal to 30%.

Okouma-Bafoula deposit

The Okouma and Bafoula deposits were the subject of a geological study conducted in 2016, combining all surveys, including the oldest one of lower quality. The two masses, which are part of the same geological unit, have been grouped into a single deposit — Okouma-Bafoula. The mineral resources are estimated and expressed as products with a grain size greater than 1 mm which corresponds to the product beneficiated through the process used by the plant being studied.

Overall, the Okouma-Bafoula mineral resource figures are unchanged from those published last year. The uncertainties identified in the old survey data are included in the resource classification and work has been undertaken to address these uncertainties.

Massengo deposit

For the unexploited deposit of Massengo, declared mineral resources at 1 January 2019 are identical to those published at 1 January 2018, according to the criteria of granulometry equivalent to those of the Okouma deposit (> 1 mm fractions), humidity (9%, 12%) and selection (30% Mn), corresponding also to those of Bangombé.

Moulili deposit

The Moulili river bed was filled with a manganese ore deposit of which only the fine 1-10 mm fraction has been evaluated to date. Working from upstream to downstream, the deposit was divided into four sections, of which two, MT1 and MT3, are being exploited.

The mineral resources as at 1 January 2019 correspond to the updated figures following the Lidar topographic survey of 12 April 2017 minus production between that date and 31 December 2018, i.e. a total of 51.1 dmtu. No cut-off grade is applied. Mineral resources are classified according to the extent of knowledge of the different sections, i.e. resources measured at MT1, indicated at MT2 and MT3 and inferred at MT4.

Yéyé deposit

Reconnaissance work carried out on Yéyé indicates the existence of potential ore masses, which are classified as exploration results according to the criteria of quality and quantity of the information available.

Recoverable resources and reserves

The table below shows the figures for recoverable resources for the Bangombé deposit. For the other Comilog S.A. deposits, the recoverable resources are entirely transformed into reserves and are therefore not individualised.

The figures are expressed in thousands of tonnes of dry ore (kt), with the associated manganese content (% Mn) and the tonnage of metal content expressed in millions of dry metric tonne units (dmtu.10^6 where 1 dmtu = 10 kg of manganese, i.e. 1 dmtu.10^6 = 10,000 tonnes of manganese).

RECOVERABLE RESOURCES OF THE BANGOMBÉ DEPOSIT AT 1 JANUARY 2019 (MILLIONS OF DMTU)

CATEGORY BANGOMBÉ	MEASURED			INDICATED			TOTAL		
	KT	% MN	DMTU.10⁶	KT	% MN	DMTU.10⁶	KT	% MN	DMTU.10⁶
Rock ore > 8 mm	14,293	45.0	643	25,039	46.0	1,152	39,332	45.6	1,795
Fine 1-8 mm	6,050	40.9	247	10,945	41.9	459	16,995	41.5	705
Total	20,343	43.8	890	35,984	44.8	1,610	56,327	44.4	2,500

The reserves of Comilog S.A., updated on 1 January 2019, are grouped in the table below, in the same units as for mineral and recoverable resources. Reserves are included in mineral and recoverable resources.

MANGANESE ORE RESERVES AT 1 JANUARY 2019 (MILLIONS OF DMTU)

CATEGORY	PROVEN			PROBABLE			TOTAL		
	KT	% MN	DMTU.10⁶	KT	% MN	DMTU.10⁶	KT	% MN	DMTU.10⁶
Rock ore > 8 mm									
Bangombé	10,087	45.1	455	10,473	45.8	480	20,560	45.5	935
Product > 1 mm									
Okouma-Bafoula				92,400	45.8	4,232	92,400	45.8	4,232
Fine 1-8 mm									
Bangombé	4,371	41.3	180	4,755	43.7	208	9,126	42.5	388
Moulili	1,091	40.4	44	1,683	40.4	68	2,774	40.4	112
Total	15,549	43.7	679	109,311	45.6	4,988	124,860	45.4	5,667

Bangombé deposit

On the basis of the mineral resources, the figures for recoverable resources are established taking the following into account:

- geological uncertainties, therefore excluding inferred mineral resources;
- the presence of durable infrastructures judged not to be moveable, of which mapping was completed in 2018;
- commercial specifications with a cut-off grade of 37% Mn on the rock-ore fraction;
- mining and technical factors arising from reconciliations, carried out/estimated.

The definition of recoverable resources factors in criteria established for the given geological domain that are subject to change in light of further information and studies. For the ore masses of the Plateau and the inner edges, these criteria relate to a minimum ore thickness of 2 metres and the mining methods associated with at least an outline diagram. For outer edges, recoverable resources correspond to the ore included in a mining plan with an excavation diagram.

Recoverable resources for which the mining project is complete are converted into reserves. The long-term mining sequence of the Bangombé deposit is based on recoverable resources, which will ideally sustain the first few years of the plan.

The classification of the reserves has been updated following the work, additional soundings and updates of the geological models and mining projects, initiated following the recommendations of the auditor (Melabar GeoConsulting 2014) and which lead to increase the degree of confidence on the masses of the edges of the plateau. Studies on mining projects to convert all of Bangombé's recoverable resources into reserves are also under way.

Okouma-Bafoula deposit

The ore at the Okouma-Bafoula deposit has been estimated and classified as probable reserves using the same procedure applied to the Bangombé deposit, by including environmental and community constraints. The environmental impact study carried out in 2018 revised these last limits which lead to a reduction of the exploitable surface. The volume of reserves corresponds to the volume of resources declared on 1 January 2018, on which, for the product with a grain size greater than 1 mm, have been applied a mining factor based on the experience of mining in Bangombé and a beneficiation efficiency factor shown by the current conceptual studies.

A new long-term mining planning study was initiated in 2018 on the Okouma-Bafoula deposit and will continue in 2019 regardless of the long-term mining sequence of the Bangombé and Moulili deposits.

Moulili deposit

The MT1 and MT3 sections have been operating since 2010 and 2013, respectively. No cut-off grade is applied to the exploitation and all the mineral resources corresponding to these sections are transformed into reserves.

Surveys of the MT2 and MT4 sections were unable to estimate any reserves in these areas.

Comilog S.A.'s long-term mining sequence includes the Moulili reserves.

2.5.2.3 Société Le Nickel-SLN's reserves and resources

Saprolite reserves and resources for pyrometallurgy

An external audit was carried out at the end of 2018 by Sigma Blue Pty Ltd, which certified that the estimates for resources and reserves of nickel-bearing saprolitic ores intended to supply the Société Le Nickel pyrometallurgy plant at Doniambo were free of material error and were evaluated acceptably and in compliance with the recommendations of the JORC Code.

Mineral resources

Mineral resources are grouped together according to their classification, using the criteria defined by the SLN geologists and in accordance with the JORC Code definition.

In accordance with the system for describing drilling data, the tonnages and grades given correspond solely to the weathered, ore-bearing phase of saprolites at a defined cut-off grade and not to the saprolitic column as a whole.

DEVELOPMENTS IN MINERAL RESOURCES AT 1 JANUARY 2019

	1 JANUARY 2019			1 JANUARY 2018		
MINERAL RESOURCES	MT	% NI	KTNI	MT	% NI	KTNI
Measured	39.4	2.39	942	39.4	2.41	949
Indicated	65.7	2.42	1,587	63.2	2.42	1,526
Inferred	84.5	2.43	2,053	81.3	2.45	1,992
Total	189.6	2.42	4,582	183.9	2.43	4,467

For the most part, mineral resources are estimated by modelling 3D blocks using linear geostatistical methods for the ore masses as a whole.

Ore tonnages are given in millions of dry tonnes and the humidity contents, whether observed in production in progress or estimated, range from 22 to 45% according to ore mass.

The figures were established with cut-off grades applied to the weathered fraction, the range of which depends on the type of processing (mineralurgical or conventional) and economic conditions.

Changes to the resource figures are due to the combined effects of variations in cut-off grade (increasing at Thio Plateau, decreasing at ORD), the updating of geological models at all of the sites and the mining production conducted in 2018. Work carried out on the Népoui mining centre, the peripheral masses of Kouaoua and other areas such as Me Aiu, Tontouta and Poum, led ultimately to an increase in the mineral resources of more than 2%.

Exploration results

The exploration results also correspond to saprolitic ore. At 1 January 2019, they were assessed as 733 ktNi, slightly down from the previous year (-1%). This change is mainly the result of the conversion of part of the exploration results into resources in the Kouaoua area. Work will continue in the years to come to convert other masses into inferred/indicated mineral resources.

Recoverable resources and reserves

The table below sets out the figures for saprolite recoverable resources and reserves for the Doniambo pyrometallurgy plant surveyed in 2018 and published on 1 January 2019, with the figures published on 1 January 2018 in italics. These figures stem from the above-mentioned mineral resources and factor in the following:

- traditional run-of-mine processing similar to that used at the sites of Société Le Nickel-SLN and/or subcontractors, which includes screening at approximately 80 mm with or without recovery of part of the coarser fractions, depending on the type of ore;
- mineralurgical processing at Népoui-Kopéto and Tiébaghi;
- optimisation of mining projects in the case of reserves.

Ore tonnages are given in millions of dry tonnes, and metal tonnages in thousands of tonnes of nickel content in the ore. Recoverable resources and reserves of ore intended for mineralurgical processing are estimated as "washery concentrate" arising from processing all the ore from Népoui-Kopéto, and 1.8-2.4% Ni range for Tiébaghi.

Measured and indicated recoverable resources are estimated at 1,748 ktNi, with their proportion in inventoried total of 54% remaining stable from the figures published on 1 January 2018. The increase in recoverable resources is essentially a result of the effects on mineral resources.

The inferred recoverable resources, estimated at 1,481 ktNi, are up 3% from the previous year, particularly as a result of work carried out on the peripheral masses of Kouaoua.

SLN's mining production in 2018 amounted to 50.1 ktNi (thousands of tonnes of nickel), corresponding to the tonnages of nickel contained in the ore carried to the various shore sites (wharf or mechanical loading).

RECOVERABLE RESOURCES AND RESERVES AT 1 JANUARY 2019

	1 JANUARY 2019			1 JANUARY 2018		
RECOVERABLE RESOURCES	MT	% NI	KTNI	MT	% NI	KTNI
Measured	24.4	2.56	626	24.9	2.57	642
Indicated	46.2	2.43	1,122	44.8	2.42	1,084
Inferred	60.2	2.46	1,481	58.0	2.48	1,437
Total	130.8	2.47	3,229	127.7	2.48	3,163

	1 JANUARY 2019			1 JANUARY 2018		
RESERVES	MT	% NI	KTNI	MT	% NI	KTNI
Proven	17.1	2.61	446	17.3	2.63	455
Probable	19.2	2.46	473	16.7	2.47	412
Total	36.3	2.53	919	34.0	2.55	867

Reserves are included in recoverable resources, which in turn are included in mineral resources. 232% of recoverable resources consumed in 2018 were renewed.

Reserves are estimated at 919 ktNi at year-end 2018, compared to 867 ktNi published at year-end 2017, which corresponds to a reserve renewal rate of 204%. This increase is the result of the effects mentioned on recoverable resources and the updating of mining projects on the non-central domains of Dothio, Me Aiu, Poro and Poum, despite the withdrawal of reserves of Kouaoua deposits. The proportion of proven reserves decreases from 53% to 49% due to the conversion of mineral resources to probable reserves and the consumption of proven reserves. Survey programmes are planned in 2019 to improve the classification of resources and reserves.

SLN draws up its mining and industrial plan on the basis of all its reserves and part of the recoverable resources regarded as economically exploitable but not yet included in any mining project.

Low-grade mineral resources for hydrometallurgy or export

For the whole of the mineral deposits of Société Le Nickel-SLN and at a cut-off grade of 1.0% Ni, inferred and measured mineral resources in laterites are currently estimated at 6,000 ktNi.

Outside the centres with mineralurgical processing facilities, exploration results on low-grade saprolite zones, which are currently uneconomical for pyrometallurgy processing, point on a preliminary basis of at least 2,000 kt in nickel content which may be exported to be processed by nickel ferroalloy producers.

Estimation work is under way to convert some of the low-grade nickel saprolitic ores into mineral resources and reserves for export development.

The resulting mineral resources for hydrometallurgy or exportation have not been audited to date. They are, however, estimated using the methodology defined for estimating resources intended for the Doniambo plant.

2.5.2.4 Reserves and resources ofPt Weda Bay Nickel

Mineral resources

The data on mineral resources relate to the tonnages, Ni content and thousands of tonnes of nickel contained in ore envelopes within limonite and saprolite strata at a 1% Ni cut-off rate, without applying any transformation or beneficiation factors.

Average dry densities for laterites and saprolites were established on the basis of measurements performed in 1999-2001 and 2008-2012. Given the small proportion of sound dividing rock, the saprolite tonnages and nickel content provided are representative of the saprolitic column as a whole.

Global resources are established by the Pt Weda Bay Nickel geology team, identifying the saprolite and laterite products. They are estimated on 3D block models constrained by a modelled shell with a cut-off content of 1% Ni and are calculated mostly by ordinary kriging and, in some cases, by inverse square distance when variogram quality is considered insufficient.

Local resources were estimated for the Bukit Limber Barat deposit by Tenzing Pty Ltd, and on the Coastal, Tofu Blowen and Kao Rahaï masses, by the Eramet Pt Weda Bay Nickel teams, using multivariate uniform conditioning.

The resulting figures relate to the hypothesis of selective mining guided by a control of the content whose grid of 12.5 m x 12.5 m corresponds to the optimal selection of mining unit size. In this case, studies identified masses made up of ore with an average nickel content varying between 1.8 and 2.0%, representing 35% of the mineral resources measured and indicated for saprolites.

Following the suspension of the project in 2014, there was no major exploration campaign likely to change the figures. However, a reassessment of mineral resources was carried out in 2018 which led to some changes, mainly related to topography corrections, compared to the figures published the previous year.

The figures set out below are from local estimates for the saprolites from the main deposits classed as measured or indicated and of global estimates for the other masses in the saprolites and the laterite horizon.

The mineral resources correspond to an overall nickel tonnage of 9.3 million tonnes, of which almost 60% were classified as measured and indicated resources.

ESTIMATION OF LIMONITE AND SAPROLITE MINERAL RESOURCES AT 1 JANUARY 2019

MINERAL RESOURCES	1 JANUARY 2019		
LIMONITES	MT	% NI	KTNI
Measured	36.2	1.26	457
Indicated	67.4	1.22	822
Inferred	52.4	1.21	636
Total	**155.9**	**1.23**	**1,914**

MINERAL RESOURCES	1 JANUARY 2019		
SAPROLITE	MT	% NI	KTNI
Measured	99.4	1.71	1,700
Indicated	166.4	1.53	2,551
Inferred	213.2	1.49	3,172
Total	**479.0**	**1.55**	**7,423**
Grand Total	634.9	1.47	9,338

Reserves

Due to the postponement of the hydrometallurgical ore processing project, reserves associated with it have not been published. These reserves will have to be updated once an optimal processing project has been decided upon, based on economic parameters related to the adopted process and the type of operation (selective or non-selective) envisaged.

2.5.2.5 TiZir's reserves and resources

Mineral resources

The data on mineral resources are mineral-sand tonnages and heavy-mineral contents (HM) identified in seven adjacent mineral masses. The update of the mineral resources at 1 January 2019 is based on the figures published on 1 January 2018 minus the mineral resources exploited during 2018, corresponding to 51.6 Mt@1.8% HM, and the resources located immediately under the area which have been exploited since 2014, i.e. 1.6 Mt@1.1% HM.

TIZIR MINERAL RESOURCES AT 1 JANUARY 2019

MINERAL RESOURCES	T.V. MT	*IN SITU* HM MT	HM %	ZIRCON %	LEUCOXENE %	RUTILE %	ILMENITE %
Measured	1,411	20.9	1.4	10.7	3.2	2.5	72
Indicated	368	4.8	1.3	10.7	3.2	2.5	72
Inferred	42	0.5	1.2	10.7	3.2	2.5	72
Total	1,821	25.7	1.4	10.7	3.2	2.5	72

Mineral resources are estimated at a cut-off grade of 1.0% HM applied to grade accumulations up to a depth of 6 metres and below the natural groundwater level. For those parts of Yodi and Mboro Hotel where accumulation was limited to the water table surface due to insufficient groundwater sampling results, the block model was extrapolated to six metres below the water table to fill the missing parts. An HM content of 0.7%, equal to the average content between the aquifer surface and six metres below the rest of the deposit, was applied to these missing parts. The heavy metal assemblages (zircon, ilmenite, rutile and leucoxene) are reported in percentages of HM and are identical to those in the 2018 report.

Reserves

The data on reserves corresponds to mineral-sand tonnages and heavy-mineral contents (HM) contained in the dredge path and in the rich adjacent areas pushed with a bulldozer. An economic optimisation was carried out on the dredge path in 2014-2015. As all the sand contained in the dredge route has been recovered and valued, no cut-off grade is applied to calculate the reserves. The reserves incorporate mining dilution and the subtraction of production in 2018, and are based on the economics of the project. Losses of sands and HM registered in the mining and treatment processes, as well as the recovery rates of heavy minerals in the processing plants (WCP and MSP), are not applied in the calculation of reserves. Reserves do not add to mineral resources.

TIZIR'S RESERVES AT 1 JANUARY 2019

RESERVES	ORE IN TONNES MT	HM MT	HM %	ZIRCON %	LEUCOXENE %	RUTILE %	ILMENITE %
Proven	1,331	19.2	1.4	10.7	3.2	2.5	72
Probable	430	4.9	1.1	10.7	3.2	2.5	72
Total	1,761	24.1	1.4	10.7	3.2	2.5	72

Changes in resources and reserves in 2018

Compared with 1 January 2018, mineral resources decreased by 26 Mt of sands and 0.5 Mt of HM in total. The indicated resources have increased by 18 Mt of sand in the now estimated volume 6 metres below the water table surface of the Yodi and Mboro Hotel ore masses. The assumed resources increase by 1 Mt in sands due to the updating of the model block between the contact of the assumed resources and the indicated resources of Mboro Hotel. Grid-shrinkage sampling increased the measured resources by 0.6 Mt in the part where the block model was re-estimated, as new information showed that the amount of peat was less than initially estimated.

Sand reserves decreased by 4 Mt and HM reserves by 0.6 Mt. The decrease in reserves due to the 2018 production has been partly offset by the estimated underground reserves in the Yodi and Mboro Hotel areas.

The dredge route was not fundamentally re-optimised in 2018, however, this project has started and will be finalised in 2019.

The mineral assemblage is maintained with the same model.

2.5.2.6 Resources of Eramine SA

Drainable resources

Drainable resources were updated in August 2017 by Montgomery and Associates acting as "Qualified Persons", at the Centenario and Ratones salt flats.

The calculation used the effective porosities for each lithological unit in the aquifer. The cut-off grade of 200 mg/l was applied to the resource envelopes. The results are presented for the zone located inside the perimeter of the concessions owned by Eramine SA.

The equivalent LCE ("lithium carbonate equivalent") tonnage is calculated using the mass of lithium multiplied by a factor from the atomic mass of each element of lithium carbonate: 5.322785.

DRAINABLE RESOURCES AT 1 JANUARY 2019

DRAINABLE RESOURCES	BRINE VOLUME (MILLIONS OF M³)	AVERAGE DENSITY	LI CONTENT (MG/L)	LCE (KILOTONNES)
Measured	916	1.17	408	1,991
Indicated	1,442	1.16	379	2,912
Inferred	3,010	1.16	311	4,987
Total	5,368	1.16	366	9,890

Extractable resources

Brine volumes and "Lithium Carbonate Equivalent" (LCE) tonnages were calculated for a pumping field including a ramp-up of production over the first two years. The pumping field consists of 27 production wells to produce 24 kt LCE per year. Each well has an extraction rate of 17 l/sec, allowing the actual pumping hours to be calculated. The pumping field is only defined for the Ratonès salt flat.

EXTRACTABLE RESOURCES AT 1 JANUARY 2019 (MODFLOW MODEL 2017)

EXTRACTABLE RESOURCES	LCE AVERAGE ANNUAL MASS AT 40 YEARS (KILOTONNES)	CONCENTRATION OF LITHIUM METAL AT 40 YEARS (MG/L)
Measured (77%) + Indicated (17%) + Inferred (6%)	1,153.5	425

The lithium content is the contents extracted from the shaft field averaged out over the duration of pumping.

The equivalent LCE tonnage is calculated using the mass of lithium multiplied by a factor from the atomic mass of each element of lithium carbonate, or 5.322785.

The average mass of LCE extracted up to the fortieth year of production is 25 kt.

2.5.2.7 Resources of Maboumine

Mineral resources

Data concerning mineral resources refer to tonnages, niobium content and thousands of tonnes of niobium, rare-earth metal content (metal equivalent) and thousands of tonnes of rare-earth metals, tantalum content and thousands of tonnes of tantalum, and uranium content and thousands of tonnes of uranium in the superficial banded ore estimated in the 3D modelled envelope, with no application of any transformation or beneficiation factors. The mineral resources of the superficial banded ore are calculated with a cut-off grade of 0.4% Nb_2O_5.

The average dry densities of the ores were established on the basis of measurements performed in 2013.

Global resources are estimated by ordinary kriging in a 3D block model.

Mineral resources and their classification were certified in 2015 by SGS Géostat. The distinction between inferred mineral resources (1) and (2) is based on the level of information relative to the estimated elements with TR, Ta and U not estimated in inferred resources (2).

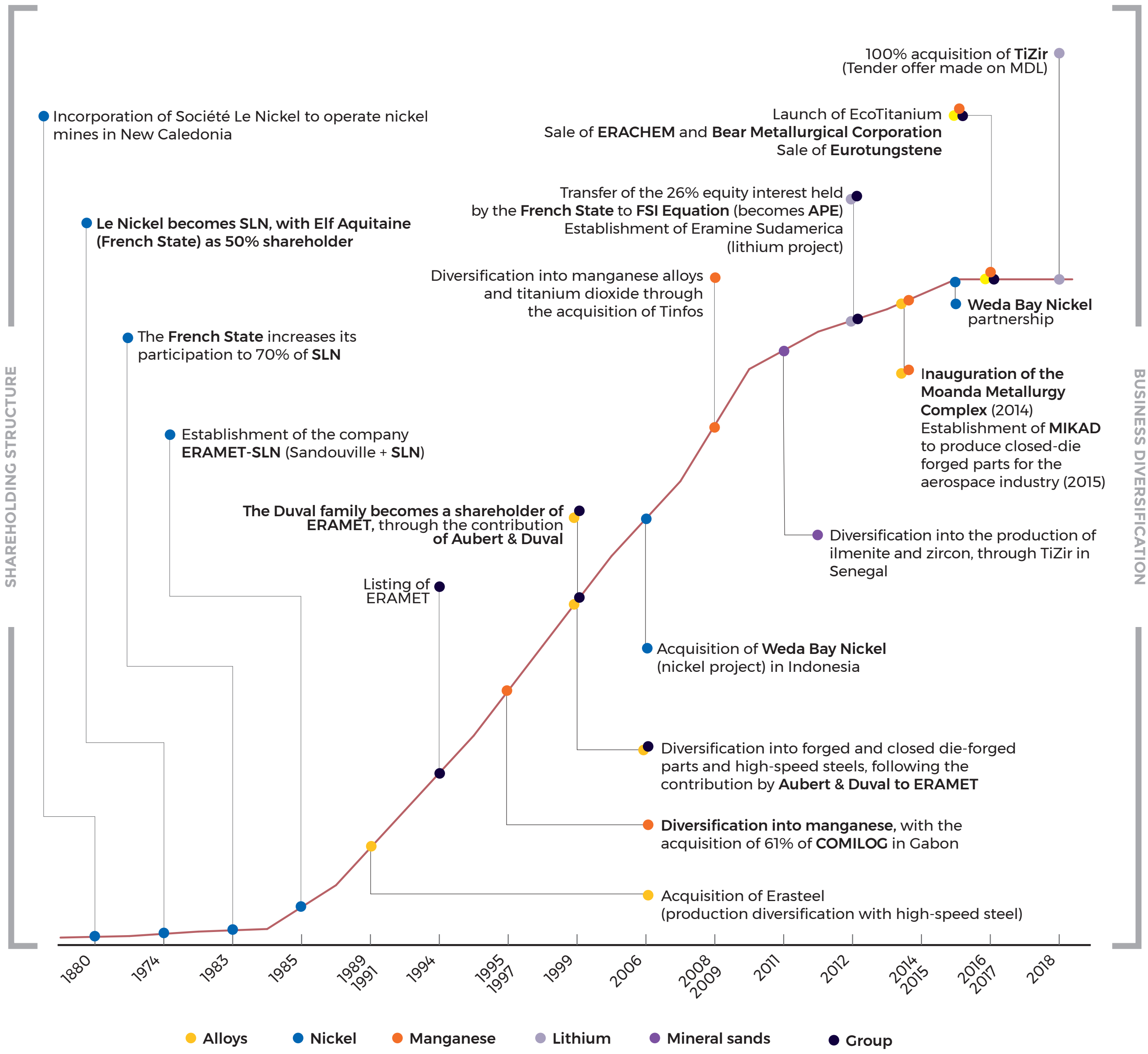
MINERAL RESOURCES FOR SUPERFICIAL BANDED ORE WITH A CUT-OFF GRADE OF 0.4% NB_2O_5

MINERAL RESOURCES	MT	% NB	KTNB	% TR	KTTR	% TA	KTTA	% U	KTU
Measured	66.5	0.98	650	0.97	644	0.03	20	0.02	15
Indicated	-	-	-	-	-	-	-	-	-
Inferred (1)	79.3	0.7	554	1.04	828	0.02	16	0.02	16
Inferred (2)	49.7	0.85	420		219*	-	NE	-	NE

NE: Not estimated.
* *Estimated for Cerium only.*

The figures presented are rounded to 100,000 tonnes for ore and 1,000 tonnes for metals. Grades are calculated on rounded tonnages.

2.6 Company History



1880

Société Le Nickel was incorporated in 1880 to operate nickel mines in New Caledonia. Under the majority control of the Rothschild family since the end of the 19th century, in the late 1960s it became the parent company of all the Rothschild group's mining subsidiaries (Le Nickel-Peñarroya-Mokta group).

1974

The nickel business was spun off into a subsidiary under the name Société Métallurgique Le Nickel-SLN: Elf Aquitaine acquired a 50% interest in this new company. The former company Société Le Nickel changed its name to Imétal, thereafter holding the remaining 50% in Société Métallurgique Le Nickel-SLN.

1983

As part of an industrial, shareholding and financial restructuring programme, ERAP, a French state-owned company, acquired a 70% stake in the share capital of Société Métallurgique Le Nickel-SLN. Imétal and Elf Aquitaine's interests were reduced to 15% each.

1985

Société Métallurgique Le Nickel-SLN, owner of the mining assets in New Caledonia, became a wholly-owned subsidiary of a new parent company known as Eramet-SLN, in which the shareholders continued to be ERAP (70%), Imétal (15%) and Elf Aquitaine (15%).

From 1989 onwards in order to smooth out the effects of nickel cycles, the Company adopted a strategy of diversifying in complementary business activities.

1989-1991

Acquisition of the French company La Commentryenne and Swedish company Kloster Speedsteel in the high-speed steels sector. These two companies were merged in 1992 to form a new company known as Erasteel.

1991

Long-term commercial and financial partnership with Nisshin Steel. At the end of October 1994, Nisshin Steel held a 10% stake in Société Métallurgique Le Nickel-SLN.

1992

Société Métallurgique Le Nickel-SLN and Eramet-SLN took on their current names of Société Le Nickel-SLN and Eramet, respectively.

1994

A private placement was followed by a listing of 30% of Eramet's share capital on the Paris Stock Exchange's *"Second Marché"*.

1994

The BRGM group (Bureau de Recherches Géologiques et Minières, a French state-owned company) transferred ownership of its Cofremmi subsidiary, the owner of nickel ore reserves in New Caledonia, in return for shares representing 2.34% of Eramet's new share capital.

1995-1996

Eramet acquired a 46% stake in Comilog (Gabon), a producer of manganese ore, ferromanganese and manganese-based chemicals.

1997

Eramet acquired from Gengabon (Gencor Group) a further 15% of the share capital of Comilog.

1999

- The Group consolidated SIMA (Duval family), a producer and transformer of high-performance special steels;
- Sale of a 30% stake in Société Le Nickel-SLN to ERAP in exchange for Eramet shares; ERAP then transferred the stake to a New Caledonian publicly-owned entity, Société Territoriale Calédonienne de Participation Industrielle (STCPI). The French government sold ERAP's remaining interest to Cogema, which then became part of the AREVA group;

After these operations, the Group's businesses were organised into three Divisions — Nickel, Manganese and Alloys — and the Group's capital was mostly held by private shareholders (Cogema/AREVA and SORAME/CEIR — Duval family), with the French government retaining a non-controlling interest.

2000

Inauguration of the Moanda industrial complex in Gabon.

2002

Acquisition of the Guilin manganese alloy plant (China).

2006

Acquisition of Weda Bay Nickel in Indonesia.

2007

Shares in Eramet were swapped for those in SLN for STCPI as part of the SLN shareholders' agreement.

2008

- Acquisition of a 58.93% controlling interest in the Norwegian group Tinfos.
- Creation of UKAD for preliminary mining and first transformation of titanium (forging bars).

2009

- Eramet increased its stake in Eralloys (formerly Tinfos, Norway) to 100% after buying up the non-controlling interests. Sale of Nizi, an international trading business acquired in 2008 with Tinfos.
- Acquisition of Valdi (France), engaged in the recycling of non-ferrous metals.

2011

Creation of TiZir, a joint venture in mineral sands with Mineral Deposits Ltd.

2012

- Acquisition by FSI Equation, a subsidiary of Fonds Stratégique d'Investissement (which became Bpifrance, and later a subsidiary of APE) of the Eramet shares previously held by Areva.
- Diversification into lithium production with the discovery of a deposit in Argentina, taken on by Eramine Sudamerica (lithium project).

2013

Appointment, following a joint nomination by BPI and by SORAME and CEIR, of a director to represent Gabon on the Eramet Board.

2014

Start-up of the Moanda metallurgy complex in Gabon and (via TiZir) of Grande Côte in Senegal (mineral sands).

2015

- Launch of EcoTitanium, Europe's leading producer of aviation-grade titanium producer using recycled materials.
- Creation of MKAD, a new plant machining large titanium parts, a joint venture between Aubert & Duval and Mecachrome. The aim is to use the plant to transform the titanium produced by EcoTitanium.

2016

- Start of MKAD production.
- Opening of the *École des mines* in Moanda.

2017

- Launch of EcoTitanium.
- The Weda Bay Nickel partnership is signed with the Chinese company Tsingshan, the world's largest producer of stainless steel.

2018

- Success of the tender offer (OPA — *offre publique d'achat*) made on Mineral Deposits Ltd.: 100% acquisition of TiZir.
- Sale of the Guilin manganese alloy plant (China).
- Lifting of the preconditions of the agreement signed with Tsingshan regarding the Weda Bay Nickel deposit and effective implementation of the partnership (shareholding: Eramet 43%/Tsingshan 57%).

III. Individual and consolidated financial statements

3.1 Consolidated financial statements for 2018

Income Statement

(€ MILLION)	NOTES	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Sales	**2**	**3,725**	**3,528**
Other income		24	24
Cost of sales		(2,721)	(2,519)
Administrative and selling expenses		(172)	(160)
Research and Development expenditure		(28)	(28)
EBITDA	**2**	**828**	**845**
Amortisation and depreciation of non-current assets and provision for liabilities and charges		(253)	(247)
Current operating income	**2**	**574**	**598**
Other operating income and expenses	3	(177)	(85)
Operating income		**398**	**513**
Financial income		(84)	(93)
Share of income from joint ventures and associates	6	48	18
Income tax	7	(243)	(216)
Net income for the period		**119**	**222**
Attributable to non-controlling interests	3	67	19
Attributable to equity holders of the parent		53	203
Basic earning per share (€)		2.00	7.67
Diluted earning per share (€)		1.83	7.03

Statement of comprehensive income

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Net income for the period	**119**	**222**
Translation differences for subsidiaries' financial statements in foreign currency	(61)	(58)
Change in the fair value reserve for bonds	(9)	(3)
Change in revaluation reserve for hedging instruments	(9)	35
Income taxes	(8)	(7)
Items recyclable to profit or loss	**(86)**	**(33)**
Revaluation of net defined benefit plan liabilities	6	6
Income taxes	(1)	(1)
Items not recyclable to profit or loss	**5**	**5**
Other comprehensive income	**(81)**	**(28)**
• attributable to non-controlling interests	2	
• **attributable to equity holders of the parent**	**(83)**	**(28)**
Total comprehensive income	38	194
• attributable to non-controlling interests	69	19
• **attributable to equity holders of the parent**	**(31)**	**175**

These items are listed in the table of changes in equity under the section relating to Other Comprehensive Income (OCI).

Statement of cash flows

(€ MILLION)	NOTES	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Operating activities			
Net income for the period		119	222
Non-cash income and expenses		375	260
Cash flow from operations		**494**	**482**
Net change in working capital requirement (WCR)	5	(57)	205
Net cash flow from operating activities[(1)]	**2**	**437**	**687**
Investing activities			
Acquisition of non-current assets	6	(275)	(236)
Disposal of non-current assets		(24)	31
Net change in non-current financial assets		(6)	(3)
Net change in current financial assets	4	(123)	(63)
Joint ventures capital increase		-	(9)
Share capital increase — controlled companies		-	
Impact of changes in consolidation scope		(171)	13
Net cash used in investing activities		**(599)**	**(267)**
Financing activities			
Issue of equity instruments (ODIRNAN)		-	
Dividends paid to non-controlling interests		(59)	
Payment of dividends and ODIRNAN		(65)	(4)
Buyback of equity shares		1	(8)
Issue of new debt	4	121	876
Loan repayments	4	(617)	(1,011)
Change in bank overdrafts	4	(20)	32
Other changes	4	(9)	(9)
Net cash used in financing activities		**(648)**	**(124)**
Impact of changes in exchange rate		5	(3)
Increase (decrease) in cash and cash equivalents		(805)	293
Opening cash and cash equivalents	**4**	**1,653**	**1,360**
Closing cash and cash equivalents	**4**	**848**	**1,653**
(1) Including under operating activities			
Interest income		*12*	*13*
Interest paid		*(93)*	*(81)*
Tax paid		*(205)*	*(56)*

Statement of changes in equity

(€ MILLION)	NUMBER OF SHARES	CAPITAL	SHARE PRE-MIUMS	RESERVES/ FAIR VALUE AVAILABLE-EXPENSES	RESERVES/ HEDGING INSTRU-MENTS	RESERVES/ DEFINED BENEFIT PLANS	TRANS-LATION ADJUST-MENTS	OTHER RE-SERVES	ATTRIBU-TABLE TO EQUITY HOLDERS OF THE PARENT	ATTRIBU-TABLE TO NON-CONTROL-LING INTERESTS	CAPITAL EQUITY
Shareholders' equity at 1 January 2017	26,550,443	81	374	9	(29)	(74)	47	1,107	1,515	276	1,791
Net income for the period – H1 2017								**203**	**203**	**19**	**222**
Other comprehensive income				(4)	20	9	(53)		(28)		(28)
Total comprehensive income		**-**	**-**	**(4)**	**20**	**9**	**(53)**	**203**	**175**	**19**	**194**
Share capital increase	83,217		3					(3)	-		-
Share-based payment								6	6		6
Buyback of equity shares								(8)	(8)		(8)
Equity instruments (ODIRNAN)								(4)	(4)		(4)
Other movements								10	10		10
Total transactions with shareholders	**83,217**	**-**	**3**	**-**	**-**	**-**	**-**	**1**	**4**	**-**	**4**
Shareholders' equity at 31 December 2017	26,633,660	81	377	5	(9)	(65)	(6)	1,311	1,694	295	1,989
Shareholders' equity at 1 January 2018	26,633,660	81	377	4	(9)	(65)	(6)	1,308	1,690	295	1,985
Net income for the period								**53**	**53**	**67**	**119**
Other comprehensive income				(14)	(10)	2	(61)		(83)	2	(81)
Total comprehensive income		**-**	**-**	**(14)**	**(10)**	**2**	**(61)**	**53**	**(30)**	**69**	**38**
Share capital increase	2,224	0							0		0
Distribution of dividends								(61)	(61)	(59)	(120)
Interest on equity instruments (ODIRNAN)								(4)	(4)		(4)
Share-based payment								9	9		9
Buyback of equity shares									-		-
Other movements								1	1	(1)	0
Total transactions with shareholders		**0**	**-**	**-**	**-**	**-**	**-**	**(54)**	**(54)**	**(60)**	**(115)**
Shareholders' equity at 31 December 2018	26,635,884	81	377	(10)	(19)	(63)	(67)	1,307	1,606	303	1,909

Main components of changes in equity

Premiums essentially consist of issue premiums, representing the difference between the par value of the shares issued and the amount of the contributions in cash or in kind received on issue.

Fair-value reserves on financial assets include changes in the fair value of bonds classified as Other current financial assets.

Hedging instrument reserves comprise the cumulative change in the effective portion of the fair value of derivatives relating to future cash flow hedging in connection with transactions that have not yet impacted the Net income for the period. This is offset in Derivatives under assets or liabilities, depending on whether hedging gains or losses are recognised.

Reserves on Defined benefit plans include the impact of changes in actuarial assumptions used for commitments, and the variance between actual returns and the discount rates on the plans' hedging assets.

Translation adjustments account for the conversion differences deriving from the translation of the financial statements of foreign subsidiaries into euros. They also include the fair value changes of the net investment hedges of foreign subsidiaries.

At 31 December 2018

Shareholders' equity was impacted at the beginning of the period by the application of the new IFRS 9 standard applicable from 1 January 2018.

(€ MILLION)	CAPITAL	SHARE PRE-MIUMS	RESERVES/ FAIR VALUE AVAILABLE-EXPENSES	RESERVES/ HEDGING INSTRU-MENTS	RESERVES/ DEFINED BENEFIT PLANS	TRANS-LATION ADJUST-MENTS	OTHER RESERVES	ATTRIBU-TABLE TO EQUITY HOLDERS OF THE PARENT	ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	CAPITAL EQUITY
Shareholders' equity at 31 December 2017	**81**	**377**	**5**	**(9)**	**(65)**	**(6)**	**1,311**	**1,694**	**295**	**1,989**
IFRS 9 – impairment of trade receivables		-					(2)	(2)		(2)
IFRS 9 – debt renegotiation							(2)	(2)		(2)
IFRS 9 – classification of financial assets			(1)				1	-		-
Total impacts at beginning of period	**-**	**-**	**(1)**	**-**	**-**	**-**	**(3)**	**(4)**	**-**	**(4)**
Shareholders' equity at 1 January 2018	81	377	4	(9)	(65)	(6)	1,308	1,690	295	1,985

In addition, the significant movements in the Group's translation reserves are related to changes in the scope of consolidation during the period, with the sale of Strand-Weda Bay in the first half of the year and the acquisition of Mineral Deposit Limited and the full consolidation of TiZir in the second half.

At 31 December 2017

Eramet bought a total of 145,000 of its treasury shares in the market in 2017, at a total cost of €8 million.

Balance sheet

(€ MILLION)	NOTES	31/12/2018	31/12/2017
Intangible assets and goodwill		455	349
Property, plant and equipment	6	2,287	1,924
Investments in joint ventures and associates	6	29	115
Non-current financial assets		235	121
Deferred tax assets		6	2
Other non-current assets		11	86
Non-current assets		**3,023**	**2,597**
Inventories	5	947	849
Customers	5	395	361
Other current assets		209	170
Tax receivables		31	22
Derivatives – assets		25	47
Current financial assets	4	517	394
Cash and cash equivalents	4	848	1,653
Current assets		**2,972**	**3,496**
Total assets		5,995	6,093

(€ MILLION)	NOTES	31/12/2018	31/12/2017
Capital		81	81
Share premiums		377	377
Revaluation reserve for available-for-sale assets		(10)	5
Revaluation reserve for hedging instruments		(19)	(9)
Revaluation reserve for defined benefit plan liabilities		(63)	(65)
Translation adjustments		(67)	(6)
Other reserves		1,307	1,311
Attributable to equity holders of the parent		**1,606**	**1,694**
Attributable to non-controlling interests	3	303	295
Shareholders' equity		**1,909**	**1,989**
Employee-related liabilities		188	204
Provisions – long-term portion (more than one year)	8	579	494
Deferred tax liabilities		207	173
Non-current borrowings – due after more than one year	4	1,701	1,602
Other non-current liabilities		1	4
Non-current liabilities		**2,676**	**2,477**
Current provisions – due in less than one year	8	27	31
Current borrowings – due in less than one year	4	381	682
Suppliers	5	391	363
Other current liabilities		407	328
Tax payables		144	168
Derivatives – liabilities		60	55
Current liabilities		**1,410**	**1,627**
Total liabilities		5,995	6,093

Notes to the consolidated statements

Eramet is a French public limited company with a Board of Directors, governed by the provisions of Articles L. 225-17 and R. 225-1 *et seq.* of the French Commercial Code and the provisions of its Articles of Association. As required by law, the Company is audited by two Statutory Auditors.

The Eramet Group's consolidated financial statements at 31 December 2018 were approved by the Eramet Board of Directors on 20 February 2019.

The accompanying notes are an integral part of the consolidated financial statements.

Note 1 Description of the Eramet Group's business

Eramet is one of the world's leading producers of manganese and nickel, used to improve the properties of steels, mineral sands (titanium dioxide and zircon), parts and semi-finished products made of high-performance alloys and special steels used by industries such as aeronautics, power generation and tooling.

The Eramet Group is divided into business units grouped into two Divisions corresponding to the Group's activities.

The Mining and Metals division encompasses the following:

- **The Manganese Business Unit extracts and processes manganese ore:**
  - **Comilog** operates the Moanda mine and industrial and metallurgical facilities in Gabon.
  - The manganese ore extracted is either marketed to downstream industries or processed in the Group's metallurgical plants in Gabon, France, Norway and the United States. The Group produces the widest range of alloys on the market.
- **The Nickel Business Unit extracts and processes nickel ore:**
  - The company **Société Le Nickel-SLN** operates five mines and one ferronickel producing metallurgical plant in New Caledonia.
  - Eramet **Sandouville** is a refinery which produces pure nickel, nickel chloride, nickel carbonate and cobalt chloride.
  - In addition, the Eramet Group owns 43% of **Pt Weda Bay Nickel,** a company that operates a major nickel deposit in Indonesia, with the construction of a nickel smelting plant.
- **The Mineral Sands Business Unit, through the company TiZir, extracts and develops mineral sands, mainly zircon and titanium dioxide slag:**
  - TiZir owns a mine in Senegal through Grande Côte (GCO) and the TiZir Titanium & Iron (TTI) metallurgical conversion plant in Norway.

- Grande Côte (GCO) mines a deposit of mineral sands: titaniferous ore (ilmenite, rutile, leucoxene) and zircon.
- The ilmenite is then transformed into titanium dioxide slag and high-purity pig iron at the TTI plant.

- **The Lithium Business Unit** was set up to mine and process the lithium deposit in Argentina through the company Eramine. In the financial statements for the year ended 31 December 2018, the figures relating to this business unit, mainly consisting of pre-operating expenses (studies), are reported as part of the Holding business unit.

The High Performance Alloys division develops, designs and transforms alloys.

Aubert & Duval and **Erasteel** make special steels and superalloys, in particular for the aeronautics and power generation sectors. These markets require high added-value metallurgical expertise.

This Division encompasses the following:

- The **Die-Forged Parts** and **Rolled and Forged Products** Business Units include Aubert & Duval's activities.
- The **High-Speed Steels and Recycling** Business Unit encompasses Erasteel's activities.

A global group with a presence in 20 countries, Eramet relies on high-quality mining reserves, particularly in Gabon and New Caledonia, world-class research and development, high-performance industrial facilities and high-level expertise.

Eramet has embarked on a strategic and managerial transformation aimed at ensuring competitiveness in a changing environment and sustainable value creation for all stakeholders.

The Group is also developing strategic metal production projects and virtuous recycling solutions in order to establish a presence on the energy transition market.

The Group employs around 12,705 people in 20 countries.

Note 2 Key events in the reporting period

1 Finalisation of the partnership agreement for the development of the Weda Bay nickel deposit

On 8 June 2017, following Eramet's Board approval, a partnership agreement was signed with the Chinese steel group Tsingshan, the world's leading stainless steel producer, in order to realize the value of this asset.

This partnership will cause the production, in Indonesia, of a nickel ferroalloy for a contained nickel volume of around 30,000 tonnes a year, using Weda Bay mining production and a pyrometallurgical process plant.

On 21 September 2017, the preliminary conditions for Tsingshan, through its subsidiary Newstride Ltd. Co ("Newstride), to become a shareholder of Strand were fulfilled. Subsequently, at this date Newstride acquired 57% of Strand's capital through a reserved capital increase, partially paid.

On 19 May 2018, as all necessary conditions to complete the partnership between Tsingshan and Eramet were secured, Strand's capital increase, reserved to Newstride, has been fully paid. Following this operation, Eramet now owns 43% of Strand's shares and Tsingshan 57%. The completion of the transaction in the first half of 2018 led to a change of control over Strand Minerals Pte Ltd and Pt Weda Bay Nickel, resulting in a profit of €147 million in the consolidated financial statements as of 31 December 2018.

2 Takeover bid for the shares of Mineral Deposits Limited

On 14 May, Eramet announced the launch of a public takeover bid to acquire all the shares issued by Mineral Deposits Limited (MDL), which holds a 50% stake in TiZir. This bid, at a price of AUD 1.75 per share, was finalised allowing the effective takeover of 100% control of the TiZir companies at the beginning of July 2018. TiZir was accounted for under the equity method up to 30 June 2018 and has been fully consolidated since 1 July 2018. This transaction generated goodwill of €83 million in the financial statements at 31 December 2018, and effects resulting from the fair value accounting of the equity investment sold have been accounted in other operating income (Note 6). The allocation of the acquisition price will be completed within 12 months of the date on which control was acquired, i.e. no later than 1 July 2019.

3 Disposal of Guilin

In May 2018, the Eramet Group signed an agreement to sell the assets of Guilin to Reco Investment Pte Ltd and Shanghai Qunxian International Trading Co. (a Shanghai-based manganese ore trading company) following the restructuring of Comilog Asia Ferro Alloys Ltd.

This transaction, effective on 30 June 2018, generated a gain on disposal of €11 million in the consolidated financial statements at 31 December 2018.

4 Recognition of a €200 million impairment loss on the assets of the Aubert & Duval CGU

A review of the key valuation factors of Aubert & Duval following the CGU's underperformance in 2018, combined with the strategic review carried out during the year, led the Group to review the economic assumptions of the long-term plan, resulting in the recognition of a depreciation of €200 million in the assets of Aubert & Duval in the financial statements at 31 December 2018.

This impact is analysed in Note 10 to the consolidated financial statements.

5 Review of the quality process within the High Performance Alloys division

As part of an internal review of the quality processes at Aubert & Duval, non-conformities in the quality management system were noted. Internal analyses and the implementation of additional audit procedures, carried out in collaboration with customers, have not to date shown any negative impact on the safety of the products in use. At 31 December 2018, a provision of €65 million was recognised in the Division's financial statements to take into account the estimated cost to date of completing this in-depth review of the quality processes, in particular consultancy costs.

6 Continuation of the restructuring plan and new economic model of Société Le Nickel-SLN (SLN)

In 2018, SLN, one of the Group's main subsidiaries, benefited from the rise in nickel prices due to the growth in the volume of ore exported. However, the euro/dollar exchange rate, the increase in the price of fuel oil and difficulties in mining operations prevented the generation of a positive operating result. In order to enable going concern, SLN develops a new economic model, shifting the balance on the mining and metallurgy sectors, with a target of 4 million tonnes of ore exported before plant treatment by 2021, combined with an improvement in operational performance (lower fixed costs and productivity gains for mines and plants).

Based on these improvements and expected developments in nickel prices, the financing of €525 million (€320 million used at 31 December 2018) put in place by Eramet and the French government will enable SLN to meet its commitments until mid-2020.

7 Application of the new IFRS standards that came into force on 1 January 2018

IFRS 9, Financial Instruments and IFRS 15, Revenue from Contracts with Customers, which are mandatory as of 1 January 2018, have been implemented in the Group's financial statements (see Note 3). The new approaches developed as a result of these standards appear to have no major impact on the financial statements.

An assessment of the accounting impacts of IFRS 16, Leases, which will apply as of 1 January 2019, is currently being finalised and is presented in Note 3.

8 Repayment of the *Schuldschein* loan

On 18 June 2018, the Group completed the early repayment of the *Schuldschein* loan of €60 million taken out by Eramet S.A. with a maturity of 2020.

9 Final repayment of the drawdown on the revolving credit facility

On 19 January 2018, Eramet repaid the balance of €250 million of the drawdown on the Revolving Credit Facility (RCF).

This same facility was extended on 13 February 2018 for an amount of €981 million and for a five-year term, with a new maturity in January 2023. No lines of this RCF have been drawn down to date.

10 Relocation of Eramet S.A.'s head office

Having been located in the Tour Montparnasse since its construction in 1973, Eramet moved to new offices at 10, boulevard de Grenelle on 4 June 2018, in line with its managerial transformation project "NeWays".

11 Subscription of a new long-term loan with the European Investment Bank

In October 2018, the Group signed a new €120 million loan with the European Investment Bank to finance investments in research, development and innovation (RDI) in digitalisation and advanced manufacturing.

As at 31 December 2018, this loan had not yet been drawn down.

Note 3 Basis of preparation of the consolidated financial statements

General principles and declaration of compliance

Pursuant to European Regulation 1606/2002 of 19 July 2002 on the application of international accounting standards, the consolidated financial statements of the Eramet Group for the financial year ended 31 December 2018 have been prepared in euros rounded to the nearest million, unless instructed otherwise, in accordance with IFRS (International Financial Reporting Standards) as adopted by the European Union at 31 December 2018.

The accounting principles applied for the preparation of the annual consolidated financial statements are in line with IFRS and the related interpretations, as adopted by the European Union at 31 December 2018 and available on the website: http://ec.europa.eu/finance/accounting/ias/index_fr.htm.

The accounting principles and methods applied for the consolidated financial statements at 31 December 2018 are identical to those used for the consolidated financial statements at 31 December 2017, with the exception of IFRS standards, amendments and interpretations as adopted by the European Union and issued by IASB whose application is only mandatory for reporting periods beginning on or after 1 January 2018 (and which had not been applied early by the Eramet Group).

The Group has therefore implemented **IFRS 15** — Revenue from Contracts with Customers and **IFRS 9** — Financial Instruments for the first time. The nature and effects of these changes are described below. Their application has no material impact on the Group's financial statements.

The application of **IFRIC 22** — Foreign Currency Transactions and Advance Consideration as of 1 January 2018 had no material impact on the Group's financial statements and did not result in any impact being recognised in the consolidated financial statements due to the non-material nature of advances paid or received in foreign currencies.

The Eramet Group has not implemented the standards, interpretations and amendments published by IASB and IFRS IC (IFRS Interpretations Committee) whose application was not mandatory for the reporting periods beginning on or after 1 January 2018, in particular IFRIC 23 — Uncertainty over Income Tax Treatments and IFRS 16 — Leases. These are currently being studied to estimate their potential impact. The Group's work on the first-time adoption of IFRS 16 is presented below.

Impact of the application of the new IFRS standards applicable from 1 January 2018 (IFRS 9, IFRS 15)

Application of IFRS 15, Revenue from Contracts with Customers

IFRS 15 replaces IAS 11 — Construction Contracts, IAS 18 — Revenue and related interpretations and applies to all income from customer contracts except that covered by other standards.

The standard requires the exercise of judgement, taking into consideration all facts and circumstances that can be implemented in customer contracts following a five-step model. Under IFRS 15, revenue is recognised in an amount that reflects the consideration expected in exchange for the transfer of control of goods or services to a customer. The standard also specifies how the costs incurred in signing or renewing a contract with a customer are recognised.

To implement this new standard, the Group has opted for a retrospective application as of 1 January 2018, known as the "cumulative method".

In relation to the application of IFRS 15, the Group notes limited and immaterial impacts on the revenue recognition methods.

The Group's performance obligations mainly consist of the sale of ores and manufactured products made of steels, alloys and superalloys, the transfer of ownership of which triggers the recognition of revenue.

However, the breakdown of certain customer contracts into two separate performance obligations (sale of goods and provision of transport/insurance services) has led the Group to modify its revenue recognition procedures to take into account the separate performance obligation related to the provision of transport services. These non-material impacts were recognised in the Group's consolidated financial statements at 31 December 2018, and have no impact on the Group's equity income statement at the beginning of the period.

In addition, since the nature of the service contracts constituting the performance obligations of the two Group Divisions does not give rise to a time lag between the transfer of control and the recognition of revenue due to the absence of long-term services, the Group does not recognise any contract assets or liabilities.

Finally, the Group's service contracts do not include any firm performance obligations to be delivered after the balance sheet date. Existing "framework" contracts governing performance obligations in future years within the High Performance Alloys division do not contain any firm orders and consist of the attribution of a percentage of future production, without measuring the completion date or the expected level of service.

Accordingly, the Group's accounting principles and methods for revenue recognition have been modified in Note 5 to take into account the changes related to the application of IFRS 15.

Application of IFRS 9 – Financial Instruments

IFRS 9 replaces IAS 39 — Financial Instruments: Recognition and Measurement as of 1 January 2018, combining the three aspects of financial instrument recognition: recognition and measurement, impairment and hedge accounting.

The Group has applied IFRS 9 retrospectively without restating comparative periods.

The impact of the first-time adoption of this standard, which was recognised separately in shareholder's equity at the beginning of the 2018 financial year, had no material effect on the Group's balance sheet, income statement or consolidated shareholders' equity at 31 December 2018. This impact is detailed below.

The Group's accounting principles and methods have been modified and supplemented to reflect the provisions of IFRS 9.

Classification of financial assets

An assessment of the impact of the adoption of IFRS 9 on the consolidated financial statements did not lead the Group to note any material impact. The methods for classifying and measuring financial assets have been reassessed with regard to the Group's portfolio of financial assets in order to take into account IFRS 9 categories and their valuation method, without this having an impact on the accounting methods.

The transition from IAS 39 to IFRS 9 had no impact on the balance sheet value of financial assets, and therefore no impact on the Group's equity.

The Group's portfolio consists of financial assets that:

- meet the objective of collecting contractual flows and then selling (bond portfolio), which will continue to be measured at fair value through equity, apart from their credit risk component, which will be assessed according to their categorisation and recognised in the income statement;
- meet the objective of collecting contractual flows until maturity (financial loans), which will continue to be valued at amortised cost;
- correspond to non-consolidated equity investments, the changes in fair value of which are recognised in profit or loss;
- correspond to trading instruments, measured at fair value through profit or loss.

The Group's accounting policies regarding the recognition of current financial assets have been modified as follows to reflect the provisions of IFRS 9:

Impairment of financial and trade receivables

Trade receivables and related accounts are depreciated using the simplified IFRS 9 impairment model, particularly given their generally short-term maturity.

For these assets, the evolution of credit risk is assessed at two levels, collective and individual.

At the collective level, impairment for expected credit losses is calculated for all customers with the exception of guaranteed receivables for which no collective impairment is recognised.

At the individual level, a receivable is impaired when it is more than probable that it will not be recovered and it is possible to reasonably estimate the amount of the impairment based on the history of the credit losses, the prior period and an estimate of the risks. This impairment, offset in Current operating income, is deducted from the gross value of the receivable.

The impairment of other financial assets is not impacted by IFRS 9 as at 1 January 2018.

The Group's accounting policies for the recognition of trade receivables and other current assets have been modified to reflect the provisions of IFRS 9.

Renegotiation of financial liabilities

When a debt restructuring does not substantially modify existing debt, IFRS 9 requires the application of "modification accounting". The debt, which is maintained on the balance sheet, is revalued at the original overall effective interest rate on the basis of the new flows. The difference between the carrying amount before renegotiation and the discounted value of the flows revised to the original EIR is recognised in the income statement.

The TiZir bond issue of July 2017 must be treated under IFRS 9 as a liability on the Group's balance sheet, revalued in accordance with the provisions of IFRS 9. The non-material impact was recognised as a reduction in shareholders' equity at 1 January 2018.

The Group's accounting policies regarding the recognition of financial debt have been modified to reflect the provisions of IFRS 9.

Hedge accounting

The Group applies IFRS 9 phase 3 to its hedge accounting.

Variation of time value are now accounted according to the IFRS 9 GAAP in other comprehensive income.

The Group's accounting policies regarding the recognition of financial instruments have been modified to reflect the provisions of IFRS 9.

Application of IAS 29

Argentina has been considered a hyperinflationary economy per IAS 29 since 1 July 2018 in regards to the Group's activity in Argentina through its subsidiary Eramine. Given the onset of the start-up phase of the Lithium activity in Argentina, the Group's exposure reflected in the financial statements is not material.

Progress of the project to implement the new IFRS 16 standard

The impact of the application of **IFRS 16 — Leases** as of 1 January 2019 is currently being assessed with the completion of a detailed inventory of applicable lease agreements. This monitoring is based on the procedures in place for reporting information via a dedicated management tool, ViaReport Lease, which was implemented in the second half of 2017 to enable the operational monitoring of contracts and the automation of restatements.

The Group has elected to transition to the modified retrospective application method.

The application of this new standard will have an upward impact on net debt and fixed assets and an improvement in EBITDA.

The first estimates will allow the Group to consider an increase in its net debt of around 12% to 17% under the first application of IFRS 16 at 1 January 2019.

This estimate may be reviewed and adjusted in the light of work still in progress on the identification and qualification of lease agreements. Additional analyses need to be carried out in order to validate the eligibility of certain contracts, which could lead to an upward revision of this estimate.

Note 4 Operational performance of Divisions and the Group — segment reporting

The Eramet Group is composed of Divisions divided into business units (BUs) to manage the Group's activities. The Mining and Metals division includes the Nickel, Manganese and Mineral Sands BUs. The High Performance Alloys division includes the activities of Aubert & Duval and Erasteel. Each BU offers different products and services and relies on distinct technologies and sales strategies. Their operational and financial performance is therefore monitored separately. Their contribution to the main financial indicators of the Group is given below.

ACCOUNTING METHOD	ESTIMATES, ASSUMPTIONS AND JUDGEMENTS
Financial information on the Divisions and business units is prepared in accordance with the accounting principles adopted for the Group's reporting. In this context, the operational performance of joint ventures — the sub-group TiZir up to 30 June 2018 (Mineral Sands BU) and UKAD (High Performance Alloys division) — are accounted for using the proportional consolidation method. The reconciliation with the published data is given in the Joint venture contribution column. Transactions between Divisions and business units are carried out under market conditions.	The Executive Committee, the chief operating decision-maker, regularly assesses the performance of each Division and business unit against the following indicators: • **Sales;** • **EBITDA,** including the gross profit (difference between sales and the cost of sales), administrative and selling expenses and research and development expenditure before depreciation, amortisation and provisions, which are presented separately; • **Current operating income,** including EBITDA, depreciation and amortisation and provisions for liabilities and charges. Current operating income excludes material transactions that are considered to be unusual in nature, in particular events relating to restructuring, impairment losses and disposals of assets; • **Cash flows generated by operating activities** including EBITDA, other operational cash flows not impacting EBITDA and the change in working capital requirement (WCR); • **Industrial investments,** including acquisitions of intangible assets and property, plant and equipment. The Executive Committee also monitors consolidated indicators such as: • **Net income, Group share,** defined as the net profit after tax attributable to Eramet shareholders, after accounting for the percentage of non-controlling interest in each Group subsidiary; • **Net financial debt,** representing the gross financial debt (long and short-term borrowings) less current financial assets, and cash and cash equivalents. These items include the valuation of debt-hedging derivatives; • **Gearing,** defined as the ratio of net financial debt to shareholders' equity (Group and non-controlling interest). The holding companies that provide the Group's central services (cash management, currency risk management, group reinsurance management) do not constitute a business unit. Their aggregates are shown in a column with the eliminations of inter-business unit transactions (holding and eliminations).

Reconciliation of published financial statements and Group reporting

(€ MILLION)	FINANCIAL YEAR 2018 PUBLISHED[1]	CONTRIBUTION OF JOINT VENTURES	FINANCIAL YEAR 2018 ADJUSTED[2]	FINANCIAL YEAR 2017 PUBLISHED[1]	CONTRIBUTION OF JOINT VENTURES	FINANCIAL YEAR 2017 ADJUSTED[2]
Sales	3,725	100	3,825	3,528	124	3,652
EBITDA	828	16	843	845	26	871
Current operating income	574	7	581	598	10	608
Operating income	398	68	465	513	54	567
Net income – Group share	53	(0)	53	203	-	203
Net cash generated by operating activities	437	12	449	687	-	687
Industrial investments	278	3	281	224	6	230
(Net financial debt)	(717)	0	(717)	(237)	(139)	(376)
Shareholders' equity	1,909	(1)	1,908	1,989	(9)	1,980
Shareholders' equity – Group share	1,606	(1)	1,605	1,694	-	1,694

(1) Published data with joint ventures consolidated using the equity method, as per current regulations.
(2) Data from Group Reporting, where joint ventures are consolidated proportionally.

Performance indicators by Division

	MINING AND METALS			HIGH PERFORMANCE ALLOYS	HOLDING AND ELIMINATIONS	TOTAL
(€ MILLION)	MANGANESE	NICKEL	MINERAL SANDS[1]			
Financial Year 2018						
Sales	1,857	738	212	1,020	(2)	3,825
EBITDA	784	(18)	62	46	(31)	843
Current operating income	699	(111)	35	(8)	(34)	581
Net cash generated by operating activities	499	(21)	41	(1)	(69)	449
Industrial investments (intangible assets and property plant and equipment)	140	57	12	63	12	281
Financial Year 2017						
Sales	1,919	644		1,087	2	3,652
EBITDA	861	(44)		84	(30)	871
Current operating income	738	(125)		32	(37)	608
Net cash generated by operating activities	722	(69)		90	(56)	687
Industrial investments (intangible assets and property plant and equipment)	89	80		59	2	230

(1) BU integrated into the Manganese BU in 2017.

Sales, industrial investments and non-current assets by geographical area

(€ MILLION)	FRANCE	EUROPE	NORTH AMERICA	ASIA	OCEANIA	AFRICA	SOUTH AMERICA	TOTAL
Sales (sales destination)								
Financial year 2018	362	1,315	629	1,346	30	87	56	3,825
Financial year 2017	371	1,320	669	1,097	23	93	79	3,652
Industrial investments (intangible assets and property plant and equipment)								
Financial year 2018	78	38	5	-	49	110	1	281
Financial year 2017	87	21	5	-	52	64	1	230
Non-current assets (excluding deferred tax)								
31/12/2018	644	349	38	42	545	1,417	4	3,039
31/12/2017	692	326	12	133	565	1,027	2	2,757

Consolidated performance indicators

Segment reporting information is supplemented with the main consolidated performance indicators monitored by the Executive Committee. These indicators are taken from Group reporting and are used for the financial disclosure of the Group's results and performance.

Income Statement

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Sales	**3,825**	**3,652**
EBITDA	**843**	**871**
Amortisation and depreciation of non-current assets	(260)	(250)
Provisions for risks and expenses	(2)	(13)
Current operating income	**581**	**608**
Impairment of assets	(104)	9
Other operating income and expenses	(12)	(50)
Operating income	**465**	**567**
Financial income	(95)	(117)
Share of income from associates	(3)	(1)
Income taxes	(241)	(221)
Net income for the period	**126**	**228**
• attributable to non-controlling interests	73	25
• **attributable to the Group**	**53**	**203**
Basic earnings per share (€)	2.00	7.67

Statement of changes in net debt

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Operating activities		
EBITDA	843	871
Cash impact of items in EBITDA	(345)	(387)
Cash flow from operations	**498**	**484**
Change in WCR	(49)	203
Net cash generated by operating activities (1)	**449**	**687**
Investing activities		
Industrial investments	(281)	(230)
Other investment flows	(379)	19
Net cash used in investing activities (2)	**(660)**	**(211)**
Net cash used in financing activities	**(123)**	**(12)**
Impact of fluctuations in exchange rates and other	(7)	(4)
(Increase)/decrease in net financial debt	(341)	460
Opening (net financial debt)	**(376)**	**(836)**
Closing (net financial debt)	**(717)**	**(376)**
Free Cash Flow (1) +(2)	**(211)**	**476**

2018 free cash flow has been impacted in an amount of €373 million by the acquisition of Mineral Deposit Limited, i.e. €219 million due to shares acquisition and €154 million due to consolidation at 100% of TiZir debt.

The reconciliation of cash and cash equivalents in the statement of cash flows to the net financial debt in the Eramet Group reporting is as follows:

(€ MILLION)	31/12/2018	31/12/2017
Cash and cash equivalents	**848**	**1,653**
Current financial assets	517	394
Loans	(2,082)	(2,284)
Joint venture contribution	0	(139)
Net financial debt – Reporting	(717)	(376)

Economic balance sheet

(€ MILLION)	31/12/2018	31/12/2017
Non-current assets	**3,030**	**2,710**
Inventories	958	887
Customers	390	368
Suppliers	(413)	(391)
Simplified WCR	**935**	**864**
Other items of WCR	(319)	(305)
Total WCR	**616**	**559**
Derivatives	-	-
Total	3,646	3,269

(€ MILLION)	31/12/2018	31/12/2017
Shareholders' equity — Group share	1,605	1,694
Non-controlling interests	303	286
Shareholders' equity	**1,908**	**1,980**
Cash and cash equivalents and current financial assets	(1,366)	(2,075)
Loans	2,083	2,451
Net financial debt	**717**	**376**
Ratio of net financial debt to shareholders' equity (gearing)	*38%*	*19%*
Employee-related liabilities and provisions	**794**	**730**
Net deferred tax	**201**	**173**
Derivatives	**26**	**10**
Total	3,646	3,269

Note 5 Current operating income

Current operating income reflects the performance of the Eramet Group's ordinary business activities as presented and defined in Note 4. This section presents its components: sales, cost of sales, administrative and selling expenses, research and development expenditure, and depreciation, amortisation and provisions.

Sales

ACCOUNTING METHOD

Sales revenue mainly consists of sales of ores (nickel and manganese) and manufactured products (special steels, alloys, superalloys, etc.) to third parties, as well as related performance obligations such as transport or insurance services depending on contractual Incoterms.
Revenue from the sale of these products and services is recorded when control over the product sold and the service rendered has been transferred to the customer.

Consolidated sales for 2018 were €3,725 million compared to €3,528 million in 2017, an increase of 5.6% (+€197 million).

A comparison with the Group's reported sales and distribution by BU is provided in Note 4.

Cost of sales and other income

ACCOUNTING METHOD	ESTIMATES, ASSUMPTIONS AND JUDGEMENTS
The cost of sales mainly comprises costs borne in industrial, mining and metallurgical facilities, in particular the consumption of raw materials, energy costs, personnel costs, and logistics and transport costs. It also accounts for the impacts of the change in and measurement of raw material inventories, work-in-progress and finished products. Other income includes items related to current operating income, such as translation adjustments on sales and insurance proceeds. Currency transactions are recognised at the monthly exchange rate for the month of the transaction effective date. Gains and losses arising from the conversion of operating receivables and payables are recognised in Current operating income. In the case of hedged transactions, the translation adjustments arising from the difference between the monthly exchange rate used to recognise sales and receipts or purchases and payments and the hedging rate for the settlement of transactions are also recognised in Current operating income.	The transaction date is the date on which it is executed. For practical reasons, the currency transaction date used is the month in which the transaction is booked. The rate applied to recognise currency transactions in a given month corresponds to the average daily rate applicable in the previous month.

Administrative and selling expenses

ACCOUNTING METHOD
Administrative and selling expenses mainly comprise personnel costs for non-industrial sites and other administrative and sales support services.

Research and development expenditure

ACCOUNTING METHOD
Research and development expenditure relates to expenses for scientific and technical activities necessary for the research, development and implementation of new manufacturing processes or the improvement of existing processes. Research and development expenses do not include expenses incurred for development projects whose technical feasibility and profitability have not yet been demonstrated. These expenses are recognised in Other operating income and expenses (see Note 6). Once the technical feasibility and profitability of a project have been established, the development expenses incurred are capitalised. These expenses also include the geology expenses incurred in mining sites that are already in operation.

Expenses for the period

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Non-capitalised research and development expenditure	28	28
of which geological expenditure Eramet Nickel	3	4

Amortisation and depreciation of non-current assets and provisions for liabilities and charges

ACCOUNTING METHOD

Amortisation and depreciation of non-current assets

Non-current assets can be depreciated when their expected use is limited in time or based on production units.

Where the duration or the pace of utilisation of an asset cannot be determined reliably, the straight-line method is applied.

The selected depreciation method is applied across all similar assets with the same conditions of use.

Depreciation begins at the date on which the asset is put into service.

Any significant change in the planned use of the asset, in terms of duration or pace, for example, will result in the depreciation being revised for the current and subsequent years. Likewise, in the case where impairment loss provisions are set aside or reversed following the comparison between the value in use of a non-current asset and its carrying amount (Note 10), the depreciation basis is modified prospectively, i.e. the depreciation is adjusted based on the new duration or the new pace of use for the current and future reporting periods.

The depreciation for the reporting period is recognised under a separate heading, Amortisation and depreciation of non-current assets, between EBITDA and Current operating income.

Provisions for risks and expenses

See Note 13.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The Eramet Group uses two depreciation methods: the straight-line method and the units of production method.

Straight-line depreciation method
The depreciation of property, plant and equipment is calculated on a straight-line basis over the estimated useful life at 31 December 2018:
Buildings between 10 and 50 years

Industrial and mining facilities between 5 and 50 years

Other property, plant and equipment between 2 and 10 years

Assets invested in the Group's concessions (Setrag, Comilog and Grande Côte) are depreciated over the shorter of their useful life or the remaining period of the concession.
Computer software is amortised over a variable period not exceeding five years.

Units of production method
The economic benefits generated by the use of certain industrial assets are determined in relation to the level of production, in particular in the start-up phase of new production units. These assets are depreciated using the units of production method.
The depreciation calculation accounts for the quantities produced during the reporting period, expressed as a percentage of the total quantities of product to be extracted or produced in the current and future reporting periods.
If the production is not deemed to fluctuate significantly from one year to the next, as with the assets whose material lifespan is shorter than the life of the plant or the mine to which they relate, the assets are depreciated using the straight-line method mentioned above over the life of the plant or the mine.

Revision of depreciation periods
The residual values and useful life of non-current assets are revised and adjusted at the end of each reporting period, as appropriate. Change is seen as a change in estimates, and impacts only the current and subsequent reporting periods.
The Eramet Group measures its existing assets and the depreciation period when reviewing mining plans (Nickel BU, Manganese BU and Mineral Sands BU) and plant operation plans at the end of each reporting period. When it is established that the life of the allocated assets no longer matches the remaining period of expected returns, their depreciation period is modified prospectively. Uncertainties are inherent in the estimation of reserve and resource quantities, especially as regards assumptions about future prices, the geology of the mines, the mining methods used and associated costs incurred to develop and mine the reserves and resources. Changes in these assumptions could lead to major adjustments in the estimation of reserves and resources, which may be the basis for impairment or modification in depreciation expense in future periods.

(€ MILLION)	31/12/2018	31/12/2017
Intangible assets	(17)	(21)
Property, plant and equipment	(234)	(214)
Total	**(251)**	**(235)**
of which amortisation and depreciation of acquisition price allocation	*(4)*	*(4)*
Provisions	(2)	(12)
Total	(253)	(247)

Note 6 Net income, Group share and non-controlling interest

Net income, Group share is the net income for the period after tax, attributable to Eramet shareholders, after accounting for the non-controlling interest in each of the Group companies.

Apart from the Current operating income, the Net income for the period includes the following items:

- Other operating income and expenses (see below);
- Net financial income (Note 7);
- Share of income from joint ventures and associates (Note 10);
- Income tax (Note 11).

Other operating income and expenses

ACCOUNTING METHOD

Other operating income and expenses includes only very limited, unusual, abnormal and infrequent income and expenses for significant amounts that the Eramet Group presents separately in its income statement in order to facilitate the understanding of current operating performance. In particular, it includes the following items:

- restructuring costs;
- costs incurred for development projects whose technical feasibility and profitability have not yet been demonstrated;
- defined benefits plan settlements and amendments;
- disputes and unusual risks;
- capital gains and losses on disposals of assets;
- impairment losses on goodwill and non-current assets.

Breakdown by category

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Other operating income and expenses excluding impairment	(2)	(50)
Impairment of assets and impairment losses	(175)	(35)
Other operating income and expenses	(177)	(85)

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Niobium project	(2)	(5)
Lithium project	(24)	(14)
Weda Bay project	(2)	11
Other projects	(0)	1
Development projects	**(28)**	**(7)**
Restructuring and redundancy plans	(6)	(9)
Employee benefits – plan amendment	1	(1)
Provisions for site restoration – SLN	(19)	(22)
Capital gain on sale of the Tour Montparnasse head office		19
Aubert & Duval quality risk	(65)	
Gains and losses on disposals	147	-
Other items	(33)	(30)
Other income and expenses	**25**	**(43)**
Total	(2)	(50)

Project expenses mainly concern the Lithium project in Argentina.

The gains and losses on disposals are broken down as follows:

- gain on the disposal of Weda Bay: +€147 million;
- loss on the disposal of TiZir: (€10 million);
- gain on the disposal of Guilin: +€11 million.

Other income and expenses include the provision for Aubert & Duval quality risk exposure for an amount of €65 million (see Significant events Note 2).

Impairment of assets and impairment losses

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Losses on impairment tests – Goodwill	(3)	-
Losses on impairment tests – Intangible assets	(1)	-
Losses on impairment tests – Property, plant and equipment	(171)	(31)
Losses on impairment tests – Intangible assets and PPE	**(175)**	**(31)**
Other impairment of assets		(4)
Other provisions	-	-
Total impairment of assets and impairment losses – Note 10	(175)	(35)

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Nickel BU	-	-
High Performance Alloys division	(201)	(9)
Manganese BU	26	(26)
Mineral Sands BU		
Total impairment of assets and impairment losses	(175)	(35)

See Note 10 – Investments, Impairment of assets.

Net earnings per share – Group share

ACCOUNTING METHOD

Net earnings per share can be obtained by dividing the Group share of net income by the average number of shares outstanding during the reporting period. This average number of shares outstanding excludes treasury shares.
Diluted earnings per share are calculated by taking into account the net income, Group share for the period and the number of shares adjusted for potentially dilutive effects, mainly represented by employee share subscription and purchase plans and the potential conversion of ODIRNANs.

	FINANCIAL YEAR 2018			FINANCIAL YEAR 2017		
	NET INCOME GROUP SHARE	AVERAGE NUMBER OF SHARES	EARNINGS PER SHARE	NET INCOME GROUP SHARE	AVERAGE NUMBER OF SHARES	EARNINGS PER SHARE
Basic earnings per share	53	26,541,593	2.00	203	26,469,276	7.67
Diluted earnings per share(1)	53	28,945,113	1.83	203	28,856,129	7.03

(1) Where basic earnings per share are negative, the diluted earnings per share are deemed equal to it, in which case the instruments are considered to be anti-dilutive.

Non-controlling interest share in earnings – minority interest

(€ MILLION)	% OF NON-CONTROLLING INTERESTS	SHARE OF PROFIT (LOSS) FINANCIAL YEAR 2018	SHARE OF SHAREHOLDERS' EQUITY 31/12/2018	SHARE OF PROFIT (LOSS) FINANCIAL YEAR 2017	SHARE OF SHAREHOLDERS' EQUITY 31/12/2017
At beginning of period			**295**		**276**
Profit (loss) for the period			67		19
Change in revaluation reserve for financial instruments			(1)		4
Change in revaluation reserve for net defined benefit plan liabilities			3		(2)
Translation adjustments			1		(4)
Sub-total Other comprehensive income			**2**		**(2)**
Other movements			(60)		2
At period close		67	304	19	295
Société Le Nickel-SLN	44%	(48)	(62)	(66)	(16)
Comilog SA	36.29%	123	364	85	300
Pt Weda Nickel Ltd[1]	10%	(8)	-	-	9
Interforge	4,3%	-	2	-	2

(1) *Before disposal.*

See Statement of changes in equity.

Note 7 Net financial debt and shareholders' equity

Net financial debt

Net financial debt is gross financial debt (long and short-term borrowings) less current financial assets and cash and cash equivalents. These items include the valuation of hedging derivatives related to borrowings.

ACCOUNTING METHOD

Borrowings are initially recognised on the basis of the amount received, less financing costs incurred. Borrowings are subsequently measured at amortised cost. Any variance between the amounts received and the redemption value of the borrowing is recognised in the income statement under Net financial income (Borrowing costs) over the term of the borrowing, using the effective interest rate (EIR) method.
When the renegotiation of a loan does not substantially modify the debt in accordance with IFRS 9 criteria, it is maintained on the balance sheet and revalued at the overall effective interest rate on the basis of the new contractual flows. The impact of this revaluation is recognised in the income statement.

(€ MILLION)	31/12/2018	31/12/2017
Non-current borrowings – due after more than one year	(1,701)	(1,602)
Current borrowings – due in less than one year	(381)	(682)
Loans	**(2,082)**	**(2,284)**
Cash and cash equivalents	848	1,653
Other current financial assets	517	394
Net financial debt	(717)	(237)

Loans

Borrowings by category

(€ MILLION)	31/12/2018	31/12/2017
Borrowings on capital markets	1,373	1,127
Borrowings from credit institutions	387	790
Bank overdrafts and creditor banks	65	71
Finance lease liabilities	42	55
Other borrowings and financial liabilities	214	241
Total	2,082	2,284
• Long-term portion	(1,701)	(1,602)
• Short-term portion	(381)	(682)

Borrowings on capital markets and bank loans

	NOMINAL (CURRENCY UNIT MILLION)	INTEREST RATE	MATURITY	31/12/2018 (€ MILLION)	31/12/2017 (€ MILLION)
Bond issue – Eramet S.A.	€525 million	4.50%	2020	463	463
Bond issue – Eramet S.A.	€500 million	4.196%	2024	515	502
Bond issue – TiZir Ltd	$300 million	9.500%	2022	292	-
Euro private placement – Eramet S.A.(1)	€50 million	5.29%	2026	52	52
Euro private placement – Eramet S.A.(1)	€50 million	5.10%	2026	51	51
Deutsche Bank *(Schuldschein)* loan – Eramet S.A.	€60 million	6-month Euribor +2%	2020	-	59
Borrowings on capital markets				1,373	1,127
ICBC/BNP Paribas/BGFI loans – Comilog S.A.	$217 million	6-month Libor +4.3%/+2.1%	2018/2022	49	74
Issued commercial paper – Eramet S.A.	€60 million	Between -0.10% and +0.22%	1 year max.	60	194
Borrowing Base – Eramet S.A.	€52 million	1-month Euribor +2.1%	2019	43	52
European Investment Bank – Eramet S.A.	€80 million	1.736%	2025	63	72
European Investment Bank – Eramet S.A.	€30 million	2.72%	2029	30	30
European Investment Bank – Eramet S.A.(2)	€120 million	Euribor +1.1%	2030	(0)	-
IFC/Proparco – Setrag	€85 million	Euribor +4%/5%	2031	61	30
Revolving Credit Facility (RCF)(3)	€981 million	6-month Euribor +0.75%/1.50%	2024	(6)	246
Other borrowings from credit institutions				88	92
Borrowings from credit institutions				387	790

(1) With investor put options that may be exercised after the seventh year, i.e. in 2021.
(2) As yet not drawn down, the €120 million nominal amount can be drawn down in full.
(3) The balance of the revolving credit facility at 31 December 2018 corresponds to the issue costs of loans not yet amortised. The €981 million nominal amount can be drawn down in full.

Certain borrowings need to comply with financial ratios or covenants (Note 7).

Change over the period

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
At beginning of period	**2,284**	**2,366**
New borrowings	121	876
Loan repayments	(617)	(1,011)
Change in bank overdrafts	(20)	32
Changes to consolidation scope	312	7
Other changes	(7)	(9)
Translation adjustments	10	23
At period close	2,082	2,284

New borrowings mainly concern:

- the effects related to the entry into scope of the TiZir group's entities, in particular the bond issue for €292 million and the TTI and GCO bank loans for €45 million;
- the drawdown of €29.5 million on the IFC Proparco Setrag loan.

Loan repayments mainly concern:

- the repayment of the revolving credit facility of €251 million;
- the repayment of commercial paper amounting to €134 million;
- the early repayment of the *Schuldschein* loan for €59 million;
- the amortisation of bank loans, particularly in the Aubert & Duval, Comilog and Setrag subsidiaries, in accordance with the schedules.

It should also be noted that a new long-term loan of €120 million was signed with the EIB, which had not been drawn down at 31 December 2018

Borrowings by currency and maturity

(€ MILLION)	31/12/2018	31/12/2017
Euro	1,313	2,034
US dollar	439	176
CFA franc	21	36
Pound sterling	2	1
Norwegian krone	279	6
Other currencies	28	31
Total	2,082	2,284
Less than one year	381	682
One year to five years	948	842
More than five years	753	760
Total	2,082	2,284

Confirmed credit facilities

(€ MILLION)	31/12/2018	31/12/2017
Unused confirmed credit facilities[(1)]	**1,101**	**730**
Revolving credit facility (RCF)	981	730
European Investment Bank €120 million	120	

(1) Bank covenants relating to these credit facilities are fully respected. These covenants relate to the ratio of the Group's net financial debt to shareholders' equity.

Borrowings by interest rate

(€ MILLION)	31/12/2018		31/12/2017	
Interest-free		79		50
Fixed interest rates		1,701		1,516
• below 5%	1,260		1,349	
• between 5% and 10%	441		167	
• above 10%	-		-	
Variable interest rates		302		718
• below 5%	212		658	
• between 5% and 10%	90		60	
• above 10%	-		-	
Total		2,082		2,284

Finance lease liabilities

	31/12/2018		31/12/2017	
(€ MILLION)	NOMINAL VALUE	DISCOUNTED VALUE	NOMINAL VALUE	DISCOUNTED VALUE
Less than one year	12	11	16	15
One year to five years	30	28	37	35
More than five years	4	3	6	5
Total before interest expense	**46**	**42**	**59**	**55**
Interest expense		4		4
Total	46	46	59	59

Cash and cash equivalents

ACCOUNTING METHOD

Cash includes cash in hand and demand deposits, excluding bank overdrafts which appear under borrowings. Cash equivalents correspond to marketable securities and consist of investments held to meet short-term cash commitments.
Marketable securities are recognised at their fair value in the balance sheet. To be considered a cash equivalent, they must be readily convertible to cash and subject to negligible risk of fluctuations in value. Changes in fair value are recognised in net income for the period.

Breakdown by category

(€ MILLION)	31/12/2018	31/12/2017
Cash	113	64
Cash equivalents	735	1,589
Total	848	1,653

Breakdown by currency

(€ MILLION)	31/12/2018	31/12/2017
Euro	667	1,540
US dollar	149	76
Yuan Ren-Min-Bi (China)	1	2
Norwegian krone	18	17
Other currencies	14	18
Total	848	1,653

Breakdown by interest rate type

(€ MILLION)	31/12/2018	31/12/2017
Interest-free	120	45
Fixed interest rates	4	5
Variable interest rates	725	1,603
Total	848	1,653

Interest-free items mainly consist of non-interest-bearing sight deposits.

Cash includes cash and cash equivalents.

Cash equivalents mostly comprise investments managed by Metal Securities.

(€ MILLION)	31/12/2018	31/12/2017
Money market fund shares/units	416	1,287
Negotiable debt securities	229	159
Interest-bearing bank accounts	67	67
Other investments	22	76
Cash equivalents	**735**	**1,589**
Cash	113	64
Cash and cash equivalents	848	1,653

The change from one period to the next is analysed through the statement of cash flows prepared using the indirect method.

Statement of cash flows

Non-cash income and expenses

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Depreciation, amortisation, impairment and provisions	446	260
Accretion expenses	5	8
Financial instruments	2	1
Deferred tax	29	23
Proceeds from asset disposals	(18)	(14)
Deconsolidation effect on the income statement	(41)	
Share of income from joint ventures and associates	(48)	(18)
Non-cash income and expenses	375	260

Impact of changes in consolidation scope

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Share purchase price	(219)	-
Cash and cash equivalents of acquired entities	52	-
TiZir – net cash impact	**(167)**	-
Disposal of Eurotungstène		2
Sale price of Héyé interest		14
Disposal of Weda Bay	(7)	
Acquisition 51% HEIML (net of cash acquired)		(4)
Other	3	1
Impact of changes in consolidation scope	(171)	13

Current financial assets

ACCOUNTING METHOD

These assets mainly consist of bonds of listed European companies whose objective is to receive contractual flows.
These bonds are measured at their fair value on initial recognition. The fair value used for listed bonds is the stock-market value, and for unlisted bonds it is based on estimates using specific financial criteria that reflect the specific situation of each bond (similar transactions or discounted value of future cash flows).
The credit risk component, corresponding to the estimate of expected losses measured per bond, is measured according to their categorisation into buckets, defined on the basis of a credit risk rating measured on the basis of the spread, and is recognised in the income statement.
Other speculative assets classified as trading instruments are measured at fair value through profit or loss.

Changes in the fair value of these investments are recognised in transferable equity under the item Change in fair value of available-for-sale financial assets.

The net increase of +€123 million in current financial assets between 2017 and 2018 (compared to +€63 million between 2016 and 2017) is shown in the net cash flows relating to investment operations.

Financial income

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Net debt cost	(82)	(66)
Other financial income and expenses	(2)	(27)
Non-cash income and expenses	(84)	(93)

Net debt cost

ACCOUNTING METHOD

Net debt costs include expenses relating to gross debt and financial revenue in connection with bonds and investment securities.
Borrowing costs relate to interest payable on the debt and other costs incurred in connection with the borrowing of funds. Borrowing costs directly linked to the acquisition, building or production of an asset that requires more than 12 months to be put into service are deducted from the financing expense to which they relate. All the other borrowing costs are expensed in the period in which they are incurred.

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Interest income	12	13
Interest expense	(84)	(73)
Amortised cost on borrowings	(9)	(7)
Net income on marketable securities	2	-
Net translation differences	(3)	1
Total	(82)	(66)

Other financial income and expenses

ACCOUNTING METHOD

Other financial income and expenses include all the components of net financial income except for income and expenses relating to the net debt cost.

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Investment and dividend income	-	2
Employee benefits – net interest	(5)	(5)
Profit (loss) on disposal of equity investments	3	
Accretion expenses	(7)	(8)
Financial instruments ineligible as hedges – currency	2	(1)
Securitisation financial expense	(6)	(5)
Impairment of securities and current accounts	(3)	(4)
Net translation differences	12	(13)
Eramet/TiZir loan financial products		8
Other	2	(1)
Total	(2)	(27)

Accretion expenses relate to provisions for mining site restoration and the decommissioning of industrial facilities, as detailed in Note 13 – Provisions.

The financial instruments that do not qualify as hedges correspond to the portion of hedging instruments recognised in profit or loss.

Shareholders' equity

Changes to the share capital

The share capital of €81,239,446 (31 December 2017: €81,232,663) is composed of 26,635,884 fully paid-up shares (31 December 2017: 26,633,660 shares) with a par value of €3.05 each.

	31/12/2018				31/12/2017			
	CAPITAL		VOTING RIGHTS		CAPITAL		VOTING RIGHTS	
	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES
Registered shares								
SORAME and Compagnie d'Études Industrielles du Rouvray (CEIR)	36.94	9,840,143	43.89	19,675,977	36.93	9,835,834	43.94	19,671,668
FSI Equation, subsidiary of APE *(Agence des participations de l'État)*	25.57	6,810,317	30.38	13,620,634	25.57	6,810,317	30.43	13,620,634
S.T.C.P.I.	4.02	1,070,587	4.78	2,141,174	4.02	1,070,587	4.78	2,141,174
Eramet S.A.	0.36	95,164	-	-	0.55	147,642	-	-
Eramet S.A. share fund	0.51	136,306	0.40	178,671	0.20	52,273	0.23	104,746
Other	32.60	8,683,367	20.55	9,210,988	32.73	8,717,007	20.61	9,226,201
Total number of shares	100.00	26,635,884	100.00	44,827,444	100.00	26,633,660	100.00	44,764,423
• of which registered shares	69.55	18,525,883	82.05	36,780,500	69.50	18,509,540	81.90	36,663,450
• of which bearer shares	30.45	8,110,001	17.95	8,046,944	30.50	8,124,120	18.10	8,100,973

Pursuant to a Shareholders' Agreement concluded on 16 March 2012, which entered into force on 16 May 2012 and was renewed on 31 December 2018 for a period of one year expiring on 31 December 2019, which was the subject of a decision and information from the *Autorité des marchés financiers* under No. 212C0647 at the time of its conclusion, and a decision and information from the *Autorité des marchés financiers* under No. 216C1753 relating to the development of the Group during the acquisition by the *Agence des participations de l'État* (APE) of the entire share capital of FSI Equation, the Company is majority controlled by a group of shareholders having declared to be acting in concert, including:

- a subgroup between SORAME and CEIR, companies controlled by the Duval Family, under a concurrent shareholders' agreement dated 19 July 1999, which came into force on 21 July 1999 and was the subject of an amendment on 13 July 2009;
- the *Agence des participations de l'État* (APE), through its subsidiary FSI Equation.

The provisions of the Shareholders' Agreement mentioned above as well as those of the sub-concert are contained in key extracts of the AMF Decision and Notice texts numbered 216C1753, 212C0486 and 209C1013 (amended on 13 July 2009).

Since 1 January 2002, registered shares that meet the necessary conditions benefit from double voting rights.

ODIRNAN

In 2016, the Eramet Group issued an offering of net share settled undated bonds convertible into new shares (ODIRNAN).

This issue has strengthened the balance sheet structure of the Eramet Group.

ODIRNAN is a perpetual bond with no maturity date. Holders do not have the option to redeem the instrument for cash in hand. The instrument can be redeemed in the event of liquidation of the Company with the payment of accrued and deferred coupons, as applicable. The organisation of the coupon payments is left up to Eramet and may be delayed, as Eramet has not decided on a dividend distribution since the penultimate interest payment date (or since the issue date for the first two payment dates). In case of non-payment of coupons, they will remain due and will constitute arrears which will bear interest at the applicable rate for bond coupons.

The coupon is fixed at an annual rate of 4% until October 2022. It will then switch to a variable rate from 5 October 2022, calculated at the 6-month Euribor rate plus a margin of 1,000 basis points ("step-up" clause). In the event of a change of control of Eramet, the annual interest rate will be increased by 500 basis points unless the Company opts for early redemption within 45 days of the change of control.

Bond holders will receive an equity conversion right. The issuer may choose to deliver one of the following to bondholders exercising their right to receive shares:

- cash only;
- new shares only;
- or a combination of new shares and cash.

The characteristics of ODIRNAN shares led the Eramet Group to classify them as an equity instrument because:

- there is no contractual obligation to repay the nominal value except in the event of liquidation of the issuer. The regulatory framework stipulating redemption in case of liquidation does not affect the classification as an equity instrument;
- the payment of coupons to bond holders is:
  - either dependent on the liquidation of the issuer. As noted above, an obligation for the issuer to proceed with payment in case of liquidation does not establish the existence of a debt,
  - or under the control of the issuer (dividends, share buy-back or equivalent, early redemption decided by the issuer, decision to pay the next bond coupon, etc.).

Finally, the default interest clause (capitalised at the same rate as the bonds) and the "step-up" clause, which significantly increases the amount of coupons beyond a certain date if the instrument has not been previously redeemed by the issuer, constitute economic constraints, not contractual obligations.

Therefore, given the characteristics of the instruments and elements mentioned above, Eramet has no contractual obligation to pay compensation on perpetual debt instruments.

Finally, the different options mentioned above do not call into question the classification of equity instruments.

At 31 December 2018, 92,666 bonds were subject to equity conversion (2,224 in 2018). No bonds were repaid in cash in 2018. The number of bonds in circulation is therefore 2,065,761 (31 December 2017: 2,067,985), a decrease of 2,224 bonds in 2018.

The total value of bonds at 31 December 2018 is €95.7 million (31 December 2017: €95.8 million).

Treasury shares

The table below summarises the treasury share transactions:

	TOTAL NUMBER OF SHARES	MARKET MAKER(1)	ALLOCATIONS TO EMPLOYEES	TOTAL
Position at 1 January 2017	**26,550,443**	**62,291**	**43,510**	**105,801**
As a percentage of capital		*0.23%*	*0.16%*	*0.40%*
Redemption mandate – March 2017			25,000	25,000
Redemption mandate – September 2017			120,000	120,000
Final allocation of bonus shares			(64,015)	(64,015)
Purchases/sales		(39,144)		(39,144)
Position at 31 December 2017	**26,633,660**	**23,147**	**124,495**	**147,642**
As a percentage of capital		*0.09%*	*0.47%*	*0.55%*
Final allocation of bonus shares			(92,388)	(92,388)
Purchases/sales		39,910		39,910
Position at 31 December 2018	26,635,884	63,057	32,107	95,164
As a percentage of capital		*0.24%*	*0.12%*	*0.36%*

(1) Liquidity agreement signed with Exane BNP Paribas.

Eramet treasury shares are classified under Other reserves and recognised at purchase cost for an amount of €14 million at 31 December 2018 (31 December 2017: €14 million). These transaction amounts were allocated to shareholders' equity.

Note 8 Financial instruments and risk management

This note gives an overview of the financial instruments of the Eramet Group, the associated risks, its risk management objectives, sensitivity and monitoring of the financial risk management strategy.

ACCOUNTING METHOD

Financial instruments

Derivative assets and liabilities, current financial assets, and cash and cash equivalents are initially recognised in the balance sheet at their fair value (transaction price) adjusted for transaction costs. At each period closing, the change in fair value is recognised in income (Other financial income and expenses) unless a designated and documented cash flow hedge exists. In that case, the change is recognised in Other comprehensive income and shown in equity (change in the revaluation reserve of hedging instruments). Variations of time value are accounted in other comprehensive income.

Derivatives

The Eramet Group uses derivatives to hedge certain risks. To manage its currency risk, the Eramet Group uses foreign currency forwards/futures, foreign currency swaps and, to a lesser extent, foreign currency options. Foreign currency forwards/futures are recognised as hedges where the Eramet Group has defined and documented the hedging relationship and demonstrated its effectiveness. Interest rate risk is managed using interest-rate swaps. Lastly, the Eramet Group also uses collars and swaps when hedging commodity purchases and sales (nickel, fuel oil, aluminium and electricity).

Derivatives are measured at their fair value upon initial recognition. Subsequently, the fair value of derivatives is remeasured at each reporting date, in equity if a hedging relationship has been designated and documented, or in the income statement where no hedging relationship exists. The fair value of foreign currency forwards/futures is estimated on the basis of market conditions. The fair value of interest rate derivatives is that which the Eramet Group would receive (or pay) to transfer current contracts at the reporting date. The fair value of commodity derivatives is estimated on the basis of market conditions. Derivatives are shown in the balance sheet under current assets or liabilities.

Hedging

Gains or losses on hedging instruments are recognised symmetrically with the gains or losses on the hedged items. However, changes in the fair value of hedges, independently of the hedged transactions, are recognised as profit or loss for the period under Current operating income or Other financial income and expenses, depending on the nature of the hedge.

The Eramet Group identifies the hedging item and hedged item when the hedge is set up and formally documents the hedging relationship by identifying the hedging strategy, the hedged risk and the hedge effectiveness measurement method:

- fair value hedge: the hedged item is remeasured in respect of the hedged risk and the hedging instrument is measured and recognised at fair value. The changes in both items are recognised simultaneously in Current operating income;
- cash flow hedge: the hedged item is not remeasured. Only the hedging instrument is remeasured at fair value. To offset the remeasurement, the effective portion of the change in fair value that can be ascribed to the hedged risk is recognised net of tax in shareholders' equity. The cumulative amounts in shareholders' equity are recognised in income for the period when income is affected by the hedged item. The ineffective portion is retained in income for the period under Other financial income and expenses;
- hedging of net investment in foreign subsidiaries: derivatives intended to hedge net foreign currency investment in foreign subsidiaries are treated as net foreign currency investment hedges. The gains or losses from such hedges, and the changes in fair value (apart from the time value) are recognised in equity as currency translation differences, and transferred to income when the subsidiary is sold;
- recognition of derivatives that do not fulfil hedge accounting conditions: the Eramet Group uses these derivatives only to hedge future cash flows, and changes in fair value are immediately recognised in Other financial income and expenses.

ACCOUNTING METHOD

Fair value measurement

The Eramet Group measures its financial instruments at fair value at each reporting date.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. When measuring fair value, it is assumed that the transaction to sell the asset or transfer the liability is carried out:

- on the main market for that asset or liability; or
- if there is no main market, on the best market for that asset or liability.

The fair value measurement of a non-financial asset considers the capacity of a market participant to generate economic benefits by making full use of the asset or by selling it to another market participant who will make full use of the asset.

The fair values of financial instruments are ranked according to a three-level hierarchy:

- Level 1: Listed prices (unadjusted) of the same assets and liabilities on an active market;
- Level 2: Listed price of a similar instrument on an active market, or another measurement technique based on observable parameters;
- Level 3: Measurement technique incorporating non-observable parameters.

The criteria for classifying and recognising financial assets and liabilities and any transfer from one level to another in the fair value hierarchy where applicable are given below.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The uncertainties and estimates as well as the judgements used are considered for the valuation of forward/futures contracts, the application of hedge accounting and the valuation of derivatives measured at fair value. To continue to apply hedge accounting to raw material purchases and sales (nickel, fuel oil, aluminium and electricity), the Eramet Group determines that the hedging instrument is efficient so as to offset the currency risk on its raw material purchases and sales, and ensures that the documentation complies with the requirements. The process for testing the efficiency of the hedge calls for the use of judgements and estimates.

Fair value measurement

Fair value represents an estimate at a given date and can change from one period to another due to market conditions and other factors.

The Eramet Group gives priority to the assumptions that the market participants would use to determine the price of the asset or the liability, considering that the market participants act in their own best economic interests. The Eramet Group uses measurement techniques that are appropriate in the circumstances and for which sufficient data is available to determine the fair value, maximising the use of pertinent observable inputs while minimising the use of non-observable inputs.

Financial instruments shown in the balance sheet

(€ MILLION)	31/12/2018	BREAKDOWN BY TYPE OF INSTRUMENT					31/12/2017	BREAKDOWN BY TYPE OF INSTRUMENT				
	STATEMENT OF FINANCIAL POSITION	FAIR VALUE THROUGH P&L	FAIR VALUE THROUGH SHAREHOLDERS' EQUITY	LOANS AND RECEIVABLES	LIABILITIES CARRIED AT AMORTISED COST	DERIVATIVES	STATEMENT OF FINANCIAL POSITION	FAIR VALUE THROUGH P&L	FAIR VALUE THROUGH SHAREHOLDERS' EQUITY	LOANS AND RECEIVABLES	LIABILITIES CARRIED AT AMORTISED COST	DERIVATIVES
Non-consolidated equity investments	21	21					24		24			
Other non-current financial assets	214			214			97			97		
Other non-current assets	11			11			86			86		
Trade receivables	395			395			361			361		
Other current assets	209			209			170			170		
Derivatives	25					25	47					47
Other current financial assets	517	201	316				394		394			
Cash and cash equivalents	848	848					1,653	1,653				
Assets	2,240	1,070	316	829	-	25	2,832	1,653	418	714	-	47
Non-current borrowings – due after more than one year	1,701				1,701		1,602				1,602	
Other non-current liabilities	2			2			4			4		
Current borrowings – due in less than one year	381				381		682				682	
Trade payables	391			391			363			363		
Other current liabilities	407			407			328			328		
Derivatives	60					60	55					55
Liabilities	2,942	-		800	2,082	60	3,034	-	-	695	2,284	55

The classification of financial assets and liabilities has been revised to comply with IFRS 9 classifications, as described in Note 3 Basis of preparation of the consolidated financial statements. Equity investments and other current financial assets are recognised in the balance sheet at fair value. Other non-current financial assets are measured at amortised cost calculated using the effective interest rate (EIR).

Borrowings are recognised at amortised cost measured at the effective interest rate (EIR).

The fair value of trade receivables and trade payables is equal to the value shown in the balance sheet, since for the most part they fall due in less than one year.

(€ million)	NATURE OF HEDGING INSTRUMENT	NOTIONAL AMOUNT OF HEDGING INSTRUMENTS	CARRYING AMOUNT OF HEDGING INSTRUMENT	
			ASSETS	LIABILITIES
Fair Value Hedge (FVH)				
Currency risk				
Hedging of loan in foreign currency	Forward purchase	60	8	3
Balance sheet WCR hedges	Forward and currecny options	268	1	3
Cash Flow Hedge (CFH)				
Interest rate risk				
EUR/USD loan — Manganese BU	Interest rate swaps	131	0	2
Currency risk				
Hedging of NOK borrowing	Forward purchase	10	1	2
Hedging of High Performance Alloys division loan	Foreign exchange swap	23	0	0
Investment and bond hedge	Forward sale and foreign exchange swap	122	0	4
USD Sales	Foreign exchange swap	44	0	1
Hedging of future sales in foreign currencies	Forward sale	60	3	8
Group future revenue foreign exchange hedge	Forward and currency option	623	7	13
Commodity risk				
Fuel oil	Purchase of options	13	0	0
Electricity	Future on Electricity	10	2	2
Nickel	Nickel swaps	14	1	1

The fair value of financial instruments broken down by fair value hierarchy is as follows:

	31/12/2018	BREAKDOWN BY FAIR VALUE CATEGORY		31/12/2017	BREAKDOWN BY FAIR VALUE CATEGORY	
(€ MILLION)	VALUE IN BALANCE SHEET	LEVEL 1	LEVEL 2	VALUE IN BALANCE SHEET	LEVEL 1	LEVEL 2
Current financial assets	516	516		394	394	
Cash and cash equivalents	848	848		1,653	1,653	
Derivatives	25		25	47		47
Assets	1,389	1,364	25	2,094	2,047	47
Derivatives	60		60	55		55
Liabilities	60	-	60	55	-	55

Effects of financial instruments on the income statement

(€ MILLION)	FINANCIAL YEAR 2018 IMPACT ON PROFIT (LOSS)	FINANCIAL INCOME AND (EXPENSES)	AMORTISED COST	FAIR VALUE	TRANS-LATION ADJUST-MENTS	PROFIT (LOSS) ON DISPOSAL	NET IMPAIRMENT
Equity investments	(1)					3	(4)
Other financial assets	(3)	(14)			12		(1)
Derivatives	18			18			
(Net debt)/Net cash	(80)	(71)	(8)		(3)	2	
Total	(66)	(85)	(8)	18	9	5	(5)

(€ MILLION)	FINANCIAL YEAR 2017 IMPACT ON PROFIT (LOSS)	FINANCIAL INCOME AND (EXPENSES)	AMORTISED COST	FAIR VALUE	TRANS-LATION ADJUST-MENTS	PROFIT (LOSS) ON DISPOSAL	NET IMPAIRMENT
Equity investments	1	2				(3)	2
Other financial assets	(10)	(13)			(13)		16
Derivatives	(8)			(8)			
(Net debt)/Net cash	(63)	(61)	(7)	4	1		
Total	(80)	(72)	(7)	(4)	(12)	(3)	18

The financial revenue from equity investments consists of dividends of non-consolidated companies. The gains or losses on currency and commodity hedges are for the most part recognised in Current operating income. The portion that does not qualify as hedges is recognised in Other financial income and expenses.

Breakdown of derivatives included in the statement of financial position

(€ MILLION)	31/12/2018 ASSETS	31/12/2018 LIABILITIES	31/12/2017 ASSETS	31/12/2017 LIABILITIES
At beginning of period	**47**	**55**	**29**	**77**
Change in hedging instruments for the period – shareholders' equity(1)	(3)	10	10	(25)
Change in hedging instruments for the period – financial income(2)	(11)	(10)	4	5
Net change in hedging derivatives(3)	(8)	4	4	(2)
Other movements	(1)	1	-	-
At period close	25	60	47	55
Net position in hedging derivatives(3)	6	17	14	13
Financial instruments – currency hedges	17	38	21	29
Financial instruments – interest-rate hedges	0	3	-	3
Financial instruments – commodity hedges	1	2	12	10

(1) The impact corresponds to the effective portion of the change in fair value of derivative instruments used to hedge currency, interest rate and commodity risks.
(2) The impact corresponds to the non-effective portion of the change in fair value of derivative instruments used to hedge currency, interest rate and commodity risks.
(3) Foreign-currency receivables and debts are translated at the closing rate, and the difference between the closing rate and the hedging rate is recognised under "Financial instrument assets and liabilities".

Risk management

The Eramet Group uses derivatives to control its exposure to currency, interest rate and commodity risks. The Executive Committee has delegated the management of the main risks to the Eramet Group Finance Department. This management is carried out directly by Eramet or via Metal Currencies, which was set up specifically to manage the Eramet Group's currency risk.

The Eramet Group's policy is to reduce its exposure to interest rate and foreign exchange fluctuations. Positions are traded either on organised markets, or over the counter with leading banking counterparties.

Gains or losses on hedging instruments are recognised symmetrically with the gains or losses on the hedged items. However, unrealised gains and losses on financing hedging transactions that are ineligible under hedging standards are recognised in Net income for the period.

All transactions outstanding at the reporting date are recognised in the Statement of financial position, without an offsetting entry.

Currency risk

When the exposure stemming from borrowings taken out by Eramet Group companies in currencies other than their functional currencies is not offset by income in those foreign currencies, the Eramet Group may have recourse to hedging instruments. In addition, the Eramet Group uses financial instruments to limit its exposure to currency risk on its sales and on certain dollar-denominated costs.

The Eramet Group is exposed to two types of currency risk, namely:

- **transactional risk** where a Group company has revenue in a currency other than its functional currency that is not offset by purchases in that currency;
- **balance sheet risk** related to changes in the net assets of subsidiaries valued in currencies other than the euro.

The Eramet Group centralises the subsidiaries' currency risk. Each Eramet Group company reports its exposure in currencies other than its functional currency to Group Treasury. This management is part of a multiyear policy with procedures approved by the Executive Committee along with monthly reporting to its members. The Eramet Group manages the currency risk to the balance sheet for each case individually.

Transactional risks

As part of transactional risk management, currency hedging primarily involves the US dollar but also the Norwegian krone, the pound sterling, the Swedish krona and the Japanese yen. These hedges are designed to protect the Eramet Group's present and future positions on trade transactions, more than 50% of which are invoiced in foreign currencies, whereas production costs are for the most part denominated in euros. The transactions are carried out via the company Metal Currencies.

The subsidiaries in question determine the amount of their net exposure based on multiyear budgets and forecasts. The associated risks are then hedged within a maximum horizon of thirty-six months, unless exemptions apply. The Eramet Group uses various instruments to hedge against currency risk: futures/forward contracts and options.

The breakdown of the hedging portfolio by currency is shown below:

AT 31 DECEMBER 2018	2018 SALES			2019 SALES			2020 SALES AND BEYOND		
(FOREIGN CURRENCY UNIT MILLION)	AMOUNT	CURRENCY	PRICE	AMOUNT	CURRENCY	PRICE	AMOUNT	CURRENCY	PRICE
Commercial hedges									
• EUR/USD	271	USD	1.16	479	USD	1.17	145	USD	1.23
• EUR/NOK	262	NOK	9.68	930	NOK	9.79	463	NOK	10.05
Other hedges – total amount not detailed by year									
• EUR/USD	136	USD	1.12						
• EUR/NOK	91	NOK	9.02						

AT 31 DECEMBER 2017	2017 SALES			2018 SALES			2019 SALES AND BEYOND		
(FOREIGN CURRENCY UNIT MILLION)	AMOUNT	CURRENCY	PRICE	AMOUNT	CURRENCY	PRICE	AMOUNT	CURRENCY	PRICE
Commercial hedges									
• EUR/USD	266	USD	1.18	332	USD	1.18	-	USD	-
• EUR/NOK	292	NOK	9.48	840	NOK	9.71	300	NOK	9.78
Other hedges – total amount not detailed by year									
• EUR/USD	106	USD	1.19						
• EUR/NOK	275	NOK	8.93						

Balance sheet risk

The Eramet Group manages currency risks to the balance sheet, primarily related to the US dollar, by issuing financial debt denominated in the same currency as the net assets in question, or via currency swaps.

At 31 December 2018, the fair value of currency hedges covering transactional risks represented a net liability of €7 million (31 December 2017: net liability of €8 million).

For hedges of 2019 USD revenue, an increase or decrease of 0.10 in the EUR/USD exchange rate would have a pre-tax impact on the hedges recognised in equity at 31 December 2018 of +€29.8 million should exchange rates rise (31 December 2017: +€17 million) and approximately -€44 million should those rates fall (31 December 2017: -€20 million).

The notional amount of currency hedging contracts breaks down as follows:

(FOREIGN CURRENCY UNIT MILLION)	31/12/2018				31/12/2017			
	FORWARD SALES	FORWARD PURCHASES	PUT OPTIONS	CALL OPTIONS	FORWARD SALES	FORWARD PURCHASES	PUT OPTIONS	CALL OPTIONS
Currency against EUR								
• USD	602	97	695	527	584	137	267	317
• JPY	85	60			57			
• GBP	7	4			7	3		
• NOK		1,014	733	1,057		1,222	485	749
Currency against SEK								
• JPY	46				29			
• USD	11				4			

The pre-tax impact on shareholders' equity and profits of financial instruments hedging currency risks is shown below:

(€ MILLION)	FOREIGN EXCHANGE HEDGES			
	FINANCIAL YEAR 2018		FINANCIAL YEAR 2017	
	TRANSACTIONAL RISKS	BALANCE SHEET RISKS	TRANSACTIONAL RISKS	BALANCE SHEET RISKS
At beginning of period	-	(6)	(17)	47
Change in unexpired hedging portion(1)	(7)		7	
Change in ineffective portion via income(2)	(1)		(1)	
Change in effective portion via income(3)	(15)		11	
Translation adjustments and other movements		(61)		(53)
At period close	(22)	(67)	-	(6)
Changes recognised in shareholders' equity:				
• hedging reserve	(22)		18	
• translation reserve		(61)		(53)
Total	**(22)**	**(61)**	**18**	**(53)**
Changes recognised via income:				
• current operating income	15		(11)	
• net financial income	(1)		(1)	
Total	**14**	-	**(12)**	-

(1) The impact corresponds to the effective portion of the change in fair value of derivative instruments used to hedge currency risks.
(2) The impact corresponds to the non-effective portion of the change in fair value of derivative instruments used to hedge currency risks.
(3) Foreign-currency receivables and debts are translated at the closing rate, and the difference between the closing rate and the hedging rate is recognised under "Financial instrument assets and liabilities".

Interest rate risk

Depending on market conditions and forecast changes in net financial debt, the Eramet Group's Finance Department monitors the allocation between fixed and floating rate debt and cash investments, and decides on whether to set up rate hedges. The financial instruments used are interest rate swaps, caps and floors. The Group's Treasury Department is responsible for setting up hedges.

The cash surpluses managed by Metal Securities are invested in:

- instruments linked to the EONIA (Euro OverNight Index Average) or EURIBOR (Euro InterBank Offered Rate) rates;
- fixed-rate instruments swapped against the EURIBOR.

These instruments are included in Other current financial assets and are hedged using interest rate futures (fixed rates against floating rates). Other cash surpluses managed by Metal Securities are primarily invested in instruments linked to the EONIA (Euro OverNight Index Average) rate.

Commodity risk

The Eramet Group is exposed to commodity price volatility, affecting both its sales as a nickel and manganese producer and its production costs, as a consumer of energy (fuel oil and electricity) and commodities (nickel and aluminium).

The Eramet Group holds derivative instruments for the purposes of reducing its exposure. To this end, the Eramet Group mainly uses forwards, tunnel options and call options.

The main Group entities involved are:

- Eramet and Société Le Nickel-SLN for nickel sales;
- Aubert & Duval for nickel purchases;
- Société Le Nickel-SLN for fuel oil;
- Aubert & Duval for aluminium;
- Erasteel Kloster AB and Eramet Norway A/S for electricity.

The exposures to manganese and coke price volatility are not hedged since there is no organised market for these commodities.

Hedges are contracted with horizons of one to four years, depending on the commodities, and are based on the budget. Only part of the forecast consumption or production is hedged (e.g. for fuel oil, a maximum of 80% of the budget is hedged). The Eramet Group uses various instruments to hedge and limit its exposure, namely forwards/futures and options.

At 31 December 2018, the fair value of hedges set up for the various commodities stood at +€0.5 million net (31 December 2017: €2 million net).

The main commodities contracts outstanding are set out below:

	31/12/2018			31/12/2017		
(TONNES)	SWAPS	PUT OPTIONS	CALL OPTIONS	SWAPS	PUT OPTIONS	CALL OPTIONS
Nickel	3,217			4,918		
Aluminium						

A change of plus or minus 10% in commodity prices would have no material pre-tax impact on the hedges recognised through shareholders' equity.

Liquidity risk

The Eramet Group must ensure that it maintains a sufficient level of liquidity to meet its contractual obligations, including servicing its bank and bond debt.

In this context, the Eramet Group anticipates the regular renewal of its existing borrowings (credit facilities, bonds, leases, etc.) and establishes new modes of financing (ODIRNAN 2016), according to the opportunities available.

Furthermore, operational funds (investments and receivables) are implemented directly in the Eramet Group's subsidiaries.

Eramet also aims to diversify its sources of funding, particularly between the bond and banking markets.

Eramet centralises virtually all the cash requirements and surpluses of its controlled companies. This centralisation is performed by Metal Securities, which is responsible for managing the investment of cash surpluses.

The Eramet Group's financial liquidity position at 31 December 2018 was €2,468 million (31 December 2017: €2,690 million), of which €848 million is classified as cash and cash equivalents (31 December 2017: €1,681 million). These cash surpluses are, for the most part, transferred to Metal Securities, the Group company in charge of centralising and investing the Eramet Group's cash surpluses.

Revolving credit facility

On 19 January 2018, Eramet repaid the balance of the Revolving Credit Facility (RCF), amounting to €250 million. Initially scheduled to be repaid in January 2018, this revolving credit facility was extended for a further two years in January 2017. Eramet had made partial repayments of €500 million in May 2017 and €230 million in July 2017.

This same facility was extended on 13 February 2018 for an amount of €981 million and for a five-year term, with a new maturity in January 2023. The amount available under this revolving credit facility is maintained at €981 million.

On 25 October 2018, the Group signed a new €120 million loan with the European Investment Bank to finance investments in research, development and innovation (RDI) in digitalisation and advanced manufacturing.

As at 31 December 2018, this loan had not yet been drawn down.

The Eramet Group is liable to repay its borrowings, primarily comprising financial market borrowings and bank borrowings, and its other liabilities and derivatives, for which the repayment schedule (including future interest) is given below:

(€ MILLION)	STATEMENT OF FINANCIAL POSITION	FUTURE PAYMENT SCHEDULE			
		LESS THAN ONE YEAR	ONE YEAR TO FIVE YEARS	OVER FIVE YEARS	TOTAL
Borrowings on capital markets	1,373	47	804	500	1,351
Borrowings from credit institutions	387	203	110	96	409
Bank overdrafts and creditor banks	65	65			65
Finance lease liabilities	42	11	28	4	43
Other borrowings and financial liabilities	214	56	3	154	213
Total borrowings	**2,082**	**382**	**945**	**754**	**2,081**
Derivatives	60	60			60
Trade and other payables	798	798			798
Total other financial liabilities	**858**	**858**	**-**	**-**	**858**

The schedule of future receipts on financial assets is set out below:

(€ MILLION)	STATEMENT OF FINANCIAL POSITION	SCHEDULE OF FUTURE RECEIPTS AT FAIR VALUE			
		LESS THAN ONE YEAR	ONE YEAR TO FIVE YEARS	OVER FIVE YEARS	TOTAL
Other current financial assets	516	516			516
Cash and cash equivalents	848	848			848
Total cash and cash equivalents	**1,364**	**1,364**	**-**	**-**	**1,364**
Derivatives	25	25			25
Trade and other receivables	615	604	11		615
Total other financial assets	**640**	**629**	**11**	**-**	**640**

Where appropriate, financial liabilities are covered by banking covenants at Group level or locally; the main covenants are described below:

COMPANY (CURRENCY UNIT MILLION)	TYPE OF FACILITY		RATIO	NOMINAL AMOUNT
Eramet S.A.	Revolving credit facility	Net debt decreased by SLN loan from the French government/ Shareholders' equity	< 1	€981 million
	Borrowing Base	Net debt/Shareholder's equity	< 1	€65 million
	European Investment Bank	Net debt/Shareholder's equity	< 1	€80 million
	European Investment Bank	Net debt/Shareholder's equity	< 1	€30 million
	European Investment Bank	Net debt decreased by SLN loan from the French government/ Shareholders' equity	< 1	€120 million
Comilog SA	ICBC/BNP Paribas/BGFI loans	Net debt/Shareholder's equity	< 1,15	$217 million
		Net cash flow/Debt servicing	> 2	
		Sales to Eramet Norway A/S, Marietta, Comilog Dunkerque, ECM/Debt Servicing	> 150%	(1)
	CAT Finance	Net debt/EBITDA on a rolling 12-month basis	< 3	$40 million
		Net cash flow/Debt servicing	> 1,30	€11 million
		Net debt/Shareholder's equity	< 2	
	IFC/Proparco	Net debt/Shareholder's equity	< 1.15	€33 million
		Net debt/EBITDA on a rolling 12-month basis	< 4	
		Debt servicing	> 1,3	
TiZir	Bond issue	Shareholders' equity + subordinated loans/Total assets	> 35%	$300 million
		Liquidity	> $15 million	
		Interest coverage ratio (EBITDA/ Net Financial Interest)	> 1.50	
			> 1.75	(2)
			> 2.00	
Aubert & Duval	SogeLease — Lease agreements	Consolidated net debt/ Shareholder's equity	< 1	€9 million
	CACIB — Securitisation	Net Financial Debt/Equity	< 1.1	N/A
		EBITDA/Net Financial Interest	> 4.5	

(1) Covenant only applicable to one of the two $30 million loans subscribed by Comilog.
(2) Applicable covenant:
— from the 18th month following the loan issue (1.50);
— from the 36th month following the loan issue (1.75);
— from the 54th month following the loan issue (2.00).

Eramet's covenants are determined on the basis of the published consolidated accounts.

Comilog's covenants are determined on the basis of Comilog's separate and consolidated financial statements.

TiZir's covenants are determined on the basis of TiZir's separate and consolidated financial statements.

Aubert & Duval's covenants are determined on the basis of Aubert & Duval's separate and consolidated financial statements.

At 31 December 2018, the covenants showed no circumstances of accelerated maturity.

Moreover, at 31 December 2018, no cases of cross-default likely to impact funding at Group level were recorded.

Credit and counterparty risk

The Eramet Group may be exposed to credit risk in the event of counterparty default: in relation to its customers and its financial partners, because of its cash surpluses invested by Metal Securities, the Group company established specifically for this purpose. The Eramet Group has several means to limit this risk: gathering information ahead of entering into transactions (from rating agencies, published financial statements, etc.), credit insurance and the establishment of letters of credit and documentary credits. Specifically for trade receivables, there is a dedicated credit manager for each Division of the Group.

The age of the Group's trade receivables and overdue receivables is shown below:

(€ MILLION)	31/12/2018 GROSS AMOUNT	31/12/2018 IMPAIRMENT	31/12/2018 NET AMOUNT	31/12/2017 GROSS AMOUNT	31/12/2017 IMPAIRMENT	31/12/2017 NET AMOUNT
On-time or not due	262	(4)	258	274	-	274
Delays:						
• less than one month	68	-	68	74	(1)	73
• one to three months	10	(1)	9	7	-	7
• three to six months	5	(1)	4	6	-	6
• six to nine months	10	-	10	3	(2)	1
• nine to twelve months	4	-	4	1	(1)	-
• over one year	58	(16)	42	10	(10)	-
Total trade receivables	417	(22)	395	375	(14)	361

No material unpaid or impaired receivables have been renegotiated.

Equity and bond risk

Eramet and its subsidiaries do not speculate on the stock markets; the investments held relate to unlisted controlled companies entirely in line with the Group's business activities.

In accordance with the Group's investment policy, which defines and limits the counterparty risk, the Eramet Group has purchased bonds subject to bond risk, recognised in Other current financial assets.

Note 9 Working capital requirement

(€ MILLION)	31/12/2017	CHANGE IN WCR STATEMENT OF FLOWS	CHANGE IN NON-CURRENT TRADE PAYABLES	TRANSLATION ADJUSTMENTS AND OTHER	31/12/2018
Inventories	849	48		50	947
Customers	361	(4)		38	395
Suppliers	(363)	6		(34)	(391)
Simplified WCR	**847**	**50**	-	**55**	**951**
Other items of WCR	(221)	7	(5)	(95)	(313)
Total WCR	626	57	(5)	(40)	638

Inventories

Inventories consist mainly of the products of the Nickel, Manganese and Alloys BUs at different stages of the production process, and are recorded at the lower of cost and net liquidation value.

ACCOUNTING METHOD	JUDGEMENTS AND ESTIMATES
Inventories are measured using the weighted average unit cost for the industrial operations of Eramet Alloys, and on a first-in-first-out (FIFO) basis for the industrial and mining operations of the Nickel and Manganese BUs. Inventories are carried at cost price and only include production costs, while not exceeding the realisable value. Costs stemming from sub-normal activity are eliminated from inventory measurement at the end of the reporting period. Impairment losses for raw materials are recognised when the net realisable value falls below the cost of entry into storage. Consumables are fully depreciated where the quantities are in storage over a much longer period than their estimated use. The impairment of spare parts that do not qualify for capitalisation is calculated on the basis of their use during the year. Spare parts inventory in excess of one year's use is fully depreciated. For work-in-process, intermediate and finished products in inventory for over a year, the forward-looking approach is applied on the basis of the order book and market validation of achievements within one year; the quantities beyond one year of consumption are fully depreciated, except in specific cases. Fixed production costs relating to recognised or planned sub-normal activity are not incorporated in inventory measurement, and are recognised as ordinary operating expenses for the period in which they are incurred. Sub-normal activity is taken into account when the actual production volume is considerably lower than the normal production volume (or normative capacity).	Judgement is exercised to determine the net realisable value, as well as to allocate the fixed and variable production overheads attributable directly to inventories.

(€ MILLION)	31/12/2018	31/12/2017
At beginning of period	**849**	**896**
Change in gross inventories	66	(27)
(Impairment)/net reversals for the period	(18)	6
Increase/(decrease) in net inventories – cash flows	48	(21)
Translation adjustments and other movements	50	(26)
At period close	947	849
Raw materials	273	222
Merchandise and finished products	214	245
Work-in-progress and semi-finished goods	356	313
Consumables and spare parts	103	69
Breakdown of impairment losses:		
• **At beginning of period**	**(111)**	**(122)**
• (Impairment)/net reversals for the period	(20)	6
• Translation adjustments and other movements	(13)	5
• **At period close**	**(144)**	**(111)**

Impairment provisions mainly relate to raw materials, merchandise and finished products.

Trade and other receivables

Trade and other receivables are amounts that the Eramet Group expects to collect from third parties.

ACCOUNTING METHOD	ESTIMATES AND JUDGEMENTS
Receivables are booked at transaction value at initial recognition and are subsequently measured at each reporting date at amortised cost. Foreign currency receivables and payables are re-measured at the prevailing foreign exchange rate at period end. The resulting translation adjustments are recognised in Current operating income or in Net financial income (Other financial income and expenses) depending on the type of receivable or debt. The Group's portfolio of trade receivables is measured to take into account the expected loss rate at maturity in this portfolio. This rate is determined by qualifying the customer portfolio according to its risk exposure, with secured receivables limiting the expected level of risk of loss, and by assessing the probability of default and the impact of the expected loss on the portfolio, based on historical losses on receivables, the age of the receivable and an assessment of the risks involved. Individual impairment losses are recognised for receivables where they are more than likely not to be recovered and it is possible to reasonably measure the amount of the impairment based on historical losses on receivables, the age of the receivable and an assessment of the risks involved. This impairment, offset in Current operating income, is deducted from the gross value of the receivable. Receivables disposed of under a securitisation contract are removed from the balance sheet when the Eramet Group has transferred the contractual rights to collect the cash amount and where almost all the risks and rewards attached to these receivables have been transferred to the transferee. Where risks remain but do not prejudice the removal of the receivables from the balance sheet, they are recognised under Other operating receivables together with the related security deposits (Note 9). Disposals with recourse against the Eramet Group in the event of payment default by the client means that these transferred receivables must be retained in the balance sheet.	Determining the expected level of loss on the collection of receivables requires judgement. The impairment loss is calculated consistently based on historical losses on receivables, the age of the receivable and an assessment of the risks involved for each receivable category.

(€ MILLION)	GROSS AMOUNT	IMPAIRMENT	NET AMOUNT 31/12/2018	NET AMOUNT 31/12/2017
At beginning of period	**786**	**(169)**	**617**	**624**
Change in gross amount	78		78	66
Impairment losses for the period		(25)	(25)	(19)
Changes in working capital requirement – cash flows			53	47
Translation adjustments and other movements	(57)	3	(54)	(54)
At period close	807	(191)	616	617
Trade receivables	**417**	**(22)**	**395**	**330**
Tax and payroll receivables	115	(3)	111	112
Security deposit – securitisation agreement	6	-	6	9
Other operating receivables	258	(166)	92	49
Other current assets	**379**	**(169)**	**209**	**170**
Receivables on the Setrag concession agreement – non-current asset	-	-	-	1
TiZir shareholder current account – non-current asset	-	-	-	73
UKAD shareholder current account – non-current asset	4	-	4	4
Receivable for sale of Erachem – non-current asset	7		7	8
Other non-current assets	**11**	**-**	**11**	**86**
Total	807	(191)	616	586

The bulk of trade and other receivables are due in less than one year.

Tax and payroll receivables include a VAT credit amount to the Gabonese government of €45 million at 31 December 2018 for the years 2014 to 2018 (€42 million at 31 December 2017).

Securitisation of customer receivables

The Eramet Group uses factoring or securitisation as a source of funding for its receivables. Under these agreements, certain subsidiaries in France and the United States have committed to banking institutions to transfer their trade receivables totalling €201 million at 31 December 2018 (€210 million at 31 December 2017). The analysis of the transfer of risks and rewards resulted in either full deconsolidation or partial deconsolidation. At 31 December 2018, as at 31 December 2017, there were no non-deconsolidated receivables.

A security deposit may be required to cover the commitments given by the transferor subsidiaries to the financing company and will be returned upon the settlement of the transaction. It consists of reserves to hedge against credit risk, delayed payment risk and dilution risk. This deposit amounted to €6 million at 31 December 2018 (31 December 2017: €9 million).

(€ MILLION)	31/12/2018	31/12/2017
Trade receivables – Invoices assigned	(201)	(210)
Trade receivables – Invoices not deconsolidated	-	-
Other operating receivables – Security deposit	6	9

Trade and other payables

Trade and other payables mainly comprises amounts owed to suppliers and tax authorities that have already been billed or are already due.

(€ MILLION)	31/12/2018	31/12/2017
At beginning of period	**695**	**722**
Changes in working capital requirement	54	81
Change in payables on non-current assets	5	(8)
Translation adjustments and other movements	46	(100)
At period close	800	695
Trade payables	**391**	**363**
Tax and payroll payables	292	257
Other operating payables	52	32
Payables on non-current assets	34	30
Deferred income	29	9
Other current liabilities	**407**	**328**
Setrag debt for the purchase of own property and inventories — non-current	2	4
Other non-current liabilities	**2**	**4**

Most of the trade and other payables are due in less than one year.

The debts recognised under non-current liabilities include Setrag S.A.'s 25-year debt to the Gabonese Republic for the transfer of the concession.

Note 10 Investments

The Eramet Group groups its investments into two categories:

- industrial investments relating to assets in connection with extraction or production equipment: intangible assets and property, plant and equipment;
- financial investments that mainly relate to interest held in joint ventures and non-consolidated companies, as well as other non-current financial assets.

Acquisition of non-current assets

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Capital expenditure on property, plant and equipment for the period	252	206
Capital expenditure on intangible assets for the period	26	18
Total industrial capital expenditure	**278**	**224**
Change in payables for the acquisition of non-current assets	(5)	8
Acquisition of equity investments	2	4
Total acquisition of non-current assets — Statement of cash flows	275	236

Property, plant and equipment

ACCOUNTING METHOD

Property, plant and equipment are stated in the balance sheet at their carrying amount, which is the acquisition or manufacturing cost less depreciation and impairment of losses incurred.
Land is not depreciated.
Spare parts deemed to be items of property, plant and equipment are capitalised and depreciated on the basis of their actual use.
Tooling specifically manufactured for certain customers is capitalised and depreciated over its likely useful life.
Major repairs are deemed to be components of items of property, plant and equipment.
Borrowing costs that are directly linked to the acquisition or production of an asset are incorporated into that asset's cost.
When operations commence, a provision is made to take into account the restoration of the mining site, offset by an environmental and decommissioned asset that is depreciated on a straight-line basis during the operation of the mine. Revisions to these restoration cost estimates correct the value of this asset and provision by prospectively allocating the result over the period of operation, including the current year.
Finance leases transferring almost all of the risks and benefits inherent in ownership of the good to the Eramet Group are recognised as items of property, plant and equipment, offset by a financial debt (Note 6). These are amortised over their expected useful life on the same basis as the items of property, plant and equipment held or, if shorter, the term of the corresponding lease. Similarly, other agreements, and primarily sub-contracting, involving the use of a specific asset and the right to use it, are reclassified as leases where necessary.
The Trans-Gabon railway concession was recognised as follows: property owned by the Eramet Group is recognised as a balance sheet asset and depreciated over the shorter of its useful life or the remaining period of the concession. Returnable assets representing the assets contributed to the concession by the Gabonese Republic that must be returned in the same state upon expiry of the agreement are not recognised in the balance sheet. Assets acquired by the Eramet Group following the signing of the concession agreement that must be turned over to the Gabonese Republic at the end of the concession are recognised as property, plant and equipment and depreciated over the term of the concession. A provision is made to cover the net value of the property, plant and equipment at the end of the concession based on investment assumptions.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

Judgement is exercised to determine all the expenses (i.e. labour, overheads) directly associated with the acquisition, construction, improvement or development of a non-current asset, including the costs of bringing it to the location and in the state that is required for its use as planned by Management.
Expenses for non-current assets are no longer capitalised once the non-current asset is practically completed and is capable of functioning as intended. To determine whether these conditions are met, a review must be carried out of the considerations applied in the same industries, predetermined by the Management's judgement with reference to the factors affecting the expected production capacity.
Where a non-current asset is composed of individual components which call for different methods or depreciation rates, judgement is exercised to determine how best to split the asset. Distinguishing between inspections and major revisions for repair and maintenance, and determining the appropriate period for amortising these costs, are a matter of judgement.

Property, plant and equipment by category

(€ MILLION)	GROSS AMOUNT	DEPRECIATION AND AMORTISATION	IMPAIRMENT LOSSES	NET AMOUNT 31/12/2018	NET AMOUNT 31/12/2017
Land and buildings	1,071	(605)	(16)	450	418
Industrial and mining facilities[(1)]	4,007	(2,428)	(195)	1,384	1,056
Other property, plant and equipment	863	(571)	(24)	268	279
Work-in-progress, down-payments	202	-	(17)	185	171
Total	6,143	(3,604)	(252)	2,287	1,924
(1) of which:					
Assets funded by finance leases				*82*	*92*
Decommissioned Assets — site restoration				*108*	*89*

Change over the period

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
At beginning of period	**1,924**	**1,976**
Investments for the period	254	206
Disposals for the period	(5)	(12)
Depreciation and amortisation for the period	(238)	(214)
Impairment losses for the period	(167)	(31)
Change in the gross amount of decommissioned assets	4	3
Change to consolidation scope	500	
Translation adjustments and other movements	15	(4)
At period close	2,287	1,924
• Gross amount	6,143	5,451
• Depreciation and amortisation	(3,604)	(3,348)
• Impairment losses	(252)	(179)

Intangible assets

ACCOUNTING METHOD	ESTIMATES AND JUDGEMENTS
Intangible assets are stated in the balance sheet at their carrying amount, which is the acquisition cost less amortisation and any impairment of losses incurred. **Goodwill** Goodwill is the difference between the acquisition price of an entity and the Eramet Group's share in the fair value of the identifiable asset or liability (including possible liabilities) of the acquired entity at the acquisition date. It is recognised at cost, less accumulated impairment losses. Goodwill in associates and joint ventures is recognised under investments in joint ventures and associates (Note 9). **Mining reserves** Amounts capitalised with respect to mineral deposits relate to partial asset contributions or permits acquired since 1974. Depending on the specific operating characteristics, mining reserves are amortised on the basis of the ratio of annual production to the estimated reserves or the length of the concession. **Geology, prospecting and research expenses** Geology, prospecting and research expenses incurred prior to operation are recognised as intangible assets, in compliance with IFRS 6 — Exploration for and Evaluation of Mineral Resources. The royalties paid for mining prospecting and exploration are also recognised under intangible assets.	Judgement must be used to determine whether the expenditure on intangibles can be recognised as an intangible asset. If its useful life is limited in time, the intangible asset is amortised on a straight-line basis over the estimated useful life. The goodwill is allocated to the cash-generating unit from where it arose, for the purposes of impairment testing.

Intangible assets by category

(€ MILLION)	GROSS AMOUNT	DEPRECIATION AND AMORTISATION	IMPAIRMENT LOSSES	NET AMOUNT 31/12/2018	NET AMOUNT 31/12/2017
Goodwill	249	(0)	(14)	235	155
Indonesia mining reserves	-	-	-	-	113
Gabon mining reserves	61	(39)	-	22	24
Senegal mining reserves	98	(1)	-	97	-
New Caledonia mining reserves	47	(35)	-	12	13
Indonesia geology, prospecting and research expenses	-	-	-	-	-
Other geology, prospecting and research expenses	57	(15)	-	42	1
Software	121	(106)	(1)	14	18
Other intangible assets	39	(33)	(1)	5	9
Work-in-progress, down-payments	48	-	(19)	29	16
Total	720	(229)	(35)	455	349

The net goodwill of €235 million at 31 December 2018 (31 December 2017: €155 million) is mainly due to the acquisition of the Norwegian company Eralloys Holding A/S in 2008 for €148 million (31 December 2017: €149 million), allocated to the Eramet Norway CGU, and the acquisition of Mineral Deposit Limited on 1 July 2018, resulting in goodwill of €83 million. The Eramet Group has a period of 12 months from the acquisition date to finalise the valuation of the acquired scope, so the amount of this goodwill may be revised as part of the ongoing purchase price allocation exercise.

Change over the period

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
At beginning of period	**349**	**372**
Investments for the period	26	18
Disposals for the period	(6)	1
Depreciation and amortisation for the period	(17)	(21)
Impairment losses for the period	(4)	-
Reversals in the period	-	-
Change in scope	103	
Translation and other movements	4	(21)
At period close	455	349
• Gross amount	720	1,151
• Depreciation and amortisation	(229)	(207)
• Impairment losses	(35)	(595)

Changes in scope includes TiZir acquisition and Weda Bay disposal impacts.

Impairment of assets and impairment losses

ACCOUNTING METHOD

Impairment tests are performed regularly: systematically at least once a year at the annual reporting date for goodwill and intangible assets with indefinite lives, and where there are indications of impairment. For intangible assets and items of property, plant and equipment with finite lives, impairment tests are carried out where there are indications of impairment.
Impairment testing consists in comparing the carrying amount of assets with their recoverable amount, which is defined as the higher of the value in use (or recoverable amount through use) and the fair value (or recoverable amount through sale), less selling costs.
Impairment losses are calculated as the difference between the recoverable and net book value and are recognised in the income for the period under Other operating income and expenses (Note 6).
Impairment losses recognised in goodwill are not reversible. For the other assets, previously recognised impairment losses are measured at each reporting date to identify whether the losses have decreased or no longer exist. An impairment loss is reversed only if the carrying amount of the asset does not exceed its net book value, as it would have been determined had no impairment been recognised.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

Cash-generating units (CGU) are homogeneous groups of assets whose continuous use generates independent cash flows.
The Eramet Group has defined its CGUs with reference to the various production sites of the Nickel, Manganese and Mineral Sands BUs, and the High Performance Alloys division.
Impairment tests are performed for each CGU. All intangible assets, including goodwill, and all items of property, plant and equipment are allocated to CGUs.
At 31 December 2018, the Eramet Group is divided into nine CGUs, distributed as follows:

- two CGUs in the Nickel business unit;
- four CGUs in the Manganese business unit;
- one CGU in the Mineral Sands business unit;
- two CGUs in the High Performance Alloys division.

Eramet Group's General Management determines the existence of events calling for impairment testing based on several criteria. Impairment loss indicators correspond mainly to changes and fluctuations in:

- raw material prices and the selling price of finished goods;
- economic and regulatory environment and market conditions;
- interest rates;
- technological level;
- asset performance and obsolescence.

An impairment test is carried out on the CGUs concerned when these indicators show a negative development.
To determine the value in use, the Eramet Group uses the method of discounted future cash flows generated from the use of the assets. The data used to calculate the discounted forecast cash flows is taken from the annual budgets and multiyear plans prepared by the Management of the CGUs concerned. These plans are created on the basis of 5-10 year projections, in keeping with mining and industrial cycles, plus a final value corresponding to the capitalisation to infinity of normative cash flows. Plans for certain CGUs are prepared for longer periods corresponding to the operating period of the sites without assigning a terminal value.
The growth rates used are the same as those used in budgets. The growth rates to infinity used for the terminal values are generally between 1% and 2.5%, depending on the CGU.
The discount rate applied to calculate the value in use is the weighted average cost of capital, namely:

- 10% for mining activities (also 10% in 2017);
- 8.7% for High Performance Alloys activities (8.5% in 2017);
- 10.3% for the Mineral Sands CGU (compared with 11.5% in 2017), a company accounted for under the equity method up to 30 June 2018 and fully consolidated since 1 July 2018 following the acquisition of Mineral Deposit Limited (see "Investments in joint ventures and associates").

The Eramet Group may measure the recoverable amount using other methods that it deems relevant in the context of the CGUs concerned. These methods may include estimated transaction values.
Whatever the method used, the assumptions used are Management's best estimates. The Eramet Group regularly reviews its estimates and assessments to take account of past experience and other factors that are deemed relevant with regard to economic conditions.

The change in impairment of assets and other impairment losses is broken down as follows:

(€ MILLION)	31/12/2017	IMPAIRMENT FINANCIAL YEAR 2018	TRANSLATION ADJUSTMENTS AND OTHER	31/12/2018
Nickel BU	(582)	-	562	(20)
High Performance Alloys division	(69)	(201)	9	(261)
Manganese BU	(122)	26	86	(10)
Mineral Sands BU				
Holding and others	(4)	-	-	(4)
Total	(777)	(175)	657	(295)
Goodwill	(11)	(3)	0	(14)
Intangible	(583)	(1)	563	(21)
PP&E	(179)	(171)	98	(252)
Other provisions	(4)		(4)	(8)

The decrease in impairment of assets and other impairment losses is mainly due to changes in the scope of consolidation (disposal of Weda Bay — €562 million, Guilin €86 million), as well as the impairment of Aubert & Duval (€201 million).

Sensitivity

Sensitivity is determined with reference to changes in future cash flows and discount rates.

The Eramet Group's cash projections for its mining and metallurgical businesses are highly dependent on the sale price assumptions, especially that of ores (nickel, manganese, zircon, etc.), on euro-dollar parity, and on global demand for products sold by the Group.

SLN CGU – Nickel BU

The value in use is extremely sensitive to the price of nickel – the main hypothesis of the impairment test for this CGU.

This commodity is traded on the London Metal Exchange (LME). Directly observable forward prices do not reflect the long-term price. The values used are determined by reference to the average sector values and are more conservative than this average.

The selected prices are thus integrated into the multi-year business plan, which allows the cash flow projections of the CGU to be determined.

However, there is strong interdependence between the different variables, namely the value of the dollar, the price of Brent crude oil and the price of nickel, which generally do not impact the test in the same way.

A decrease of USD 0.5/lb in the target nickel price, a 0.5% increase in the discount rate, or a decrease of 0.5% in the long-term growth rate under identical operating conditions would not result in recognition of an impairment loss, however would reduce the margin of comfort on SLN. On the other hand, if the long-term price levels were to be revised downwards substantially, the test could result in an impairment loss.

Sandouville CGU – Nickel BU

The Sandouville site produces nickel metal and nickel salts from a matte and a hydro-metallurgical process to transform the matte. This site is in the ramp-up phase and has not yet reached expected nominal performance and flow rates. The Company has implemented corrective actions that should allow it to achieve the objectives set for 2019.

Largely unaffected by fluctuations in the nickel price, the business plan provides for a value in use close to that of the capital employed (€63 million). A delay in the actions implemented in 2019 could lead to impairment.

Gabon and Manganese Alloys CGUs – Manganese BU

Manganese ore is not a listed commodity. The price is adjusted according to supply and demand, particularly concerning alloy production forecasts and the marginal capacity of the South African producer.

To determine the forecast price of manganese ore, the Eramet Group uses an internal model that takes into account the marginal cost of South African production, available logistical means (trains or trucks) and ZAR/USD parity.

The price forecasts thus determined are integrated into the business plans of the Gabon and manganese alloys CGUs. These price forecasts can be compared with studies issued by the CRU (Commodities Research Unit), an independent body that carries out studies on certain metals, including manganese.

Regarding the Gabon CGU, a 0.5% increase in the discount rate, a 0.5% decrease in long-term growth rate or a fall of 1% in the EBITDA margin of the final year would not result in the recognition of an impairment loss.

Mineral Sands CGU

More than half of the CGU's revenues come from the sale of titanium raw materials, about one third from the marketing of zircon, and more marginally from ferrous materials.

Titanium raw materials, in the form of titanium slag or titanium dioxide, are intended for the pigment market, while zircon is produced for the ceramics market.

None of these products are listed. In both cases, the price forecasts used in the business plan are determined by reference to the analyses of sector specialists (TZMI), using the lower range of their forecast.

Regarding the Mineral Sands CGU, a 0.5% increase in the discount rate, a 0.5% decrease in long-term growth rate or a fall of 1% in the EBITDA margin of the final year would not result in the recognition of an impairment loss.

Aubert & Duval CGU – High Performance Alloys division

Concerning the Aubert & Duval CGU, the impairment test value in use is impacted by several key factors:

- a decline in or postponement of projected revenues in certain aeronautics and sector programmes, whose effect on Aubert & Duval's business would be particularly strong due to their significant contribution to the CGU's business activity;
- the integration and gradual implementation of a progress action plan to achieve quality objectives, impacting the CGU's EBITDA margin;
- the reinforcement of an investment plan aimed at increasing productivity gains and making production tools more reliable.

The value in use does not take into account the as yet unidentified impacts in the context of the quality process review which is under way within the CGU.

The review of these items in connection with the strategic realignment carried out by the Eramet Group in 2018 led the Group to recognise a €200 million impairment of the CGU's assets in the financial statements at 31 December 2018.

Residual values by CGU group

The residual values of invested capital are detailed as follows by CGU group:

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Nickel BU		
Net intangible assets and property, plant and equipment	588	732
Working capital requirement	106	138
Total	**694**	**870**
High Performance Alloys division		
Net intangible assets and property, plant and equipment	322	501
Working capital requirement	318	323
Total	**640**	**824**
Manganese BU[1]		
Net intangible assets and property, plant and equipment	1,064	1,025
Working capital requirement	235	113
Total	**1,299**	**1,138**
Mineral Sands BU[1]		
Net intangible assets and property, plant and equipment	734	
Working capital requirement	(6)	
Total	**728**	**-**
Holding and others		
Net intangible assets and property, plant and equipment	35	15
Working capital requirement	(15)	52
Total	**20**	**67**
Eramet Group		
Net intangible assets and property, plant and equipment	2,742	2,273
Working capital requirement	638	626
Total	3,380	2,899

(1) The Manganese BU incorporates the Mineral Sands BU until 31/12/2017

Capital employed is defined as the sum of net tangible assets, property, plant and equipment and working capital requirements. It is used to determine the accounting values of assets tested as part of asset impairment tests.

Investments in joint ventures and associates

ACCOUNTING METHOD	ESTIMATES, ASSUMPTIONS AND JUDGEMENTS
Joint ventures are companies over which Eramet has joint control, meaning that the decisions concerning the relevant activities require the unanimous consent of all controlling parties. Associates are companies over which the Eramet Group has significant influence. Joint ventures and associates are accounted for using the equity method of accounting and are initially recognised at cost. Their carrying amount includes the goodwill determined at their acquisition less accumulated impairment. The consolidated financial statements include Eramet's share in earnings and the equity movements of the companies accounted for using the equity method, after adjustments to bring the accounting rules of those companies in line with those of the Eramet Group. The dividends received from joint ventures and associates are deducted from their balance sheet value. An impairment test is carried out when there are indicators that the recoverable amount may fall below its carrying amount (Note 10).	Significant influence exists when Eramet has the powers to take part in financial and operating decisions of the Company but does not exercise control or joint control over these policies. Eramet has significant presumed influence if it holds 20% to 50% of the voting rights of a company. Eramet Group's General Management determines the existence of events calling for impairment testing under the same conditions as those given in the Impairment of assets section.

Breakdown by entity

(€ MILLION)			SHARE OF		SHARE OF	
			PROFIT (LOSS)	SHAREHOLDER'S EQUITY	PROFIT (LOSS)	SHAREHOLDER'S EQUITY
COMPANY	COUNTRY	% HOLDING	FY 2018	31/12/2018	FY 2017	31/12/2017
TiZir**** Subgroup	UK	50%	54	-	28	112
UKAD	France	50%	(3)	(6)	(9)	(1)
Total joint-ventures			**51**	**6**	**19**	**111**
HeYe Erasteel Innovative Materials Ltd (HEIML)	China	49%**	-	-	(1)	-
Stand Minerals - Weda Bay	Indonesia	43%***	(1)	31	-	4
EcoTitanium*	France	22.4%*	(2)	3	(1)	4
Total associates			**(3)**	**34**	**(1)**	**4**
Total investments in joint ventures and associates			48	29	18	115

** 21.75% for the 2017 financial year*
*** Wholly owned since the second half of 2017*
**** Consolidated using the equity method since 19 May 2018*
***** Fully Consolidated since 1 July 2018*

TiZir subgroup

On 27 July 2011, the Eramet Group and Mineral Deposits Ltd (MDL) entered into an agreement to create a joint venture, the British company TiZir Ltd, bringing together the Norwegian company TiZir Titanium & Iron A/S (TTI) and the Grande Côte Opérations S.A. (GCO) mineral sands project in Senegal. The final agreements were completed on 25 October 2011.

Following the successful takeover bid for Mineral Deposit Limited, the Eramet Group acquired 100% control of the TiZir subgroup on 1 July 2018.

Non-current financial assets

ACCOUNTING METHOD	JUDGEMENTS
Other non-current financial assets include other long-term financial assets and non-consolidated equity investments. Other long-term financial assets relate to loans or current accounts extended to non-consolidated companies or companies under joint control. They are initially recognised at fair value plus acquisition costs and are measured on each reporting date at amortised cost using the effective interest rate (EIR) method, less any offsetting provisions for impairment losses recognised in income for the period. Non-consolidated equity investments are recognised in the balance sheet at their acquisition cost or their value on the date of their deconsolidation, less any offsetting provisions for impairment losses recognised in income for the period, to reflect changes in the fair value of this asset category.	The Eramet Group has divided its non-consolidated subsidiaries into two categories: • controlled companies that are not consolidated owing to their low impact on the Eramet Group's financial statements; • non-controlled companies corresponding to holdings in companies over which the Eramet Group has no control or significant influence.

By category

(€ MILLION)	GROSS AMOUNT	IMPAIRMENT	NET AMOUNT 31/12/2018	NET AMOUNT 31/12/2017
Deposits and guarantees	13	-	13	16
Shareholders' loan — TiZir	-	-	-	48
Other non-current financial assets	312	(111)	201	33
Total excluding non-consolidated equity investments	**325**	**(111)**	**214**	**97**
Non-consolidated equity investments	161	(140)	21	24
Total	486	(251)	235	121

At 31 December 2017, the shareholders' loan to TiZir accounts for the loan amount granted by Eramet to its subsidiary under joint control, TiZir Ltd.

Other non-current financial assets chiefly relate to financial current accounts or loans granted to non-consolidated companies (MKAD) or equity affiliates (UKAD, EcoTitanium).

The main loan under this item corresponds to group financing as part of the Weda Bay project for €164 million.

Variation

(€ MILLION)	31/12/2018	31/12/2017
At beginning of period	**121**	**141**
Net change in non-current financial assets — statement of flows	3	3
Acquisition/disposal of equity investments	2	(6)
Impairment	1	19
Other movements	108	(36)
At period close	235	121

Other movements mainly consist of changes in consolidation scope:

- +€164 million for Weda Bay financing;
- -€53 million for the acquisition of TiZir.

By currency

(€ MILLION)	31/12/2018	31/12/2017
Euro	43	40
US dollar	139	52
CFP franc	10	4
Other currencies	22	1
Total	214	97

By interest rate type

(€ MILLION)	31/12/2018	31/12/2017
Interest-free	17	14
Fixed interest rates	25	26
Variable interest rates	172	57
Total	214	97

Interest-free items mainly relate to deposits and guarantees as well as certain loans to employees.

Non-consolidated equity investments

			(€ MILLION)			
COMPANY	COUNTRY	% HOLDING	GROSS AMOUNT	IMPAIRMENT	NET AMOUNT 31/12/2018	NET AMOUNT 31/12/2017
Main controlled companies						
• Aubert & Duval SA (Irun) (formerly Metallied)	Spain	100%	2	(2)	-	-
• Erasteel GmbH	Germany	100%	3	-	3	3
• Eramet Alloys UK Ltd	United Kingdom	100%	3	-	3	3
• Aubert & Duval Mold and Die Technology	China	85%	3	-	3	3
• Aubert & Duval Special Steel GmbH	Germany	100%	3	(3)	0	-
• La Petite-Faye	New Caledonia	100%	-	-	-	-
• Sodépal	Gabon	100%	7	(7)	(0)	-
• GCM Liquidation Co (formerly GCMC)	Gabon	100%	92	(92)	(1)	-
• Maboumine	Gabon	76.14%	26	(26)	0	-
Main non-controlled companies:						
• HeYe Special Steel Ltd	China	10%	-	-	-	-
• Squad	India	50%	7	(4)	3	6
Other companies			15	(6)	9	9
Total			161	(140)	21	24

Controlled but non-consolidated companies are mainly sales entities, the services of which are fully assigned to the Eramet Group, and industrial companies (shaping, wire-drawing and drawing of metallurgical products).

Equity investments in controlled companies are not consolidated since they have no material impact on the Eramet Group's consolidated financial statements.

Note 11 Taxes

This note explains the income tax expense and related tax amounts shown in the income statement and balance sheet. The section on deferred tax provides information on expected future tax payments.

ACCOUNTING METHOD	ESTIMATES, ASSUMPTIONS AND JUDGEMENTS
Income tax includes both current and deferred tax. The income tax expense is recognised in the income statement, except where it relates to a business acquisition or items recognised directly in equity or in Other comprehensive income. Current income tax includes taxes that the Eramet Group expects to pay on its taxable income for the reporting period at the prevailing tax rates or rates substantively enacted at the reporting date, as well as any adjustments for tax relating to prior reporting periods. Deferred tax is recognised as temporary differences between the carrying amount of the assets and liabilities measured for the purposes of financial reporting and the tax basis of those assets and liabilities measured at the income tax rate and tax laws enacted or substantively enacted at the reporting date and effective in the period in which these temporary differences should be used. Deferred tax assets, including those related to loss carry-forwards, which are determined by fiscal entity, are recognised whenever it can be shown that they are likely to be realised. The deferred tax assets and liabilities are classified in the balance sheet as non-current items and are offset if the entity has a legally enforceable right of set-off as is the case with the French tax consolidation group. Deferred tax liabilities on investments in subsidiaries, associates and joint ventures are recognised unless where the Eramet Group can determine the timetable for the reversal of the related temporary differences, and where it is likely that such differences will not reverse in the foreseeable future. Provisions are made for non-recoverable tax on dividends planned in the foreseeable future.	The Eramet Group operates in several countries. Its income is therefore taxed at various income tax rates. Given the magnitude of the operations and the complexity of tax regulations, the Eramet Group must assess uncertainties and exercise judgement to estimate the tax amount that it will eventually pay. The tax amount finally paid depends on various factors that include negotiations with tax authorities and the outcome of tax audits. The Eramet Group estimates deferred tax based on the temporary differences between the assets and liabilities shown in its consolidated financial statements and the tax bases of these assets and liabilities determined under the applicable tax laws. The deferred tax asset amount is generally recognised insofar as a probable taxable profit will be available in the future against which deductible temporary differences can be used. Consequently, the deferred tax asset that is recognised and considered as realisable can be reduced if the projected profit cannot be obtained. To assess the likelihood that these assets will be realised, the Eramet Group reviews the following information in particular: • projected future profitability; • extraordinary losses not expected to recur in the future; • past taxable profits; and • tax strategies.

Income tax

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Current tax	(180)	(193)
Deferred tax	(62)	(23)
Income tax income (expense)	(243)	(216)

Effective tax rate

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Operating income	398	513
Financial income	(84)	(93)
Pre-tax profit (loss) of consolidated companies	**314**	**420**
Standard taxation rate in France (%)	34.43%	34.43%
Theoretical tax income/(expense)	**(108)**	**(145)**
Impact on theoretical tax of:		
• permanent differences between accounting and taxable profit	33	2
of which related to changes in consolidation scope	48	
• taxes on dividend distribution (withholding tax)	(1)	(9)
• impairment of assets	14	2
• standard rate differences in foreign countries	11	18
• tax credits	5	4
• unrecognised or limited deferred tax Assets	(161)	(85)
• miscellaneous items	(35)	(3)
Actual tax income/(expense)	(243)	(216)
Tax rate	77%	51%

Financial Year 2018

Unrecognised or limited deferred tax assets mainly relate to the tax loss carry-forwards of Société Le Nickel-SLN (-€38 million) and Sandouville (-€30 million) and the reactivation of deferred taxes on losses of €16 million for the Manganese division. The impact of the French tax consolidation amounted to €7 million; the limitations or non-recognition of deferred tax assets for certain Alloys division subsidiaries amounted to -€10 million, and the exemption of certain subsidiaries from income tax amounted to -€2 million.

The difference in current tax rates of foreign countries comes mainly from Norway (€10 million) with a tax rate of 23%.

Financial Year 2017

Unrecognised or limited deferred tax assets mostly relate to the tax loss carry-forwards of Société Le Nickel-SLN totalling €51 million, the French tax consolidation (€11 million) and other limited or unrecognised deferred tax assets in certain subsidiaries totalling €22 million.

The difference in current tax rates of foreign countries comes mainly from Norway with a tax rate of 24%.

Main standard tax rates in foreign countries

(%)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
China	16,5%-25,0%	12,5%-25,0%
United States	21.75%	35.75%
Gabon	35.0%	35.0%
Norway	23.0%	24.0%
New Caledonia	35.0%	35.0%
Sweden	22.0%	22.0%

Change in tax receivables and tax payables

(€ MILLION)	31/12/2018	31/12/2017
At beginning of period	**(146)**	**5**
Current tax — income statement	(180)	(193)
Tax paid	205	56
Translation adjustments and other movements	8	(14)
At period close	(113)	(146)
• Current tax receivables	31	22
• Current tax payables	144	168

Deferred taxes in the balance sheet

Breakdown by category

(€ MILLION)	31/12/2018	31/12/2017
Tax loss carry-forwards[1]	47	31
Intangible assets and property, plant and equipment	29	45
Inventory measurement	42	39
Financial instruments	13	31
Employee-related liabilities	59	60
Other provisions for liabilities and charges	41	42
Other items	10	15
Deferred tax assets before netting	**242**	**263**
Deferred tax netting by tax entity	(236)	(261)
Deferred tax assets	**6**	**2**
Regulated provisions and special amortisation and depreciation	(274)	(229)
Intangible assets and property, plant and equipment	(75)	(130)
Inventory measurement	(8)	(7)
Financial instruments	1	(25)
Employee-related liabilities	(6)	(3)
Other provisions for liabilities and charges	(15)	(16)
Distribution of dividends	(14)	(9)
Other items	(52)	(15)
Deferred tax liabilities before netting	**(443)**	**(434)**
Deferred tax netting by tax entity	236	261
Deferred tax liabilities	**(207)**	**(173)**
Net deferred tax liabilities	(201)	(171)
(1) Limited deferred tax assets for tax loss carry-forwards	*544*	*509*

Change in deferred taxes in the balance sheet

(€ MILLION)	ASSETS	LIABILITIES	NET AMOUNT FINANCIAL YEAR 2018	NET AMOUNT FINANCIAL YEAR 2017
At beginning of period	**2**	**(173)**	**(171)**	**(146)**
Deferred tax offset in shareholders' equity	(1)	(5)	(6)	(8)
Deferred tax on profit (loss)	44	(30)	14	(23)
Deferred tax netting by tax entity	25	(25)	-	-
Translation adjustments and other movements	(65)	26	(38)	6
At period close	6	(207)	(201)	(171)

Note 12 Personnel costs and employee benefits

Workforce and personnel costs

Average workforce and workforce at end of period by Division

The average workforce and workforce at end of period include all fully consolidated companies at 31 December of each year.

	FINANCIAL YEAR 2018	31/12/2018	FINANCIAL YEAR 2017	31/12/2017
	AVERAGE WORKFORCE	WORKFORCE AT PERIOD END	AVERAGE WORKFORCE	WORKFORCE AT PERIOD END
Workers	1,378	1,323	1,434	1,408
Administrative, Technical and Supervisory staff	688	653	738	702
Management	205	172	221	210
Nickel BU	**2,271**	**2,148**	**2,393**	**2,320**
Workers	1,881	1,914	1,888	1,868
Administrative, Technical and Supervisory staff	1,395	1,377	1,453	1,427
Management	591	591	594	575
Manganese BU	**3,867**	**3,882**	**3,935**	**3,870**
Workers	434	436		
Administrative, Technical and Supervisory staff	305	304		
Management	178	182		
Mineral Sands BU[1]	**917**	**922**	**-**	**-**
Workers	2,664	2,642	2,660	2,704
Administrative, Technical and Supervisory staff	1,506	1,521	1,469	1,490
Management	550	555	525	543
Alloys division	**4,720**	**4,718**	**4,654**	**4,737**
Workers	26	27	38	25
Administrative, Technical and Supervisory staff	173	178	158	168
Management	223	245	199	208
Holding and others	**422**	**450**	**395**	**401**
Workers	6,383	6,342	6,020	6,005
Administrative, Technical and Supervisory staff	4,067	4,033	3,818	3,787
Management	1,747	1,745	1,539	1,536
Total	12,197	12,120	11,377	11,328

(1) Data integrated into the Manganese BU in 2017.

The total workforce managed in the HR reporting system implemented by the Group, which includes non-consolidated companies and companies accounted for using the equity method, totalled 12,705 employees at 31 December 2018 (12,590 employees at 31 December 2017).

Personnel costs by category

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Wages and salaries	(509)	(462)
Social security contributions and other personnel costs	(173)	(185)
Profit sharing	(12)	(23)
Share-based payment	(8)	(6)
Personnel costs subtotal	**(702)**	**(676)**
Personnel costs — temporary staff	(31)	(34)
Total personnel costs including temporary staff	(733)	(710)
Personnel costs (including temporary staff) as % of sales	20%	20%
CICE (tax credit for competitiveness and employment — shown deducted from personnel costs)	7	8

Employee-related liabilities

The Eramet Group offers its employees many long-term benefits, such as retirement packages, pension plans, healthcare plans and long-service awards. The characteristics of these benefits vary in line with the governing laws and regulations in each country and the agreements in force in each company.

ACCOUNTING METHOD

Employee-related liabilities are either defined benefit plans or defined contribution plans. Defined benefit plans specify the amount that an employee will receive at the time of retirement whereas defined contribution plans specify how the contributions are calculated.

Defined contribution plans
For these plans, the Eramet Group makes payments to a fund manager and is released from its obligations for the current period and prior periods. As a result, these plans do not show any deficit or surplus and are not included in the balance sheet. The contributions are expensed when paid.

Defined benefit plans and other long-term benefits
A defined benefit plan is a post-employment benefit plan that is distinct from the defined contribution plan. The cost of the retirement benefits and other benefits accrued to employees is established actuarially for each plan using the projected unit credit cost method. They are assessed annually by independent actuaries. The obligations of the Eramet Group are recognised as balance sheet liabilities and correspond to the difference between the present value of the obligations in respect of defined benefits and the fair value of plan assets at the reporting date. Plan assets consist of assets held in pension funds or insurance policies.
The costs of services rendered are recognised in Current operating income in the period in which they are incurred. The costs of past services resulting from amendments and curtailments to the plan, as well as the gains and losses upon plan settlement are recognised in Other operating income and expenses. The interest expense for net obligations is included in Other financial income and expenses.
The actuarial gains (losses) (including the impact of foreign exchange) on plan assets and the obligation in respect of defined benefits are recognised directly in Other comprehensive income for the period in which they arise. They are recognised immediately in income in the case of long-term benefits.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The cost of employee benefits and the value of the obligations are calculated using assumptions such as discount rates, salary increases, retirement age, life expectancy, inflation and cost of healthcare. These assumptions are determined annually by the Eramet Group's Management.
The discount rates used are mostly calculated for each zone or country based on the average rates of private issuers observed in those zones or countries at each reporting date.
The rates vary from country to country:

- in the Eurozone and in the United States, the discount rates were determined on the basis corporate bonds;
- in Norway, the discount rate is determined based on secured bonds such as mortgage-backed bonds;
- in New Caledonia, given that the corporate and government bond markets are illiquid, the rate used is determined with reference to the French sovereign bond rate adjusted for discounting and local inflation;
- in Gabon and Senegal, the discount rates used are based on the local governments bonds rates.

Main actuarial assumptions and related sensitivity

The actuarial assumptions used vary according to the economic and demographic conditions existing in the country in which the plan is in force. The main actuarial assumptions used for measuring these liabilities are as follows:

	31/12/2018		31/12/2017	
	DISCOUNT RATE	INFLATION RATE	DISCOUNT RATE	INFLATION RATE
Eurozone	1.75%	1.80%	1.50%	1.80%
United States	4.30%	2.00%	3.60%	2.00%
Norway	2.85%	1.75%	2.50%	1.75%
New Caledonia	2.80%	1.50%	2.20%	0.60%
Gabon	7.00%	2.50%	7.00%	2.50%
Senegal	8.00%	1.50%	n/a	n/a

Sensitivity

An increase or decrease of 0.5 percentage point in the discount rate or inflation rate, with other actuarial assumptions remaining constant, will have the following impact on period-end commitments:

	DISCOUNT RATE				INFLATION RATE			
	INCREASE +0,5%		DECREASE -0,5%		INCREASE +0,5%		DECREASE -0,5%	
(€ MILLION)	IN €M	IN %	IN €M	IN %	IN €M	IN %	IN €M	IN %
France	(17)	-9%	19	10%	(3)	-2%	4	2%
United States	(2)	-6%	2	6%	-	0%	-	0%
Norway	-	0%	-	0%	-	0%	-	0%
New Caledonia	(2)	-5%	2	5%	-	0%	-	0%
Gabon	(1)	-3%	1	3%	-	0%	-	0%
Senegal	-	0%	-	0%	-	0%	-	0%
Other countries	(1)	-13%	1	13%	1	13%	(1)	-13%
Total	(23)	-7%	25	8%	(2)	-1%	3	1%

Description of the main defined benefit plans and associated risks

The Eramet Group's main defined benefit plans are offered in France, United States, Gabon and New Caledonia. The main plan assets are therefore located in these countries. The main characteristics of the plans described below relate to these four countries.

Retirement packages are generally paid as a lump sum or annuities determined on the basis of the employee's length of service, final salary or average final remuneration. Pre-retirement and supplementary healthcare benefits and life insurance are also provided under the pension plan, along with long-service awards in the form of a lump sum that varies according to the number of years' service completed.

In the United States, most defined benefit plans are no longer accessible to new employees. They participate in defined contribution plans.

In New Caledonia, the obligations also include the payment of a loyalty bonus awarded after 10 years of service and then every five years, calculated as a percentage of the basic salary, as well as the granting of plane tickets whose number, value and frequency depends on the employee's professional category.

Risks associated with the plans

The Eramet Group is exposed to the standard risks inherent to defined benefit plans, such as higher-than-expected salary increases, increased inflation rates or lower-than-expected returns, as well as actuarial risks, especially investment risk, interest rate risk and longevity risk. The plans are also exposed to the risk of internal negotiation to reach a more favourable agreement, and the risk of increase in taxes or annuities for supplementary pension plans.

Governance policy

Under the laws governing defined benefit plans, it is the Eramet Group's duty to manage the plan assets and design investment policies that define, for each pre-financed plan, the investment objectives, the asset allocation target, risk mitigation strategies, and other components required by law for pension plans.

Investment policies and risk management initiatives

The investment policies are designed to obtain long-term return on investment which, combined with contributions, will enable the plans to have sufficient assets to be able to pay the promised benefits while keeping risk at an acceptable level.

The asset allocation target is determined on the basis of the expected market conditions and climate, the maturity profile of plan liabilities, the level of cover of the respective plans, and the risk tolerance of the plans' beneficiaries.

In France, the plans are funded by insurers through group life insurance contracts. The investments are made by the insurers in their respective euro funds. These funds, of which over 80% is invested in buy and hold rate products, have suffered from a deterioration in bond returns for some years now and are still exposed to default risk on returns in a protracted low interest rate period.

In the United States, the financial management of funds is entrusted to various asset managers who are among the key players in the business. Index-based management is used for the most part and active management for the remainder. Globally, 76% of the asset allocation is in US corporate bonds denominated in USD, with the objective of matching the liability duration. The remaining 24% is invested in funds in American equities, world equities and emerging market equities and bonds. The risks inherent to these financial assets are therefore curve risk, duration risk, credit risk and inflation risk for bonds, and market risk and capital risk for equities. On 12 December 2018, Eramet Marietta Inc. completed a buyout of 594 fully paid up shareholders. The buyback price for this group was USD 62.9 million.

Overall cost of employee-related liabilities

The cost of employee-related liabilities is recognised in the Income Statement and in the Statement of comprehensive income below:

	PENSION PLANS		END OF CAREER BENEFITS		OTHER BENEFITS		TOTAL EMPLOYEE RELATED LIABILITIES	
(€ MILLION)	2018	2017	2018	2017	2018	2017	2018	2017
Service cost	2	3	7	6	3	2	12	11
Past service cost[(1)]	1	-	(1)	-	-	1	-	1
Net interest expense	1	2	3	2	1	1	5	5
Other adjustments					3		3	-
Cost recognised in income	**4**	**5**	**9**	**8**	**7**	**4**	**21**	**17**
Impact of revaluation on commitments	(4)	(4)	(8)	6	1	1	(11)	3
• experience	4	(1)	(2)	-	1	-	4	(1)
• demographic assumptions	-	2	-	(1)		1	-	2
• financial assumptions	(8)	(5)	(6)	7	(1)	-	(15)	2
Impact of revaluation on pension plan assets	5	(9)	(1)	-			4	(9)
Cost recognised in other comprehensive income	**1**	**(13)**	**(9)**	**6**	**1**	**1**	**(7)**	**(6)**
Total cost recognised in comprehensive income	5	(8)	-	14	8	5	14	11

(1) Pension plan changes and curtailments

Change in obligations and plan assets

The table below illustrates the change in obligation by plan type, distribution by beneficiary and based on whether or not pre-financing is used, as well as the change in the fair value of the plan assets and its differentiation by category (listed and unlisted assets).

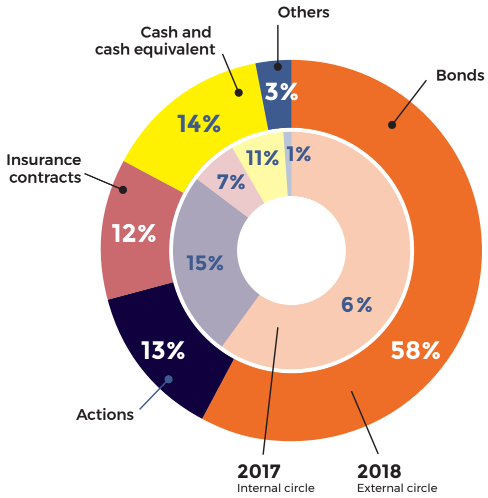
	PENSION PLANS				END OF CAREER BENEFITS				OTHER BENEFITS				TOTAL EMPLOYEE-RELATED LIABILITIES			
(€ MILLION)	2018		2017		2018		2017		2018		2017		2018		2017	
Change in obligation																
Obligation at beginning of period	**225**		**246**		**113**		**103**		**43**		**47**		**381**		**396**	
• Cost recognised in income	8		9		9		9		7		3		24		21	
• Impact of revaluation	(4)		(4)		(8)		6		1		1		(11)		3	
• Contributions and benefits paid	(67)		(10)		(9)		(4)		(4)		(8)		(80)		(22)	
• Change to consolidation scope	0		(1)		0		(1)				-		1		(2)	
• Translation differences and other movements	2		(15)		-		-		(1)		-		1		(15)	
Obligation at period close	**166**		**225**		**105**		**113**		**46**		**43**		**317**		**381**	
Obligation attributable to																
• Working beneficiaries	*58*		*74*		*105*		*113*		*40*		*35*		*203*		*222*	
• Beneficiaries entitled to deferred benefits	*10*		*10*		-		-		-		-		*10*		*10*	
• Pensioners	*98*		*141*		-		-		*6*		*8*		*104*		*149*	
	166		*225*		**105**		*113*		**46**		*43*		**316**		*381*	
Commitments																
• pre-financed	*133*	*80%*	*192*	*85%*	*46*	*44%*	*50*	*44%*	-	-	-	-	*179*	*57%*	*242*	*64%*
• not financed	*33*	*20%*	*33*	*15%*	*59*	*56%*	*63*	*56%*	*46*	*100%*	*43*	*100%*	*137*	*43%*	*139*	*36%*
	166		*225*		**105**		*113*		**46**		*43*		**317**		*381*	
Change in plan assets																
Fair value of plan assets at beginning of period	**153**		**154**		**24**		**23**		-		-		**177**		**177**	
• Interest income recognised in income	4		4		-		-		-		-		4		4	
• Impact of revaluation	(5)		9		-		-		-		-		(5)		9	
• Contributions paid	16		9		-		1		1		-		17		10	
• Benefits paid	(62)		(9)		-		-		(1)		-		(63)		(9)	
• Change to consolidation scope	-		(1)		-		-		-		-		-		(1)	
• Translation differences and other movements	-		(13)		-		-		-		-		-		(13)	
Fair value of plan assets at period close (II)	**106**		**153**		**24**		**24**		-		-		**130**		**177**	
Plan assets																
• Listed on an active market	*102*	*96%*	*153*	*100%*	*24*	*100%*	*12*	*50%*	-	-	-	-	*126*	*97%*	*165*	*93%*
• Unlisted	*4*	*4%*	-	-	-	-	*12*	*50%*	-	-	-	-	*4*	*3%*	*12*	*7%*
	106		*153*		**24**		*24*		-		-		**130**		*177*	
Net liabilities in the balance sheet (I) - (II)	60		72		81		89		46		43		187		204	

The table below shows the breakdown between the main countries, the obligations in connection with employee-related liabilities, plan assets, net liability and financial cover ratio.

	31 DECEMBER 2018				31 DECEMBER 2017			
	CURRENT VALUE OF BONDS	FAIR VALUE OF PLAN ASSETS	NET LIABILITIES IN THE BALANCE SHEET	FINANCIAL COVERAGE RATE	CURRENT VALUE OF BONDS	FAIR VALUE OF PLAN ASSETS	NET LIABILITIES IN THE BALANCE SHEET	FINANCIAL COVERAGE RATE
(€ MILLION)	(a)	(b)	(a) + (b)	- (b)/(a)	(A)	(B)	(A) + (B)	- (B)/(A)
France	195	(85)	110	43.6%	198	(73)	125	36.9%
United States	32	(23)	9	71.9%	89	(83)	6	93.3%
Norway	8	(3)	5	37.5%	10	(3)	7	30.0%
New Caledonia	42	(12)	30	27.9%	39	(11)	28	28.2%
Gabon	32	-	32	-	35	-	35	-
Senegal	0	-	0	-	n/a	n/a	n/a	n/a
Other countries	8	(7)	-	87.5%	10	(7)	3	70.0%
Total	317	(130)	187	40.9%	381	(177)	204	46.5%

The chart below illustrates how the funds are invested.

DISTRIBUTION AS A PERCENTAGE OF FUND INVESTMENTS BY ASSET CLASS



Projected cash outflows

The global average term was 11.8 years at 31 December 2018 (31 December 2017: 14.4 years).

In 2019, contributions for employee-related liabilities are estimated at €1 million. Future benefits, whether paid by levies on investments or directly by the Eramet Group, are estimated at €16 million.

Bonus share plan and share-based payments

ACCOUNTING METHOD

The Eramet Group has established various share award plans that are all equity-settled plans: “democratic” plans open to all employees that are not subject to performance criteria and “selective” plans open to certain employees and corporate officers subject to performance requirements.
The fair value of the services received in consideration for the granting of these options is definitively measured with reference to the fair value of the options on the grant date and the number of options that will have vested by the end of the vesting period.
The total fair value thereby determined is apportioned on a straight-line basis over the full vesting period for the plans, with the number of vested exercisable options assumed at the beginning of the vesting period being reviewed at every reporting date.
This fair value is recognised in Current operating income as administrative and selling expenses, offset by an increase in shareholders’ equity.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

Judgement must be exercised to determine the fair value of share award plans at the award date.
The fair value of "democratic" plans is estimated using the Black-Scholes-Merton model.
"Selective" plans are subject to two performance conditions: one intrinsic condition based on the Eramet Group's financial performance and one external condition based on the Eramet stock performance. The fair value of these plans is measured using the Monte Carlo model.
The assumptions used to measure the plans are based on:

- expected volatility determined on the basis of an observation of the stock's historical performance;
- a risk-free zero coupon rate over the term of the plan;
- a future distribution rate based on the average for the last five years.

The bonus share awards to employees with tax residence in France fully vest after a two-year vesting period for democratic plans, and after three years for selective plans, on the understanding that the beneficiaries must retain the shares awarded to them for an additional two years.
The bonus share awards to employees with tax residence outside France fully vest and are freely transferable after a four-year period.

Share-based payments relate only to bonus share plans for the benefit of employees and settled in the form of shares. They represented an expense of €8.4 million for the 2018 reporting period (FY 2017: €6 million).

Two new bonus share plans were granted on 22 March 2018:

- one plan for all employees on 22 March 2018 for an initial total of 21,750 shares;
- one plan open to certain employees and corporate officers on 22 March 2018, of which:
  - part of the shares are subject to two performance conditions — an internal condition with two indicators (EBITDA and ROCE) for two thirds and an external condition for one third — for an initial total of 125,855 shares, and
  - part of the shares are not subject to performance conditions, for an initial total of 17,273 shares.

The criteria for share awards and the assessment of the accounting expense are the same as those described above.

The characteristics of the new bonus share award plans for 2018 are as follows:

		NUMBER OF SHARES	EXERCISE PRICE (€)	MATURITY (YEARS)(1)	RISK FREE RATE	AVERAGE DIVIDEND RATE	FAIR VALUE OF THE OPTION (€)(2)
Plan open to all employees	France/Italy	9,346	free	2 + 2	-0.41%	1.50%	110.62
	Worldwide	12,404	free	4 + 0	-0.03%	1.50%	111.69
Plan open to certain employees and corporate officers	France/Italy	105,658	free	3 + 2	-0.23%	1.50%	113.38/131.09
	Worldwide	37,470	free	4 + 0	-0.03%	1.50%	111.69/134.9

(1) Maturity = vesting period + lock-in period.
(2) Bonus share award plans whose share awards are subject to two performance conditions have two fair values: the first being the intrinsic condition and the second being the external condition.

The change in the number of bonus share awards in the 2017 and 2018 reporting periods was as follows:

NUMBER OF BONUS SHARES	31/12/2018	31/12/2017
At beginning of period	**458,520**	**413,709**
New plans 2018/2017	164,878	178,272
Definitive allocations	(92,388)	(64,015)
Prescribed shares	(4,279)	(25,775)
Obsolete stock	(21,369)	(43,671)
At period close	505,362	458,520
Distribution by year of allocation		
2018	-	114,591
2019	144,573	145,608
2020	157,239	148,987
2021	153,866	49,334
2022	49,684	-

Note 13 Provisions

A provision is a debt recorded in the balance sheet. It is an estimated value owing to uncertainty as to the time of payment and the amount to be paid. The main provisions set aside by the Eramet Group relate to site restoration and environmental and social risks (especially restructuring).

ACCOUNTING METHOD

The Eramet Group sets aside a provision, where its amount can be reliably estimated, to cover all liabilities arising from past events that are known at the reporting date and the settlement of which is likely to result in an outflow of resources to settle the liability.

Provisions for site restoration and decommissioning, provisions for environmental risks

The provisions for mining site restoration are recognised when mining sites are opened and as and when they show degradation, and are then remeasured and accreted at each reporting date. Where there is a legal or contractual obligation to restore mining or industrial sites, a restoration provision is made, offset by an environmental and decommissioned asset. The provision is based on site-by-site estimates of the cost of this work. The asset is amortised over the life of the operation of the mine or the industrial site. Restoration costs are discounted over the period remaining until the expected end of operation of the mine or site, and the effects attributable to the passage of time (accretion expenses) are recognised in Net income for the period under Other financial income and expenses (see Note 7). Provisions are made for all other environmental contingencies on the basis of estimated future costs without, however, making any allowance for insurance indemnities receivable. For industrial sites where there are no plans to discontinue operations, no provision is made for site restoration.
Depending on the governing laws in each country, an environmental bond issued by a banking or financial institution to the benefit of local authorities may need to be set up for the rehabilitation of mining and industrial sites.

Restructuring and redundancy plans

Provisions are made for restructuring and redundancy costs where such measures have been planned in detail and announced before the reporting date or whose implementation has begun.

ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

Provisions for site restoration and decommissioning
The Group's industrial sites comply with the environmental regulations in force in each country where they are located. The Eramet Group must meet regulatory and constructive obligations with regard to the restoration of certain mining sites at the end of operation. Provisions for site restoration and decommissioning of industrial sites are estimated on the basis of forecast cash flows by maturity and discounted using an inflation rate and a discount rate determined in accordance with local economic conditions.
These provisions are recognised in relation to the immediate deterioration of an asset to be restored or decommissioned and changes in assumptions will therefore correct this value with a prospective effect.
The Eramet Group measures its provision for site restoration and decommissioning at each reporting date or as new information becomes available. The final costs of site restoration and decommissioning are therefore uncertain by their very nature. These uncertainties may lead to actual expenditure in the future whose amount may differ from the current provision amount. Therefore, major adjustments may be made to the provisions set aside, which may impact future income.
The provisions made are based on good practice in the sector and are calculated as follows:

- **for mining,** calculation of a cost per hectare for site restoration (replanting, landscaping, soil management, etc.) based on the cleared areas. The costs are based on estimated internal costs or the cost of providers, depending on the nature and complexity of the areas to be restored;
- **for the decommissioning of facilities,** cost estimation based on external estimates or experience from decommissioning/remediation work performed on other Group sites;
- these costs are inflated and accreted based on the estimated useful lives. The estimated rates, including the discount rate, are fixed according to the same terms as those used for the assessment of employee-related liabilities (see Note 12).

The provision for site restoration represents the best estimate of the discounted value of future costs to be incurred.

(€ MILLION)	FINANCIAL YEAR 2018		FINANCIAL YEAR 2017	
At beginning of period		**525**		**520**
Allocations (reversals) for the period		81		8
• allocations for the period	121		68	
• used (reversals) for the period	(37)		(42)	
• unused (reversals) for the period	(3)		(18)	
Accretion expenses		7		8
Decommissioned assets		-		3
Translation adjustments and other movements		(9)		(14)
At period close		605		525
• Long-term portion		579		494
• Short-term portion		27		31
Environmental contingencies and site restoration		472		435
Employees		11		17
Other liabilities and charges		122		73

Site restoration, decommissioning and environmental risks

(€ MILLION)	31/12/2018	31/12/2017
Site restoration[1]	413	390
Environmental contingencies	59	45
Total	472	435
(1) of which provisions offsetting a decommissioned asset	*360*	*296*
• Long-term portion	472	435
• Short-term portion	0	-

Site restoration and decommissioning

(€ MILLION)	FINANCIAL YEAR 2018		FINANCIAL YEAR 2017	
At beginning of period		**390**		**373**
Allocations (reversals) for the period		15		16
• allocations for the period	17		25	
• used (reversals) for the period	(2)		(3)	
• unused (reversals) for the period	-		(6)	
Accretion expenses		7		8
Decommissioned assets		(1)		3
Translation adjustments and other movements		1		(10)
At period close		413		390
Le Nickel-SLN (New Caledonia) — Nickel BU		338		315
Comilog (Gabon) — Manganese BU		36		35
Eramet Marietta (United States) — Manganese BU		25		26
Comilog France — Manganese BU		14		14
Other companies		(0)		

Regulatory framework of provisions for site restoration and decommissioning

New Caledonia

For mining, the 2009 Mining Code establishes the general framework. The provisions are allocated to each of the mine sites in their prefectural operating licence.

For industrial operations governed by ICPE, the regulatory framework is based on Article 3 of the decision of the Southern Province of 25 September 2008, whose implementation involves the application of certain metropolitan circulars relating to site safety.

The provisions for wash facilities (industrial facilities on mine sites) are for their part included in the ICPE prefectural orders for each of the sites concerned.

Gabon

The existing provisions used as a reference for Gabon have not been set out in detail (no implementing circular). However rehabilitation projects are based on the decree establishing the conditions for application of Law No. 005/2000 of 12 October 2000 (Mining Code), as amended and supplemented by Order 2002 on the Mining Code in the Gabonese Republic.

The provision under Article 78 was also accounted for, in line with Article 21.5 of the Comilog Mining Convention.

United States

Provision is made for two key components:

- restoration of waste water basins, a regulatory requirement contained in the local permit ("Permit to Install");
- work performed as part of the "Voluntary Action Plan" negotiated with the US Environmental Protection Agency (EPA) in 2010 in connection with the "Ohio waste laws" as part of the cessation of activities at the North site (asbestos removal and decommissioning of the corresponding facilities).

The discount and inflation rates used to determine the site restoration and decommissioning provisions are detailed below:

	31/12/2018		31/12/2017	
	DISCOUNT RATE	INFLATION RATE	DISCOUNT RATE	INFLATION RATE
United States	4.30%	2.00%	3.60%	2.00%
New Caledonia	2.80%	1.50%	2.20%	0.60%
Gabon	7.00%	2.50%	7.00%	2.50%

An increase or decrease of 0.25% in the discount rate would result in an increase or decrease of around €24 million in provisions at 31 December 2018 (31 December 2017: €25 million), mainly affecting Société Le Nickel-SLN in New Caledonia.

Estimated expenditure is allocated as follows in percentage terms:

(€ MILLION)	31/12/2018	31/12/2017
2019-2023/2018-2022	9%	6%
2024-2028/2023-2027	9%	8%
2029 and beyond/2028 and beyond	82%	86%

Employees

(€ MILLION)	31/12/2018	31/12/2017
Alloys division	4	8
Manganese BU	0	3
Nickel BU	0	
Mineral Sands BU	-	
Holding and others	-	1
Restructuring and redundancy plans	**4**	**12**
Other labour liabilities and charges	7	5
Total	11	17

Other liabilities and charges

(€ MILLION)	FINANCIAL YEAR 2018		FINANCIAL YEAR 2017	
At beginning of period		**73**		**85**
Allocations (reversals) for the period		72		(6)
• allocations for the period	92		24	
• used (reversals) for the period	(17)		(18)	
• unused (reversals) for the period	(3)		(12)	
Translation adjustments and other movements		(23)		(6)
At period close		122		73
Provision for free return – Concession		7		28
Provisions for tax contingencies		0		5
Commercial disputes		77		5
Other provisions for liabilities and charges		38		35

Note 14 Related-party transactions

ACCOUNTING METHOD

Transactions with related parties comprise the following:
- ordinary transactions with non-consolidated companies and associates;
- gross compensation and benefits to directors and members of the Executive Committee.

Ordinary transactions with non-consolidated companies and associates

Income Statement

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Sales		
• Non-consolidated controlled subsidiaries	14	24
• Associates and joint ventures	5	8
Cost of sales, administrative and selling expenses		
• Non-consolidated controlled subsidiaries	(5)	(4)
• Associates and joint ventures	(33)	(50)
Net debt cost		
• Non-consolidated controlled subsidiaries	(0)	-
• Associates and joint ventures	1	-

Cost of sales and administrative and selling expenses mainly correspond to Aubert & Duval's purchases from UKAD (equity method company).

Balance sheet

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Trade and other receivables		
• Non-consolidated controlled subsidiaries	7	10
• Associates and joint ventures	31	26
Trade and other payables		
• Non-consolidated controlled subsidiaries	5	3
• Associates and joint ventures	4	10
Net financial assets (liabilities)		
• Non-consolidated controlled subsidiaries	13	9
• Associates and joint ventures	170	60

Gross compensation and benefits to directors and members of the Executive Committee

(€ MILLION)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Short-term benefits		
• Fixed compensation	2,957	3,291
• Variable compensation	1,390	2,573
• Attendance fees	940	765
Other benefits		
• Post-employment benefits	2,252	3,692
• Retirement package	-	-
• Compensation paid in shares	1,646	1,205
Total	9,185	11,526

Note 15 Off-balance sheet commitments, other commitments, contingent liabilities and other disclosures

The Eramet Group reached agreements with third parties to cover the good performance of its obligations. These obligations are dependent upon subsequent events that may result in the Eramet Group's making or receiving a payment. They are not recognised in the balance sheet if they are not likely to increase the obligations already reported in the balance sheet.

15.1 Off-balance sheet commitments

(€ MILLION)	31/12/2018		31/12/2017	
Commitments made		**106**		**270**
• Operating activities	93		105	
• Financing activities	13		165	
Commitments received		**7**		**5**
• Operating activities	7		5	
Credit facilities		-		-

These commitments mostly relate to:

- operating activities: client and environmental bank guarantees, other endorsements and bank guarantees (customs, leases), letters of credit;
- financing activities: guarantees, pledges, collateral and mortgages for external financing of equity method and non-consolidated companies.

Functional guarantees for the performance of business contracts

Functional guarantees are any commitments relating to business contracts, given by Eramet and its subsidiaries to clients.

These commitments mainly consist of advance payment bonds and product guarantees post delivery of goods.

To finance the performance of the contract, the Eramet Group collects advance payments from the client. To guarantee their refund in case of a breach of its contractual obligations, the Eramet Group may, at the client's request, establish an advance payment bond. These bank guarantees amounted to €29 million at 31 December 2018 (31 December 2017: €16 million).

Product warranties fall under the Eramet Group's limit of liability defined contractually for each business contract. The Eramet Group does not recognise provisions for guarantees given that there have been no warranty claims from its clients.

The Eramet Group considers its financial risk relative to all the above guarantees to be low, based on historical data and on the existence of civil liability policies that would limit the financial consequences on the Group's consolidated financial statements.

Other commitments received

Société Le Nickel-SLN has available financing of €50 million from the French government out of a total of €200 million maturing on 30 June 2024. The amount drawn down at the end of 2018 was €150 million (unchanged from 2018).

Future lease payments

(€ MILLION)	31/12/2018	31/12/2017
Less than one year	36	27
One year to five years	121	80
More than five years	124	103
Total	281	210

15.2 Other commitments

Trans-Gabon railway concession – Setrag

Under the terms of the 2005 agreement, signed for an initial period of 30 years, Setrag, the concession holder, is required to meet operating capacity targets (volume of goods and number of passengers). The concession holder is free to set prices. Its main shareholder, Comilog, is committed to ensuring that the necessary funding is made available to cover the capital expenditure required to achieve the operating capacity targets.

On 16 October 2015, Setrag and the Gabonese Republic signed a first amendment to the concession agreement for the management and operation of the Trans-Gabon railway. The aim of the amendment is to sustainably restore the technical capacity of the railway and the economic viability of the concession holder. This amendment thus provides for a remedial investment plan estimated at €316 million over eight years, of which €93 million will be provided by the Gabonese state and €213 million by Setrag. The first phase of the financing required to implement this plan was put in place in 2016. The second phase is currently being negotiated for implementation in the fourth quarter of 2019.

At 31 December 2018, cumulative investments in the concessionaire part of the remedial investment plan amounted to €78 million, including €40 million for 2018. Two tranches of the IFC/Proparco loan were drawn down in 2018, amounting to a total of €29.5 million (cumulative amount of €62.4 million) out of a total of €85 million.

15.3 Contingent liabilities

Contingent liabilities arise from:

- past events which, by nature, can be solved only if one or more unpredictable future events occur or do not occur;
- a current obligation resulting from past events but not recognised because:
  - it is not likely that an outflow of resources embodying economic benefits will be required to settle the obligation, or
  - the amount of the obligation cannot be measured with sufficient reliability.

To measure their potential impact, the Eramet Group exercises judgement to a great extent and may rely on estimated outcomes of future events.

Contingent liabilities are not recognised in the financial statements unless they result from a business combination. Any material contingent liabilities are described in the notes to the financial statements.

Comilog SA customs inspection

Comilog's customs inspection for 2009-2012 was completed with the signing of a settlement agreement. A new customs inspection has begun, covering the financial years 2015-2017.

Comilog SA tax audit

A tax audit of Comilog covering the financial years 2014-2017 is currently under way. An assessment notice was received in November 2018 and a response was sent in December 2018. The Company rejected almost all of the items identified. Discussions are ongoing with the Gabonese tax administration. It is not possible to comment on the outcome of the review at this stage in proceedings.

Review of the quality process within the High Performance Alloys division

As indicated in Note 2 "Significant events" and Note 6, a provision of €65 million was made to take into account the estimated cost to date of completing the in-depth review of the quality processes, in particular consultancy costs. During the finalisation of this review and depending on potential requests from certain customers, additional costs may be incurred, the amount of which cannot be estimated at this stage.

15.4 Other information

Operational risks of the High Performance Alloys division

The High Performance Alloys division produces special steels and super alloys, particularly for the aeronautics industry, which are used in the construction of aircraft, helicopters and other equipment produced by its customers in the sector. As such, the Group may be indirectly or directly liable in the event of an incident, loss or accident, death of passengers or operating losses occurred on equipment containing parts manufactured by this Division.

As part of its risk management policy, the Division takes action to control these risks. The effectiveness of such action is reflected in the obtainment and renewal of accreditations or certifications related to this type of industry and the processing and validation, as necessary, of the validation process by customers of the manufactured parts. The Group has also taken out insurance policies to cover residual risks.

ICPE (facilities classified for environmental protection) regulation applicable to the Doniambo power plant

By order of the President of the Assembly of South Province, New Caledonia on 12 November 2009, new, more stringent technical directives regarding airborne emissions were declared applicable at the latest by 1 September 2013 in relation to a power plant at Doniambo. By decree of 27 December 2016, the President of the Assembly of New Caledonia's Southern Province postponed the date of application of these new requirements to 30 June 2019, and applied restrictions on the type of fuel used, as well as operational constraints and an intensification of air quality monitoring systems.

Note 16 Fees paid to the Statutory Auditors

	ERNST & YOUNG		KPMG		OTHER		TOTAL	
(€ THOUSAND)	2018	2017	2018	2017	2018	2017	2018	2017
Statutory audit, certification, examination of individual and consolidated financial statements								
• Eramet S.A.	212	205	225	219	-	-	437	424
• Fully consolidated companies	919	890	693	707	407	87	2,019	1,684
Sub-total	**1,131**	**1,095**	**918**	**926**	**407**	**87**	**2,456**	**2,108**
	76%	*75%*	*90%*	*65%*	*46%*	*86%*	*72%*	*70%*
Other work and services directly relating to the statutory audit								
• Eramet S.A.	74	88	42	55	-	-	116	143
• Fully consolidated companies	144	133	15	48	14	2	173	183
Sub-total	**218**	**221**	**57**	**103**	**14**	**2**	**289**	**326**
	15%	*15%*	*6%*	*7%*	*2%*	*2%*	*9%*	*11%*
Other services provided by the Statutory Auditor firms to fully consolidated subsidiaries								
• Legal, tax and employee-related	138	112	44	394	224	12	406	518
• Other	-	39	3	4	244	-	248	43
Sub-total	**138**	**151**	**47**	**398**	**468**	**12**	**653**	**561**
	9%	*10%*	*5%*	*28%*	*53%*	*12%*	*19%*	*19%*
Total	1,487	1,467	1,022	1,427	889	101	3,398	2,995

Note 17 Events after the reporting date

In February 2018, the RCF was extended for €981 million with a five-year maturity (new term in 2023). In February 2019, maturity was extended to 2024. No amount of this RCF has been drawn down to date.

To the best of the Company's knowledge, no other event occurred after the reporting date.

Note 18 Consolidation principles and scope

Consolidation principles

The consolidated financial statements of Eramet Group comprise the financial statements of Eramet and those of its fully-consolidated and equity-method subsidiaries.

The subsidiaries are fully consolidated if Eramet holds exclusive direct or indirect control. Eramet has exclusive control over a subsidiary when it is exposed to variable returns from its involvement with that subsidiary and has the ability to affect those returns through its power over the subsidiary. Eramet reassesses its control over a subsidiary if facts and circumstances indicate a change in any of the elements of control.

The subsidiaries are accounted for using the equity method if Eramet exercises joint control or has significant influence (Note 9). The equity method of accounting consists of replacing the carrying amount of the holding in a joint venture or an associate by the acquisition cost of these shares adjusted for Eramet's share in the equity at the reporting date.

Translation of foreign currency-denominated transactions and financial statements

Foreign currency transactions are translated at the applicable exchange rate at the time of the transaction. Foreign currency debts and receivables are measured at the closing rate. Translation adjustments resulting from this conversion are recognised in income for the period, except those involving loans and borrowings between the Eramet Group companies, considered an integral part of the net investment in a foreign subsidiary. These are recognised directly in shareholders' equity under Translation adjustments, linked to the foreign subsidiary.

The financial statements of foreign entities with functional currencies other than the euro were translated using the official exchange rates at 31 December 2018 for balance sheet items, except for shareholders' equity, for which historical rates were applied. Items from the Income statement and Statement of cash flows are translated at the average rate over the period. Translation adjustments stemming from currency fluctuations used to translate shareholders' equity and profit (loss) for the period are allocated to reserves. Translation adjustments are carried as a change to shareholders' equity and broken down between Group and non-controlling interests. Where a foreign subsidiary ceases to be consolidated, the cumulative amount of translation differences is recognised in profit or loss for the period.

The main currencies used preparing the consolidated financial statements for the 2017 and 2018 reporting periods are as follows (conversion into euro):

	FINANCIAL YEAR 2018		FINANCIAL YEAR 2017	
CURRENCY/CONVERSION RATE FOR €1	CLOSING	AVERAGE	CLOSING	AVERAGE
US dollar	1.145	1.18197	1.1993	1.12767
Norwegian krone	9.9483	9.60225	9.8403	9.32025
Yuan Renminbi	7.8751	7.80502	7.8044	7.62086
CFA franc (pegged)	655.957	655.957	655.957	655.957
CFP franc (pegged)	119.33174	119.33174	119.33174	119.33174

Scope of consolidation

(NUMBER OF COMPANIES)	31/12/2018	31/12/2017
Fully consolidated companies	47	49
Equity method companies	4	6
Number of consolidated companies	51	55

Financial Year 2018

The success of the Eramet's takerover bid on Mineral Deposit Limited shares lead to the takeover of TiZir at 100% on 1 July 2018, TiZir being accounted under the equity method until 30 June 2018 (see Note 2).

Accordingly, the Group deconsolidated its TiZir investment, resulting in a loss of deconsolidation amounting €10 million, net of currency translation adjustments recycled through profit and loss.

As part of Mineral Deposit Limited acquisition, balance sheets of acquired entities have been accounted after a preliminary fair value estimation review. Through this process, the Group revaluated fixed assets and inventories of operational companies Grande Côte and TiZir Titanium & Iron, the bond issued by the holding TiZir.

The acquired balance sheet at fair value is as follow:

(€ MILLION)	31/12/2018
Fixed assets	649
WCR	54
Total	703

(€ MILLION)	31/12/2018
Net equity	271
Net financial debt	424
Provisions and other balance sheet items	8
Total	703

A preliminary goodwill, which will be finalized at the end of the 12 months period after the acquisition date, has been calculated and accounted in the Group financial statement for €83 million, with a total acquisition price of €356 million, of which €219 million have been paid to Mineral Deposit Limited.

Furthermore, the following changes have been made to the consolidation scope at 31 December 2018 compared to 31 December 2017:

- disposal of Guilin concerning Comilog Asia Ferro Alloys Ltd and its subsidiary Guilin, and liquidation of Eramet Comilog Shanghai Consultancy Services Co Ltd as part of the reorganisation of the Group's activities in China;
- sale of the Group's interest in Strand Minerals Pte Ltd (Weda Bay project) generating a change of control over Strand Minerals Pte Ltd and Pt Weda Bay Nickel. Fully consolidated as from 31 December 2017 up to 31 May 2018, Strand Minerals Pte Ltd owned 90% of Pt Weda Bay Nickel before its disposal. The shareholdings are now 43% in Strand Minerals Pte Ltd and 38.70% in Pt Weda Bay Nickel, consolidated using the equity method in the financial statements at 31 December 2018 since the completion of the transaction;
- increase in the percentage shareholding in EcoTitanium via UKAD from 21.75% to 22.40%;
- increase in the percentage shareholding in Interforge from 94% to 95.7%;
- liquidation of Erasteel Trading Inc.;
- merger of Eramet Ingénierie into Eramet Research, renamed Eramet Ideas;
- acquisition of Mineral Deposit Limited and its subsidiaries following the successful takeover bid, and full consolidation of the TiZir companies following the resulting takeover transaction.

Financial Year 2017

At 31 December 2017, the following changes have been made to the consolidation scope compared to 31 December 2016:

- **additions to consolidation scope comprise,** as of 1 January 2017, Brown Europe, a wholly-owned subsidiary of Eramet Holding Alliages; Eramet Sandouville, a wholly-owned subsidiary of Eramet Holding Nickel; and, as of 1 July 2017, the newly established Eramet Nickel SAS a wholly-owned subsidiary of Eramet Holding Nickel;
- **removals from consolidation scope:**
  - Eurotungstène following its sale finalised on 3 April 2017,
  - GCM Liquidation Co (ex GCMC), currently in liquidation;
- **acquisition by ERASTEEL of a 51% interest in HeYe Erasteel Innovative Materials Co Ltd (HEIML),** which became Erasteel Innovative Materials Co Ltd (EIML) and was fully consolidated as of September 2017;
- **merger of Eramet Alliages** with Eramet Holding Alliages;
- **mergers of Cominc and Poum** with Le Nickel-SLN.

All companies within the scope of consolidation share the same reporting date of 31 December.

List of companies within the scope of consolidation as at 31 December 2018

COMPANY	COUNTRY	HEAD OFFICE	CONSOLIDATION METHOD	PERCENTAGE (%) CONTROL	PERCENTAGE (%) INTEREST
Eramet	**France**	**Paris**	**Consolidating entity**	-	-
Nickel					
Le Nickel-SLN	New Caledonia	Noumea	Fully consolidated	56	56
Weda Bay Minerals Inc.	Canada	Halifax	Fully consolidated	100	100
Strand Minerals Pte Ltd	Singapore	Singapore	Equity method	43	43
Pt Weda Nickel Ltd	Indonesia	Jakarta	Equity method	38.7	38.7
Eramet Holding Nickel	France	Paris	Fully consolidated	100	100
Eramet Sandouville	France	Sandouville	Fully consolidated	100	100
Eramet Nickel SAS	France	Paris	Fully consolidated	100	100
Manganese					
Eramet Holding Manganèse	France	Paris	Fully consolidated	100	100
Eramet Comilog Manganèse	France	Paris	Fully consolidated	100	81.86
Eramet Marietta Inc.	United States	Marietta	Fully consolidated	100	100
Eramet Norway A/S	Norway	Porsgrunn	Fully consolidated	100	100
Comilog SA	Gabon	Moanda	Fully consolidated	63.71	63.71
Setrag SA	Gabon	Libreville	Fully consolidated	100	63.71
Comilog Holding	France	Paris	Fully consolidated	100	63.71
Comilog International	France	Paris	Fully consolidated	100	63.71
Port Minéralier d'Owendo SA	Gabon	Libreville	Fully consolidated	97.24	61.95
Comilog France	France	Paris	Fully consolidated	100	63.71
Comilog Dunkerque	France	Paris	Fully consolidated	100	63.71
Comilog Asia Ltd	Hong Kong	Hong Kong	Fully consolidated	100	92.74
Comilog Far East Development Ltd	Hong Kong	Hong Kong	Fully consolidated	100	92.74
Eramet Comilog Shanghai Trading Co. Ltd	China	Shanghai	Fully consolidated	100	92.74
Mineral Sands					
Eralloys Holding A/S	Norway	Baerum	Fully consolidated	100	100
DNN Industrier A/S	Norway	Odda	Fully consolidated	100	100
Mineral Deposit Ltd	Australia	Melbourne	Fully consolidated	100	100
Mineral Deposit Ltd Mining	Australia	Melbourne	Fully consolidated	100	100
TiZir Ltd	United Kingdom	London	Fully consolidated	100	100
TiZir Titanium & Iron A/S	Norway	Tyssedal	Fully consolidated	100	100
TiZir Mauritius Ltd	Mauritius	Ile Maurice	Fully consolidated	100	100
Grande Côte Opérations SA	Senegal	Dakar	Fully consolidated	90	90
Alloys					
Erasteel SAS	France	Paris	Fully consolidated	100	100
Erasteel Champagnole	France	Champagnole	Fully consolidated	100	100
Valdi	France	Paris	Fully consolidated	100	100
Erasteel Kloster AB	Sweden	Söderfors	Fully consolidated	100	100
Erasteel Stubs Ltd	United Kingdom	Warrington	Fully consolidated	100	100
Erasteel Inc.	United States	New jersey	Fully consolidated	100	100

COMPANY	COUNTRY	HEAD OFFICE	CONSOLIDATION METHOD	PERCENTAGE (%)	
				CONTROL	INTEREST
Erasteel Innovative Materials Co Ltd	China	Tianjin	Fully consolidated	100	100
Eramet Holding Alliages	France	Paris	Fully consolidated	100	100
Aubert & Duval	France	Paris	Fully consolidated	100	100
Interforge	France	Clermont-Ferrand	Fully consolidated	95.7	95.7
Brown Europe	France	Laval-de-Cère	Fully consolidated	100	100
Ecotitanium	France	Paris	Equity method	22.40	22.40
UKAD	France	Paris	Equity method	50	50
Holding and others					
Eras SA	Luxembourg	Luxembourg	Fully consolidated	100	100
Metal Securities	France	Paris	Fully consolidated	100	100
Metal Currencies	France	Paris	Fully consolidated	100	100
Eramet Services	France	Paris	Fully consolidated	100	100
Eramet Ideas (formerly Eramet Research)	France	Trappes	Fully consolidated	100	100
Eramine	France	Paris	Fully consolidated	100	100
Bolera Minera SA	Argentina	Buenos Aires	Fully consolidated	82.43	82.43
Eramine Sudamerica SA	Argentina	Buenos Aires	Fully consolidated	100	100

Glossary

EBITDA

Earnings before financial income and expenses and other operating income and expenses, income tax, provisions for liabilities and charges, and depreciation of property, plant and equipment and amortisation of intangible assets.

Current operating income

Includes EBITDA, depreciation of property, plant and equipment, amortisation of intangible assets and provisions for liabilities and charges. Current operating income excludes material transactions that are considered unusual in nature, in particular events related to restructuring and impairment losses, shown in operating income and expenses.

Net income, Group share

Net income for the period after tax, attributable to Eramet shareholders, after accounting for the non-controlling interest in each of the Eramet Group companies.

OCI (Other Comprehensive Income)

Transactions for which the change in value of an asset or liability is recognised directly in equity without passing through the income statement. This is the case, for example, for unrealised gains or losses on hedging instruments, actuarial gains and losses relating to employee benefits, and certain translation differences.

Industrial investments

Includes the acquisition of property, plant and equipment and intangible assets.

Group reporting

Financial information prepared for the Executive Committee, the chief operating decision-maker (CODM), in which the operating performance of joint ventures, the subgroup TiZir Ltd and the company UKAD are accounted for using the proportionate consolidation method. This information is reconciled with published data and is used to measure the performance of the Eramet Group and its Divisions (segment information — see Note 3). It is also used for the Eramet Group's financial reporting.

Net financial debt

Represents the gross financial debt (long and short-term borrowings) less cash and cash equivalents and current financial assets. These items include the valuation of debt-hedging derivatives.

Gearing

Ratio of net financial debt to total equity (Group non-controlling interest).

Financial liquidity

Includes cash and cash equivalents, current financial assets and the available amount in the credit facilities made available to Eramet Group companies.

3.2.7 Statutory Auditors' report on the consolidated financial statements

For the year ended 31 December 2018

This is a translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.

This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the management report and other documents provided to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To annual General Meeting of Eramet S.A.,

Opinion

In compliance with the engagement entrusted to us by your annual General Meeting, we have audited the accompanying consolidated financial statements of Eramet S.A. Company for the year ended 31 December 2018.

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 as at 31 December 2018 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 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 those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from 1 January 2018 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5-(1) of Regulation (EU) No. 537/2014 or in the French Code of ethics *(Code de déontologie)* for Statutory Auditors.

Emphasis of matter

We draw attention to the following matters described in the following notes to the consolidated financial statements:

- 2.5 "Review of the quality process within the High Performance Alloys division" which sets out the framework for the internal review of quality processes within Aubert & Duval and the provision of €65 million recognized as such and 15.3 "Contingent liabilities" which indicates that during the finalisation of this review and depending on potential requests from certain customers, additional costs may be incurred and cannot be estimated at this stage;
- 2.6 "Continuation of the restructuring plan and new economic model of Société Le Nickel-SLN (SLN)" which sets out the framework in which the SLN's going concern is assessed."

Our opinion is not modified in respect of these matters.

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 risks of material misstatement that, in our professional judgment, were of most significance in our audit of the current period consolidated financial statements, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Impairment test of goodwill, tangible and intangible assets

Risks identified

As indicated in Note 10 to the consolidated financial statements, the Group performs impairment tests for goodwill and indefinite life intangible assets systematically at least once a year during the year end closing process, or when there is an indication of impairment. For intangible assets and property, plant and equipment with finite lives, impairment tests are carried out when there are indications of impairment.

Cash-generating units (CGU) are homogeneous groups of assets whose continuous use generates independent cash flows. Impairment tests are performed for each CGU. All intangible assets, including goodwill, and all items of property, plant and equipment are allocated to CGUs.

The Eramet Group management determines the relevant indicators the unfavourable development of which would constitute evidence of impairment. An impairment test is carried out on the CGUs concerned when these indicators show a negative development.

Impairment testing consists in comparing the carrying amount of assets with their recoverable amount, which is defined as the higher of the value in use (or recoverable amount through use) and the fair value (or recoverable amount through sale, less costs to sell).

To determine the value in use, the Eramet Group mainly uses the method of discounted future cash flows generated from the use of the assets, or another method if the circumstances provide another way of determining the market value. The data used to calculate the discounted forecast cash flows is taken from the annual budgets and multiyear plans prepared by the Management of the concerned CGUs.

Impairment losses are calculated as the difference between the recoverable and net book value of an asset.

At 31 December 2018, goodwill, intangible and tangible assets totalled €2,742 million.

These impairment tests represent a key audit matter due to the significant importance of the value of these fixed assets in Group's consolidated financial statements and because determination of their recoverable value, most often based on forecasts of discounted future cash flows, requires the use of assumptions, estimates or assessments.

Audit procedures implemented in response to identified risks

We examined the process of identifying impairment indicators and the procedures for implementing these impairment tests, in particular for the CGUs of the following Mining division: SLN CGU, Gabon and Manganese alloys CGU, Mineral Sands CGU and for the Aubert & Duval CGU of the High Performance Alloys division.

The Group describes its impairment testing methodology in Note 10 to the consolidated financial statements. We have assessed:

- the completeness of the components of the carrying value of the Group of CGUs relating to the tested activities and the consistency of the determination of this value with the way in which the cash flow projections were determined for the value in use;
- the consistency of past and future cash flows, with management's most recent estimates as presented to the Board of Directors as part of the budget process;
- the consistency of the information taken into account in these models with regard to our knowledge of the sector and our knowledge of the activity gained while performing our duties, in particular the examination of the strategic plan and through interviews with management control;
- the consistency of the price parameters used by the Company with industry consensus for Nickel, the Company's internal analyses and the external sources used by the Company for Manganese;
- the appropriateness of discount rates applied to the estimated cash flows by analysing, in particular, that the different parameters of the weighted average cost of capital of each CGU make it possible to approximate the rate of return expected by market participants for similar activities;
- sensitivity analyses of value in use performed by management, taking into account a reasonably possible change in the key assumptions used;
- the mathematical accuracy of the calculations.

Lastly, we assessed the appropriateness of the information disclosed in the notes to the consolidated financial statements in this regard.

Provisions for site dismantling and restoration

Risks identified
As mentioned in Note 13 to the consolidated financial statements, the Group recognises provisions for site dismantling and restoration to cover its environmental obligations, mainly in New Caledonia. As at 31 December 2018, these provisions for the entire Group amounted to €413 million.

These provisions are estimated on the basis of forecast cash flows, classified by maturity and discounted by applying an inflation rate and a discount rate calculated using local economic parameters.

These provisions are recognised in relation to the immediate deterioration of an asset to be restored or dismantled and subsequent changes in assumptions will correct this value with a prospective effect.

These provisions are assessed at each closing or when new information becomes available. The final costs of site restoration and dismantling are therefore uncertain by their very nature. These uncertainties may lead to actual expenditure in the future which amount may differ from the current quotations used as a basis for the current provision amount.

We identified this topic as a key audit matter given the significance of the amounts involved, the sometimes distant time horizons of the estimates, the sensitivity of the assumptions and the level of management judgement required to determine these provisions.

Audit procedures implemented in response to identified risks
As part of our audit of the consolidated financial statements, our work on this subject mainly consisted of:

- interviewing the persons in charge of environmental matters of the company Le Nickel-SLN (New Caledonia) and the Group in relation to its obligations, as well as in relation to communication with the authorities;
- examining the procedures implemented by the Group to identify and list all of its obligations;
- assessing the accounting framework and the permanence of the methods applied;
- examining the Group's analysis of the relevant documentation, including external consultations;
- assessing the reasonableness of the various parameters and assumptions used by management to estimate the amount of these provisions, including:
  - inventory of goods and facilities to be dismantled, areas to be restored,
  - cost of restoration, particularly with regard to external quotations obtained,
  - remaining period of use of the facilities and exploitation of the deposits in accordance with technical analyses and mining plan,
  - assumptions used in relation to inflation and discounting.

Lastly, we examined the appropriateness of information disclosed in the notes to the consolidated financial statements in this regard.

Specific verifications

As required by French laws and regulations, we have also verified in accordance with professional standards applicable in France the information pertaining to the Group presented in the management report of Board of Directors.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated declaration of extra-financial performance, required under Article L. 225-102-1 of the French Commercial Code *(Code de commerce)*, is included in the management report, being specified that, in accordance with the provisions of Article L. 823-10 of this Code, we have not verified the fair presentation and the consistency with the consolidated financial statements of the information provided in this declaration and this information must be reported by an independent third party.

Report on other legal and regulatory requirements

Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of Eramet S.A. Company by the annual General Meeting held on 29 May 2015 (for KPMG Audit and Ernst & Young Audit).

As at 31 December 2018, KPMG Audit and Ernst & Young Audit were in the fourth year of total uninterrupted engagement.

Furthermore, Ernst & Young et Autres was previously Statutory Auditor of the entity from 2009 to 2014 and Ernst & Young Audit from 1991 to 2008.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from 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 is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' responsibilities for the audit of the consolidated financial statements

Objectives 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 from 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 of users taken on the basis of these consolidated financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code *(Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his 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;
- obtains an understanding of internal control 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;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses 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 his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains 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 Auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit Committee

We submit a report to the Audit 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, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters, that we are required to describe in this audit report.

We also provide the Audit 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 such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code *(Code de commerce)* and in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris La Défense, on the 29 March 2019

The Statutory Auditors

KPMG Audit		**Ernst & Young Audit**	
Department of KPMG S.A.			
Denis Marangé	Pierre-Antoine Duffaud	Jean-Roch Varon	Nicolas Macé
Partner	*Partner*	*Partner*	*Partner*

3.2 Individual financial statements as of 31 December 2018

Income Statement

(€ THOUSAND)	NOTES	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Sale of goods and merchandise		668,692	581,169
Income from ancillary activities		46,772	52,950
Sales	**5.1**	**715,464**	**634,119**
Change in inventories of finished products and work in progress		(801)	(26,962)
Operating subsidies		362	299
Reversals of provisions and amortisation, transfer of charges		27,002	43,092
Other income		118	8
Other income		**26,681**	**16,437**
Total operating income		742,145	650,556
Purchase of goods		524,730	507,279
Changes in inventories (goods)		70,195	219
Purchase of raw materials and other supplies		45,550	26,330
Changes in inventories (raw materials and supplies)		(36)	25,795
External purchases and expenses		78,368	65,985
Taxes, duties, and other levies		2,924	2,351
Wages and salaries		23,090	26,717
Social security contributions		11,665	33,999
Depreciation and amortisation		6,724	7,184
Provisions for current assets		424	294
Provisions for liabilities and charges		9,706	22,620
Other expenses		2,284	3,144
Total operating expenses		**775,624**	**721,917**
Operating income		**(33,479)**	**(71,361)**
Financial income	**5.2**	**147,829**	**17,708**
Current income before taxes		**114,350**	**(53,653)**
Extraordinary income	**5.3**	**(63,896)**	**32,530**
Income tax		3,917	3,393
Net income		54,371	(17,730)

Asset Balance Sheet

(€ THOUSAND)	NOTES	GROSS VALUES	DEPRECIATION, AMORTISATION AND PROVISIONS	31/12/2018 NET VALUES	31/12/2017 NET VALUES
Patents, licenses, rights and similar assets		18,165	17,919	246	785
Goodwill		64		64	0
Non-current assets under construction		18,756	18,554	202	233
Non-current intangible assets		**36,985**	**36,473**	**512**	**1,018**
Technical installations, industrial machinery and equipment		192	56	136	0
Other		5,422	453	4,969	90
Non-current assets under construction		2,008		2,008	524
Property, plant and equipment		**7,622**	**509**	**7,113**	**614**
Investments		2,630,163	1,188,426	1,441,737	1,025,981
Receivables from equity interests	4.2	1,112,484	83,850	1,028,634	1,898,879
Other long-term investments		12,979	9,231	3,748	2,055
Other	4.2	19,795		19,795	14,805
Financial assets		**3,775,421**	**1,281,507**	**2,493,914**	**2,941,720**
Non-current assets	**4.1**	**3,820,028**	**1,318,489**	**2,501,539**	**2,943,352**
Semi-finished and finished products		2	2	0	510
Goods		19,886	1,163	18,723	28,842
Inventories and work in progress	**4.7**	**19,888**	**1,165**	**18,723**	**29,352**
Advances and down payments on orders		**216**		**216**	**49**
Trade receivables		72,888		72,888	91,942
Other receivables		90,102	46,369	43,733	26,414
Operating receivables	**4.2 & 4.7**	**162,990**	**46,369**	**116,621**	**118,356**
Cash and cash equivalents	**4.3**	**69,999**		**69,999**	**60,213**
Prepaid expenses		2,989		2,989	5,356
Loan issue costs to be deferred		10,394		10,394	11,653
Adjustment accounts	**4.4**	**13,383**		**13,383**	**17,009**
Current assets		**266,476**	**47,534**	**218,942**	**224,979**
Total assets		4,086,504	1,366,023	2,720,481	3,168,331

Liabilities Balance Sheet

(€ THOUSAND)	NOTES	31/12/2018	31/12/2017
Capital		81,239	81,233
Issue, merger and contribution premiums		377,347	377,251
Legal reserve		8,096	8,096
Other reserves		253,839	253,839
Retained earnings		249,487	328,340
Income for the financial year		54,371	(17,730)
Net position	**4.5**	**1,024,379**	**1,031,029**
Regulated provisions	4.8	7,608	7,608
Shareholders' equity		**1,031,987**	**1,038,637**
Proceeds from equity issues		95,707	95,810
Conditional advances			
Other equity	**4.9**	**95,707**	**95,810**
Provisions for liabilities		59,100	30,491
Provisions for charges		1,781	7,121
Provisions for liabilities and charges	**4.8**	**60,881**	**37,612**
Bond issues		1,084,500	1,072,262
Borrowings and debt with credit institutions		194,052	665,437
Other borrowings and financial debt			
Intercompany current account liabilities		137,765	147,533
Financial debts	**4.10**	**1,416,317**	**1,885,232**
Advances and deposits received on current orders			**61**
Trade payables and related accounts		69,965	72,958
Tax and social security liabilities		18,035	17,708
Operating debts	**4.10 & 4.11**	**88,000**	**90,666**
Liabilities on non-current assets and related accounts		282	
Other liabilities		26,797	20,218
Miscellaneous liabilities	**4.10 & 4.11**	**27,079**	**20,218**
Adjustment account	**4.11**	**510**	**94**
Liabilities		**1,531,906**	**1,996,271**
Total liabilities		2,720,481	3,168,331

Net Debt Table

(€ THOUSAND)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Operational activities		
Net income	54,371	(17,730)
Elimination of income and expenses with no impact on cash flow or not related to operating activities	205,270	(45,665)
Cash flow from operations	**259,641**	**(63,395)**
Change in operating working capital requirement	11,797	22,848
Net cash generated by operating activities	**271,438**	**(40,547)**
Investment activities		
Net payments for non-current financial assets	(623,698)	(359,334)
Payments for non-current intangible assets and PP&E	(7,480)	(685)
Disposal of non-current assets	0	49,687
Change in other receivables and debts	6,254	(3,578)
Net cash used in investing activities	**(624,924)**	**(313,910)**
Equity transactions		
Dividends paid to Eramet SA shareholders	(61,118)	-
Share capital increases	103	3,855
Net cash used in financing activities	**(61,015)**	**3,855**
Other movements		
Increase (decrease) in net cash	(414,501)	(350,602)
Net cash (borrowings) at beginning of period	**84,960**	**435,562**
Net cash (borrowings) at period end	**(329,541)**	**84,960**

Notes to the annual statements

Note 1 Description of activities

The Group is one of the world's largest producers of:

- alloy metals, especially manganese and nickel, which are used to improve the properties of steel;
- high-performance special steels and alloys used by industries such as aeronautics, power generation and tooling.

Eramet S.A., the parent company, has two main functions:

- a pure holding function called Eramet Holding, bringing together the various support services including the Administrative and Financial Department, the Human Resources Department, the Communication and Sustainable Development Department, the Legal Department, the Purchasing Department, the Information Systems Department and the Strategy, Development and Innovation Department;
- the operational activity of the Nickel division (excluding personnel costs).

The costs of these different services are billed to the three Divisions through intermediary management fee contracts. Other operating costs relating to Nickel are directly allocated to the Nickel division.

Eramet also has directly held subsidiaries, acting on behalf of the various entities or for the parent company. These include:

- Eramet Nickel: a company which brings together the personnel of the support functions of the mining Divisions (General Management, Sales and Industrial Management);
- Eramet Services: a company which includes accounting functions, payroll and IT support for the Group's French companies;
- Eramet Ideas: Eramet's research centre, which brings together Research and Development and project and technology engineering activities;
- Eramet International: a company that brings together Eramet's sales network for certain activities of the three Divisions. Eramet International has subsidiaries and branches throughout the world. The activity of Eramet International is generally remunerated by agency commission contracts;
- Metal Securities: the Group's cash management company, which centralises cash surpluses and short-term requirements for the Group as a whole;
- Metal Currencies: the Group's foreign exchange management company, which carries out all foreign exchange hedging operations for the Group as a whole;
- ERAS: reinsurance company;
- Eramine: company in charge of developments in lithium.

Note 2 Key events in the reporting period

2.1 Finalisation of the partnership agreement for the development of the Weda Bay nickel deposit

On 8 June 2017, after approval by Eramet's Board of Directors, a partnership agreement was signed with the Chinese steel group Tsingshan, the world's largest producer of stainless steel, to develop this mining asset. This partnership will make it possible to use pyrometallurgical process to produce nickel ferroalloy, with a volume of about 30,000 tonnes of nickel content per year, from the ore mined from the Weda Bay deposit in Indonesia.

On 21 September 2017, the preconditions for Tsingshan's entry through its subsidiary Newstride Ltd. Co ("Newstride"), with Strand's capital, were lifted. On that date, Newstride acquired 57% of Strand's share capital by way of a reserved, partially paid-up capital increase.

On 19 May 2018, the conditions necessary for the confirmation of the partnership between Tsingshan and Eramet having been lifted, the increase in Strand's capital reserved for Newstride was fully paid up. Following this confirmation, Eramet holds 43% of Strand's shares and the Tsingshan group holds 57%.

2.2 Takeover bid for the shares of Mineral Deposits Limited

On 14 May, Eramet announced the launch of a public takeover bid to acquire all the shares issued by Mineral Deposits Limited (MDL), which holds a 50% stake in TiZir. This bid, at a price of AUD 1.75 per share, was finalised, allowing the effective takeover of 100% control of the TiZir companies at the beginning of July 2018 for a total price of €218.8 million. TiZir has an integrated mineral sands business (titanium dioxide and zircon) in Senegal and Norway.

2.3 Review of the quality process within the High Performance Alloys division

As part of an internal review of the quality processes at Aubert & Duval, non-conformities were found in the quality management system. Internal analyses and the implementation of additional verification procedures carried out in collaboration with customers have not yet revealed any breach in the safety of the products in use. At 31 December 2018, a provision of €65 million was recognised in the Division's financial statements to take into account the estimated cost to date of completing this in-depth review of the quality processes, in particular consultancy costs.

2.4 Capital increase and provisions on equity investments

In order to take into account the evolution of the above events (Weda Bay and MDL) and the consequences of the review of the quality process within the High Performance Alloys division, capital increases were carried out, in particular at Aubert & Duval and Erasteel. The value of equity investments was reviewed in light of these significant events. Details of these movements are explained in Appendix 4.1.

2.5 Continuation of the restructuring plan and new economic model of Société Le Nickel-SLN (SLN)

In 2018, SLN, one of the Group's main subsidiaries, benefited from the rise in nickel prices due to the growth in the volume of ore exported. However, the euro/dollar exchange rate, the increase in the price of fuel oil and difficulties in mining operations prevented the generation of a positive operating result. In order to enable going concern, SLN develops a new economic model, shifting the balance on the mining and metallurgy sectors, with a target of 4 million tonnes of ore exported before plant treatment by 2021, combined with an improvement in operational performance (lower fixed costs and productivity gains for mines and plants). Based on these improvements and expected developments in nickel prices, the financing of €525 million (€320 million used at 31 December 2018) put in place by Eramet and the French government will enable SLN to meet its commitments until mid-2020.

2.6 Final repayment of the drawdown on the revolving credit facility

On 19 January 2018, Eramet repaid the balance of €250 million of the drawdown on the Revolving Credit Facility (RCF). This same facility was extended on 13 February 2018 for an amount of €981 million and for a five-year term, with a new maturity in January 2023. No lines of this RCF have been drawn down to date.

2.7 Repayment of the *Schuldschein* loan

On 18 June 2018, Eramet completed the early repayment of the *Schuldschein* loan of €60 million with a maturity of 2020.

2.8 Subscription of a new long-term loan with the European Investment Bank

In October 2018, Eramet signed a new €120 million loan with the European Investment Bank to finance investments in research, development and innovation (RDI) in digitalisation and advanced manufacturing. As at 31 December 2018, this loan had not yet been drawn down.

2.9 Relocation of the Head Office

Having been located in the Tour Montparnasse since its construction in 1973, Eramet moved to new offices at 10, boulevard de Grenelle on 4 June 2018, in line with its managerial transformation project "NeWays".

2.10 Dividend paid and dividend received

At the end of May 2018, Eramet paid a dividend of €61.1 million to its shareholders and in 2018 received dividends of €33.9 million and €284 million from its subsidiaries Comilog SA and Eramet Holding Manganese.

Note 3 Accounting principles, rules and methods

The financial statements of Eramet SA as of 31 December 2018 were approved by the Board of Directors on 20 February 2019.

Review of principles

The annual financial statements for the year ended 31 December 2018 have been prepared in accordance with French Accounting Standards Authority (ANC) regulation No. 2015-06 of 23 November 2015 and No. 2016-7 amending regulation No. 2014-03 of 5 June 2014 relating to the general chart of accounts. The Company also applies ANC regulation 2015-05 relating to forward financial instruments and hedging transactions.

The general accounting conventions have been applied in accordance with the principle of prudence, in conformity with the basic assumptions: continuity of operations, consistency of accounting methods, independence of financial years and according to the rules for drawing up and presenting the annual accounts.

The basic method used to value recorded items is the historical cost method.

Change in method

There was no other change in method compared to 31 December 2017.

Rules and methods applied to the various balance sheet and income statement items

3.1 Non-current intangible assets and property, plant and equipment

The gross amount of non-current assets is the amount at which the items were first recorded in the Company's ownership and includes any expenses required to bring them into working order. Non-current assets not used or whose market value is lower than the carrying value are generally depreciated by extraordinary depreciation and amortisation expense and additions to provisions.

Economically justified amortisation is straight-line amortisation. This amortisation is calculated according to the estimated life of the assets.

The useful lives for the amortisation of property, plant and equipment are, except in exceptional cases, as follows:

- Buildings: between 20 and 30 years;
- technical installations: between 12 and 20 years;
- Machinery and equipment: between 3 and 10 years;
- installations, fixtures and fittings: between 5 and 10 years;
- Transport equipment: between 5 and 8 years;
- Office equipment, computers and furniture: between 3 and 8 years.

The impact of the difference between straight-line amortisation and degressive amortisation is recognised through exceptional amortisation.

3.2 Financial assets

Since 1 January 2006, the gross value of non-current financial assets has been increased by the purchase price excluding incidental expenses. Loans are stated at their nominal value. At the end of the financial year, the securities are valued at their use value, which takes into account both the net asset value and profitability prospects. When the use value is less than the gross value, a provision for depreciation is the amount of the difference between the two values.

3.3 Ongoing development projects

Costs incurred on these projects are initially recognised either as assets or as expenses. If these development projects do not meet sufficient economic criteria or do not succeed, these costs are recognised as expenses, or impaired or recognised as exceptional losses. Furthermore, on completion of an acquisition, these costs are included in the value of the securities.

3.4 Inventories

Inventories of nickel-bearing products are valued at cost price calculated on a "first-in, first-out" basis. When the value thus obtained is greater than the net realisable value (selling price less selling costs), a provision corresponding to this difference is made.

3.5 Receivables and payables

Foreign currency receivables and payables are re-measured at the rate prevailing at the period-end date.

The effects of currency hedging transactions applied to foreign currency receivables and payables are recognised as foreign exchange gains or losses in the income statement. The offsetting transaction is recorded in the "Difference in hedging valuation" accounts.

Provisions for impairment of trade receivables are valued on a client-by-client basis according to the estimated risk.

3.6 Investment securities

They are valued at acquisition cost and are subject to provisions for impairment if their net asset value (closing price) is lower. Unrealised gains are not recognised.

3.7 Provisions for liabilities and charges

Provisions are made when the risk is estimated to be probable and the amount can be reliably estimated, to cover all liabilities arising from past events that are known at the reporting date and the settlement of which is likely to result in an outflow of resources representing the economic benefits necessary to settle the liability.

Personnel salaries and allowances

Eramet offers its employees various long-term benefits such as end-of-career payments and other post-employment benefits, such as long-service awards.

Certain commitments are covered completely or partially by contracts with insurance companies.

In this case, commitments and hedging assets are valued independently. A provision is therefore made for the level of commitments and financial assets.

Eramet's commitments are valued by independent actuaries. The actuarial assumptions used (Eramet's probability of maintaining active staff, probability of mortality, retirement age, wage trends, etc.) vary according to the demographic and economic conditions prevailing in the country. The discount rates are based on the rate of government bonds or qualified companies of "Premium Quality" with a duration equivalent to the commitments at the valuation date.

The expected returns on assets over the long term have been determined taking into account the investment portfolio structure.

Bonus share plan for employees

The corresponding provision has been valued based on the value of the treasury shares and the share price on 31 December 2018.

The provision is spread over the vesting period (from two to four years according to the plan) for Eramet SA employees. For other beneficiaries (excluding Eramet SA), the provision is set as of the date of allocation of the plans.

3.8 Sales

Sales comprise:

- sales of ferronickel (sales and purchases of SLN products);
- nickel salts (purchase/sale of products from the Eramet Sandouville plant);
- services and chargeback of shared costs.

Revenue is recognised as sales when the business has transferred to the buyer the risks and rewards of property ownership.

3.9 Net debt table

The net debt table presents the changes in the following balance sheet items:

- receivables from equity investments (gross value). *See Note 4.2;*
- Cash and cash equivalents. *See Note 4.3;*
- Other equity. *See Note 4.9;*
- Financial debts. *See Note 4.10.*

Note 4 Explanatory notes to the balance sheet

4.1 Non-current assets and amortisation

Non-current intangible assets

(€ THOUSAND)	ACQUISITION VALUES 31/12/2017	ACQUISITIONS	LEAVERS[1]	ACQUISITION VALUES 31/12/2018
Concessions, patents, licenses, trademarks, processes, rights and similar assets	17,817	412		18,229
Goodwill	64			64
Non-current assets under construction	18,724		(32)	18,692
Total	36,605	412	(32)	36,985

(1) Disposals, retirements and adjustments.

(€ THOUSAND)	DEPRECIATION, AMORTISATION AND PROVISIONS AS AT 31/12/2017	ALLOCATIONS	REVERSALS	LEAVERS[1]	DEPRECIATION, AMORTISATION AND PROVISIONS AS AT 31/12/2018
Concessions, patents, licenses, trademarks, processes, rights and similar assets	17,032	887			17,919
Goodwill	0				0
Non-current assets under construction	18,554				18,554
Total	35,587	887	0	0	36,473

(1) Disposals, retirements and adjustments.

Depreciation and amortisation expenses mainly relate to the SAP software (ERP).

As a reminder, the non-current assets under construction related to the development of hydro-metallurgical technology were fully depreciated in 2015 for an amount of €18.5 million following the decision to suspend the hydrometallurgical process.

Property, plant and equipment

(€ THOUSAND)	ACQUISITION VALUES 31/12/2017	ACQUISITIONS	LEAVERS[1]	ACQUISITION VALUES 31/12/2018
Land	(0)			(0)
Buildings	0			0
Technical installations, industrial machinery and equipment	0	192		192
Other	1,620	5,422	(1,620)	5,422
Non-current assets under construction	524	1,695	(211)	2,008
Advances and down payments	(0)			(0)
Total	2,144	7,309	(1,831)	7,622

(1) Disposals, retirements and adjustments.

Following the relocation of Eramet's head office to 10, boulevard de Grenelle on 4 June 2018, all furniture, fixtures and fittings were scrapped and replaced by new investments for a total amount of €5.6 million.

(€ THOUSAND)	DEPRECIATION, AMORTISATION AND PROVISIONS AS AT 31/12/2017	ALLOCATIONS	REVERSALS	LEAVERS[1]	DEPRECIATION, AMORTISATION AND PROVISIONS AS AT 31/12/2018
Land	0				0
Buildings	0				0
Technical facilities, industrial machinery and equipment	0	56			56
Other	1,530	474	(1,551)		453
Non-current assets under construction	0				0
Advances and down payments	0				0
Total	1,530	530	(1,551)	0	509

(1) Disposals, retirements and adjustments.

Financial assets

(€ THOUSAND)	ACQUISITION VALUES 31/12/2017	ACQUISITIONS	LEAVERS[1]	ACQUISITION VALUES 31/12/2018
Investments	2,059,775	623,807	(53,419)	2,630,163
Receivables from equity interests	2,005,790	157,799	(1,051,105)	1,112,484
Other long-term investments	14,393	3,804	(5,218)	12,979
Other	14,805	9,221	(4,231)	19,795
Total	4,094,762	794,631	(1,113,973)	3,775,421

(1) Disposals, retirements and adjustments.

Changes in the "Investments" item are explained by the acquisition of 100% of the share capital of Mineral Deposits Limited (MDL) as part of the takeover bid for €218.8 million, by the capital increase of Eramet Holding Alliages for €300 million, by the capital increase of Erasteel for €75 million, by the capital increase of Eramine for €30 million, by the delisting of Weda Bay Mineral Singapore shares for €52.6 million and by the sale of Eramet Ingénierie shares to Eramet Research for €0.8 million.

The increases in "receivables from investments" are mainly due to the increase in the Eramet Sandouville loan for €59 million, the increase in the Erasteel loan for €47 million, the increase in the Eramine loan for €12 million, the increase in the SLN loan for €10 million, and the increase in the Aubert & Duval loan for €3.6 million.

The decrease in "receivables from investments" is mainly due to the decrease in investments with Metal Securities for an amount of €680 million related to the repayment of the balance of the revolving credit facility, the total repayment of the Aubert & Duval loan for €245 million combined with the capital increase, by the partial repayment of the Erasteel loan for €80 million (including €75 million of capital increase by debt waiver), by the partial repayment of the Eramine loan for €30 million (capital increase by debt waiver), and by the partial repayment of the Comilog Far East Development loan for an amount of €15.9 million.

The line "Other long-term investments" concerns treasury shares. Movements in this item are attributable to share repurchases, mainly due to the allocation to employees of French and foreign companies of selective bonus share plans for 2014 and 2015, and democratic bonus share plans for 2014 and 2016, amounting to €5.2 million, as well as the net balance of the liquidity agreement.

The shares from the buyback mandates (balance of 32,107 shares as of 31 December 2018) are intended to be distributed as part of the bonus share plans.

(€ THOUSAND)	DEPRECIATION, AMORTISATION AND PROVISIONS AS AT 31/12/2017	ALLOCATIONS	REVERSALS	LEAVERS[1]	DEPRECIATION, AMORTISATION AND PROVISIONS AS AT 31/12/2018
Investments	1,033,794	367,217	(212,585)		1,188,426
Receivables from equity interests	106,910	38,308	(61,836)	468	83,850
Other long-term investments	12,337	2,112		(5,218)	9,231
Other	0				0
Total	1,153,042	407,637	(274,421)	(4,750)	1,281,507

(1) Disposals, retirements and adjustments.

The capital increase of Tsingshan in Strand Minerals led to an adjustment of the values of securities and loans according to the agreements reached. This operation led to the reversal of the existing impairment loss on Strand Minerals shares (€37.7 million) and the loan granted to the same company (€28.7 million). A provision for impairment of Eramet Holding Alliages shares was recorded for €313.4 million, a provision for impairment of Eramine shares was recorded for €30 million, a provision for impairment of Erasteel shares was recorded for €23.8 million, a reversal of a provision on Eralloys Holding shares was recorded for €122.3 million and a reversal of a provision on Weda Bay Mineral Singapore shares was recorded for €52.6 million.

Provisions for the impairment of receivables on investments in associates were made on the Eramet Sandouville loan for €38.3 million to reflect the financial situations of the companies concerned. Provisions for impairment were reversed on the Eramine loan for €17.3 million and on the CFED loan for €15.9 million.

Shares held as part of the market maker activities were subject to a provision reversal of €5.2 million mainly due to the allocation of bonus shares.

4.2 Schedule of receivables

(€ THOUSAND)	GROSS AMOUNT 31/12/2018	1 YEAR OR LESS	OVER 1 YEAR	REMINDER 31/12/2017
Receivables from investments[1]	1,112,484	488,223	624,261	2,005,789
Other non-current financial assets[2]	19,795	19,795		14,805
Trade and accounts receivable	72,888	72,499	389	91,942
Other receivables[3]	90,102	90,102		59,673
Total	1,295,269	670,619	624,650	2,172,209

(1) Receivables on investments in companies: loans to Group companies.
(2) €9.2 million excess contribution to the supplementary defined benefit pension plan.
(3) Other receivables include, among other things, a €22.9 million net corporate tax receivable, as part of the tax consolidation, the Lithium project costs of €46.5 million fully provisioned (see Note 4.7).

Detail of receivables from investments

(€ THOUSAND)	31/12/2018	31/12/2017
Strand Minerals Ltd/Weda Bay Minerals Singapore	163,563	156,158
Aubert & Duval	0	241,594
Erasteel SAS	119,000	152,003
CFED	37,832	53,222
Eramine SAS	7,710	25,002
Metal Securities	336,942	1,016,992
TiZir	113,449	100,863
SLN	171,625	161,613
Sandouville	110,179	50,969
Eralloys Holding	52,184	47,373
Total	1,112,484	2,005,789

4.3 Cash and cash equivalents

Cash and cash equivalents consist of marketable securities for €49.7 million and bank accounts receivable for €20.3 million.

4.4 Prepaid expenses and accrued income

(€ THOUSAND)	31/12/2018	31/12/2017
Prepaid expenses(1)	2,989	5,356
Loan issue costs to be written-down(2)	10,394	11,653
Total	13,383	17,009

(1) Prepaid insurance premiums amounted to €2.1 million (€2.1 million at 31 December 2017), rents and charges for the first quarter of 2019 to €0.1 million, software maintenance to €0.4 million, and interest on the mobilisation of the CIR and CICE tax credits with banks amounted to €0.4 million.
(2) Debt issue costs (revolving credit facility, bonds, Borrowing Base, BEI) spread over the term of repayment of the loan.

4.5 Net position

The share capital is broken down as follows:

	31/12/2018				31/12/2017			
	CAPITAL		VOTING RIGHTS		CAPITAL		VOTING RIGHTS	
	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES
Registered shares								
SORAME and Compagnie d'Études Industrielles du Rouvray (CEIR)	36.94	9,840,143	43.89	19,675,977	36.93	9,835,834	43.94	19,671,668
FSI Equation (Bpifrance subsidiary)	25.57	6,810,317	30.38	13,620,634	25.57	6,810,317	30.43	13,620,634
S.T.C.P.I.	4.02	1,070,587	4.78	2,141,174	4.02	1,070,587	4.78	2,141,174
Eramet S.A.	0.36	95,164	-	-	0.55	147,642	-	-
Eramet S.A. share fund	0.51	136,306	0.40	178,671	0.20	52,273	0.23	104,746
Other	32.60	8,683,367	20.55	9,210,988	32.73	8,717,007	20.61	9,226,201
Total number of shares	100.00	26,635,884	100.00	44,827,444	100.00	26,633,660	100.00	44,764,423
• of which, registered shares	69.55	18,525,883.00	82.05	36,780,500	69.50	18,509,540	81.90	36,663,450
• of which, bearer shares	30.45	8,110,001.00	17.95	8,046,944	30.50	8,124,120	18.10	8,100,973

Pursuant to a Shareholders' Agreement concluded on 16 March 2012, which entered into force on 16 May 2012 and was renewed on 31 December 2018 for a period of one year expiring on 31 December 2019, which was the subject of a decision and information from the *Autorité des marchés financiers* under No. 212C0647 at the time of its conclusion, and a decision and information from the *Autorité des marchés financiers* under No. 216C1753 relating to the development of the Group during the acquisition by the *Agence des participations de l'État* (APE) of the entire share capital of FSI Equation, the Company is majority controlled by a group of shareholders having declared to be acting in concert, including:

- a subgroup between SORAME and CEIR, companies controlled by the Duval Family, under a concurrent shareholders' agreement dated 19 July 1999, which came into force on 21 July 1999 and was the subject of an amendment on 13 July 2009;
- the *Agence des participations de l'État* (APE), through its subsidiary FSI Equation.

The provisions of the Shareholders' Agreement mentioned above as well as those of the sub-concert are contained in key extracts of the AMF Decision and Notice texts numbered 216C1753, 212C0486 and 209C1013 (amended on 13 July 2009).

Since 1 January 2002, registered shares that meet the necessary conditions benefit from double voting rights.

Eramet's distributable reserves amounted to €881 million as of 31 December 2018 (€959 million as of 31 December 2017).

Net equity is broken down as follows:

(€ THOUSAND)	NUMBER OF SHARES	CAPITAL	PREMIUMS, RESERVES AND RETAINED EARNINGS	INCOME FOR THE FINANCIAL YEAR	TOTAL
Net position as at 31 December 2016	**26,550,443**	**80,979**	**1,129,478**	**(165,554)**	**1,044,903**
Appropriation of 2016 result			(165,554)	165,554	0
Income for 2017 financial year				(17,730)	(17,730)
Premium for conversion of bonds into shares as of 31/12/2017	83,217	254	3,602		3,855
Net position as at 31 December 2017	**26,633,660**	**81,233**	**967,526**	**(17,730)**	**1,031,029**
Appropriation of 2017 result			(17,730)	17,730	0
Income for the 2017 financial year				54,371	54,371
Dividend			(61,123)		(61,123)
Premium for conversion of bonds into shares as of 31/12/2018	2,224	6	96		102
Net position as at 31 December 2018	26,635,884	81,239	888,769	54,371	1,024,379

The share capital of €81,239,446.20 (31 December 2017: €81,232,663) is composed of €26,635,884 fully paid-up shares (31 December 2017: 26,633,660 shares) with a par value of €3.05 each.

4.6 Treasury shares

The table below summarises the treasury share transactions:

		MARKET MAKER(1)	ALLOCATIONS TO EMPLOYEES	TOTAL
Position at 1 January 2017		**62,291**	**43,510**	**105,801**
As a percentage of capital	*26,550,443*	*0.23%*	*0.16%*	*0.40%*
Final allocation of bonus shares			(64,015)	(64,015)
Share buyback mandate(2)			145,000	145,000
Purchases/Sales		(39,144)		(39,144)
Position at 31 December 2017		**23,147**	**124,495**	**147,642**
As a percentage of capital	*26,585,360*	*0.09%*	*0.47%*	*0.56%*
Final allocation of bonus shares			(92,388)	(92,388)
Purchases/Sales		39,910		39,910
Position at 31 December 2018		63,057	32,107	95,164
As a percentage of capital	*26,635,884*	*0.24%*	*0.12%*	*0.36%*

(1) Liquidity agreement signed with Exane BNP Paribas.
(2) Share buyback mandate for 145,000 shares in March and September 2017.

The balance of 95,164 shares corresponds to:

- the shares bought under a market maker contract signed with Exane BNP Paribas and not yet registered on the date of issue of the table;
- the shares to be allocated under the bonus share allocation plans.

4.7 Provisions for impairment of current assets

(€ THOUSAND)	31/12/2017	ALLOCATIONS	REVERSALS	31/12/2018
Raw materials and other supplies	739	424		1,163
Semi-finished and finished products	294		(292)	2
Other receivables[1]	33,259	13,110		46,369
Total	34,292	13,534	(292)	47,534

(1) Provision additions are mainly noted in expenses recorded under "Other receivables" for the Lithium research and exploitation project.

4.8 Provisions in liabilities

(€ THOUSAND)	31/12/2017	ALLOCATIONS	REVERSALS		RECLASSIFICATION	31/12/2018
			USED DURING THE FINANCIAL YEAR	NOT USED DURING THE FINANCIAL YEAR		
Special depreciation allowances	7,608					7,608
Total regulated provisions	**7,608**	**0**	**0**	**0**	**0**	**7,608**
Personnel[1]	7,121	5,384	(19,051)	(894)	9,221	1,781
Other provisions for liabilities[2]	4,976	29,832		(30)		34,778
Other provisions for charges[3]	25,514	5,218	(11,629)		5,218	24,321
Total provisions for liabilities and charges	**37,612**	**40,434**	**(30,680)**	**(924)**	**14,439**	**60,881**
Provisions for liabilities	45,220	40,434	(30,680)	(924)	14,439	68,489

(1) Eramet provides for retirement and similar commitments according to the actuarial valuation carried out by an independent firm. Detailed calculations have been made as of 31 December 2018. The corridor method is applied to the calculation of pension commitments. As of 31 December 2018, the balance relating to pension and similar commitments amounted to €1.8 million. A reclassification to assets of pension commitments was made for an amount of €9.2 million.
(2) The provision for financial liabilities corresponds to the potential loss on Metal Securities' bond portfolio guaranteed by Eramet for €14.1 million and a provision for financial liabilities on Weda Bay Mineral Inc for €15.7 million.
(3) Reversals and reclassifications relate to the bonus share allocation plans.

Employee-related liabilities

(€ THOUSAND)	ACTUARIAL VALUE OF BONDS	FAIR VALUE OF PLAN ASSETS	FINANCIAL POSITION SURPLUS/ (DEFICIT)
Supplementary pension plan	90,554	(72,205)	18,349
Retirement package	2,868	(1,303)	1,565
Long service awards	1,782	-	1,782
Plans for medical expenses	-	-	-
Total	95,204	(73,508)	21,696

(€ THOUSAND)	UNRECOGNISED ACTUARIAL (GAINS)/LOSSES	UNRECOGNISED SERVICES RECORDED	PROVISIONS IN THE BALANCE SHEET (ASSETS)/LIABILITIES
Supplementary pension plan	(21,249)	(4,570)	(7,471)
Retirement package	(3,133)	(181)	(1,750)
Long service awards	-	-	1,781
Plans for medical expenses	-	-	-
Total	(24,382)	(4,751)	(7,440)
Personnel provisions			1,781
Plan assets (other non-current financial assets)			(9,221)

Details of pension fund investments

(€ THOUSAND)	INSURANCE CONTRACT	OTHER INVESTMENTS	TOTAL
Amounts	73,508		73,508
Percentage	100.0%		100%

Change in pension liabilities

(€)	FINANCIAL YEAR 2018	
At beginning of period		**6,401**
Expenses recognised		3,901
• service cost	2,914	
• amortisation of actuarial gains (losses) and past service cost	1,535	
• interest expenses	1,418	
• return on plan assets	(1,966)	
Contributions and benefits paid[1]		(17,742)
At period close		(7,440)

(1) *Of which payments to plan assets made during the period: €15.50 million.*

The actuarial assumptions used for the valuations are as follows:

ACTUARIAL ASSUMPTIONS:	FINANCIAL YEAR 2017	FINANCIAL YEAR 2018
Discount rate	1.50%	1.75%
Inflation rate	1.80%	1.80%
Salary increase rate	3.00%-3.75%	3.00%-3.75%
Rate of return on plan financial assets	1.50%	1.75%

4.9 Proceeds from equity issues

(€ THOUSAND)	31/12/2018	31/12/2017
ODIRNAN	95,707	95,810
Total	95,707	95,810

Eramet SA issued an ODIRNAN (net share settled undated bonds convertible into new shares) on 5 October 2016.

At 31 December 2018, 92,666 bonds were subject to equity conversion (2,224 in 2018). The number of bonds in circulation is therefore 2,065,761 (31 December 2017: 2,067,985), a decrease of 2,204 bonds in 2018.

The total value of bonds at 31 December 2018 is €95.7 million (31 December 2017: €95.8 million).

ODIRNAN is a perpetual bond with no maturity date. Holders do not have the option to redeem the instrument for cash in hand. The bond is repayable in the event of liquidation of the Company with payment of accrued and, if applicable, deferred coupons. The organisation of the coupon payments is left up to the Company and may be delayed as long as it has not decided on a dividend distribution since the penultimate interest payment date (or since the issue date for the first two payment dates). In case of non-payment of coupons, they will remain due and will constitute arrears which will bear interest at the applicable rate for bond coupons.

The coupon is fixed at an annual rate of 4% until October 2022. It will then switch to a variable rate from 5 October 2022, calculated at the 6-month Euribor rate plus a margin of 1,000 basis points ("step-up" clause). In the event of a change of control of Eramet SA, the annual interest rate will be increased by 500 basis points unless the Company opts for early redemption within 45 days of the change of control.

Bond holders will receive an equity conversion right. The issuer may choose to deliver one of the following to bondholders exercising their right to receive shares:

- cash only;
- new shares only;
- or a combination of new shares and cash.

4.10 Breakdown of liabilities and maturity schedule

NET AMOUNT (€ THOUSAND)	31/12/2018	1 YEAR OR LESS	MORE THAN 1 YEAR AND LESS THAN 5 YEARS	MORE THAN 5 YEARS	31/12/2017
Other bond issues(1)	1,084,500	24,405	560,100	499,995	1,072,262
Borrowings and debt with credit institutions(2)	194,052	110,719	47,556	35,777	665,437
Borrowings and other financial debts(3)	137,765	137,765			147,533
Suppliers and related accounts(4)	69,965	69,965			72,958
Tax and social security liabilities	18,035	18,035			17,708
Debts on non-current assets and related accounts	282	282			0
Other various liabilities(5)	26,797	26,797			20,218
Total	1,531,396	387,968	607,656	535,772	1,996,116

(1) This item includes several bond issues:
— 2013 issue for €460.1 million (initial issue of €525 million partly reimbursed for €64.9 million at the end of September 2017);
— 2014 issue for €100 million;
— September 2017 issue for €500 million.
(2) Borrowings from credit institutions include the Borrowing Base for €41 million, two loans from the European Investment Bank for a total of €92.2 million and commercial paper for €60 million (repayable within one year).
(3) Eramet is financed by the Metal Securities company, an 87.92% subsidiary of Eramet. The amount as of 31 December 2018 is €134.1 million, compared to €143.9 million as of 31 December 2017.
(4) The Company has a supplier debt more than 60 days from the invoice date of €1,257 thousand.
(5) This item includes a net amount of tax consolidation liabilities of €12.6 million.

Breakdown of borrowings and other financial debts

NET AMOUNT (€ THOUSAND)	31/12/2018	31/12/2017	30/06/2018
Current accounts with Metal Securities	134,150	143,883	139,910
Borrowing from Weda Bay Minerals, Inc.	1,740	1,804	1,759
Deposits received	40	130	130
Revolving credit facility utilisation/non-utilisation fee	877	716	827
Interest from ODIRNAN	958	1,000	958
Total	137,765	147,533	143,584

4.11 Breakdown of liabilities and accrued expenses

GROSS AMOUNT (€ THOUSAND)	31/12/2018	31/12/2017
Trade payables and related accounts	69,965	72,958
Tax and social security liabilities	18,035	17,708
Liabilities on non-current assets and related accounts	282	0
Other various liabilities	26,797	20,218
Deferred income	510	94
Total	115,589	110,978

4.12 Information on related companies

Balance sheet

(€ THOUSAND)	31/12/2018	31/12/2017
Investments	2,630,163	2,059,775
Financial receivables	835,472	1,904,925
Trade and accounts receivable	9,456	18,665
Other receivables	13,313	339
Borrowings and other financial debts	(135,890)	(145,687)
Trade payables and related accounts	(56,515)	(62,275)
Other liabilities	(17,956)	(19,334)

Income statement

(€ THOUSAND)	31/12/2018	31/12/2017
Operating income	47,609	52,761
Operating expenses	(653,933)	(555,423)
Financial income	46,288	50,088
Financial expenses	(6,753)	(5,504)

Note 5 Explanatory notes to the income statement

5.1 Sales

(€ THOUSAND)	TOTAL	FRANCE	FOREIGN
Sale of products and goods[1]	668,692	2,434	666,258
Income from ancillary activities	46,772	35,286	11,486
Sales	715,464	37,720	677,744

(1) Sales include a negative currency difference of €2.6 million, mainly due to hedges in USD.

5.2 Increases and reductions in future tax liabilities

(€ THOUSAND)	31/12/2018	31/12/2017
Increases in taxable base		
• Regulated provisions	7,608	7,608
• Translation adjustment losses at close		
• Deferred expenses		
Reductions in taxable base		
• Provisions not deductible in the accounting period	6,297	(6,741)
• Accrued expenses	(255)	(271)
• Translation adjustment gains at close of the fiscal year		
• Unrealised financial income		
• Tax loss carryforwards	(700,092)	(477,198)
Net reduction in taxable base	**(686,442)**	**(476,602)**
Increase in future taxation	(236,342) 34.43%	(164,094) 34.43%

Breakdown of income tax

(€ THOUSAND)	GROSS AMOUNT	TAX OWED	31/12/2018 NET INCOME
Current income	114,350		114,350
Extraordinary income	(63,896)		(63,896)
Employee profit-sharing and incentives	0		0
Impact of tax consolidation and research tax credit		3,917	3,917
Total	50,454	3,917	54,371

Corporate taxes

The tax consolidation agreement signed between Eramet and its subsidiaries respects the principle of neutrality and places the subsidiaries in the situation that would have been theirs in the absence of consolidation. Each subsidiary determines its tax as if it were not part of the consolidated tax group and pays its corporate tax contribution to Eramet as the Group leader. The subsidiaries keep their deficits to determine the amount of the corporate tax contribution they have to pay Eramet.

As a result of the tax consolidation, the corporate income tax account can be broken down as follows:

- +€7.5 million in tax income of the consolidated tax group (including +€5.8 million in 2018 tax credits, +€1.7 million for the adjustment of previous Group tax credits);
- +€3 million in tax consolidation income (+€3 million in 2018 corporate tax of the consolidated subsidiaries);
- -€7.3 million of tax consolidation expenses (including tax credits returned to subsidiaries: -€5.6 million in 2018 tax credit and -€1.7 million in 2017 adjustment);
- +€0.6 million in tax audit adjustments for the 2014 and 2015 financial years.

5.3 Tax consolidation

All French subsidiaries that are at least 95% owned are consolidated for tax purposes, Eramet being the Group's parent company. The scope of tax consolidation in France includes the following companies:

TAX-CONSOLIDATED COMPANIES	31/12/2018	31/12/2017	31/12/2016	31/12/2015	31/12/2014
Consolidated companies					
Aubert & Duval (AD)	x	x	x	x	x
Brown Europe	x	x			
Eramet	x	x	x	x	x
Eramet Alliages			x	x	x
Eramet Holding Alliages (formerly SIMA)	x	x	x	x	x
Eramet Holding Manganese (EHM)	x	x	x	x	x
Eramet Holding Nickel (EHN)	x	x	x	x	x
Eramet Ingénierie (formerly TEC)(1)		x	x		
Eramet Nickel(2)	x				
Eramet Ideas (formerly Eramet Research)(1)	x	x	x		
Eramet Sandouville	x	x			
Eramet Services	x	x	x		
Eramine	x	x	x	x	x
Erasteel	x	x	x	x	x
Erasteel Champagnole	x	x	x	x	x
Eurotungstène Poudres			x	x	x
Metal Securities	x	x	x	x	x
Valdi	x	x	x	x	x
Non-consolidated companies					
AD TAF	x	x	x	x	x
Brown Europe			x	x	x
Campus Eramet	x	x	x	x	x
Eramet Ingénierie (formerly TEC)				x	x
Eramet International	x	x	x	x	x
Eramet Nickel(2)		x			
Eramet Research (formerly CRT)				x	x
Eramet Sandouville			x		
Eramet Services				x	x
Forges de Monplaisir	x	x	x	x	x
Supa(3)		x	x	x	x

(1) Eramet Research absorbed Eramet Ingénierie on 31 December 2018 and became Eramet Ideas.
(2) Eramet Nickel registered from 25 April 2017.
(3) Supa absorbed by Aubert & Duval on 1 January 2018.

5.4 Financial income

(€ THOUSAND)	31/12/2018	31/12/2017
Investments – Dividends[1]	317,983	7,102
Investments – Interest[2]	51,439	49,391
Other dividends and interest	1,113	733
Reversals of provisions[3]	285,719	378,220
Exchange rate differences[4]	11,619	26,690
Net proceeds from sale of marketable securities	939	394
Financial income	**668,812**	**462,530**
Amortisation expenses and provisions[5]	(448,228)	(363,729)
Interest and similar expenses[6]	(69,655)	(61,900)
Exchange rate differences[4]	(3,094)	(19,190)
Net expenses on the sale of marketable securities	(6)	(3)
Financial expenses	**(520,983)**	**(444,822)**
Financial income	147,829	17,708

(1) Dividends paid by Eramet Holding Manganese (€284 million) and Comilog SA (€33.9 million).
(2) Interest income on current account loans of the Group (€51.4 million).
(3) The capital increase operation of Tsingshan in Strand Minerals led to the reversal of the existing impairment loss on Strand Minerals shares (€37.7 million) and the loan granted to the same company (€28.7 million).
A reversal of impairment of the loan granted to CFED was recorded for the amount of the repayment made (€15.9 million) and a reversal of impairment of the loan granted to Eramine was recorded for €28 million. A reversal of impairment of Weda Bay Mineral Singapore shares was made for €52.6 million due to the delisting of shares held by Eramet SA and a reversal of impairment of Eralloys Holding shares was made for €122.3 million.
(4) Net exchange gain of €8.5 million mainly resulting from the revaluation of Group loans and borrowings in foreign currencies.
(5) Impairment of newly created Eramine shares, up to the amount of reversals of impairment losses recorded on the loan (€30 million). Impairment of Eramet Holding Alliages shares for €313.4 million. Impairment of Erasteel shares for €23.8 million. Additional impairment of loans to Eramine (€10.7 million) and Eramet Sandouville (€38.3 million). The provision for financial liabilities corresponds to the potential loss on the Metal Securities bond portfolio guaranteed by Eramet for €14.1 million. Provision for financial investment Weda Bay Mineral Inc for €15.7 million.
(6) Interest expense on financial debt (revolving credit facility, Metal Securities, bonds, Schuldschein*, BEI, Odirnan).*

5.5 Extraordinary income

(€ THOUSAND)	31/12/2018	31/12/2017
Income from management operations	226	
Gains on capital transactions	2,600	62,277
Reversal of provisions and expense transfer[1]	5,938	16,786
Extraordinary income	**8,764**	**79,063**
Charges on management transactions	0	(1,683)
Expenses on capital transactions[2]	58,696	(37,053)
Exceptional depreciation, amortisation and provisions[3]	13,964	(7,797)
Extraordinary expenses	**72,660**	**(46,533)**
Extraordinary income	(63,896)	32,530

(1) Reversal of provision for the bonus share allocation plan (€5.2 million), sale price of Eramet Ingénierie shares to Eramet Research (€2.6 million) and reversal of provision for a severance payment (€0.7 million).
(2) Income from the sale of bonus shares under the 2018 plan (€5.2 million), net book value of the shares delisted Weda Bay Mineral Singapore (€52.6 million) and net book value of the Eramet Ingénierie shares sold to Eramet Research (€0.8 million).
(3) Provisions on miscellaneous receivables for the Lithium research and exploitation project (€13.1 million), provisions for retirement and severance pay (€0.9 million).

5.6 Workforce

	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Management	130	107
Administrative, Technical and Supervisory staff	26	29
Workers	0	0
Workforce at end of period	156	136
Average no. of employees	144	149

Note 6 Off-balance-sheet commitments

(€ THOUSAND)	31/12/2018	31/12/2017
Commitments made:		
Securities, endorsements and guarantees	67,991	86,642
Forward sales in USD	0	0
Commitments received:		
Internal USD exchange contracts (MCUR)	107,039	121,566
Multi-currency revolving credit facility	981,000	731,000
Credit facilities	142,000	13,000
Reciprocal commitments:		
Currency hedge via Metal Currencies	0	0

The table above does not include current orders for the business or commitments on non-current asset orders related to investment projects.

Functional guarantees for the performance of business contracts

Functional guarantees are any commitments relating to business contracts, given by Eramet to clients.

Eramet, on behalf of some of its subsidiaries notably in the Alloys division grants product warranties which fall under Eramet's limit of liability defined contractually for each business contract. Eramet does not recognise provisions for guarantees given that there have been no warranty claims from its clients.

Eramet considers its financial risk relative to all the above guarantees to be low, based on historical data and on the existence of civil liability policies that would limit the financial consequences on Eramet financial statements.

Note 7 Risk management

7.1 Currency risk

Eramet is exposed to exchange risk on two levels:

- by way of its Nickel business, Eramet receives its income mainly in US dollars, while its costs are mainly denominated in euros (Sandouville fees and nickel purchases at SLN). Hedging transactions are therefore carried out on the basis of multi-annual budgets and forecasts, with a maximum horizon of 36 months. As part of the technical assistance between Eramet and its subsidiary SLN, all commercial hedges are made on behalf of SLN and billed back directly to SLN under the marketing agreement;
- by way of its Holding business, Eramet puts in place loans in foreign currencies for the benefit of Group companies and may make foreign exchange hedges. As at 31 December 2018, there was no currency hedging on long-term loans.

7.2 Risks on raw materials

Eramet is exposed to the volatility of commodity prices at the level of its sales. Eramet may be required to set up term hedges on a limited portion of nickel sales.

These hedges are made on behalf of SLN, a producer of ferronickel. As part of the technical assistance contract, the result of these hedges is charged to SLN's monthly bills. As of 31 December 2018, 974 tonnes were hedged with a fair value of -€633 thousand (31 December 2017: 350 tonnes for a fair value of +€776,000).

7.3 Credit or counterparty risk

The counterparty risks of Eramet relate mainly to its commercial operations and, by extension, to trade receivable. Thus, Eramet may be exposed to credit risk in the event of a counterparty default. To limit this risk of which the maximum exposure is equal to the net receivables recognised in the balance sheet, Eramet uses different tools: gathering information ahead of financial transactions (from rating agencies, published financial statements, etc.), credit insurance and the establishment of letters of credit and documentary credits in order to prevent certain specific risks inherent to, for example, the geographical situation of clients.

Furthermore, Eramet's client portfolio consists mainly of large international groups in the fields of metallurgy whose insolvency risks are more limited.

7.4 Interest rate risk

At 31 December 2018, a €60 million swap at a fixed rate of 1.67% vs. Euribor 6-month maturity June 2020 is in place for a fair value of -€1,723,000.

7.5 Liquidity risk

Eramet must ensure that it maintains a sufficient level of liquidity to meet its contractual obligations, including servicing its bank and bond debt.

In this context, Eramet anticipates the regular renewal of its current financing (credit facilities, bonds, leases, etc.) and establishes new modes of financing (ODIRNAN in 2016) according to the opportunities available.

Eramet also aims to diversify its sources of funding, particularly between the bond and banking markets.

Revolving credit facility

On 19 January 2018, Eramet repaid the balance of the Revolving Credit Facility (RCF), amounting to €250 million. Initially scheduled to be repaid in January 2018, this revolving credit facility was extended for a further two years in January 2017. Eramet had made partial repayments of €500 million in May 2017 and €230 million in July 2017. This same facility was extended on 13 February 2018 for an amount of €981 million and for a five-year term, with a new maturity in January 2023. The amount available under this revolving credit facility is maintained at €981 million.

On 25 October 2018, the Group signed a new €120 million loan with the European Investment Bank to finance investments in research, development and innovation (RDI) in digitalisation and advanced manufacturing. As at 31 December 2018, this loan had not yet been drawn down.

Financial liabilities are subject to bank covenants described below:

TYPE OF CREDIT FACILITY		RATIO	AMOUNTS
Revolving credit facility	Net debt decreased by SLN loan with the French State/Equity	< 1	€981 million
Borrowing Base	Net debt/Shareholder's equity	< 1	€65 million
Euro private placement	Net debt/Shareholder's equity	< 1	€50 million
European Investment Bank	Net debt/Shareholder's equity	< 1	€230 million

Eramet's covenants are determined on the basis of the published consolidated accounts. At 31 December 2018, the covenants showed no circumstances of accelerated maturity. Moreover, at 31 December 2018, no cases of cross-default likely to impact funding at Eramet level were recorded.

7.6 Operational risks of the High Performance Alloys division

The High Performance Alloys division produces special steels and super alloys, particularly for the aeronautics industry, which are used in the construction of aircraft, helicopters and other equipment produced by its customers in the sector. As such, Eramet may be indirectly or directly liable in the event of an incident, loss or accident, death of passengers or operating losses occurred on equipment containing parts manufactured by this Division.

As part of its risk management policy, the Division takes action to control these risks. The effectiveness of such action is reflected in the obtainment and renewal of accreditations or certifications related to this type of industry and the processing and validation, as necessary, of the validation process by customers of the manufactured parts. The Group has also taken out insurance policies to cover residual risks.

Note 8 Fees paid to the Statutory Auditors

The Statutory Auditors' fees for the certification of the accounts invoiced for 2018 amounted to €437 thousand (including €212,000 EY and €225,000 KPMG) and the fees for other services amounted to €116,000 (including €74,000 EY and €42,000 KPMG).

Note 9 Consolidation of the financial statements of the Company

Eramet SA is consolidated in the Eramet Group, of which it is the parent company.

Note 10 Employee charges and benefits

Gross compensation and benefits to directors and members of the Executive Committee

(€ THOUSAND)	FINANCIAL YEAR 2018	FINANCIAL YEAR 2017
Short-term benefits:		
• Fixed compensation	2,957	3,291
• Variable compensation	1,390	2,573
• Directors' fees	940	749
Other benefits:		
• Post-employment benefits	2,251	3,692
Total	7,538	10,305

Bonus share plans

Two new bonus share plans were granted on 22 March 2018:

- one plan for all employees, on 22 March 2018, for an initial total of 21,750 shares;
- one plan open to certain employees and corporate officers on 22 March 2018, of which:
  - part of the shares are subject to two performance conditions — an internal condition with two indicators (EBITDA and ROCE) for two-thirds and an external condition for one-third — for an initial total of 125,855 shares, and
  - part of the shares are not subject to performance conditions, for an initial total of 17,273 shares.

The criteria for share awards and the assessment of the accounting expense are the same as those described above.

The characteristics of the two new bonus share award plans for the financial year 2018 are as follows:

		NUMBER OF SHARES	EXERCISE PRICE (€)	MATURITY (YEARS)(1)	RISK FREE RATE	AVERAGE DIVIDEND RATE	FAIR VALUE OF THE OPTION (€)(2)
Plan open to all employees	France/Italy	9,346	free	2 + 2	-0.41%	1.50%	110.62
	Worldwide	12,404	free	4 + 0	-0.03%	1.50%	111.69
Plan open to certain employees and corporate officers	France/Italy	105,658	free	3 + 2	-0.23%	1.50%	113.38/131.09
	Worldwide	37,470	free	4 + 0	-0.03%	1.50%	111.69/134.9

(1) Maturity = vesting period + lock-in period.
(2) Bonus share award plans whose share awards are subject to two performance conditions have two fair values: the first being the intrinsic condition and the second being the external condition.

The change in the number of bonus share awards in the 2017 and 2018 reporting periods was as follows:

NUMBER OF BONUS SHARES	31/12/2018	31/12/2017
At beginning of period	**458,520**	**413,709**
New plans 2018/2017	164,878	178,272
Definitive allocations	(92,388)	(64,015)
Prescribed shares	(4,279)	(25,775)
Lapsed shares	(21,369)	(43,671)
At period close	505,362	458,520
Distribution by year of allocation		
2018		114,591
2019	144,573	145,608
2020	157,239	148,987
2021	153,866	49,334
2022	49,684	

Note 11 Events subsequent to the financial year closing

In February 2018, the RCF was extended for €981 million with a five-year maturity (new term in 2023). In February 2019, maturity was extended to 2024. No amount of this RCF has been drawn down to date.

To the best of the Company's knowledge, there are no other events occurring after the reporting date.

Note 12 Subsidiaries and investments in associates table

At 31 December 2018:

(THOUSANDS OF EUROS OR OTHER CURRENCY, EXCEPT XAF IN MILLIONS)		CAPITAL	EQUITY OTHER THAN CAPITAL	SHARE OF CAPITAL HELD	GROSS CARRYING AMOUNT OF SHARES HELD	NET CARRYING AMOUNT OF SHARES HELD	LOANS AND ADVANCES GRANTED AND NOT REPAID	ENDORSE-MENTS AND GUA-RANTEES GIVEN	DIVI-DENDS RECEIVED DURING THE YEAR	TOTAL SALES OF PAST FINANCIAL YEAR	PROFIT (LOSS) IN LAST COMPLETED FINANCIAL YEAR
		CURREN-CY	CURRENCY	%	EUR	EUR	EUR	EUR	EUR	CURRENCY	CURRENCY
I. Detailed information on each title (gross value greater than 1% of the capital of the Company)											
Subsidiaries (at least 50% of share capital owned)											
Eras	EUR	2,000	9	100	1,986	1,986				0	0
Eramet Ideas (formerly Eramet Research)	EUR	1,410	5,628	100	1,161	1,161				8,536	(943)
Eramet International	EUR	160	3,870	100	892	892				1,568	(31)
Eramet Holding Nickel	EUR	227,104	(18,122)	100	229,652	229,652				0	(30,056)
Weda Bay Mineral Inc	USD	35,505	(53,567)	100	3,616	0				0	(54,249)
Eramet Holding Manganèse	EUR	310,156	62,018	100	310,156	310,156			284,000	0	220,442
Eralloys Holding	NOK	12,800	1,441,393	100	419,445	218,807	52,183			320	657,548
Eramet Holding Alliages (formerly SIMA)	EUR	448,000	(131,807)	100	629,584	316,193				5,016	(164,085)
Erasteel	EUR	150,661	(77,849)	100	298,169	51,174	119,000			219,733	(14,333)
Mineral Deposits Ltd		520,900	(166,902)	100	218,807	218,807					(4,257)
					2,113,468	**1,348,828**					
Investments (between 10% and 50% owned)											
Comilog	XAF	40,812	639,726	23	53,407	53,407		52,953	33,881	741,284	155,361
Strand Minerals Pte Ltd	USD	87,720	14,367	43	421,186	37,700	163,563			0	(17)
					474,593	**91,107**					
II. General information on other securities (gross value at most equal to 1% of the capital of the Company)											
• French subsidiaries	EUR				41,647	1,607	344,653				
• Foreign subsidiaries	EUR										
• Investments	EUR				458	198	171,625	17,786	102		
Total					2,630,166	1,441,740	851,024	70,739	317,983		

	SIREN NO.	HEAD OFFICE ADDRESS
I. Detailed information on each title (gross value greater than 1% of the capital of the Company)		
Subsidiaries (at least 50% of share capital owned)		
Eras	N/A	6B, route de Trèves L – 2633 Senningerberg R. C. Luxembourg B 35.721
Eramet Ideas (formerly Eramet Research)	301,608,634	1, avenue Albert-Einstein BP 120 78193 Trappes
Eramet International	398,932,939	10, boulevard de Grenelle 75015 Paris Cedex 15 France
Eramet Holding Nickel	335,120,515	10, boulevard de Grenelle 75015 Paris Cedex 15 France
Weda Bay Mineral Inc	N/A	14th Floor, 220 Bay Street Toronto Ontario, M5J2W4 Canada
Eramet Holding Manganèse	414,947,275	10, boulevard de Grenelle 75015 Paris Cedex 15 France
Eralloys Holding	N/A	Eralloys Holding AS Strandv 50 1366 Lysaker Norway
Eramet Holding Alliages (formerly SIMA)	562,013,995	10, boulevard de Grenelle 75015 Paris Cedex 15 France
Erasteel	352,849,137	10, boulevard de Grenelle 75015 Paris Cedex 15 France
Mineral Deposits Ltd		
Investments (between 10% and 50% owned)		
Comilog	N/A	Compagnie minière de l'Ogooué Z.I. de Moanda BP 27-28 Gabon
Strand Minerals Pte Ltd	N/A	8 Marina Boulevard #05-02 – Marina Bay Financial Centre – Singapore 018981

3.3.6 Statutory Auditors' report on the annual accounts

For the year ended 31 December 2018

This is a translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.

This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the management report and other documents provided to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the annual General Meeting of Eramet S.A.,

Opinion

In compliance with the engagement entrusted to us by your General Meeting, we have audited the accompanying financial statements of Eramet S.A. Company for the year ended 31 December 2018.

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 as at 31 December 2018 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 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 those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from 1 January 2018 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5-(1) of Regulation (EU) No. 537/2014 or in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors.

Emphasis of matter

We draw attention to the following matters described in the following notes to the financial statements:

- Note 2 "Review of the quality process within the High Performance Alloys division" which sets out the framework for the internal review of quality processes within Aubert & Duval;
- Note 2 "Continuation of the restructuring plan and new economic model of Société Le Nickel-SLN (SLN)" which sets out the framework in which the SLN's going concern is assessed.

Our opinion is not modified in respect of these matters.

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 risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Impairment test of investments in subsidiaries and receivables on investments in subsidiaries

Risks identified

Investments in subsidiaries and related receivables are included in the balance sheet at 31 December 2018 for a net amount of €2,470 million.

They are recognised at their purchase price at the date of acquisition and amortised on the basis of their value in use according to the methods described in Note 3.2 to the appendix to the individual financial statements accounts. At the end of the financial year, the investments in subsidiaries are valued at their value in use. Value in use is generally estimated by management on the basis of net asset value and profitability perspectives. If the value in use is lower than the gross amount, an impairment loss is recognised for the difference.

The estimation of the value in use of these investments in subsidiaries requires judgement by management in choosing the elements to be considered depending on the related investments in subsidiaries or related investment receivables.

Such elements can be:

- historical data (for example, the shareholders' equity of the subsidiary concerned);
- forecasts (when the method of discounted future cash flows generated from the use of the underlying operating or mining assets is the method used to estimate value in use).

The Data used to calculate the discounted future cash flows are derived from the annual budgets and multi-year plans prepared by Management of the relevant businesses owned by investments in subsidiaries and relating to the underlying operating or mining assets.

These impairment tests represent a key audit matter due to the significant importance of the value of these fixed assets in the Company's accounts and because the determination of their recoverable value, when based on forecasts of discounted future cash flows, requires the use of assumptions, estimates or assessments.

Audit procedures implemented in response to identified risks

For impairment tests based on historical elements, our work consisted mainly of:

- reconciling retained shareholders' equity with the entities accounts that have been audited or subject to other procedures, as appropriate;
- assessing whether adjustments made, if any, to shareholders' equity are documented on the basis of an appropriate justifying documentation.

For impairment tests based on forecasts, our work consisted mainly of:

- obtaining cash flow forecasts for the activities of the entities concerned established by their operating management and assessing their consistency with forecast data from the latest strategic plans prepared by senior management for each of the activities;
- assessing the consistency of assumptions used, using our knowledge of the economic environment at reporting date;
- comparing forecasts retained for previous periods with actuals in order to assess achievement of past objectives.

Our work also consisted of assessing the recoverability of the investments related receivables considering analyses performed on investments in subsidiaries.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French laws and regulations.

Information given in the management report and in the other documents with respect to the financial position and the financial statements provided to the Shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors and in the other documents with respect to the financial position and the financial statements provided to the Shareholders.

We attest the fair presentation and the consistency with the financial statements of the information relating to payment terms, required under Article D. 441-4 of the French Commercial Code *(Code de commerce).*

Information relating to corporate governance

We attest that the Board of Directors' report on corporate governance sets out the information required by Articles L. 225-37-3 and L. 225-37-4 of the French Commercial Code.

Concerning the information given in accordance with the requirements of Article L. 225-37-3 of the French Commercial Code *(Code de commerce)* relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from controlling and controlled companies. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a public purchase offer or exchange, provided pursuant to Article L. 225-37-5 of the French Commercial Code, we have agreed these to the source documents communicated to us. Based on our work, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on other legal and regulatory requirements

Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of Eramet S.A. Company by the annual General Meeting held on 29 May 2015 (for KPMG Audit and Ernst & Young Audit).

As at 31 December 2018, KPMG Audit and Ernst & Young Audit were in the fourth year of total uninterrupted engagement.

Furthermore, Ernst & Young et Autres was previously Statutory Auditor of the entity from 2009 to 2014 and Ernst & Young Audit from 1991 to 2008.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from 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 is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' responsibilities for the audit of the financial statements

Objectives 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 from 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 of users taken on the basis of these financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code *(Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his 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;
- obtains an understanding of internal control 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;

- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements;
- assesses 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 his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit Committee

We submit a report to the Audit 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, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit 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 such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code *(Code de commerce)* and in the French Code of Ethics *(Code de déontologie)* for Statutory Auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris La Défense, on the 29 March 2019

The Statutory Auditors

KPMG Audit		**Ernst & Young Audit**	
Department of KPMG S.A.			
Denis Marangé	Pierre-Antoine Duffaud	Jean-Roch Varon	Nicolas Macé
Partner	*Partner*	*Partner*	*Partner*

3.3.7 Special report from the Statutory Auditors on regulated agreements and commitments

Shareholders' Meeting held to approve the financial statements for the year ended 31 December 2018

To the Shareholders,

In our capacity as Statutory Auditors of your Company, we hereby report to you on regulated agreements and commitments.

The terms of our engagement require us to communicate to you, based on information provided to us, the characteristics, principal terms and conditions of the agreements and commitments brought to our attention or which we may have discovered during the course of our audit, as well as the reasons justifying that such commitments and agreements are in the Company's interest, without expressing an opinion on their usefulness and soundness or identifying other such agreements and commitments, if any. Pursuant to Article R. 225-31 of the French Commercial Code, it is your responsibility to assess the interest attached to concluding these agreements and commitments with a view to approving them.

Our role is also to provide you with the information stipulated in Article R. 225-31 of the French Commercial Code relative to the execution during the past year of agreements and commitments previously approved by the Shareholders' Meeting, if any.

We performed the procedures that we considered necessary with regard to the professional guidelines of the French National Institute of Statutory Auditors *(Compagnie nationale des Commissaires aux comptes)* applicable to this engagement. These procedures consisted in verifying the agreement of the information provided to us with the relevant source documents.

Agreements and commitments submitted for approval by the Shareholders' Meeting

Pursuant to Article L. 225-40 of the French Commercial Code, we have been informed that the following agreements and commitments entered into the financial year ended, were previously authorised by your Board of Directors.

1. With Le Nickel-SLN

Persons concerned
Mr Édouard Duval, Director and Ms Christel Bories, Chairman and Chief Executive Officer.

Nature, purpose and terms and conditions
A new Amendment No. 4, approved by the Board of Directors on 24 May 2018, to the intra-group loan agreement between your Company and Le Nickel-SLN concerns an extension of the loan availability period from 30 June 2018 to 31 December 2020.

Reasons justifying the Company's interest in the agreement
In its approval, the Board of Directors, recorded that the conclusion and the implementation of this amendment are in corporate interest of your Company: indeed, the implementation timetable for the SLN 2020 recovery plan, which runs until 31 December 2020, complements the SLN 2018 plan that this loan was intended to finance and justifies extending the deadline for the remaining instalments until 31 December 2020.

Agreements and commitments previously approved by the Shareholders' Meeting

Pursuant to Article R. 225-30 of the French Commercial Code, we have been informed that the execution of the following agreements and commitments, previously approved by Shareholders' Meetings of prior years, continued during the year.

1. With Le Nickel-SLN

Persons concerned
Mr Édouard Duval, Director and Ms Christel Bories, Chairman and Chief Executive Officer.

a) Technical assistance contract

Nature and purpose
Under the terms of the technical assistance contract signed in 1999, your Company provides general support to Le Nickel-SLN in strategic, industrial, financial, tax and human resource management matters. This agreement was amended with retroactive effect from 1 January 2010.

Terms and conditions
These services are remunerated based on actual costs incurred by your Company to perform such services, plus an 8% margin.

In the 2018 financial year, the amount invoiced totalled €9,869,569.05 compared to €7,852,206.74 in 2017.

b) Marketing agreement

Nature and purpose
The marketing agreement entered into between your Company and Le Nickel-SLN in 1985, pursuant to which your Company ensures the marketing of Le Nickel-SLN products (excluding ore), was also amended with retroactive effect from 1 January 2010.

Terms and conditions
According to the terms of this agreement, your Company purchased nickel and ferronickel matte from Le Nickel-SLN on the basis of a purchase price that allowed your Company to make a 3% profit margin, plus a premium, whose calculation methods and trigger price have been redefined. The total amount of purchases invoiced by Le Nickel-SLN to your Company amounted to €585,502,915.84 in 2018 compared to €514,020,022.18 in 2017.

Under this same agreement and its amendments, your Company invoiced to Le Nickel-SLN a commission of 1.5% of the sales of low- and mid-grade ores or beneficiation plant by-products or Demag slag. The amount charged was €642,737.80 in 2018 compared to €445,007.53 in 2017. This amendment allows Le Nickel-SLN to use the expertise of its sales teams and your Company's international network to optimise and better value its ore sales and thus obtain an additional financial benefit after deduction of the 1.5% agent commission paid to your Company in accordance with market practice for this type of services.

Through the amendment that came into force on 9 May 2016, and in accordance with the terms of one of your Company's "Borrowing Base" financing contracts, the terms of advance, partial or total payment have been set to the fourth working day of the month, provided at a fixed 1-month Euribor remuneration rate plus 2.10%.

c) Intra-group loan agreements

Nature and purpose
Intra-group loan agreement entered into on 23 December 2015 (authorised by the Board of Directors on 22 December 2015 and approved by the Shareholders' Meeting on 27 May 2016) with an initial amount of €120 million modified by the following amendments:

- Amendment No. 1 of 22 February 2016 (authorised by the Board of Directors on 17 February 2016 and approved by the Shareholders' Meeting on 27 May 2016) raising the loan to €150 million;
- Amendment No. 2 of 27 May 2016 (authorised by the Board of Directors on 9 May 2016) raising the loan to €190 million and extending the maturity date to 31 December 2016;
- Amendment No. 3 of 27 July 2016 (authorised by the Board of Directors on 27 July 2016) raising the loan to €325 million and extending the maturity date to 30 June 2024. In addition, the interest rate was raised to 4% as well as the EBITDA-based performance participation rate of Le Nickel-SLN.

Terms and conditions
As of 31 December 2018, €170 million have been drawn down from your Company's loan (of which €10 million in 2018). Interest was calculated based on a rate of 4%. It should be noted that the performance participation rate during the period considered is nil. In 2018, the interest amount invoiced totalled €6,412,054.79 compared to €6,399,999.98 in 2017.

2. With Ms Christel Bories, Chairman and Chief Executive Officer as of 23 May 2017

a) Membership in a complementary healthcare cost insurance plan and providence scheme

Nature, purpose and terms and conditions

Ms Christel Bories's membership in a complementary health insurance plan and a complementary disability and death benefit scheme, applicable to all the employees of your Company, was authorised by the Board of Directors on 23 February 2017.

b) Conclusion of an insurance contract indirectly involving Ms Christel Bories

Nature, purpose and terms and conditions

As part of the award of additional remuneration to Ms Christel Bories, your Company signed a life insurance contract under Article 82 of the General Tax Code with an authorised insurer, authorised by the Board of Directors on 26 July 2017.

c) Termination benefits

Nature, purpose and terms and conditions

In case of dismissal (except for gross misconduct) or forced resignation, particularly following a change of control of the Company or substantial imposed changes to the scope of responsibility, severance pay equal to one year of gross fixed and variable remuneration will be awarded for departure up until 1 January 2019, and two years of gross fixed and variable remuneration as from 1 January 2019.

This benefit is subject to the condition that the sum of variable gross compensation received during the last three full financial years of the term of office must exceed or be equal to 35% of the annual gross fixed compensation received during the same three-year period. In the event that the number of full financial years is less than three, the performance will be assessed based on the actual duration of the term of office, at the discretion of the Board of Directors, at the proposal of the Compensation Committee. The decision of your Company's Board of Directors determining the method for calculating the compensation or severance benefits which are due or may be due to Ms Christel Bories as the result of her termination or change of duties, shall be submitted for approval to the Shareholders' Meeting, as provided by law.

Paris-La Défense, 29 March 2019

The Statutory Auditors

KPMG SA		ERNST & YOUNG Audit	
Denis Marangé	Pierre-Antoine Duffaud	Jean-Roch Varon	Nicolas Macé

3.3.8 Table of the financial results of the Company over the past five years

	2014	2015	2016	2017	2018
Capital at the end of the financial year					
a) Share capital	80,956,815	80,956,815	80,978,851	81,232,663	81,239,446
b) Number of shares issued	26,543,218	26,543,218	26,550,443	26,633,660	26,635,884
Transactions and income the financial year (€ thousand)					
a) Sales excluding tax	779,892	626,232	585,089	634,119	715,464
b)'Income before tax, employee profit-sharing, depreciation, amortisation and provisions	(40,061)	(43,866)	(44,605)	(30,193)	212,505
c) Income tax	2,897	(659)	8,821	3,393	3,918
d) Employee profit-sharing	0	0	0	0	0
e) Income after tax, employee profit-sharing, depreciation, amortisation and provisions	(70,550)	(331,516)	(165,554)	(17,730)	54,371
f) Proposed dividend amount	0	0	0	0	0
Earnings per share (€)					
a) Income after tax, employee profit-sharing, but before depreciation, amortisation and provisions	(1.62)	(1.63)	(2.01)	(1.26)	7.83
b) Income after tax, employee profit-sharing, depreciation, amortisation and provisions	(2.66)	(12.49)	(6.24)	(0.67)	2.04
c) Proposed dividend per share	0	0	0	0	0
Personnel					
a) Average number of employees	418	388	355	149	144
b) Total wage bill (€ thousand)	33,141	32,600	32,361	26,717	23,090
c) Amount paid out in employee benefits (€ thousand)	25,177	11,054	24,853	33,999	11,665

3.3.9 Supplier payment terms

The Company has a supplier debt more than 60 days from the invoice date of €1,257 thousand.

PAST DUE UNPAID RECEIVABLE AND PAYABLE INVOICES AT PERIOD END (TABLE PROVIDED FOR IN I OF ARTICLE D. 441-4)

	ARTICLE D. 441.-I°: PAST DUE UNPAID PAYABLE INVOICES AT PERIOD END						ARTICLE D. 441.-I°: PAST DUE UNPAID RECEIVABLE INVOICES AT PERIOD END					
(€ THOUSAND)	0 DAYS (ILLUSTRATIVE)	1-30 DAYS	31 TO 60 DAYS	61 TO 90 DAYS	91 DAYS OR OVER	TOTAL (1 DAY OR OVER)	0 DAYS (ILLUSTRATIVE)	1-30 DAYS	31 TO 60 DAYS	61 TO 90 DAYS	91 DAYS OR OVER	TOTAL (1 DAY OR OVER)
(A) Late payment brackets												
Number of invoices concerned	20					225	4					102
Total amount of invoices concerned incl. Tax	-1,276	1,940	141	-206	-968	907	-3,221	5,495	111	2	718	6,326
Percentage of the total purchase amount for the period incl. Tax	0.20	0.3				0.1						
Percentage of sales for the period incl. Tax							0.4	0.7			0.1	0.8
(B) Invoices excluded from (A) relating to disputed and unrecorded debts and receivables												
Number of invoices excluded						0						0
Total amount of invoices excluded Incl. Tax						0						0
(C) Reference payment terms used (contractual or statutory period — Article L. 441-6 or Article L. 443-1 of the French Commercial Code)												
Payment terms used to calculate late payments	■ Contractual terms: (specify)						■ Contractual terms: (specify)					
	☐ Legal terms: (specify)						☐ Legal terms: (specify)					

3.3.10 Reincorporation of general costs and sumptuary expenses

Not applicable.

3.3 Consolidated financial statements for the financial years 2016 and 2017

Pursuant to Article 28 of the Commission Regulation No. 809/2004, the following information is included in reference to this Registration Document:

a) the 2017 consolidated financial statements, the corresponding audit report and the overview of the articles figuring respectively in Sections 6.1, 6.1.3 and 2 of the Registration Document of the year 2017 filed with the AMF on 28 March 2018;

b) the 2016 consolidated financial statements, the corresponding audit report and the overview of the articles figuring respectively in Sections 6.1, 6.1.3 and 2 of the Registration Document of the year 2016 filed with the AMF on 24 March 2017.

The parts not included from the 2017 and 2016 Registration Documents are either not applicable to the investor or covered by another part of this Registration Document.

The two Registration Documents mentioned above are available on the Company website (www.eramet.com) and the AMF website (www.amf-france.org).

3.4 Dividend distribution policy

3.4.1 Terms of payment of dividends

The payment of dividends shall be made annually at the time and place fixed by the General Shareholders' Meeting or, failing that, by the Board of Directors within a maximum period of nine months from the end of the financial year. Dividends regularly received may not be subject to repayment.

An interim dividend payment may be made with respect to the payment of the dividend before the date of the Shareholders' Meeting by fixing the amount, following a decision by the Board of Directors under the conditions set out in Article L. 232-12, paragraph 2, of the Commercial Code.

It may be proposed to the shareholder, in whole or in part, to opt for payment in new Company, shares, under the conditions of Article L. 323-18, paragraph 1, of the Commercial Code.

In accordance with the provisions in force in France, the limitation period for unclaimed dividends is five years from their date of payment. Unclaimed sums shall be paid to the French State, in accordance with the applicable provisions.

3.4.2 Allocation and distribution of results (Article 24 of the Articles of Association)

"From the net income, as defined by law, less any previous losses, 5% shall be deducted to constitute the reserve fund provided for by law until the fund reaches a tenth of the share capital.

The distributable income consists of the net income for the financial year, less the previous losses and the deduction envisaged above and increased by profits carried forward. From the distributable profit, the Ordinary General Meeting may withdraw any amount it deems appropriate, either to be carried forward again to the following financial year or to be transferred to one or more general or special reserve funds for which it determines the allocation or use.

The surplus, if any, shall be distributed uniformly among all shares.

The General Shareholders' Meeting has the right to grant each shareholder, for all or part of the distributed dividend, an option consisting of the payment of the dividend in shares under legal conditions or in cash."

3.4.3 2018 Profit allocation table

The proposed allocation for the 2018 result is included in the second resolution proposed at the next Meeting in Chapter 9 of this document.

3.4.4 Dividend distribution policy

3.4.4.1 Terms of payment

The Company does not normally distribute an interim dividend; dividends are paid annually after the Meeting called to approve the management and accounts for the previous financial year. At the option of the shareholder, it may be possible to offer mixed distribution, in cash and in shares.

3.4.4.2 Dividend amount

The Company endeavours to pay a regular and significant dividend.

DIVIDENDS PAID OVER THE LAST THREE YEARS

	2018	2017	2016	2015
Number of paid shares	26,635,884	26,633,660	26,550,443	26,543,218
Net income, Group share (€ MILLION)	53	203	(179)	(714)
Dividends per share (€)	0.60	2.30	0	0
Total distribution (€ MILLION)	16	61.3	0	0

3.5 Fees paid to the Statutory Auditors

The complete inventory of fees for the last two years by type of benefits paid to the various firms is included in the notes to the consolidated accounts.

IV. Corporate governance

IV

4.1 Report by the Board of Directors on corporate governance

This report, provided for in the last paragraph of Article L. 225-37 of the French Commercial Code, covers the points provided for in Article L. 225-37-4 of the French Commercial Code.

4.1.1 Board of Directors

4.1.1.1 Composition of the Board

In accordance with the Shareholders' Agreement of 16 March 2012 (amended on 21 March 2013, subject to Decision and Notice No. 212C0647 of the *Autorité des marchés financiers* (AMF) at its conclusion as well as AMF Decision and Notice No. 216C1753 concerning changes to the concert with the acquisition by the *Agence des participations de l'État* (APE) of 100% of the share capital of FSI Equation on 29 August 2016), between SORAME and CEIR, on the one hand, and FSI Equation (a subsidiary of APE, acting for the State) on the other, the Board of Directors is comprised as follows:

- five directors put forward by the SORAME-CEIR concert party;
- three directors put forward by the *Agence des participations de l'État* (APE);
- two directors put forward by STCPI;
- one director put forward by mutual agreement between SORAME-CEIR and APE;
- five "qualified persons", three put forward by the SORAME-CEIR concert and two by the APE, selected in view of their expertise and their independence with respect to the nominating party and the Company itself, in line with the AFEP/MEDEF Corporate Governance Code for listed companies;
- one director called on to chair the Board of Directors.

Furthermore, in accordance with Article L. 225-27-1 of the French Commercial Code and Article 10.9 of the Articles of Association, two directors representing employees were designated, one by the Company Works Council and the other by the European Works Council. Their term of office is four years from their appointment.

In accordance with the Articles of Association and the Directors' Charter, each individual director must become the holder of one hundred shares within eighteen months of joining the Board and retain them for the duration of his or her term of office.

For historical reasons associated with the Company's shareholding structure and the existence of a Shareholders' Agreement since 1999, the terms of office of the 17 Board members appointed by the General Shareholders' Meeting are as follows: nine terms of office will come to an end at the General Shareholders' Meeting called to approve the financial statements for the year ended 31 December 2018, two other mandates will end at the General Shareholders' Meeting called to approve the financial statements for the year ended 31 December 2019, and five mandates will end at the General Shareholders' Meeting called to approve the financial statement for the year ended 31 December 2020 and one mandate expires at the General Meeting called to approve the financial statement for the year ended in 31 December 2021.

Other participant at Board meetings: Cécile Green (works council delegate since 27 June 2018).

4.1.1.2 Detail of terms of office

Full details of the composition of the Board of Directors and terms of office of its members at the time of this report can be found in the table set out in the Appendix to this report.

4.1.1.3 Composition of Committees

The internal rules specifying the operating rules and duties of each Committee are available on the Company's website.

The Audit, Risks and Ethics Committee currently comprises five directors: Miriam Maes (independent director – Chairman of the Committee), Christine Coignard (independent director), Sonia Sikorav (independent director), Antoine Treuille and Bruno Vincent.

The Remuneration and Governance Committee is currently composed of five directors: Claude Tendil (Chairman of the Committee – independent director), Manoelle Lepoutre (independent director), Miriam Maes (independent director), Antoine Treuille and Bruno Vincent.

The Appointments Committee currently comprises four directors: Claude Tendil (Chairman of the Committee, Chairman of the Remuneration and Governance Committee, independent director), Cyrille Duval, Édouard Duval and Bruno Vincent.

The Strategy and CSR Committee currently comprises nine directors: Christel Bories (Chairman and CEO, Chairman of the Committee), Cyrille Duval, Édouard Duval, Georges Duval, Jean-Yves Gilet, Bruno Vincent, Christine Coignard (independent director), Manoelle Lepoutre (independent director), and Sonia Sikorav (independent director).

4.1.1.4 Comply or Explain

Corporate Governance Code

In accordance with the decision of the Board of Directors taken on 9 December 2008, Eramet refers to the AFEP/MEDEF Corporate Governance Code for listed companies ("the AFEP/MEDEF Code") as its reference framework; the Code is available on the AFEP and MEDEF websites.

The Company considers that its practices are compliant with AFEP/MEDEF Code recommendations. In some cases, certain adjustments have been made to the recommendations for reasons detailed in the table set out in the Appendix to this report.

Diversity policy applied to Board members (excluding directors representing employees): a description of its objectives, implementation methods and results obtained during the past financial year

In accordance with paragraph 6 of Article L. 225-37-4, the Board of Directors reflected during the financial year on the desirable balance of its composition and that of the committees it has set up within it, particularly in terms of diversity (representation of women and men, nationalities, age, qualifications and professional experience).

In general, the Board recognises the benefits of diversity in its broadest sense and considers the diversity of its members as an essential element for its discussions and decision-making, which promotes effective functioning and good governance. A diversified Board is a Board that has a balance of skills, experience and expertise, as well as a diversity of perspectives that are relevant to the Company's interests and strategic objectives.

With regard to the Company's corporate interest, its strategic objectives, the plurality of its businesses and the specific context of the regions in which the Company operates are taken into consideration when selecting and presenting candidates for appointment to the Board, not only the skills, experience and expertise of a candidate, but also factors such as age, gender and geographical representativeness in relation to the countries in which the Group operates.

With regard to the composition of the Board during the past financial year, the following points should be noted:

- The proportion of female directors is 41% (7 out of 17 members). This proportion is in compliance with the minimum threshold of 40% provided for in the first paragraph of Article L. 225-18-1.
- The directors are between 36 and 74 years old. The average age of directors is 60. Under Article 10 of the Articles of Association, directors may not be over seventy years of age at the time of their appointment. A director who has reached the age of seventy during his or her term of office may have his or her term of office renewed once. The number of directors over the age of seventy may not exceed one-third of the Board's membership. Five directors are over 70. Directors are appointed for a term of four years.
- Six directors have been in office for less than three years, seven for less than seven years and four since 1999. The distribution between the older directors on the Board and those most recently appointed combines new vision with long-term consistency.
- Eleven directors reside in metropolitan France, two elsewhere in the European Union, two directors in New Caledonia, one director in Gabon and one director in the United States.
- The directors have a wide range of training and professional experience (metallurgical skills, finance, management, etc.).

Independence

The AFEP/MEDEF Code considers a director to be independent "when he/she has no relationship of any kind whatsoever with the Company, its Group or its management that could compromise his/her freedom of judgement. Therefore, an independent director means any non-executive corporate officer of the Company or its Group who does not have any special ties (significant shareholder, employee, other) with the Company, its Group or its management." The AFEP/MEDEF Code also identifies a number of criteria that the Board must consider to determine whether a director can be classified as independent:

- "not being or not having been in the preceding five years:
  - a salaried employee or executive corporate officer of the Company;
  - a salaried employee, executive corporate officer or director of a company consolidated by the Company;
  - a salaried employee, executive corporate officer or director of the parent company or of a company consolidated by the latter.";
- "not being an executive corporate officer of a company in which the Company directly or indirectly holds a directorship or in which a directorship is held by a salaried employee designated as such or by an executive corporate officer (current or former within the past five years), of the Company";
- "not being a customer, supplier, investment banker, commercial banker or advisor (or being directly or indirectly related to these persons):
  - classified as significant vis-a-vis the Company or its Group;
  - or for which the Company or its Group represents a significant percentage of its business activity.

  The assessment of the significance of the relationship with the Company or its Group is debated by the Board and the quantitative and qualitative criteria leading to this assessment (continuity, economic dependency, exclusivity, etc.) are explained in the report on corporate governance.";
- "not having close family ties with a corporate officer";

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- "not having been a Statutory Auditor of the Company in the past five years";
- "not having been a director of the Company for more than twelve years. After twelve years, a director is no longer considered to be independent".

At the time of this report, based on annual examination by the Board of the criteria set out above, the Board contained six independent directors out of a total of 17 Board members (the two directors representing employees not being counted in accordance with AFEP/MEDEF Code provisions), therefore, more than one third of Board members are independent, in accordance with recommendation 8.3 of the AFEP/MEDEF Code in respect of controlled companies.

It is noted that at the annual review of the independent status of directors, the Board performed an appraisal of business relationships existing between the Eramet Group and the Group in which certain independent directors hold a corporate office. Eramet's mining and metallurgical business generates business flows with a limited number of customers that have no other business relationships with Eramet directors. To carry out its business, Eramet uses a number of suppliers of raw materials, goods and services. Among these, there are two groups in which two directors in particular (Ms Lepoutre for petroleum products and Mr Tendil for insurance) work in a professional capacity. This appraisal enabled the Board to verify that there were no significant business relationships in that regard, either in terms of the nature of goods or services provided, or in terms of their corresponding value or the conditions of their negotiation or provision.

With regard to the independence of directors where the duration of their duties extends beyond 12 years, at its meeting of 23 February 2017, the Board of Directors reasoned that Mr Treuille, first appointed as a director of the Company in July 1999, could no longer continue to be considered independent at the close of the General Shareholders' Meeting of May 2017, given the duration of his term of office. The Board nevertheless decided that Mr Treuille should continue to serve as Chairman of the Audit Committee for the 2017 financial year until the 2018 General Shareholders' Meeting.

4.1.1.5 Work of the Board and its committees during the 2018 financial year

Board of Directors

The Board of Directors met eleven times in 2018. The directors also met during the financial year without the executive corporate officers.

In addition to examining recurring items relating to the business of the Group and its Divisions, Board meetings were concerned, in particular, with:

- approval of the Group and Company financial statements for 2017 and documents related to the convening of the annual General Shareholders' Meeting;
- review of the 2018 interim financial statements;
- review of occupational safety results within the Group.
- review of productivity improvement plans.
- divisional investment and divestment plans, including the terms of the public tender offer for Mineral Deposits Ltd shares listed in Australia.
- examination of development financing options for the Group and its main subsidiaries.
- review of the report required by Article L. 225-102-3 of the French Commercial Code on payments made to the authorities of countries where the Group operates mining activities;
- monitoring the Group's human resources policy.

Individual participation at meetings of the Board of Directors and the Committees in 2018 is shown in the table below.

	BOARD OF DIRECTORS	AUDIT, RISKS AND ETHICS COMMITTEE	REMUNERATION AND GOVERNANCE COMMITTEE	STRATEGY AND CSR COMMITTEE	APPOINTMENTS COMMITTEE
Michel Antsélévé	82%	-	-	-	-
Christel Bories	100%	-	-	100%	-
Christine Coignard	100%	100%	-	100%	-
Cyrille Duval (SORAME)	100%	-	-	100%	100%
Édouard Duval	100%	-	-	100%	100%
Georges Duval	91%	-	-	100%	-
Nathalie de La Fournière (CEIR)	100%	-	-	-	-
Frédéric Gaidou[6]	100%	-	-	-	-
Marie Axelle Gautier[5]	89%	100%	100%	-	-
Jean Yves Gilet	100%	-	-	100%	-
Philippe Gomes	64%	-	-	-	-
Manoelle Lepoutre	82%	-	80%	66%	-
Jean-Philippe Letellier[4]	100%	-	-	-	-
Miriam Maes	82%	100%	100%	-	-
Louis Mapou[1]	20%	-	-	-	-
Pia Olders[3]	86%	-	-	100%	-
Ferdinand Poaouteta[2]	0%	-	-	-	-
Catherine Ronge	91%	-	-	-	-
Sonia Sikorav	100%	100%	-	100%	-
Claude Tendil	73%	-	100%	-	100%
Antoine Treuille	100%	100%	100%	-	-
Bruno Vincent (FSI Equation)	91%	100%	100%	100%	100%-
Average attendance rate	87%	100%	97%	96%	100%

(1) Appointed at the General Shareholders' Meeting of 24 May 2018.
(2) Resigned as of 4 May 2018.
(3) Term of office expired on 22 June 2018.
(4) Start of term of office on 23 June 2018.
(5) Term of office expired on 11 November 2018.
(6) Start of term of office on 12 November 2018.

Audit, Risks and Ethics Committee

The Company refers to the AMF working group's report on Audit Committees when organising the Committee's work (AMF recommendation of 22 July 2010).

The Committee meetings are attended, in particular, by the Deputy Chief Executive Officer in charge of finance and digital transformation, the Statutory Auditors and the Group's Director of Risk, Internal Control and Audit, the Director of Accounting, Consolidation and Group Taxation, the Director of Group Planning and Management Control and the Director of Financing and Treasury.

The Committee met five times in 2018.

In addition to presenting the financial statements for the previous year in February and examining the interim financial statements in July, each year the Committee reviews internal audit reports for the year as well as the internal audit programme for the following year. The examination of the financial statements by the Committee is accompanied by a presentation by the Statutory Auditors describing the findings of their work and the main issues involved.

In 2018, the Committee examined the following points in particular:

- draft reports to shareholders;
- the work of the Internal Audit Department for the current year and its draft work plan for the following year;
- the monitoring of changes to the Group's working capital requirement and that of its main subsidiaries;
- the monitoring of progress regarding the ramp-up of the Group's and its subsidiaries' projects;
- the Group's financing activities;
- the process for monitoring the Group's risk management, including social and environmental risks;
- the process for monitoring the Group's internal audit;
- the procedure for monitoring the Group's off-balance-sheet commitments;
- the process for monitoring the Group's tax issues;
- the Group's ethics compliance programme;
- the process for monitoring cybersecurity risks.

Remuneration and Governance Committee

The Committee met five times in 2018.

During the year, besides the proposed remuneration elements for executive corporate officers (detailed in the section "Remuneration of the Management and Administration Bodies"), the Committee also proposed to the Board of Directors, which the latter approved, as part of the annual performance share award plan for corporate officers and senior executives of the Company and its subsidiaries, a 2018 Erashare worldwide bonus share plan, allowing the allocation of two bonus shares to all employees of the Company and its subsidiaries, in addition to a selective performance share and bonus share plan for 2018. The Committee reviewed the conclusions of the annual evaluation of the Board's operations and reviewed updates to the internal regulations of the Board and the Committees.

Appointments Committee

The Committee met once in 2018 to review the nomination of a new director and for periodic examination of succession planning for key Group management personnel. The executive corporate officer is involved in the work of the Appointments Committee.

Strategy and CSR Committee

The Committee met three times in 2018. At these meetings, the Committee examined the evolution of the markets in which the Group operates and their competitiveness, as well as the resulting strategic options. On a case by case basis, the Committee examined the productivity improvement programmes carried out, as well as certain investment or disinvestment projects. The Committee is also kept informed of the main challenges facing the Company, including in the field of social and environmental responsibility, for which it annually reviews the Group's CSR roadmap.

4.1.1.6 Assessment of the Board's work

The Board provides for an annual self-assessment of its work, alternating with an assessment of the Board by an expert third party every three years. The purpose of the assessment is to review the Board's operating procedures, to ensure that important issues are properly prepared and discussed and to assess the effective contribution of each director to the Board's work. In this respect, on an annual basis each director fills out a detailed questionnaire on the functioning of the Board and its specialised committees. This allows directors to freely express their appreciation of the directors' individual contributions.

The evaluation carried out for the 2018 financial year was carried out using a questionnaire given to the directors and the possibility of scheduling individual interviews with the Secretary of the Board. The results of this evaluation were analysed by the Remuneration and Governance Committee and discussed at the Board meeting of 22 March 2019.

The proposed improvements and their implementation methods were defined by the same Board.

4.1.2 Internal rules of the Board and its Committees, Directors' Charter, and Securities Trading Code of Conduct

The internal rules, which can be consulted on the Company's website, specify the composition, organisation and functioning of the Board and its committees, the roles and powers of the Chairman of the Board and the Chief Executive Officer and the rights and duties of the directors. The internal rules are binding on all directors, as well as on any other person who may attend meetings of the Board or its committees in any capacity whatsoever.

In addition to its general powers defined by law and the rules, the Board reviews and approves all decisions relating to the Group's major strategic directions and ensures that they are effectively implemented by General Management.

Board members and Committee members may, in the performance of their respective duties and having first informed the Chairman and CEO, confer with members of the Group's management. They report on the information obtained and advice received.

The Committee members may request any advice or opinion from any external consultant or expert, if they consider it necessary.

To this end, they may request external technical studies relating to matters within the Committee's competence, at the expense of the Company, after being put out to competitive tender and after informing the Chairman and CEO or the Board of Directors itself, subject to reporting back to the Board thereon.

The Board meets as often as the interests of the Company require on dates that are adapted to legal obligations. Convening notices are sent by the means judged to be the best adapted for ensuring traceability of the convening notice and within sufficient time to allow the directors to examine the files with the appropriate advance notice. If specified in the convening notice, Board meetings may be held by videoconference or telecommunications on subjects authorised by the Company's Articles of Association or by law.

The Chairman is responsible for circulating to each director in advance of the meeting a file containing all the documents and information required for consideration of the items of the agenda.

The Secretary of the Board draws up the minutes of each Board meeting, which the Chairman submits to directors for approval at the subsequent Board meeting, the draft minutes being sent to each participant (directors and Group Works Council member) before the scheduled meeting date.

In the interest of good corporate governance, the Board has incorporated the Directors' Charter into its internal rules, which sets out the rights and duties of the directors and to which every director is accountable. Directors must adhere to the charter by signing it when they are appointed. This charter notes in particular that:

- Directors must, under all circumstances, act in the corporate interest of the Company and are committed to defending and promoting the Company's values.
- Directors must ensure that the Board is fully informed in advance of any actual, potential or perceived conflict of interest. He/she must abstain from taking part in the debate on the related resolution.
- Directors must maintain their personal independence of analysis, judgement, decision and action, and reject any direct or indirect pressure that may be exerted on them, which may emanate from any third party or functions they perform elsewhere.
- Directors contribute to the collective responsibility and efficiency of the work of the Board and the committees, acting in good faith, with loyalty and with duty of confidentiality.
- Directors must dedicate the necessary time and attention to their duties and, where possible, attend all meetings of the Board and the committees of which they are a member, take the necessary time to prepare the work carried out therein and obtain all relevant information for such purpose. Directors undertake to keep the Board informed of mandates held in other companies. They attend the General Shareholders' Meetings.
- Directors must seek the approval of the Board before committing themselves personally to a competitor of the Group.
- Directors must treat all the files submitted to them for the performance of their mandate in the strictest confidence, as well as the debates and information to which they have access as part of the Board and the committees and, as such, shall not disclose them to anyone in any way.
- Directors must ensure that they receive in a timely manner all documents and information required for the fulfilment of their duties. It is their responsibility to request from the Chairman all documents they deem necessary for such purposes. Any director who believes that the information provided in advance is not sufficient may request the Chairman or the Board to postpone ruling on this issue.
- If a director is no longer in a position to perform his or her duties, either by his/her own decision or for any other reason, he/she must inform the Chairman of the Board of Directors, seek solutions to remedy the situation and, failing this, draw the personal conclusions with regard to the exercise of his/her mandate.

The securities trading code of conduct, established in accordance with the European "market abuse" regulation, aims at preventing insider trading offences and infringements and establishes a period of abstention from any transaction involving Eramet securities prior to publication of the Company's annual and interim financial statements and its quarterly financial results. Directors must respect the Group's securities trading code of conduct.

4.1.3 General management

4.1.3.1 Management of the Company

Since the deliberations of the Board meeting of 26 March 2003, the Company's Chief Executive Officer is also Chairman of the Board of Directors, given that the Board considered this arrangement best suited to the Company's organisation and shareholding structure, with 63% of the share capital controlled by two shareholder groups in concert. Regular dialogue between the two main shareholders that are party to the shareholders' agreement and General Management is thus facilitated through a single point of contact combining the duties of Chairman of the Board of Directors and CEO. This governance method is by far the most common among French companies whose securities are listed on a regulated market. The amalgamation of the functions of Chairman and Chief Executive Officer is in compliance with balanced corporate governance rules, based on:

- a Board structure comprising at least one third independent directors;
- prior examination by the Strategy and CSR Committee followed by Board approval are required for major strategic lines of action.

In accordance with Article 16 of the Articles of Association, the Board may, at the recommendation of the head of the Company's General Management, appoint up to five Deputy CEOs. The Company's CEO and the Deputy CEOs may not hold their position beyond the age of 70.

4.1.3.2 Role of General Management

The Executive Committee consists of the Chairman and CEO, two deputy CEOs, one responsible for the Mines and Metals division and the other for the High Performance Alloys division, the Director of Human resources, Health, Safety and Security, the Deputy CEO in charge of Finance and Digital Transformation, the Communications and Sustainable Development Director, the Director of Strategy, Innovation and Investor Relations, and the Group Legal Director. The fact that the heads of Corporate support departments (Human Resources, Health, Safety and Security Department, Administration and Finance Department, Communication and Sustainable Development Department and Strategy, Innovation and Investor Relations Department) are members of the Executive Committee strengthens the effectiveness and consistency of their actions.

All members of the Executive Committee, as well as the Director of Risk, Internal Control and Internal Audit and the Director of Ethics and Compliance report directly to the Chairman and Chief Executive Officer.

The Deputy Chief Executive Officer in charge of finance and digital transformation also supervises the information systems, the digital transformation, Group management, audit, insurance, financing and treasury, accounting, consolidation and Group taxation.

4.1.3.3 Limitations to the powers of the Chief Executive Officer

At its meeting of 23 May 2017, the Board of Directors granted Ms Bories all powers conferred by French law to a Chairman and CEO of a public limited company.

The Chairman and CEO exercises full authority pursuant to the law and within the scope of the Company's corporate purpose, subject to the proviso that, "no decision relating to the Company's major strategic, economic, financial or technological direction may be taken without first being discussed by the Board", as specified in Article 13, Sub-section 2 of the Articles of Association.

However, in accordance with the Board's Internal Rules, the following operations are subject to prior authorisation by the Board: all strategic investments, as well as any significant transaction, particularly acquisitions or disposals, exceeding €50 million or that may significantly affect the Group's results, the structure of its balance sheet or its risk profile. Projects and transactions of between €20 million and €50 million that are not significant in scope are submitted to the Board for information purposes.

In line with Article 13, Sub-section 4 of the Articles of Association, "acts concerning the Company are signed either by the CEO, the Deputy CEO or by any specially authorised person."

4.1.4 Company policy on gender equality in the workplace, including within the Executive Committee

These elements are included in the "Non-Financial Performance Statement/Human resources" section of the management report.

4.1.5 Information on the remuneration and compensation of the Chairman and Chief Executive Officer

These elements are included in the section “Remuneration of the Management and Administration Bodies” of the management report.

4.1.6 Information on share ownership, shareholders’ agreements and investments in associates

These elements, as well as information which may have an impact in case of takeover bids, are included in the “Eramet and its shareholders” section of the management report.

4.1.7 Miscellaneous provisions

4.1.7.1 Description of related-party agreements

The description of related-party agreements can be found in the special report of the Statutory Auditors, in the “Financial Statements” section.

4.1.7.2 Powers given by the General Shareholders’ Meeting to the Board of Directors relating to capital increases and the status of their use

The table summarising the powers granted by the General Shareholders’ Meeting to the Board of Directors is included in the “Eramet and its shareholders” section of the management report.

4.1.7.3 Means of shareholder participation at General Shareholders’ Meetings

The means by which shareholders may participate at General Shareholders’ Meetings are set out in Articles 8, 20, 21 and 22 of the Articles of Association.

Board of Directors

4.2 List of Directors and their positions

SURNAME, FIRST NAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT, AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
Bories Christel **Director**[5] **Chairman** and CEO Born 20 May 1964 (54 years) **French national** Business address: 10, boulevard de Grenelle 75015 Paris	Director and Chairman and CEO: General Shareholders' and Board Meeting of 23 May 2017	**Expiry date:** General Shareholders' Meeting called to approve the 2020 financial statements	**Within Group companies** • Director of Comilog S.A. • Director of Société Le Nickel SLN **Within non-Group companies** • Director of Legrand and Smurfit Kappa (listed companies) **Offices held and completed during the past five years** • Director of Natixis from 2011 to 2014 • Member of the Board of Directors of *Cercle de l'Industrie* from 2011 to 2013 • Chairman of Aubert & Duval (from December 2017 to February 2018), EcoTitanium (from December 2017 to March 2018)
Antsélévé Michel **Director** Born on 19 February 1965 (53 years) Gabonese nationality **Business address:** BP 12905 Libreville Gabon Mr Antsélévé is a senior civil servant of the Gabonese State, Professor-Researcher at the University of Masuku.	General Shareholders' Meeting of 15 May 2013	**Reappointment:** General Shareholders' Meeting of 23 May 2017, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2020 financial statements	**Within Group companies** None **Within non-Group companies** • Vice Chairman Board of Directors of Total Gabon since March 2017 (listed company) **Offices held and completed during the past five years** • Director representing the Gabonese Republic on the Board of Directors of Compagnie de Navigation Intérieure (Gabon) (until 2013) • Director representing the Presidency of the Gabonese Republic on the Boards of Directors of Société de Développement des Ports (Gabon) (until 2016) • Director representing the Presidency of the Gabonese Republic on the Boards of Directors of Compagnie Minière de Belinga (Gabon) and Société Nationale de Gestion et de Construction du Logement Social (Gabon) (until the start of 2017)
Coignard Christine **Director**[1][4][5] Born on 5 February 1964 (54 years) French and Canadian nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Ms Coignard is managing director and founding partner of Coignard & Haas GmbH, a strategy and development consulting firm.	General Shareholders' Meeting of 23 May 2017	**Expiry date:** General Shareholders' Meeting called to approve the 2020 financial statements	**Within non-Group companies** • Director of Polymetal International plc (listed company – United Kingdom) • Managing director and founding partner of Coignard & Haas GmbH (Germany) **Offices held and completed during the past five years** • Managing Director of Hatch International Advisers Ltd (United Kingdom) • Director of Tenetopera Ltd (United Kingdom)

Duval Georges **Director**(5) Born on 3 May 1946 (72 years) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Brother of Édouard Duval, cousin of Cyrille Duval and Nathalie de La Fournière. Mr Duval is CEO of SORAME and CEIR.	General Shareholders' Meeting of 21 July 1999	**Reappointment:** General Shareholders' Meetings of 21 May 2003, 25 April 2007, 11 May 2011 and 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within Group companies** None **Within non-Group companies (unlisted companies)** • CEO of SORAME SAS • CEO of CEIR SAS **Offices held and completed during the past five years** • Deputy CEO of Eramet (until April 2016) • Chairman of UKAD, Aubert & Duval (SAS) (until 2016); Eramet Holding Alliages (SAS) (until 2016), Erasteel (SAS) (until 2016), Eramet Alloys (until November 2017) • Member of the Supervisory Board of Ecotitanium (until November 2017) • Director of Squad (India) (until October 2018) • Member of the UKAD Executive Committee (until June 2018)
Duval Édouard **Director**(3)(5) Born 2 December 1944 (74 years old) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Brother of Georges Duval, cousin of Cyrille Duval and Nathalie de La Fournière. Mr DUVAL is Chairman of SORAME and CEO of CEIR.	General Shareholders' Meeting of 21 July 1999	Reappointments: General Shareholders' Meetings of 21 May 2003, 25 April 2007, 11 May 2011 and 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within Group companies** • Director of Le Nickel-SLN **Within non-Group companies (unlisted companies)** • Chairman of SORAME SAS • CEO of CEIR **Offices held and completed during the past five years** • Chairman of Eramet International (SAS) (until 2015) • Deputy CEO of Eramet Holding Alliages. (SAS) (until 2015)
SORAME **Director**(3)(5) **Represented by** **Duval Cyrille** Permanent representative of SORAME on the Board of Directors Born on 18 July 1948 (70 years) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Uncle of Nathalie de La Fournière, cousin of Georges and Édouard Duval Mr Duval is CEO of SORAME and Chairman of CEIR.	General Shareholders' Meeting of 11 May 2011	**Reappointment:** General Shareholders' Meeting of 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within Group companies** • Director of Comilog SA and Metal Securities **In non-Group companies** • Director of Nexans (listed company) • Chairman of CEIR (unlisted company) • CEO of SORAME (unlisted company) **Offices held and completed during the past five years (Group companies)** • Manager of Transmet (until April 2014) • Manager of SCI Grande Plaine (until 2016) • Chairman of Forges de Monplaisir (until 2016) • Chairman of Brown Europe (until February 2017) • Deputy CEO of Eramet Holding Alliages (until October 2017)

CEIR **Director** **Represented by** **de La Fournière Nathalie** Permanent representative of CEIR on the Board of Directors Born 1 October 1967 (51 years) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Niece of Cyrille Duval, cousin of Georges and Édouard Duval Ms de La Fournière is Finance and Administration Director of the *Agence d'urbanisme et d'aménagement Toulouse Aire Métropolitaine.*	General Shareholders' Meeting of 11 May 2011	**Reappointment:** General Shareholders' Meeting of 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within non-Group companies** None **Offices held and completed during the past five years** None
FSI Equation **Director**(1)(2)(3)(5) **Represented by** **Vincent Bruno** Born on 6 March 1982 (36 years) French nationality **Business address:** Agence des participations de l'État (APE) 139, rue de Bercy Teledoc 229 75012 Paris Mr Vincent is Director of Energy Shareholdings at the *Agence des participations de l'État* (APE).	Co-opted by the Board on 25 May 2012 (ratified by the General Shareholders' Meeting of 15 May 2013)	**Reappointment:** General Shareholders' Meeting of 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within non-Group companies** • Director of ORANO SA and AREVA SA **Offices held and completed during the past five years** • Director of *Monnaie de Paris* (from 2013 to 2014), *Imprimerie nationale* (from 2013 to 2014), the Grand Port Maritime of La Rochelle (from 2013 to 2014), the Grand Port Maritime of Marseille (from 2014 to 2017), SNCF Réseau (from 2015 to 2017), Aéroports de Lyon (from 2015 to 2016) and Aéroports de la Côte d'Azur (from 2014 to 2016)
Gaidou Frédéric **Director representing employees** Born 11 December 1974 (44 years)French nationality Business address: **10, boulevard de Grenelle** 75015 Paris Mr Gaidou is Product Responsibility Coordinator in the Communication and Sustainable Development Department.	Appointed by the European Works Council on 24 April 2018 in accordance with Article 10.9 of the Articles of Association	**Expiry date:** 11 November 2022	**Within Group companies** None **Within non-Group companies** None **Offices held and completed in the past five years** None

Gilet Jean Yves **Director**[5] Born on 9 March 1956 (62 years) French nationality **Business address:** 16, rue de Saint-Simon 75007 Paris Mr Gilet is Chairman of Gilet Trust Invest SAS, a strategy and management consulting company.	Co-opted by the Board on 23 September 2016	**Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within non-Group companies** • Chairman of Gilet Trust Invest SAS **Offices held and completed during the past five years** • Executive Director of Bpifrance (2013-2016) • Director of CGG Veritas (2014-2015) • Director of Eiffage (until May 2017) • Director of Orange (until January 2017)
Gomes Philippe **Director** Born 27 October 1958 (60 years) French nationality **Business address:** General Shareholders' Meeting 126, rue de l'Université 75355 Paris 07 SP Mr Gomes is member of parliament of the second constituency of New Caledonia.	Co-opted by the Board on 10 December 2014	**Reappointment:** General Shareholders' Meeting of 23 May 2017, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2020 financial statements	**Within non-Group companies** • Deputy Chairman of STCPI **Offices held and completed during the past five years** • Deputy Chairman of STCPI (from 2004 to 2009) • Chairman of the *Agence pour la desserte aérienne de la Nouvelle-Calédonie* (ADANC) (from 2009 to 2011) • Chairman of Société Immobilière Calédonienne (SIC) (from 2004 to 2009) • Chairman of Société de Participation Minière du Sud Calédonien (SPMSC) (from 2005 to 2009 and in 2014) • Chairman of the Board of Directors of ENERCAL (until July 2017) • Chairman of Nouvelle-Calédonie Énergie (until December 2018)
Lepoutre Manoelle **Director**[2][4][5] Born 8 May 1959 (59 years) French nationality **Business address:** TOTAL 2, place Jean-Millier La Défense 6 92078 Paris-La Défense Cedex Ms Lepoutre is Director of Civil Society Commitment within the TOTAL group.	General Shareholders' Meeting of 11 May 2011	**Reappointment:** General Shareholders' Meeting of 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within non-Group companies (unlisted companies)** • Director of *Fondation Villette-Entreprises* • Director of the Nancy School of Geology • *Académie des technologies* **Offices held and completed during the past five years** None
Letellier Jean-Philippe **Director representing employees** Born 19 January 1963 (55 years) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Mr Letellier is Energy Management Coordinator in the Energy and Climate Department.	Appointed by the Central Works Council as from 23 June 2018 in accordance with Article 10.9 of the Articles of Association	**Expiry date:** 22 June 2022	**Within Group companies** None **Within non-Group companies** None **Offices held and completed in the past five years** None

IV

Maes Miriam **Director**[(1)(2)(4)] Born 8 May 1956 (62 years) Dutch nationality **Business address:** 3-4 Bramham Gardens London, SW5 0JQ. Ms Maes is Chair of Foresee based in London, a consulting company that provides sustainable development and energy management advice to companies.	Appointed by the General Shareholders' Meeting of 27 May 2016	**Expiry date:** General Shareholders' Meeting called to approve the 2019 financial statements	**Within non-Group companies** • Director of Assystem SA (France) (listed company) and Vilmorin & Cie (France) (listed company) • Chairman of the Supervisory Board of the Port of Rotterdam (Netherlands) • Director of Urenco (England) and Ultra Centrifuge Netherlands • Chairman of Foresee (United Kingdom) **Offices held and completed during the past five years** • Director of Naturex (France) (listed company) (until September 2018) • Chair of the Board of Directors of Elia Asset BV and Elia System Operator BV (Belgium) (listed company) (until May 2017) • Chair of Sabien Technology Group Ltd (United Kingdom) (until 2015) • Director of Kiwi Power Ltd (United Kingdom) (until 2014)
Mapou Louis **Director** Born 14 November 1958 (60 years) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Mr Mapou is a member of the Southern Province Assembly and the Congress of New Caledonia.	Appointed by the General Shareholders' Meeting of 24 May 2018	**Expiry date:** General Shareholders' Meeting called to approve the 2021 financial statements	**Within Group companies** None **Within non-Group companies** • Chairman of STCPI since 2018 • Director of Promo Sud (financing and development company of the Southern Province of New Caledonia) • Member of the Supervisory Board of IEOM **Offices held and completed during the past five years** • Director of Eramet from March 2001 to June 2014 • CEO of Sofinor (financing and investment company of the Northern Province) until August 2014 • Chairman of STCPI (Société Territoriale Calédonienne de Participation) until November 2014 • Executive Director of the Board of Directors of KNS (Koniambo Nickel SAS) until August 2014
Ronge Catherine **Director**[(4)] Born 13 April 1961 (57 years) French nationality **Business address:** INNEVA 3, rue de Chaillot 75116 Paris Ms Ronge is Chair of Weave Air, a strategy consultancy firm.	Co-opted by the Board on 17 February 2016	**Reappointment:** General Shareholders' Meeting of 23 May 2017, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2020 financial statements	**Within non-Group companies** • Director of the Colas Group (listed company) • Director of Paprec Holding • Chairman of Inneva • Chairman of Weave Air • Vice-Chairman of the Armines Association **Offices held and completed during the past five years** • Director of Innoveox (until 2016)

Sikorav Sonia **Director**(1)(4)(5) Born 8 May 1957 (61 years) French nationality **Business address:** 10, boulevard de Grenelle 75015 Paris Ms Sikorav is an independent director and has held executive management, strategy management and procurement management positions in different industrial groups.	Appointed by the General Shareholders' Meeting of 27 May 2016	**Expiry date:** General Shareholders' Meeting called to approve the 2019 financial statements	**Within non-Group companies** • Director of NSC Groupe and PSB (listed companies) (France) **Offices held and completed during the past five years** • Director of Eolane (France) — (2009-2017) • Director of ENSCP — *École nationale de chimie de Paris* (until 2014)
Tendil Claude **Director**(2)(3)(4) Born on 25 July 1945 (73 years) French nationality **Business address:** GENERALI France 2, rue Pillet-Will 75009 Paris Mr Tendil is Chairman of the Board of GENERALI IARD.	Co-opted by the Board on 25 May 2012 (ratified by the General Shareholders' Meeting of 15 May 2013)	**Reappointment:** General Shareholders' Meeting of 29 May 2015, for a four-year term **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within non-Group companies** • Chairman of the Board of GENERALI IARD • Director of GENERALI France • Director of GENERALI VIE • Director of Europ Assistance Holding • Director of SCOR SE • Chairman of RVS (association) • Member of the Executive Committee of MEDEF • Chairman of the *Institut pour l'innovation économique et sociale* (2IES) • Chairman of ARC Foundation for cancer research **Offices held and completed during the past five years** • Chairman and CEO of GENERALI France, GENERALI Vie, GENERALI Iard (until October 2013) • Chairman of the Board of Europ Assistance Holding (until 2015) and Europ Assistance Italy (until April 2015) • Director of Assicurazioni GENERALI SpA • Member of the Supervisory Board of GENERALI Investments SpA • Permanent representative of Europ Assistance Holding on the Board of Europ Assistance Spain (until 2014) • Chairman of the Board of Directors of GENERALI France, GENERALI France Assurances and GENERALI Vie (until 2016)
Treuille Antoine **Director**(1)(2) Born on 7 October 1948 (70 years) French nationality **Business address:** Charter Pacific Corporation 3239, 47th Street Astoria, NY 11103 USA Mr Treuille is Chairman of Charter Pacific Corporation (United States).	General Shareholders' Meeting of 21 July 1999	**Reappointment:** General Shareholders' Meetings of 21 May 2003, 25 April 2007, 11 May 2011 and 29 May 2015 for a period of four years **Expiry date:** General Shareholders' Meeting called to approve the 2018 financial statements	**Within non-Group companies (unlisted companies)** • Chairman of Charter Pacific Corporation (United States), • Director: French American Foundation (United States) and *Fondation Franco-Américaine Foch* (France) **Offices held and completed during the past five years** • Chairman of: Altamont Capital Partners, LLC (United States) (until 2014), Mercantile Capital Partners LLC (United States) (until 2014) and Partex Corporation (until 2013) • Director of BIC SA (France) (until 2013), Harris Interactive (until 2013), Partex Corporation (until 2013) and Imperial Headwear Inc. (United States) (until 2013).

(1) Audit, Risks and Ethics Committee.
(2) Remuneration and Governance Committee.
(3) Appointments Committee.
(4) Independent director.
(5) Strategy and CSR Committee.

As provided by paragraph 14.1 of Appendix 1 of EC Regulation No. 809/2004, the Company states that, to its knowledge and at the time of writing this report:

- no conviction of fraud has been handed down in the last five years against any member of the Board of Directors or of General Management;
- in the last five years, no member of the Board of Directors or of General Management has been associated with a bankruptcy, receivership or liquidation in their capacity as member of an administrative, management or supervisory body, or as CEO of a company;
- no criminal charge and/or official public penalty has been handed down in the last five years against any member of the Board of Directors or of General Management by the statutory or regulatory authorities (including the relevant professional bodies); and
- no director or member of General Management has in the last five years been barred by a court from acting as a member of an administrative, management or supervisory body or from participating in the management or business affairs of a listed company.

No director is subject to a conflict of interest within the meaning of Section 14.2 of Appendix 1 of EC Regulation No. 809/2004 or has entered into a service contract with Eramet.

4.2.1 Implementation of the "Comply or Explain" rule

AFEP-MEDEF CODE RECOMMENDATION	ERAMET CORPORATE GOVERNANCE
Recommendation 7.1 — Participation of employee directors in the Remuneration Committee: "It is recommended (...) that the Remuneration Committee should have one salaried director among its members."	The Remuneration and Governance Committee included one director representing employees until the end of his term of office on 12 November, 2018. The Board will review the composition of the Committee within 12 months of the new directors representing employees taking office.
Recommendation 16.1 on the composition of the Appointments Committee: "It must comprise a majority of independent directors."	The Appointments Committee comprises one independent director out of its four members — the Chairman of the Remuneration and Governance Committee, who is also Chairman of the Appointments Committee. This is due to the specific rules of the Shareholders' Agreement designed to structure the relationship between the Company's main shareholders.
Recommendation 16.2.1 on the powers of the Appointments Committee: "with regard to the selection of new directors" "this Committee is responsible for making proposals to the Board after reviewing in detail all the elements to be taken into account as part of its deliberations, particularly in view of the composition and the changes in the Company's shareholding structure, to achieve a balanced composition of the Board: representation of women and men, nationality, international experience, expertise, etc. In particular, the Committee organises a procedure for selecting future independent directors and conducts its own reviews of potential candidates before approaching any of these."	The Appointments Committee leads the process of proposing the appointment of new directors to the Board. With regard to the consideration of proposals for the appointment of new directors, the Appointments Committee ensures that no legal incompatibility or conflict of interest exists. With regard to the consideration of proposals for the appointment of new independent directors, the Appointments Committee is responsible for reviewing the extent to which potential candidates meet the requirements of competence, knowledge, experience and availability required for the position and satisfy the independence criteria proposed by the Remuneration and Governance Committee, and informing the Board of the outcome of this review.
Recommendation 25.1 – Ongoing provision of information to shareholders on remuneration of corporate officers "All components of executive corporate officers' remuneration, whether potential or vested, are publicly disclosed immediately after the Board meeting at which they are approved."	There is no communication after Board meetings held to review remuneration. The components are communicated in the Registration Document.

4.2.2 Changes to the composition of the Board of Directors and its committees during the 2018 financial year and up to the date of filing of this Registration Document

Board	
Co-opting	None
Appointment of new permanent representatives representing legal entity directors	None
Appointments by the General Shareholders' Meeting	On 24 May 2018, the General Shareholders' Meeting appointed Louis Mapou as director, replacing Ferdinand Poaouteta, who resigned.
Resignations	Ferdinand Poaouteta resigned from his position with effect from 4 May 2018.
Expiry of the terms of office of the directors representing employees	On 23 June 2018, the term of office as director of Pia Olders expired and the term of office as director of Jean-Philippe Letellier took effect for a period of four years. On 12 November 2018, the term of office as director of Marie-Axelle Gautier expired and the term of office as director of Frédéric Gaidou took effect for a period of four years.
Committees	
Audit, Risks and Ethics Committee	Ms Maes became Chair of the Committee as of 24 May 2018, replacing Mr Treuille. As of 12 November 2018, Ms Gautier is no longer a member of the Committee.
Remuneration and Governance Committee	As of 12 November 2018, Ms Gautier is no longer a member of the Committee
Strategy and CSR Committee	As of 22 June 2018, Ms Gautier is no longer a member of the Committee.

IV

V. Risk management 2018

The Group operates in a constantly changing economic and regulatory environment with volatile and highly cyclical cycles. It is therefore exposed to risks whose occurrence could negatively impact its activities, results, financial position, image and outlook. This chapter presents the risk management system implemented by General Management and all of the Eramet teams to prevent and control the significant risks to which Eramet considers the Group is exposed: strategic risks, business-specific operational risks, legal risks and financial risks.

The purpose of the risk management system is to identify significant risks, qualify them and reduce their probability of occurrence and potential impact on the Group. Other risks that the Group is not aware of to date, or that it does not consider significant as of the date of this Registration Document, could also affect its business activities.

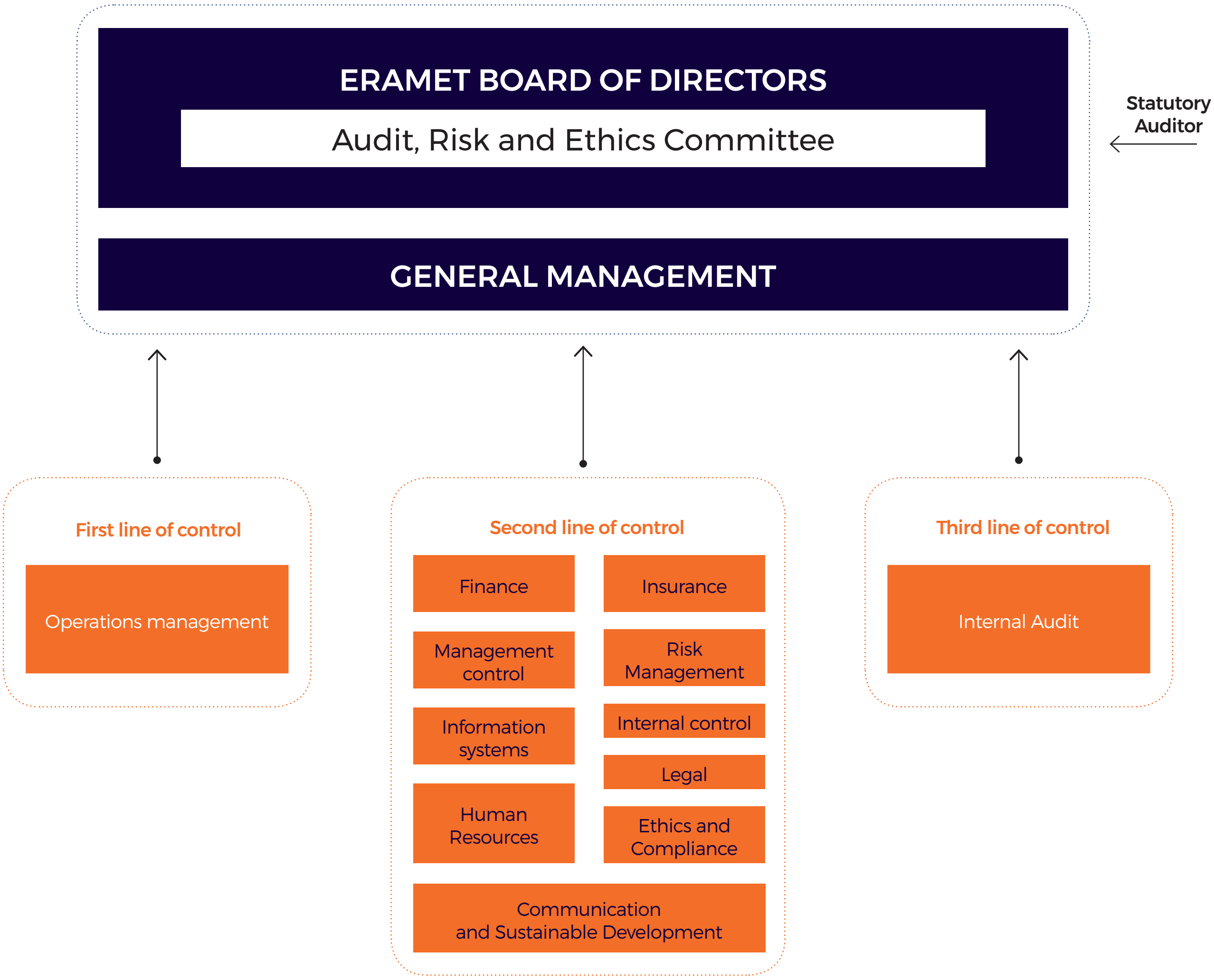
Eramet cannot provide an absolute guarantee that the risk management objectives will be met or that the risks will be completely eliminated.

5.1 Risk management

The Eramet Group recognises, as for any organisation, that risk-taking is vital and inherent to business development, therefore it is committed to a risk management approach that provides a better understanding of its risks, and engages in calculated risk-taking to increase its performance and enable it to take better advantage of opportunities.

In this respect, risk management is considered by the Eramet Executive Committee to be a key component of the Group's governance system. The Director of Risk Management, Internal Control and Audit reports to the Chairman and Chief Executive Officer of the Group and to the Chairman of the Audit, Risk and Ethics Committee of Eramet's Board of Directors. Risk management and internal control report directly to the Deputy Chief Executive Officer in charge of finance and digital transformation.

In 2011, the Eramet Group launched an Integrated Risk Management approach aligned with the organisation's objectives and the Group's strategy and in accordance with the 2010 AMF recommendations, creating a Risk Management position and coordinating three risk control lines presented below:



The first line of control corresponds to controls performed by management.

The second line of control is provided by the various functions set up by management to monitor risk control and compliance.

The third line of control is based on the independent assurance provided by Internal Audit.

The coordination of the three lines of control that make up the risk management system is provided in particular by a Risk Management Committee composed of ten permanent members: the Group and Division Risk Managers, the Director of Risk Management, Internal Control and Audit, the Director of Environment, Industrial and Product Risks, the Industrial Risk Coordinator, the Security Director, the Safety Director, the Group Insurance Manager, and a representative of the Group Legal Department. The purpose of the Risk Management Committee is to inform the organisation and raise awareness about weak signals and emerging risks, to issue recommendations or notify the management of the entities and support functions of the risks and the priorities for addressing them, and to notify General Management or the Executive Committee, as necessary, of any major or unacceptable risks and issues with regard to the strategy set out for the Group.

Finally, the risk management system includes a Crisis Management system (see main risks/operational risks/risks related to security below) and an Ethics Compliance Committee (see Section 6.4 "Governance").

5.1.1 Internal control system

The internal control system contributes to the management of the Group's activities and the efficiency of its operations. It incorporates procedures and controls to provide reasonable assurance regarding the control of risks related to the Group's activities, and is implemented by the Group's operational management. Its effectiveness is verified by Internal Control.

Risk ownership and responsibility for risk management are assigned at the most appropriate level (subsidiarity principle). Each operations manager is therefore directly involved in the implementation of internal controls and is responsible for assessing and reducing the risks related to the processes and activities for which he or she is responsible.

5.1.1.1 The Company's internal control objectives

In accordance with the AMF reference framework, updated in July 2010, the internal control procedures in force at Eramet are designed to:

- ensure that transaction execution or management activities and the behaviour of personnel comply with the policies laid down by the Company's governing bodies and those set out in applicable legislation and regulations and that they adhere to the Company's values, standards and internal rules;
- check that the accounting, financial and management information provided to the Company's governing bodies faithfully reflects the Company's business activities and position;
- ensure that insurance procedures and/or programmes are put in place to protect the Company's assets against risks of loss resulting from theft, fire, improper or illegal actions and natural hazards;
- prevent and control risks of error or fraud, in particular in the areas of accounting and finance.

However, as with any control system, it cannot provide an absolute guarantee that these risks are totally eliminated.

5.1.1.2 Overview of the audit procedures in place

a) Internal control players

Eramet, because of its diverse activities, is organised into two Divisions, each with all the departments required to operate (management, production, sales, finance, etc.). In addition to its general management function, the head office provides support and carries out the control work required for the Group's overall cohesion. The following are the main internal control players:

- the Executive Committee, whose composition is set out in the "General Management" section (see Chapter 4 "Corporate governance"), meets on a monthly basis;
- the Risk Management, Internal Control and Audit Department, which reports to the Group Chairman and Chief Executive Officer and to the Chairman of the Audit, Risks and Ethics Committee; risk management and internal control report directly to the Deputy Chief Executive Officer in charge of finance and digital transformation. See 5.1.3 below;
- the Group Management Control Department, reporting to the Deputy Chief Executive Officer in charge of finance and digital transformation, which sets out the structure of the management control of Eramet Group entities to ensure consistency with the Group's objectives;
- the Legal Department, which reports to the Group's Chairman and CEO. The Legal Department provides the entire Group with legal support on all matters within its area of expertise, and in particular provides support for major contract negotiations or in the event of disputes;
- the Finance and Treasury Department, reporting to the Deputy Chief Executive Officer in charge of finance and digital transformation, which manages, in liaison with the specialist committees of the main subsidiaries, the hedging of foreign currency exposure and commodity risk, particularly with regard to nickel and fuel oil, and is in charge of financial resource management (investments and borrowings) for the whole Group;
- the Tax Department, which is part of the Accounting, Tax and Consolidation Department, reporting to the Deputy Chief Executive Officer in charge of finance and digital transformation. As a service centre, it assists the Group's various subsidiaries with their respective tax obligations and fulfils those of the parent company;
- the Communication and Sustainable Development Department assists the various Divisions in managing and reducing the Group's environmental and societal impact and controlling their industrial risks. It contributes to the sustainability of the Group's activities, products and markets in light of regulatory, political and societal changes in line with the requirements of stakeholders;
- the Group's Human Resources, Health, Safety and Security Department, which manages the Company's human resources and ensures that HR policies are consistent across the Group's various entities. It coordinates the Safety and Security policies and formalises the "health" dimension within the Group via a network of internal and external contacts in conjunction with the competent authorities responsible for social control of the occupational health service;
- more generally, every management level in the Company is responsible within its field of expertise for defining, implementing and managing internal control, under the supervision of the relevant director and Executive Committee member.

b) Summary of the internal control procedures implemented in the Group

- The charters and the resulting procedures, which set out the operating rules of the various committees or departments and formalise relationships with other parties.
- Delegation of signing authority and powers.
- Information systems: the role of the Group IT Department is to make IT systems more harmonised across the Group and support the various subsidiaries. Concerning business applications, a number of projects are underway to modernise our main ERP platforms developed around the SAP solution with the aim of providing a more harmonised solution in the long-term for the Group as a whole.

c) Internal control system for the preparation of financial and accounting information

- Organisation of the accounting function within the Group: the Accounting Units of the parent company and its subsidiaries record daily transactions (purchases, sales, cash flow, etc.) and ensure that the accounting methods comply with the Group's established procedures. These operations are performed in a shared service centre (SSC) based in Clermont-Ferrand which contains almost all of the accounts departments of the Group's French companies. The Accounting, Tax and Consolidation Department, within the Group Administration and Finance Department, keeps the accounts of the parent company and its French subsidiaries, files tax returns and complies with the obligations relating to tax consolidation, and publishes Eramet's individual and consolidated financial statements. The necessary coordination with subsidiaries is provided by the Finance Committee through monthly meetings attended by the administrative and financial directors, accountants and management controllers of the main Divisions and Subsidiaries.
- Procedures for the preparation of the consolidated financial statements: the consolidation returns are input into the SAP Financial Consolidation software (ex-Magnitude) by each subsidiary, and consolidation at Division and Group level is carried out by the central consolidation department. Consolidation is monthly with annual items (taxes, provisions, etc.) estimated at various times during the year.
- Accounting manual: the consolidation manual is distributed to all subsidiaries and contains the accounting rules which are common to the whole Group and which apply to financial statements drawn up in compliance with IFRS. It sets out the measurement methods used by the Group and specifies the rules to be followed when preparing the financial statements.
- Budget and management control: The five-year operational plan, including the budget in the first year for the following year, is calculated at year-end and the budget forecast for the current year will be updated at least three times during the course of the year. These budgets and forecast updates, as well as the related action plans, are formally approved by Division management, the Group Executive Committee and, subsequently, by the Chairman and CEO of Eramet. An analysis of discrepancies between budgeted and actual figures is carried out on a monthly basis, firstly at Division level and subsequently at Group level. As a supplement to the financial statements, the Management Control Department prepares analyses of the Group's performance for the period.
- Cash and Financing control: in addition to its pivotal role in managing foreign currency and commodity risk, the Group Administration and Finance Department sets up financing for the Group's main subsidiaries and carries out financial investments together with the managers of those subsidiaries. It assists Group companies in setting up payment methods. At the end of 2004, the Group set up a cash pooling company, Metal Securities, to serve as a central cash hub for all Group companies. At the end of 2006, an "exchange rate guarantee" company, Metal Currencies, was established to centralise foreign exchange transactions, which had in the past been recognised in the financial statements of each Group entity. Both Metal Securities and Metal Currencies are subject to corporate governance established in full collaboration with the managers of the relevant subsidiaries.
- Work of the Audit, Risks and Ethics Committee of the Board of Directors: the Audit, Risks and Ethics Committee reviews the interim and annual financial statements, monitors major disputes and ensures compliance with currency and commodity risk management policy procedures, as well as hedging policies. It validates the internal audit plan and reviews the actions decided upon based on the audits carried out.
- Liaison with the Statutory Auditors: the Auditors carry out half-yearly reviews of the financial statements, which are approved at meetings held with the Divisional and Group Finance Departments, the Division Heads, the Deputy Chief Executive Officer in charge of finance and digital transformation and, subsequently, with the Chairman and CEO of Eramet.

5.1.2 Group Risk Management system

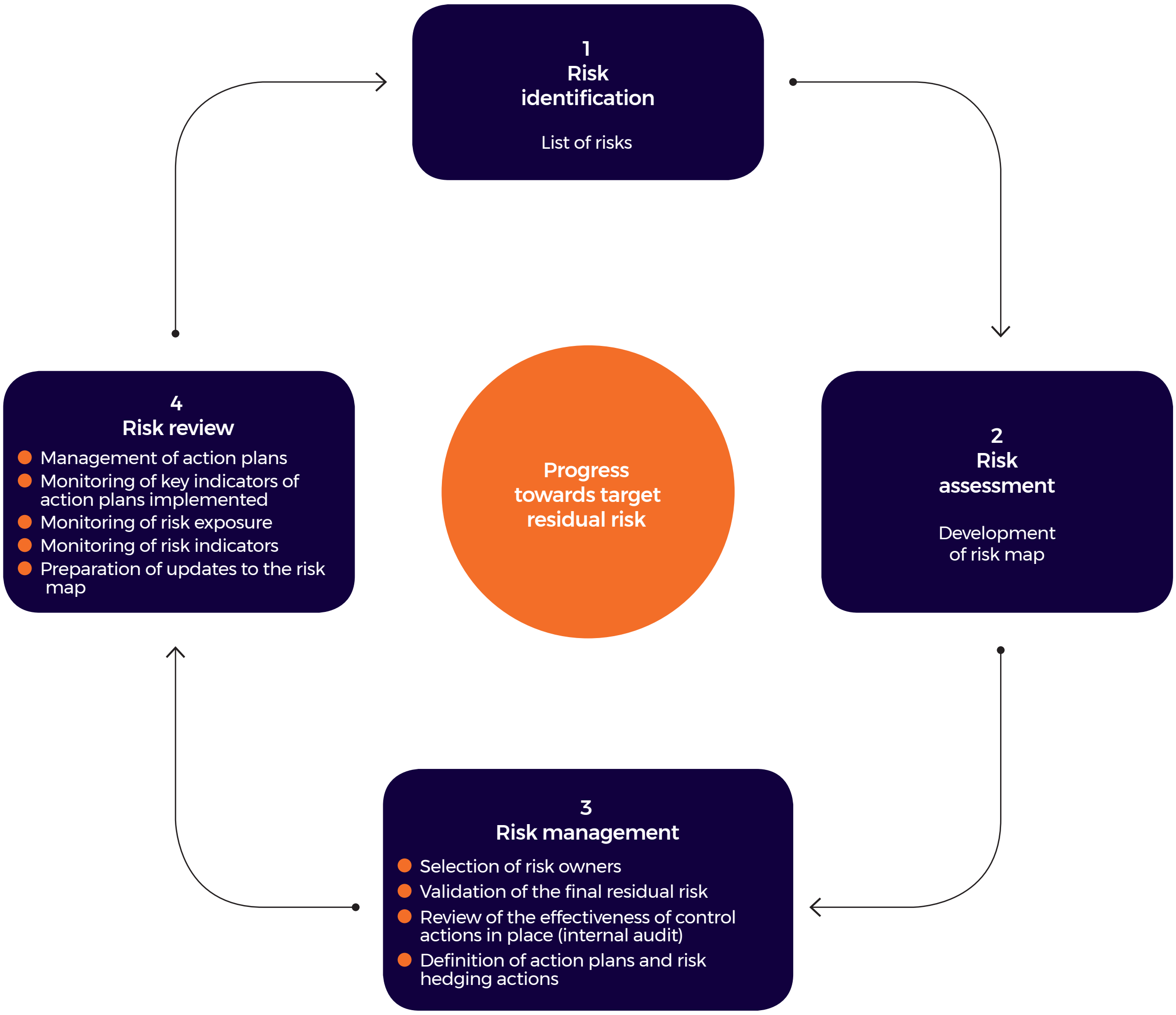
The Risk Management system aims to identify, assess, manage and control the occurrence of potential risks (defined as an event, an action, or a lack of action) that could alter the Group's ability to deploy its strategy and achieve its objectives. It consists of a Risk Management Charter, supplemented by a Group procedure, which sets out the specific Risk Management process and organisation deployed within the Group. Leveraging the Group's management, this system contributes in particular to achieving the following objectives:

- protect our main human and financial resources, and our corporate image;
- safeguard value creation;

- promote the definition and level of risk appetite;
- comply with legal and regulatory obligations, and with the values promoted by the Group;
- identify value-creating opportunities for the Group (e.g. new markets, new customers, etc.).

This system aims to identify the strategic, operational, financial and regulatory risks facing the Group over a time horizon of three to five years, to address them by defining action plans to mitigate the probability and impact of risks, to establish or optimise the necessary internal control processes to control the Group's activities and operations and, where appropriate and relevant, to define the residual risk financing transfer programmes, by subscribing to insurance covers for example, and thus monitor the Group's exposure to the specific risk universe associated with its business model.

The entire process is managed by the Group's Risk Management, Internal Control and Audit Department in collaboration with operational management, the owners of key processes, the Group's Finance Department and General Management. It is based on an iterative approach of identifying, assessing, addressing and monitoring risks in four steps.



The implementation of this process led to the mapping in 2018 of the Group's major risks, which was presented to the Audit, Risks and Ethics Committee of the Eramet Board of Directors in December 2018. The main risks identified (listed in Section 5.2 below) lead to the definition of control areas that are then deployed in operational action plans aimed at strengthening existing control mechanisms.

For operational risks, the monitoring of changes to the risks identified and the implementation of the control systems are ensured by the managers of the Divisions in coordination with:

- the Group's Communication and Sustainable Development Department for industrial and environmental risks;
- the Group Human Resources, Health, Safety and Security Department for risks related to health, safety and security;
- the Risk Managers of the Divisions and their potential delegates for other risks within the various entities of the Division.

For Group financing and treasury risks, the monitoring of changes to the risks identified and the implementation of the related control systems are ensured by the Finance and Treasury Department for the entire Group, in conjunction with the managers of the Group's subsidiaries.

The Executive Committee is responsible for addressing and managing the Group's strategic and/or major and ethical risks, with the assistance of the Group Risk Management, Internal Control and Audit Department.

Finally, the Group Insurance Management Department defines and implements the Group's residual risk transfer policy, following approval by the Executive Committee. These main operational risk assurance programmes are described in Section 5.4 below.

5.1.3 Internal Audit

Internal Audit is the third line of control, which assesses the way in which the Group identifies and controls its risks. It is an independent and objective activity that provides the Group with assurance on the degree of control of its operations and provides it with advice on how to improve them. It helps the Group to achieve its objectives by evaluating its risk management, control and corporate governance processes through a systematic and methodical approach and by proposing ways to enhance its effectiveness. It ensures that procedures are followed in the audited areas.

Group Management is responsible for implementing appropriate risk management and maintaining an appropriate level of internal control. The scope of Internal Audit's intervention is to assess whether the audited organisations and processes are adapted to enable the Group to achieve its objectives. Internal Audit identifies opportunities to improve internal control and ensures that quality, continuous improvement and value creation are encouraged in the Group's control processes.

The results of the risk mapping exercise are included in the Group's internal audit plan to ensure that the existing control process functions properly, and that the defined action plans are actually implemented.

Since 2018, Eramet's Internal Audit Department has been IFACI certified according to the professional standards of internal audit, attesting to the compliance of its practice with the best international standards.

The Internal Audit Department provides the Audit, Risks and Ethics Committee with regular updates on its work and findings, as well as the degree of completion of action plans within the audited entities. In 2018, a total of 31 internal audits were performed.

5.2 Main risks

The main risks (described below) to which the Group is exposed due to its business model and the activities it performs are identified in the Group's 2018 risk map, which was presented to the Audit, Risks and Ethics Committee in December 2018.

CRITICALITY / CLASSIFICATION	HIGH	MEDIUM	LOW
Strategic	• Risk of non-recovery (or failure to recover) certain assets which returns are insufficient or to reposition competitively some entities on the cost scale • Geopolitical risks	• Risks of social and environmental acceptability • Risk of non-execution of the chosen strategy of profitable growth with a diversified portfolio of activities	
Operational	• Supply Chain Risk • Risks inherent in production reliability and the development of new metallurgical products	• Health and safety risks of human resources • Risk of failure of information systems, protection of information and cyber attacks • Risks related to industrial and environmental safety • Risks related to security • Risks related to attracting and retaining talent, and industrial relations	
Legal		• Risk of non-compliance with regulations • Risk of the strengthening of legislative and regulatory requirements	• Significant disputes
Financial			• Liquidity risk • Market risk • Counterparty risk

5.2.1 Strategic risks

5.2.1.1 Risk of non-recovery (or failure to recover) certain assets which returns are insufficient or to reposition competitively some entities on the cost scale

The Group is exposed to the cycles of the Chinese economy, the aerospace market cycle, and the volatility of the commodities market and the US dollar, whose impact on the Group's results can be measured as follows:

Impact of USD/oil/nickel/manganese variations on current operating income at a EUR/USD exchange rate of 1.175:

- **Nickel:** €105 million for a variation in LME nickel price of USD 1/lb;
- **Manganese ore:** €130 million for a variation in LME nickel price of USD 1/dmtu;
- **Manganese Alloys:** €70 million for an average manganese alloy price variation of USD 100/t;
- **Oil:** difference of €16 million for a variation of USD 10/bbl;
- **USD:** +/-100 million for a difference of +/-10 cents in EUR/USD.

The Group's turnover and profitability are therefore directly dependent on these exogenous and highly volatile factors. The Group must constantly improve the performance of its assets in order to withstand the cyclical lows. It is especially true for Société Le Nickel-SLN whose cash cost must be repositioned compared to its competitors, thanks to success in the performance of back-to-competitiveness plans and costs reduction plans. A delay in these various progress plans would impact its profitability.

The risk of loss of competitiveness of the assets is dependent on access to electricity, in particular the construction and commissioning of the new electricity generation plant in New Caledonia — which will take over from the current power station that is reaching end-of-life, the investment scheme for which is described in Chapter 2 "Nickel BU Activities", and the optimisation of the distribution methods of this energy.

The competitiveness of some of the Group's assets is also dependent on the valuation of mineral resources and reserves, the evolution of which over time is directly linked to the technical and economic assumptions used for their exploitation and processing (geological data, techniques and operating costs, conversion factors, choice of process, environmental, legal and tax regulations).

It should be noted that:

- Given their capital intensity, the decision to launch new mining operations or to rehabilitate existing ones depends on the outcome of technical and financial feasibility studies directly influenced by the evolution of raw material prices, the exchange rates concerned, the cost of credit and the financing chosen. In periods of slower demand, some of these decisions may be delayed or abandoned, which may have an impact on the Group's financial situation.
- In particular, the assessment of the reserves indicated in Chapter 2 requires unimpeded access to the deposits. Administrative bottlenecks or obstacles caused by social or community movements would reduce the amount and, as a result, modify the quality of these reserves.

Risk Management

In order to address this risk, several operational productivity and performance improvement plans have been launched. Their accelerated deployment in the entities of each of the Group's Divisions as well as in the Holding Company continues in 2018 and their objectives have been readjusted in order to optimise their results.

In 2017, the Group launched a cross-functional transformation project called NeWays, based in particular on an initial management component aimed at deploying managerial and operational excellence at all levels of the organisation in order to improve performance and facilitate the Group's strategic ambitions.

The Group revises its resource and reserve estimates each year, both quantitatively and qualitatively. Details of the estimates and assumptions used for this purpose are given in Chapter 2, section "Reserves and resources" in this document.

Lastly, according to market trends, Eramet may implement a hedging policy with a horizon of one to four years depending on the commodities and on the basis of the budget. Only a portion of planned consumption or production is hedged when the criteria in the hedging policy are met. The Group uses various instruments to hedge and limit its exposure while profiting from favourable price fluctuations (futures and options). It should be noted, however, that manganese and coke exposures are not hedged since there is no organised market for these commodities.

At 31 December 2018, the value of hedges set up was not significant.

5.2.1.2 Risks related to non-execution of the chosen strategy of profitable growth with a diversified portfolio of activities

In a particularly difficult market environment in 2015 and 2016, with nickel and manganese prices dropping to historic lows over the previous fifteen years, the Group's priority was the preservation of cash flow. Today, it is engaged in a new balanced strategy of profitable growth through a selective allocation of resources combining return on capital and long-term growth. A delay in the implementation of the new strategy could affect the Group's financial position and degrade its competitive positioning, affecting the ability of its business model to create value over the long term.

Risk management

The NeWays programme launched in 2017 is deployed throughout all Group entities and is regularly reviewed by the Eramet Executive Committee.

NeWays has two components — a managerial component, mentioned above (see risk of loss of competitiveness of certain assets), and a strategic component, made possible by the first component. The strategic component is centered around three priority areas, described in Chapter 1 Presentation of the Group.

As part of the strategy transformation being rolled out, in order to consolidate the review and execution of strategic operations, a new M&A Department was set up in 2017 to strengthen the Eramet portfolio by expanding it into attractive markets in which the Group is already an industrial or commercial leader or has strong assets, to allow redeployment enabling the Group to diversify its geographical and financial asset base.

The NeWays programme is also based on Group-wide digital transformation across all businesses, considered to be the fourth industrial revolution. This digital transformation is a major element of value creation and business model transformation for Eramet, as outlined in the strategic orientation presented in Chapter 1 Presentation of the Group. This digital transformation approach relies on all Group Departments, and in particular on two cross-functional pillars of Group Management: the Information Systems Department for the use of new technologies and the Human Resources, Health, Safety and Security Department for the transformation of organisations brought about by Digital Transformation.

To support the digital transformation, a dedicated department was created in 2018. Its role is to define the vision and strategy for Digital Transformation for the Group and the Divisions, as well as to support each entity in defining and monitoring its digital roadmap, while ensuring the necessary cross-functionality for rapid deployment.

This department, which reports to the Deputy Chief Executive Officer in charge of finance and digital transformation, is composed of a Chief Digital Officer and seven people at Corporate level, as well as six local Chief Digital Officers reporting to the Management Committee of the Group's main subsidiaries. This organisation is completed by a network of digital correspondents in the Group's main cross-functional departments.

Finally, to strengthen risk management and operations throughout the organisation, General Management has reinforced the duties and resources of the Group Risk Management, Internal Control and Audit Department.

5.2.1.3 Geopolitical risks

The Group's political risk is intrinsically linked to the extraction, processing and/or marketing of the Group's products in countries outside the OECD area, where the political situation and business environment are not as stable as within the OECD area. Unfavourable political, socio-economic and regulatory developments in the countries in which the assets are located may affect the Group's financial position, profitability and outlook. The same applies in the event of terrorist activities, war, health crises or the blocking of public services, access to deposits, logistics or transport.

The Group's profitability and sustainability can also be impacted by specific taxes (fees, taxes or duties) to which the business is subject locally.

Risk management

To support its various activities and projects, the Group's policy is to develop and maintain firm, sustainable and complementary partnerships with national partners and local firms. These partnerships may take the form of a stake in Group subsidiaries, with a number of special covenants to take account of the existing shareholder balance. The Group is also keen to develop and maintain working relations and consultation with the public authorities and all stakeholders regarding the impact of changes in the business environment on local operations and the Group's performance.

(a) Strong and lasting partnerships

Relationship with STCPI and New Caledonia — Le Nickel-SLN shareholders' agreement

Le Nickel-SLN, a subsidiary with 56% of its shares held by Eramet and 10% by Nisshin Steel, also has a 34% stake held by Société Territoriale Calédonienne de Participation Industrielle — STCPI.

STCPI is a "SAS" (simplified joint-stock corporation), the sole purpose of which is to hold this interest in Le Nickel-SLN and an interest of around 4% in the capital of Eramet (where two directors represent it out of the seventeen on the Eramet Board). The interest in the share capital of Le Nickel-SLN, initially 30%, was raised to 34% in a share-swap transaction on 23 July 2007, and then sold by the French government when Eramet was privatised. Its political, financial and strategic value lies in the association of local public interests with the Group's mining and industrial interests in New Caledonia. STCPI represents the three New Caledonian Provinces: the Southern Province, and the Northern and Island Provinces. The Board members and observer are selected to guarantee a balanced representation between the Northern and Island Provinces and the Southern Province.

The Le Nickel-SLN shareholders' agreement of 13 September 2000 followed on from the agreement of 17 July 2000 between the government, the Provinces of New Caledonia and representatives of the island's main political parties. In 2010, the shareholders' agreement was extended for a first additional term until 31 December 2011. Since 2010 it has been extended annually for periods of one year. Its terms include the following:

- distribution of the directorships on the following basis, at present: eight for Eramet (including the representative of Nisshin Steel), and four for STCPI, which is also entitled to appoint an observer;
- a reciprocal right of pre-emption for each party;
- a reciprocal call option on the shares held by the party that falls under the control of a company, "whose main activity, or the main activity of the Group to which it belongs competes with that of Le Nickel-SLN";
- a non-dilution clause whereby, in the event of the sale of shares to another shareholder or a share capital increase, each party will retain the same interest in the share capital or voting rights they had previously held, either through the retrocession of shares or joint exercise of the subscription rights in a share capital increase.

Following an STCPI press release on 27 June 2008 offering to open discussions regarding the size of its stake in Le Nickel-SLN, an Eramet Board meeting on 11 July 2008 resolved that there was no reason to change the shareholding structure of Le Nickel-SLN, which represents a satisfactory balance.

Following a meeting of its Board of Directors on 19 November 2009, Le Nickel-SLN announced that it was instituting new modern corporate governance measures to further involve New Caledonia, with the creation of a Strategy Committee, an Audit Committee and a Remuneration Committee. STCPI has significant representation on all three committees, and chairs the Audit Committee. The shareholders' agreement between STCPI and Eramet is renewed annually by mutual exchange of consent.

Relationship with Nisshin Steel, shareholder of SLN and an Eramet Group customer

The Eramet Group and Nisshin Steel have had a ferronickel supply agreement in place since 1991. Nisshin Steel is a Japanese producer of stainless steel with a 10% interest in Le Nickel-SLN. Nisshin-Steel is a major customer, accounting for 10% of sales in the Nickel division. This agreement, amended in January 2018, is intended to guarantee ferronickel deliveries over several years.

Relationship with Pt Antam and Indonesia (Weda Bay project)

Following the implementation of the framework agreement signed in 2018 with the Chinese steel group Tsingshan, the Tsingshan group, through its subsidiary Newstride, holds 57% of the capital of Strand Minerals (Indonesia) Pte Ltd and Eramet 43% (see chapter "Group activities").

The Indonesian company Pt Weda Bay Nickel, a project and exploration company created for the development of the Weda Bay nickel deposit on Halmahera Island in Indonesia, is 90% owned by Strand Minerals (Indonesia) Pte Ltd and 10% by the Indonesian public limited liability nickel producer Pt Antam TBK (Antam), a company specialising in the exploration, mining, refining and distribution of mining products. Antam is represented by a director on the Board of Directors of Pt Weda Bay Nickel (out of a total of five directors, including three representatives of Newstride (Tsingshan group) and one representative of Eramet) and also holds several call options allowing it to increase its shareholding.

In addition, Pt Weda Bay Nickel is explored and mined under a Contract of Work with the Indonesian Government (see Chapter "Group Activities").

Relationship with the government of Gabon

Comilog has a special relationship with the government of Gabon, which is represented by four members on the Board of Directors. In 2014, Société Équatoriale des Mines, a fully state-owned company, became a shareholder of Comilog, replacing the government of Gabon, which had been a shareholder since 1973. From the outset, the State has supported Comilog, both through tax measures (a mining agreement and special tax agreement to finance the sintering complex) and industrial measures (as Comilog's partner in building the Owendo Port, of which its subsidiary, Port Minéralier d'Owendo, holds the concession), and more recently by granting a railway concession to Setrag, in which Comilog is the leading partner, and by granting a mining exploration licence for the Mabounié polymetallic deposit (Maboumine project). This relationship, based on trust and the recognition of mutual interests, makes it possible to work together on a constructive basis and to plan for the development of new industrial projects.

For the purposes of its project to build two silicomanganese and metallic-manganese metallurgical units at Moanda in the Upper Ogooué (known as the Moanda Metallurgy Complex), Comilog signed two agreements with the Gabonese authorities on 7 January 2010 in Libreville. Among other items, the first agreement laid down the specific legal, tax and customs framework for the project, while the second specified the conditions for securing the future energy supply to the complex. To implement the project, a special financing facility was set up, with guarantees provided by Eramet and the Gabonese Republic. The new Moanda Metallurgy Complex was inaugurated in 2015 at a ceremony attended by the Gabonese President and the Chairman and CEO of Eramet.

On 20 October 2010, Eramet and the Gabonese Republic concluded an agreement to step up the Gabonese Republic's interest in the capital of Comilog. Under its terms, from 2010 to 2015 Eramet was to transfer to the Gabonese Republic in stages a further stake of up to 10% of Comilog's capital, which would increase the Gabonese Republic's shareholding to 35.4%. The first transfer stage (2010-2011) involved 3.54% of the share capital; 2.17% of the capital was transferred on 17 December 2010, and the remaining 1.37% for this stage was transferred on 14 June 2011. At 31 December 2018, the equity interest in Comilog held by Société Équatoriale des Mines (SEM, a Gabonese company) and the Caisse des Dépôts du Gabon on the one hand, and by Eramet on the other, represented 28.94% and 63.71% respectively.

In addition, a candidate proposed by the Gabonese State was appointed director by the Eramet General Shareholders' Meeting on 15 May 2013.

Relations with the Republic of Senegal

The Republic of Senegal is a 10% shareholder in Grande Côte Opérations, a 90% subsidiary of Eramet, which operates the Grande Côte mineral sand deposit in Senegal. The Republic of Senegal is represented by two directors (out of a total of eight) on the Grande Côte Board of Directors.

(b) Monitoring of specific regulatory developments in sensitive areas

Mining operations are subject to specific regulations, depending on extraction locations and activities. These regulations chiefly relate to:

- research permit and mining concession regimes;
- obligations specific to mining operations;
- environmental protection and biodiversity limits and controls;
- site restoration after depletion.

These regulations may change, with a possible impact on operations and results.

In addition to actual mining activity, industrial operations are also subject to specific regulations, depending on the industrial site. These regulations mainly cover:

- authorisations to operate the installations (technical studies to be carried out prior to the authorisation, applicable procedure, etc.);

- the limitation of the impacts of the installations on the environment, health and the surrounding area (discharges into the natural environment, industrial risks, waste disposal, etc.);
- the cessation of activity and the rehabilitation of sites at the end of their operation (risks related to polluted sites and soils, etc.).

These regulations may change, with a possible impact on operations, particularly where additional capital expenditure is required to factor in environmental concerns in response to changes in regulations.

(c) Monitoring specific tax concerns

Eramet is the parent company of a tax consolidation group comprising 19 companies at 31 December 2018. The Group's activities are subject to specific taxes depending on their geographical location.

Its companies and units in mainland France are liable for tax at the standard French rate. The current corporate income tax rate is 33.33%, excluding an additional welfare contribution of 3.3%.

The following notes apply to subsidiaries outside mainland France:

- Le Nickel-SLN is liable for the 35% mining and metallurgical corporation tax in New Caledonia; SLN's distributions to Eramet are subject to an additional income tax contribution of 3% (for any distribution in excess of 30 million Pacific francs, or €251,400). The withholding tax on dividend distributions applied in New Caledonia amounts to 10%. The deductibility of overhead costs is limited to 5% of the amount of external services. SLN is exempt from the general consumption tax which came into force on 1 October 2018 (this tax is a variation of value added tax);
- the Comilog subsidiary is liable for income tax at 35% and export duty and mining royalties representing approximately 6% of the pithead value of the products mined (close to FOB value), and also a 15% tax on dividends (10% on the fiscal scheme for corporate groups). This tax regime is fixed until 2032 as part of a mining agreement signed in October 2004. This convention was ratified by the Gabonese Parliament in 2005;
- under an Agreement signed with the Senegalese government in 2004 and Amendment 1 to the agreement signed in 2007, Grande Côte Opérations (GCO) benefits from a mining concession regime for 25 years in accordance with Ministerial Decree No. 2007-1326 of 2 November 2007. Under the provisions of the Mining Code, it enjoys full exemption for 15 years (exemption from VAT, customs duties, corporate tax, patenting and property tax), running from the end of the investment period (construction). This exemption period will end in November 2022. Since 2007, GCO has been subject to a mining royalty of 5% of the value of the mining area. GCO has also agreed to sell 10% of its production to the State of Senegal, with a remuneration calculated on the basis of a net margin on full costs;
- tax is not withheld on dividends paid to the parent company by subsidiaries in Norway, Sweden and the United States.

(d) Contingent tax liabilities

Comilog's customs inspection for 2009-2012 was completed with the signing of a settlement agreement. A new customs inspection has begun, covering the financial years 2015-2017.

A tax audit of Comilog covering the financial years 2014-2017 is currently underway. An assessment notice was received in November 2018 and a response was sent in December 2018. The Company rejected almost all of the items identified. Discussions are ongoing with the Gabonese tax administration. It is not possible to comment on the outcome of the review at this stage in proceedings.

5.2.1.4 Risks related to social and environmental acceptability

The Group is exposed to the risk of a change in the perception of its mining and industrial activities by the market and by civil society, which could impact the Group's reputation and generate difficulties or obstacles to operating and marketing its products.

Risk management

In addition to the efforts made by mining and industrial sites in their areas of operation, the Communication and Sustainable Development Department (DC2D) coordinates efforts to reduce and control risks related to social and environmental acceptability. Details on the organisation, means and methods for controlling these risks are set out in Chapter 6 Non-Financial Performance Statement.

5.2.2 Operational risks

5.2.2.1 Risks to the health and safety of persons

The Group uses processes and industrial equipment that are a potential hazard for users. Molten metal, industrial machinery, heavy machinery, chemicals, noise and vibrations are all examples of dangers intrinsic to the Group's activities. These hazards generate risks of potentially serious accidents and damage to the health of Eramet employees, external contractors, and, in some cases, local residents. In addition, the subsidiary Comilog is exposed to the risk of an acute health crisis in the context of the Marcel-Abéké Hospital, which it manages. On a general level, poor enforcement of safety rules and the behaviour of staff could damage the integrity of stakeholders (employees, temporary staff and subcontractors) throughout the Group companies.

Risk management

Within the Group's Human Resources, Health, Safety and Security Department, the Medical Advisor and the Safety and Prevention Director coordinate measures aimed at reducing and managing the risks to the health and safety of individuals. The organisation, means and methods for controlling these risks are detailed in the Health, Safety and Hygiene section of Chapter 6 of this Registration Document.

5.2.2.2 Risks related to attracting and retaining talent, and industrial relations

The Group's activities and their development require the recruitment and employment of a large number of operators, technicians and highly qualified managers. The operational performance of our activities, and the Group's deployment, both internally and externally, depend, in part, on its ability to recruit and develop new skills, including in geographical areas where the employment base is smaller, and maintain a level of high-quality, responsible social dialogue.

Risk management

Identifying and promoting its talents is a crucial issue for the Group, in a competitive environment subject to constant technological change. For this reason, Eramet has developed a Human Resources strategy, the first pillar of which is to identify, attract, retain and develop the talent and expertise necessary for its business activities and to achieve sustainable growth (see Chapter 6). The Human Resources policy also includes meaningful and dynamic social dialogue to deal with major organisational changes (see Chapter 6).

5.2.2.3 Risks related to security

The risk of intentional attack affects all organisations. The Eramet Group is particularly exposed because of its presence in 21 countries, some of which are more exposed to terrorist threat, or in countries considered politically and economically unstable that could experience social violence. Eramet is therefore exposed to risks of an attack on the security of persons and property in the countries where the Group operates and/or at its industrial sites, resulting in human and financial losses.

Risk management

The Group's safety policy is centered around protection of the people, facilities and information that support the development and economic efficiency of the Group. Three objectives are pursued:

- a strategic objective that assesses the nature of threats and measures the risks of the Group's people and assets;
- an operational objective that puts in place the resources and means necessary to prevent and protect;
- an educational objective that informs and raises awareness among Eramet Group employees about the reality of the risks, the means implemented to address them, and the behaviours to adopt.

The protection measures put in place by the Security department are the result of analysis and monitoring of the security situation and the assessment of the threat. They also depend on the nature of the activities carried out by the Group's units in the region and the effectiveness of the public institutions in the countries concerned.

The Group has also implemented a Group-wide crisis prevention and management policy through procedures that focus on three situations:

- crisis prevention: applicable standards, identification and implementation of operational measures to counter weak signals, crisis simulation exercises so that each person knows their role and to continually improve emergency planning (in conjunction with the industrial risk matrix, which was updated in 2016);
- serious incident management: definition of a serious incident, Group reporting, feedback;
- crisis management: as the sites already have their own emergency plans (contingency plan, ERP or other) the Group central crisis management system was updated in 2016. It includes procedures for the escalation of alerts, the assessment of their severity, the organisation in crisis units and feedback, as well as crisis management coordination interfaces with site emergency plans.

These procedures have been deployed across all sites.

5.2.2.4 Risks related to industrial and environmental safety

The Eramet Group is exposed to the risk of accident or major industrial and/or environmental damage that could affect one of its sites, which could affect the safety or health of people on site and/or in the surrounding area, and/or significantly impact the environment. Such an event could lead to an interruption of business, jeopardising the continuity of a strategic Group asset, as well as additional costs related to legal claims against Eramet and damage to its reputation.

Risk management

The Environment, Industrial Risks and Product Responsibility Department coordinates initiatives aimed at reducing, managing and controlling industrial and environmental risks. The organisation, means and methods for controlling these risks are detailed in Chapter 6, Section 6.2.1 Challenges, objectives, organisation and means for the prevention of environmental and industrial risks.

With regard to major projects and investments, the Group applies criteria such as consideration of the health, safety, social and environmental dimensions of sustainable development as part of its investment procedure, and the Environment, Industrial Risks and Product Responsibility and CSR functions are systematically represented on project steering committees.

5.2.2.5 Risk of failure of information systems, protection of information and cyber attacks

The Group depends on IT infrastructure and applications, particularly for supply, production, distribution and invoicing, reporting and consolidation activities, as well as new product design and development.

The risks to the Group could be information system malfunction (loss of availability, data theft, destruction or loss of data integrity) related to external threats (denial of service, hacking, malware) or internal threats (tampering, breach of data confidentiality).

Other types of indirect threats should also be prevented, such as those related to social engineering (Chairman or treasurer fraud, blackmail, ransomware, etc.).

All of these risks and threats could impact the Group's operations and profitability.

Risk management

In order to address these risks and threats, the Group stepped up its information system security and cyber-security by recruiting a Group Chief Information Security Officer at the end of 2017, who reports to the Information Systems Department and is responsible for:

- preventing risk by raising employee awareness, emphasising good practices to follow and by constituting the cybersecurity team covering all Group entities;
- continuing the Information Systems protection programme and strengthening access control of people and materials, as well as detecting potential vulnerabilities by auditing critical elements;
- improving the prevention and detection of security incidents and the response model in accordance with the type of threat or its potential impact.

5.2.2.6 Risks related to supply chain risk

The profitability of the Group's mining activities and the competitiveness of its mining assets depend on the conditions of transport of ore to the port areas of the countries in which it operates and the use of shipping to transport its products: first, in various stages, to production sites and then for delivery to customers, because of the long distances between the mines where raw materials are extracted and the sites where they are processed, and between those sites and the markets. An interruption in sea or rail transport or a sharp rise in transport prices would have a negative impact on results and asset profitability.

Against a backdrop of increasing traffic, one of the most important points is the necessary increase in the capacity of the Gabonese railway (Transgabonais), which allows the evacuation of all Comilog's manganese ore.

Risk management

To protect itself against sharp rises in sea freight costs, the Group seeks to negotiate long-term contracts with predefined conditions and to book some ships on a long-term basis. During periods of low sales activity, however, this may entail the renegotiation of contracts. The risk of damage is moreover covered by specific insurance policies.

Through its subsidiary Setrag, the Group holds the concession for the Transgabonais railway for a period of thirty years from November 2005. In addition to providing a public service and transporting miscellaneous goods, the railway primarily carries manganese ore from the Moanda mine to the port in Owendo (Libreville) for Comilog. Since 2016, Setrag has been implementing an upgrade plan worth tens of millions of euros per year over a period of around eight years, with the objective of recovering 16 train paths per day by 2024 (+30%).

In Senegal, Grande Côte operations, a subsidiary of Eramet, holds a 25-year railway concession as of 2011 to transport ore from the mining site to the Dakar harbour facilities.

Grande Côte Opérations benefits from a licence to use the port area at the Dakar autonomous port.

5.2.2.7 Risks inherent in production reliability and the development of new metallurgical products

Aubert & Duval, a subsidiary of the Group's High Performance Alloys division, produces high power forged or die-forged parts, as well as high-performance steels and super alloys, particularly for the aerospace and energy markets. The failure of the design or manufacturing process or the chain of controls could result in legal and financial consequences for Aubert & Duval related to production downtime or the inability of the customer to use the product and the resulting product recall campaign. In addition, Aubert & Duval and Eramet would be exposed to reputational risks, loss of confidence impacting the sustainability of the subsidiary, and financial risks of counterparties incurred by the holding Eramet S.A.

Risk management

Aubert & Duval has rolled out a global quality management organisation to improve the reliability of the production cycle by implementing the following control methods:

- extensive work to strengthen the capability of existing critical products and those under development;
- identification and tracking of key parameters to detect drift and weak signals;
- a production organisation based on self-control and anomaly detection;
- enhanced audit and product controls by the quality teams;
- a policy of prevention of falsification (awareness, audits);
- product qualification processes in close connection with customers and external certification bodies.

5.2.3 Legal risks

5.2.3.1 Risk of non-compliance with regulations

The Eramet Group deploys the applicable regulations to all of its sites worldwide.

Like any French organisation with international operations, Eramet may therefore be exposed to legal and/or reputational risks, with potentially significant financial impacts if one of its employees fails to comply with the many laws in force.

Risk management

Risk ownership and responsibility for risk management are assigned at the most appropriate level, according to the principle of subsidiarity, therefore each operations manager is directly involved in the management of risks (see 5.1.1 — Internal Control above) related to the activities for which he or she is responsible.

As a service centre, the Group Legal Department provides the whole Group with legal support on all matters within its area of expertise.

Regarding ethics and corruption regulations, the Group Ethics and Compliance Officer, in conjunction with the Group Legal Department and the Communication and Sustainable Development Department, coordinates efforts to reduce and control the risk of breaches of the Ethics Charter or non-compliance with ethics regulations. Details on the organisation, means and methods for controlling these risks are set out in the Governance and Human Resources sections of Chapter 6.

5.2.3.2 Risk of legislative and regulatory changes

As previously established in point 5.2.1.3 (b) above, mining is subject to specific regulations depending on the activities and extraction sites.

These regulations may change, with a possible impact on operations and results. These regulations may change, with a possible impact on operations and results.

The Group's products are obtained through the use of metals and the implementation of strict regulatory processes, where the prevalence of the precautionary principle could expose the Group to threats to the sustainability of its operations or activities to preserve the health of employees and/or local residents, to expensive adaptations of production processes, or to the standardisation or overhaul of the production of certain operations.

Risk management

The Communication and Sustainable Development Department (DC2D), in liaison with the Group Legal Department, coordinates the risk control measures related to legislative and regulatory developments. The organisation, means and methods for controlling these risks are detailed in Chapter 6 of this Registration Document, in particular, Sections 6.2 Environmental Protection and 6.2.8 Responsibility for chemicals.

5.2.3.3 Significant disputes

Apart from the matters explained below, as far as the Company is aware no government, judicial or arbitration proceedings exist, pending or imminent, that are liable to have or in the last 12 months have had any material effects on the financial position or profitability of the Company and/or the Group.

Former Comilog employees in Congo

Before the Trans-Gabon railway started operating, Comilog exported its manganese ore via Congo, where it employed nearly 1,000 people at the time. Following a very serious rail accident on 5 September 1991 in the Republic of Congo, Comilog's rail shipments of ore through this country were suspended. This situation persisted and led to the discontinuation of Comilog's operations in the Congo, and dismissal of its Congolese employees. After several years of negotiations delayed by the civil war in the Congo, a "Memorandum of Understanding for the final settlement of litigation relative to the cessation of Comilog's activities in the Republic of Congo" was concluded between the Republic of Congo, the Gabonese Republic and Comilog on 19 July 2003. Under this memorandum, Comilog and the Republic of Congo put an end to all past and future disputes, and the Republic of Congo agreed to take on all liabilities and obligations arising from Comilog's operations in the Congo. Under the terms of this agreement, Comilog paid the Republic of Congo the sum of one billion two hundred million CFA francs to compensate the employees who were dismissed. This sum was in addition to the real and movable assets transferred free of charge by Comilog. Challenging the terms of the agreement, 867 former employees of Comilog in Congo summoned three French subsidiaries of Comilog, which had never been their employers, and Comilog to appear before the Conciliation Committee of the Paris Labour Relations Court on 9 October 2008. In a ruling on 26 January 2011, the adjudication panel of the Labour Court declared that it had no territorial competence in the matter. The applicants filed an appeal before the Paris Court of Appeal. The Court of Appeal agreed to conduct an initial examination of six cases. In judgements on 20 June 2013, it ordered two of Comilog's French subsidiaries to produce various documents. Comilog and its subsidiaries submitted an appeal against these rulings to the Court of Cassation, and accordingly issued a request to the Court of Appeal for an adjournment until the Court of Cassation had ruled. The Court of Cassation ruling on 28 January 2015 rejected the appeals, confirming that the Paris Court of Appeal judgement of 20 June 2013 had not decided that French Labour courts would be competent to rule on the merits of the dispute between the claimants and their former Gabonese employer, and that it had moreover not decided that the French subsidiaries of Comilog were their employers.

Consequently the six cases were again examined by the Paris Court of Appeal, issuing six judgements on 10 September 2015 whereby it ruled that Comilog's French subsidiaries were not co-employers of the plaintiffs and that Comilog was in fact a Gabonese company. It dismissed the challenges of four plaintiffs, who appealed against these four rulings. On 13 December 2017, the Court of Cassation, ruling on the appeals brought by the four plaintiffs whose contradiction was rejected by the Paris Court of Appeal on 10 September 2015, dismissed the four appeals on the grounds that the Court of Appeal had rightly held that the French courts did not have jurisdiction. However, in the case of two of the plaintiffs, who had instigated proceedings with the Congolese authorities, the Paris Court of Appeal on 10 September 2015 stipulated French jurisdiction to rule on the claims made against Comilog, considering that these plaintiffs had been denied justice by the Congolese authorities and that these legal disputes had a sufficient connection with France.

Comilog lodged an appeal in the Court of Cassation against those two judgements, and the two judgements of the Court of Cassation under this appeal were delivered on 14 September 2017. The Court of Cassation allowed Comilog's appeal, dismissing the two contested judgements of 10 September 2015 on the grounds that the mere holding of a stake by Eramet in the share capital of Comilog did not authorise the Court of Appeal to judge that the dispute had sufficient connection with France to come under the jurisdiction of the French Labour courts. The Court of Cassation referred the parties to the Paris Court of Appeals, sitting in a different formation. By judgements issued on 28 March 2019, the Paris Court of Appeal decided upon these two cases and confirmed the judgements issued on 26 January 2011 by the adjudication panel of the Paris Labour Court, which declared it had no territorial competence in the matter.

By judgements issued on 28 March 2019, the Paris Court of Appeal also decided on all the cases referred to the Court – whether plaintiffs had previously started legal proceedings before Congolese courts or not: the Court dismissed the challenges of plaintiffs against the judgements issued on 26 January 2011 by the adjudication panel of the Paris Labour Court and confirmed the judgments issued on 26 January 2011 by the adjudication panel of the Paris Labour Court, which declared it had no territorial competence in the matter.

Appeals in the Court of Cassation can be lodged against the judgements issued by the Paris Court of Appeal on 28 March 2019 within legal deadlines.

5.2.4 Financial risks

5.2.4.1 Liquidity risk

The Group had significant free cash and cash equivalents at 31 December 2018 of €1,366 million, including €849 million classified as cash and cash equivalents. These cash surpluses are for the most part transferred to Metal Securities, the Group company in charge of centralising and investing the Group's cash surpluses.

In other respects, the Group's net debt amounted to €717 million at 31 December 2018.

For more details, see Note 7 to the consolidated financial statements presented in Chapter 3 of this document.

Covenants

The main covenants at Group level are described in Note 7 to the consolidated financial statements in Chapter 3 of this document.

5.2.4.2 Market risks

The Group is primarily exposed to three types of market risk: currency risk, interest rate risk and commodity risk. These three types of risk are measured and managed by the Group Treasury Department in accordance with Group policies.

Currency risk

The Eramet Group is exposed to two types of currency risk, as follows:

- transactional currency risks when a Group company pays or receives net flows in a currency other than its functional currency;
- foreign currency risks to the balance sheet due to changes in the net assets of subsidiaries measured in currencies other than the euro.

Transactional risk

The Group has pooled its subsidiaries' transactional currency risks since 2003. Each Group company reports to Group Treasury on its currency exposure. This management scheme is part of a multi-year policy based on procedures approved by the Executive Committee and monthly reporting to its members.

Currency hedging has been carried out via the special-purpose entity, Metal Currencies, since 2007. The subsidiaries in question determine the amount of their net exposure. The associated risks are then hedged if the net amount is greater than €2 million or the equivalent thereof per currency and per year.

Currency hedging primarily involves the US dollar, but also includes the Norwegian krone, the pound sterling and the Swedish krona.

Details of hedges are explained in Note 7 to the consolidated financial statements in Chapter 3 of this document.

At 31 December 2018, the fair value of currency hedges covering transactional risks represented a net liability of €7 million.

Sales and purchases denominated in foreign currencies (invoices issued, invoices received, receipts and payments) are translated at a monthly exchange rate that represents an accurate approximation of the market exchange rate. At the end of each month, trade receivables/payables and bank account balances are restated at the hedging rate indicated by the Treasury Department. The differences between:

- the monthly exchange rate applied to recognise sales and receipts/purchases and payments; and
- the contractual settlement price for hedges are recognised by each company under current operating income on sales (under "Translation adjustments on sales") or purchases (under "Cost of goods sold").

A change of plus or minus 0.10 in value in the EUR/USD rate would have an impact, before tax, on the hedges recognised in equity of around +€29.8 million if the rate of the euro rises against the dollar and around -€44 million if the euro falls against the dollar.

Balance sheet risks

The Eramet Group manages part of the currency risks to the balance sheet by issuing financial liabilities denominated in the same currency as the net assets concerned.

The Group manages the currency risk to the balance sheet for each case individually.

Interest rate risk

a) Regarding its gross debt position, the Group considers its debt position and market trends when deciding whether to hedge for interest rates. Hedging transactions are carried out by Group Treasury.

   A 10-basis point change in rates would not have a significant annual impact on the Group's overall floating-rate debt.

b) Cash surpluses managed by Metal Securities are mostly invested in instruments linked to the EONIA rate (Euro OverNight Index Average) or EURIBOR (Euro InterBank Offered Rate).

   A 10-basis point change in rates would not have a significant annual impact on financial income.

5.2.4.3 Counterparty risk

The Group is exposed to several types of counterparty risk: in relation to its customers and its financial partners, particularly because of its cash surpluses.

For customer risk, the Group uses credit insurance, letters of credit or documentary credits. For unsecured receivables, the Group has a number of different monitoring and hedging tools: business intelligence ahead of transactions (rating and business-intelligence agencies, published financial statements etc.). Accounts receivable are monitored by a credit manager and risk limits are set for each client.

For credit risk concerning financial counterparties, the procedure applicable to Metal Securities sets general investment limits according to counterparty rating and maturity of investments. Each counterparty is also subject to regular monitoring of the assessments by credit analysts and/or rating agencies, and all risks are reviewed quarterly.

For UCITS, the procedure applicable to Metal Securities sets a double risk-dispersion rule, with both a maximum investment ratio for a given UCITS and the spreading of the assets managed by Metal Securities. This procedure is in addition to the risk-spreading rules applied by the fund managers themselves to their assets.

5.3 Insurance

5.3.1 Risk identification and control and use of the insurance market

As part of the implementation of its risk management policy, in 2017 the Group completed a new mapping of the Group's risks, as well as the mapping of the Divisions' activities and entities. As risks are identified and their impact controlled, the Group seeks and puts in place, through its brokers, the most appropriate solutions on the insurance market that offer an optimum cost/cover balance to transfer the financing of its residual risks as part of global insurance schemes underwritten by pools of insurers that are internationally recognised for their reputation and financial solidity.

As part of these investments, the Group Insurance Department:

- ensures risk-premium-retention optimisation, including through the intervention of the Group's reinsurance captive;
- sets up Group schemes to cover its residual risks, in particular by subscribing to various financial lines covering all of the Group's cross-functional activities;
- together with the Division heads, establishes the policy for coverage of insurable operational risks, in particular for all fully consolidated Group companies;
- monitors the operational risk prevention policy of the insured entities in liaison with the Communication and Sustainable Development Department;
- uses the insurance market to cover risks that are specific to some of its subsidiaries' activities or non-recurring operations, and in cases where insurance is required under local regulations.

In addition, as part of its human resources policy, the Human Resources, Health, Safety and Security Department seeks the most appropriate solutions for its international activities on the personal insurance market, and subscribes to insurance schemes able to guarantee the best social protection against the major risks (health, welfare, professional assignments) to which employees are exposed when carrying out their duties.

5.3.2 Reinsurance

The Group also has a captive reinsurance company (ERAS) that enables it to provide primary coverage in some insurance schemes. The Group is thus able to more effectively manage premiums via a retrocession mechanism and to decide on retention limits. The Divisions are accordingly encouraged to develop their own prevention programmes.

5.3.3 Level of cover

The Group considers that it has established sufficient cover, both in terms of scope and amounts insured or cover limits, for the main risks relating to its global operations.

5.3.4 Different types of insurance cover

The Group has a varied range of insurance schemes designed to cover the different insurable risks to which it is exposed.

The four main insurance schemes cover civil liability, environmental civil liability, property damage, business interruption and transport risks.

5.3.4.1 Civil liability insurance

General civil liability insurance

This scheme covers the civil liability incurred by the Group as a result of damage caused to third parties by its business operations or products, i.e. general operating liability, lessors' insurance, product liability including for aerospace products, professional civil liability and cover for sudden and accidental pollution. Cover is comprehensive, meaning that everything not excluded is covered, exclusions being those commonly applied for such risks. Cover is applied on a "claims" basis, meaning that it applies to any claim made during the insurance period (including the subsequent five-year period, pursuant to French regulations). For any claims received, the scheme applies from France. If applicable, when local regulations require local policies, it is used in addition to these policies to compensate for differences in conditions and/or limits on a DIC/DIL basis worldwide.

As of 1 July 2017 this scheme is fully placed with Allianz Global Corporate & Specialty for a period of three years.

It is based on a "master" policy issued in France covering €75 million and two additional "excess" policies of €50 and €25 million, supplementing the master policy and thus providing total cover of €150 million.

Civil liability for aeronautical products

The capacity of this scheme, operated with Allianz Global Corporate & Specialty is €800 million.

Environmental civil liability

As this scheme was up for renewal, it was put up for tender in 2018. The new scheme with a capacity of €30 million has been subscribed with AXA Corporate Solutions for two years.

5.3.4.2 Property damage and business interruption insurance

This worldwide scheme covers property damage incurred suddenly and accidentally to the insured property, including the risk of machinery breakage, and any operating losses arising to all Group entities. Cover is comprehensive, meaning that everything not excluded is covered, with exclusions commonly applied for such risks.

This scheme is covered by a pool of insurers with HDI-Gerling Industrie as lead insurer, for a maximum guarantee of €300 million. It was renewed for three years as of 1 January 2017.

5.3.4.3 Transport insurance

A global Group transport insurance scheme is in place. This scheme covers all Group entities worldwide, for all types of transport and all types of freight or goods transported. The scheme comprises three policies: "cargo" for goods shipping, "charterer" with RAETS Club and "hull and machinery" with AXA Corporate Solutions.

VI. Non-financial performance statement

6.1 Eramet Group's CSR issues and approach

The infographics presenting the Group's business model can be found in Chapter 1 of the Registration Document (Part 1.2). This graphical representation shows the Group's strategy, resources, activities and the value created for its various stakeholders.

Chapter 2 provides further details on the activities and markets in which the Group operates.

6.1.1 Group business model

Eramet's business model is based on the extraction and recovery of metals (manganese, nickel, mineral sands) and the production and processing of parts and semi-finished products in high value-added alloys (high-performance steels, aluminium and titanium based superalloys).

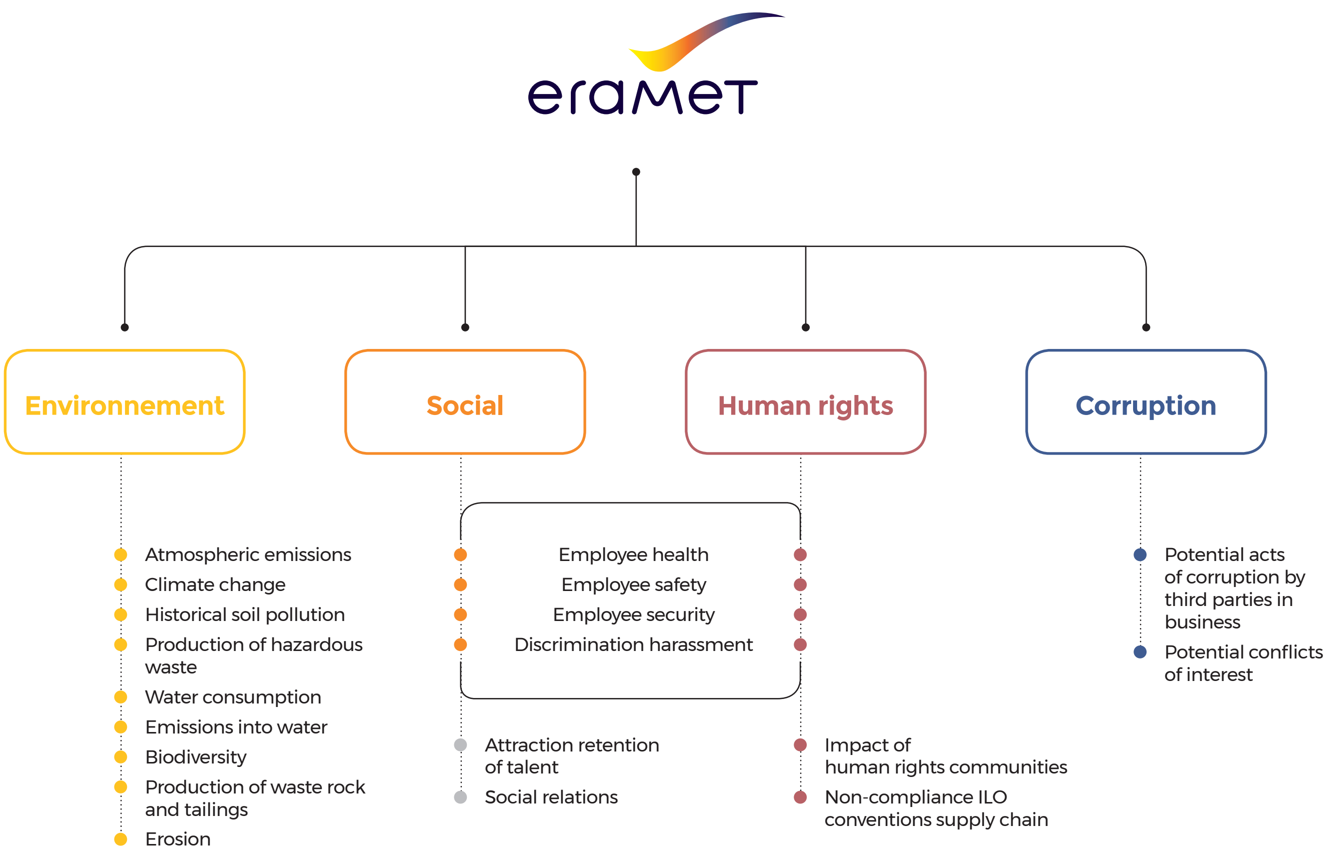
Eramet is also developing activities with strong growth potential, such as lithium mining and recycling, which will play a key role in the energy transition and mobility of the future. The Group employs almost 13,000 people in some 20 countries.

6.1.2 CSR risk assessment

In addition to its risk mapping taking into account CSR risks (risk management is described in Chapter 5), Eramet has developed, with the support of its internal stakeholders, specific risk maps in three specific areas: the Environment, Human Rights and the Fight against Corruption.

This comprehensive work on risk assessment provides the Group with a very precise view of the challenges it faces.

OVERVIEW OF THE ERAMET GROUP'S CSR RISKS



This diagram presents the main CSR risks that have emerged from the various risk mapping exercises. The grouping of the risks under the various categories has no relation to the impact or occurrence of that risk.

As matters relating to societal commitments to combat food waste, food insecurity, respect for animal welfare and responsible, sustainable and fairly traded food are not significant for the Group, they are not included in a specific report.

In order to facilitate the reading of Eramet's Non-Financial Performance Statement, an ESG (Environment, Social and Governance) themed approach has been adopted: Environmental protection (6.2), the Group's social and societal commitments (6.3), in particular respect for Human Rights and the social consequences of its activities, and Governance (6.4), focusing in particular on the fight against corruption and tax evasion.

6.1.3 Group CSR approach

6.1.3.1 Group policies and commitments

Due to the nature of its mining and industrial activities, and aware of its strong interaction with the local areas in which it operates, Eramet is resolutely focused on all matters related to sustainable development and corporate social responsibility (CSR). The Group has a long-standing commitment to a responsible approach and continuous improvement. It aims to be a company recognised for its strategic model, management system and social commitment.

In a spirit of continuous improvement that creates shared value, Eramet's Board of Directors adopted a Sustainable Development policy in 2010.

This policy is structured around four priorities:

- the protection and development of Group employees;
- the management of risks to and impacts on health and the environment;
- the integration of sustainable development into product policy and innovation;
- and finally, maintaining a relationship of trust with stakeholders.

The complete text of the Sustainable Development policy is available on the Eramet website: http://www.eramet.com/publications/la-politique-de-developpement-durable.

Implemented in 2015, the Group's Ethics Charter sets out the rules and principles of action and behaviour that are applicable to and binding on all Group employees. The Charter forms the basis of Eramet's ethics compliance programme, approved by the Executive Committee in November 2016 and deployed throughout the Group. It is related to the commitments of the Group and its employees in many areas: development, respect and trust with stakeholders, safety of employees and their families, respect for and protection of the environment, safety, respect for customers, social dialogue, the fight against all forms of coercion and harassment, transparency, prevention of corruption, compliance with competition rules, etc.

These two fundamental documents have been translated into the eleven languages of the countries where the Group operates and are the subject of e-learning courses aimed at employees.

Finally, specific policies enable the Group to make further commitments in relation to certain issues, such as safety and the environment. These will be addressed in the sections on these topics.

6.1.3.2 CSR organisation

The Group's commitment translates into involvement at the highest level of the Company. The Communication and Sustainable Development Director and the Human Resources, Health, Safety and Security Director, both members of the Group's Executive Committee propose, support and monitor the multi-year objectives and associated action plans.

The effective integration of CSR topics into the Group's activities is also closely monitored by Eramet's Board of Directors, in particular through two of its Committees: the Strategy and CSR Committee, and the Audit, Risks and Ethics Committee.

The Communication and Sustainable Development Department (DC2D) has in particular an Environment, Industrial Risks and Product Department (DERIP) and a Public Affairs Department (DAP), while the Human Resources Department (DRH) includes a Social Relations Department, a Safety and Prevention Department, a Security Department and a Medical Advisor, responsible for promoting the Group's Health Policy. The Ethics and Compliance Department completes this organisational structure. It reports to the CEO and the Legal Department, member of the Executive Committee.

The objectives and action plans of the CSR Roadmap (detailed below) are implemented across all the Group's Divisions and operating entities. Their successful implementation has been strengthened by the establishment of working groups and cross-functional committees focusing on various themes (CSR, biodiversity, mining environment, responsible purchasing, responsible sales, Human Rights, ethics).

Furthermore, the Group pays particular attention to the integration of social, environmental, health and safety, cultural and societal criteria in the design and development of its projects. By referring to the most demanding international standards, the Group is committed to building long-term relationships with its stakeholders wherever it operates, in accordance with specific rules and cultural norms as well as current scientific knowledge. The Communication and Sustainable Development Department is systematically represented on the Project Steering Committees. Section 6.4.4 of this chapter details the application of these general principles to all the Group's projects.

Finally, Eramet has put in place monitoring and control measures and tools to ensure the concrete implementation of sustainable development objectives throughout its scope of activity. These tools include dedicated information systems that collect and consolidate data and indicators for all Group companies. Details of the standards and tools used to produce this information are provided in the methodological note in Section 6.8.

The Group also relies on an internal audit system for the performance of its entities in terms of Environment, Health, Safety, Energy and Ethics, which is detailed in Section 6.2.1.3. The data from these audit and control systems is used to feed the Group's continuous improvement approach.

The Eramet Group's Vigilance Plan and its update report, referring to the Non-Financial Performance Statement, are attached to this Registration Document.

6.1.3.3 CSR performance management

The Eramet Group has adopted a CSR Roadmap to effectively manage its CSR performance. This Roadmap, which links the CSR priorities with the pillars of the Group's five-year strategic vision, covers the period 2018-2023. The Roadmap also provides a framework for the Group's contribution to the United Nations Sustainable Development Goals.

The CSR Roadmap focuses on the Group's commitment in three areas:

- commitment to people;
- commitment to economic responsibility;
- commitment to the planet.

CSR ROADMAP 2018-2023

CSR 2023

Commitment to people

1 Ensure the Health and Safety of employees and subcontractors

2 Build skills and promote talent and career development

3 Strengthen employee engagement

4 Integrate and promote the richness of diversity

5 Be a valued and contributing partner of our host communities

Commitment to economic responsibility

6 Be an energy transition leader in the metals sector

7 Actively contribute to the development of the circular economy

8 Be a reference company in terms of respect for human rights in our field of activity

9 Be an ethical partner of choice

10 Be a responsible company of reference in the mining and metallurgy sector

Commitment to the planet

11 Reduce our atmospheric emissions

12 Protect water resources and accelerate the rehabilitation of our mining sites by fostering biodiversity

13 Reduce our energy and climate footprint

For each of the 13 goals indicated above, a specific action plan and measurable annual objectives have been developed, as shown in the table opposite.

The CSR Roadmap, validated by the Strategy and CSR Committee of the Board of Directors, is subject to an annual review by the latter. The Executive Committee monitors the progress of the commitments made during the interim reviews, managed closely by an internal quarterly *ad hoc* organisation, the CSR Committee.

2023 TARGETS – ERAMET CSR ROADMAP

FOCUS AREA	OBJECTIVE	KPI 2023
Commitment to people	1 – Ensure the Health and Safety of employees and subcontractors	Zero fatalities Workplace accident frequency rate with and without work stoppage FR2 < 4
	2 – Build skills and promote talent and career development	100% of employees participate in at least one training course per year
	3 – Strengthen employee engagement	Group employee engagement rate >75% (barometer)
	4 – Integrate and foster the richness of diversity	30% of managers are women
	5 – Be a valued and contributing partner to our host communities	100% of sites have established a mechanism for dialogue with local stakeholders 100% of sites have implemented an investment programme to contribute to local development, with a focus on initiatives in favour of young people
Commitment to economic responsibility	6 – Be an energy transition leader in the metals sector	Committed diversification of Eramet's business portfolio in relation to the supply chain for electric mobility batteries
	7 – Actively contribute to the development of the circular economy	Quantities (t) of materials recovered through the circular economy action plan 2 Mt of low-grade incidental ores and tailings recovered over the period 2019-2023 through innovative actions 10 kt of waste recovered instead of being disposed of over the period 2019-2023 through innovative actions
	8 – Be a reference company in terms of respect for Human Rights in our field of activity	Obtain recognition for our application of the United Nations Guiding Principles, measured by reaching a mature level according to the UNGP Reporting Framework (Shift-Mazars)
	9 – Be an ethical partner of choice	100% of sales and purchasing teams trained on anti-corruption every year
	10 – Be a responsible company of reference in the mining and metallurgy sector	100% of the Group's suppliers and customers evaluated are in line with Eramet's CSR/Ethics commitments(1)
Commitment to the planet	11 – Reduce our atmospheric emissions	Tonnes of ducted dust emitted by industrial facilities: -80% in 2023 compared to 2018
	12 – Protect water resources and accelerate the rehabilitation of our mining sites by fostering biodiversity	Ratio of rehabilitated areas to cleared areas ≥ 1 over the period 2019-2023(2)
	13 – Reduce our energy and climate footprint	KPI: Reduction of tCO_2/t Outgoing product (ref. 2018) -26% in 2023 compared to 2018(3)

(1) Evaluated refers to parties evaluated as critical and/or sensitive (in terms of importance to Eramet or CSR risk – depending on the business activity or country concerned), which must be compliant, verified on the basis of a CSR/Ethics evaluation. If they do not comply following the evaluation, the Group encourages dialogue and support, but reserves the right to terminate the business relationship.
(2) Excluding long term infrastructure.
(3) Of which 16.5% is due to the business mix effect related to the Group's strategic choice to develop its mining activity, which is lower in emissions than the Group's processing activities.

6.2 Preservation of the environment

6.2.1 Challenges, objectives, organisation and resources for the prevention of environmental and industrial risks

6.2.1.1 Environmental issues and risks for Eramet sites

The Group's industrial and mining sites carry out activities that are sometimes very different from each other in geographical areas that are themselves diverse. Therefore, environmental issues and risks vary greatly from site to site.

The environmental issues and risks specific to the Group's mining operations are described in detail in the section dedicated to the mining environment (6.2.6).

The following table aims to give an overview of the major environmental issues and risks for the major categories of the Group's industrial sites. This summary aims to help the reader in their understanding: it is necessarily macroscopic and schematic and cannot completely reflect the diversity of the issues and risks for each site taken individually. Some sites also include activities in several of the categories presented here. Moreover, the majority of the industrial sites located in France fall under the ICPE (classified facilities for environmental protection) regime and some are under SEVESO status.

TABLE SUMMARISING THE ENVIRONMENTAL ISSUES AND RISKS AT ERAMET'S INDUSTRIAL SITES

Sites	PYROMETALLURGY[1] (FURNACES)	HYDROMETALLURGY[2]	DEVELOPMENT AND PROCESSING METALLURGY[3] (ROLLING MILLS, FORGING, DIE-FORGING, HEAT TREATMENT, ETC.)	COMMENTS
Water consumption	***	***	**	Except for the hydrometallurgical sites, the vast majority of the Group's water consumption is linked to industrial equipment cooling loops. The water consumed in these processes does not undergo any transformation. In addition, the vast majority of sites work in closed loops, which greatly reduces the demand. In other cases, water is returned to the natural environment.
Emissions into water	**	***	*	Hydrometallurgical sites are the sites that present relatively the most significant risks of water pollution, due to the use of chemicals and an aqueous process. All industrial waters are managed in accordance with applicable regulations.
Atmospheric emissions	****	*	**	Sites that have metallurgical furnaces or electricity generation plants are the sites that amass most of the Group's atmospheric emissions (dust, nitrogen oxides or sulphur). The main sources of emissions from installations are equipped with capture and treatment equipment, in accordance with applicable regulations and the best available technologies.
Energy consumption/ greenhouse gas emissions	****	*	**	Sites that have metallurgical furnaces and/or electricity generation facilities are the sites that amass the bulk of energy consumption and greenhouse gas emissions.
Production of hazardous waste	***	***	**	Pyrometallurgical activity produces dust, sludge and slag, which, depending on their intrinsic characteristics and locations of operation, can be considered hazardous waste.
Impact on biodiversity	*	*	*	The Group's industrial sites are mainly located in urban and industrial areas.
Risks of historical soil pollution	***	***	***	The production sites are generally designed on soil protection slabs and the storage of hazardous products is equipped with retention systems, which reduces the risk of soil contamination. However, as industrial practices have evolved, the oldest sites may present risks of historical soil pollution.

(1) Comilog Dunkerque (France), CIM and CMM (Gabon), Eramet Marietta (United States), Eramet Norway (Kvinesdal, Sauda and Porsgrunn in Norway), SLN Centrale B and Doniambo (New Caledonia), TTI (Norway), Aubert & Duval Les Ancizes (France), Erasteel Commentry (France).
(2) Eramet Sandouville (France), CMM (Gabon).
(3) Brown Europe, Ecotitanium, Forges de Monplaisir, Interforge, UKAD (France), Aubert & Duval sites in Firminy, Imphy, Issoire, Les Ancizes and Pamiers, TAF in Gennevilliers (France), Aubert & Duval in Irun (Spain), Erasteel Champagnole, Erasteel Commentry (France), Erasteel Boonton (United States), Erasteel Kloster (Langshyttan, Söderfors and Vikmanshyttan in Sweden), Erasteel Stubs (UK), EIML (China), SQUAD (India).

Legend:
** Low.*
*** Moderate.*
**** Significant.*
***** Major.*

Note that the noise or light pollution does not represent a significant environmental impact. The various sites concerned respect the noise levels stipulated in their operating licences, and the subject does not appear as important in the assessment of litigation made by the Group.

6.2.1.2 Environmental objectives

Eramet has three key environmental objectives:

1. Strict compliance with the laws and regulations applicable to its activities.
2. The implementation of environmental management systems certified in accordance with ISO 14001 for all industrial and mining sites with significant environmental issues.

The indicators and results relating to these first two objectives are detailed in Section 6.2.2.

3. And finally, the voluntary and continuous reduction of the Group's environmental footprint. Four key objectives for reducing the Group's environmental footprint corresponding to the Group's major challenges have been defined for the period 2018-2023 as part of the CSR Roadmap, and are set out below.

CSR 2023

FOCUS AREA	OBJECTIVE	KPI 2023
Circular economy	7 — Actively contribute to the development of the circular economy	Quantities (t) of materials recovered through the circular economy action plan **2 Mt of low-grade incidental ores and tailings** recovered over the period 2019-2023 through innovative actions **10 kt of waste recovered** instead of being disposed of over the period 2019-2013 through innovative actions
Air	11 — Reduce our atmospheric emissions	Tonnes of ducted dust emitted by industrial facilities: **-80% in 2023 compared to 2018**
Biodiversity/Mine rehabilitation	12 — Protect water resources and accelerate the rehabilitation of our mining sites by fostering biodiversity	Ratio of rehabilitated areas to cleared areas ≥ 1 over the period **2019-2023**[1]
Greenhouse gases	13 — Reduce our energy and climate footprint	KPI: Reduction of tCO_2/t Outgoing product (ref. 2018) **-26% in 2023 compared to 2018**[2]

(1) Excluding long-term infrastructure
(2) Of which 16.5% is due to the business mix effect related to the Group's strategic choice to develop its mining activity, which is lower in emissions than the Group's processing activities.

6.2.1.3 Organisation and instruments for the prevention of environmental risks

To implement its objectives, the Group relies on a network of internal experts and on a structured organisation:

- the Environment, Industrial Risks and Product Liability Department (DERIP) defines the Group's benchmarks, coordinates the general dynamics of continuous improvement, implements the control mechanisms of internal standards and provides expert technical support to the sites and projects;
- the Public Affairs Department (DAP) facilitates and coordinates CSR actions related to relationships with stakeholders and monitors the anticipation of regulatory change;
- more than 60 people make up the network of HSE functions at sites, with a reporting line to their senior management for the vast majority of them;
- once a year, the Committee of Occupational Hygiene, Health and Safety (HS&S) and Environment (E) analyses the skills available within the Group with regard to requirements and concerns. This proactive approach is conducted in coordination with the Human Resources Departments of the Group Divisions and the Safety Prevention and Environment Departments.

In November 2017, the HSE network's biennial mobilisation seminar was held in Le Havre, bringing together more than 80 Group HSE specialists and managers. The seminar was dedicated to information-sharing sessions regarding new multi-year objectives and feedback on the topic of "relationships with stakeholders".

Monitoring and control systems constitute one of the key strengths of the Group's environmental management.

In this respect, a dedicated environmental information system (EraGreen) has been fully deployed in all industrial and mining sites, allowing for the collection and consolidation of environmental performance indicators.

The Group also relies on a demanding internal audit system for the performance of its entities in the areas of Environment, Health, Safety and Energy. The common audit guidelines are structured according to three pillars: human involvement, operational control and prevention. They fully take into account the requirements of ISO 14001, OHSAS 18001 and ISO 50001. Joint teams of internal auditors (Corporate, Divisions and Sites) conduct these audits, which last several days and provide a detailed overview of site performance. During the period 2014-2018, 32 out of 40 sites with significant environmental issues were audited in accordance with these methods.

Corrective action plans are defined at the end of each audit, and for all risks considered significant, a quarterly report on the implementation of corrective actions is consolidated at Group level.

6.2.1.4 Organisation and instruments for the prevention of industrial risks

The main industrial risks to which the Group's sites may be exposed are fire, explosion (including, for certain sites, related to the risk of contact between water and molten metal), machine breakdown on critical equipment, and natural events (floods, storms/cyclones, etc.).

Eramet focuses specifically on preventing these risks as early as possible in its industrial and mining projects, by identifying major accident scenarios and their causes and impacts, and by setting up prevention and/or protection safeguards (important elements for safety) that reduce the probability or severity of an event. In 2018, this mainly concerned the lithium projects (in Argentina), the extension of the manganese mine in Gabon and the rolling mill industrial development project at the Aubert & Duval plant in Les Ancizes.

For sites in operation, the industrial risk control system is based primarily on the programme of insurance engineering visits (insurance prevention audits) to its industrial sites over a two-year cycle, in close collaboration with insurers, brokers and the Group Insurance Department.

Any significant risk detected during these audits results in a corrective action plan by the site concerned. The monitoring of corrective actions agreed as a result of these visits is documented in an annual summary report covering compliance with Eramet's industrial risk standards (revised in 2016) and the progress of recommendations made by the insurer during its prevention visits.

In addition, Eramet carries our regular third-party audits of its waste rock stockpiles and tailing ponds, in order to ensure the proper.

Alongside this, in late 2017 the Group launched a programme to systematically review industrial risk prevention and/or protection safeguards for its non-Seveso sites in operation. This programme took place in 2018 at most of the sites of the High Performance Alloys division.

Finally, the Group has implemented crisis prevention and management procedures. These procedures focus on three areas:

- crisis prevention: identification of weak signals and operational response thereto, crisis simulation exercises so that each person knows their role and in order to continually improve emergency planning (in conjunction with the Group industrial risk standards);
- serious incident management: definition of a serious incident, Group reporting, feedback;
- crisis management: as the sites already have their own emergency plans (contingency plan, ERP or other), the corporate crisis management system was reviewed and now includes procedures for escalation of alerts, assessment of their severity, organisation into crisis units and feedback.

These procedures were deployed across all sites. As in 2017, special attention was paid to crisis simulation exercises across all sites: out of the 34 sites monitored, more than 90% conducted one or more exercises in 2018, some of them in cooperation with the fire brigade.

6.2.1.5 Financial resources devoted to environmental preservation

Overall environmental investments are estimated at nearly €23 million in 2018 – remaining stable over the last three years. This reflects the sustainability of Eramet's commitments to environmental protection.

The investments considered here relate strictly to environmental prevention and protection. For example, they cover the installation of new equipment or work performed in order to minimise impacts. They also cover certain investments made for new activities with an exclusively environmental dimension. In 2018, environmental investments were apportioned at one third for air pollution control and one third for water pollution prevention, with the remainder given to waste management, biodiversity and the prevention of other impacts.

In terms of the prevention of air pollution, in 2018 and for the second consecutive year, the most significant investments were made at the SLN plant in Doniambo (New Caledonia), where a number of major maintenance operations were carried out to reduce dust emissions from the site.

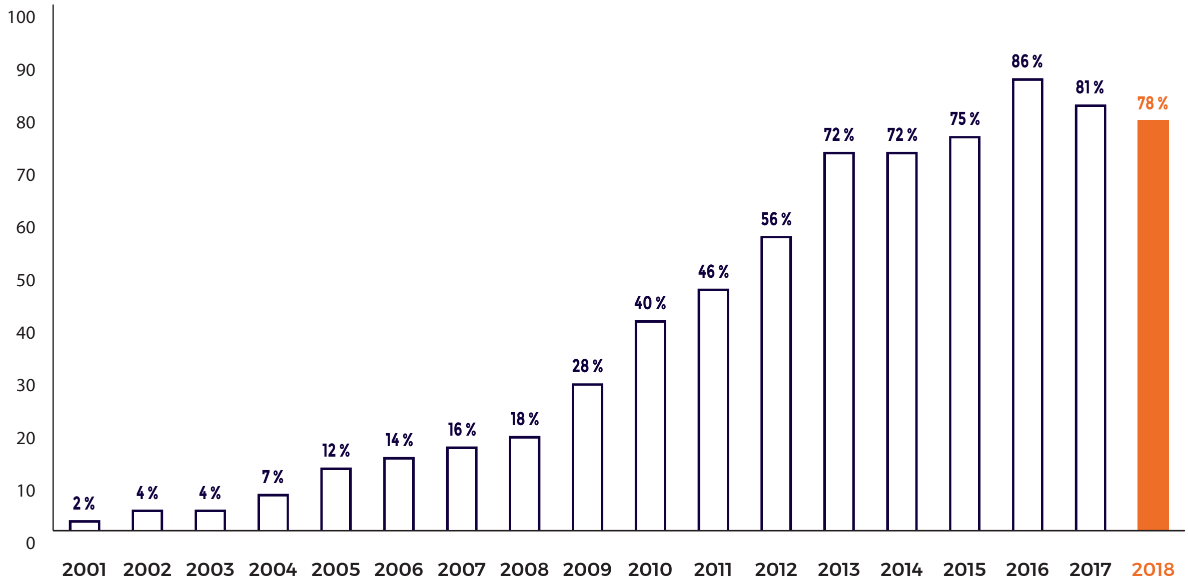
In relation to the prevention of water pollution, the most significant investments in 2018 relate to the installation of a closed loop for the cooling system of the Pamiers plant, the completion of an extensive operation to equip the various Comilog sites (Gabon) with hydrocarbon separators, as well as the start of rehabilitation operations on the segment of the River Moulili downstream from the Comilog mine (Gabon).

6.2.2 ISO 14001 certifications and environmental compliance indicators

It should be noted that since 2013, the Group measures the progress of its ISO 14001 certification target for sites likely to have a significant impact on the environment. All industrial and mining sites in operation are concerned.

As at the end of 2018, sites that had obtained ISO 14001 certification represented 78% of the target objective. This slight dip in the rate of certified sites is exclusively due to the Group's change in scope in 2018, with the integration of new sites: EIML (China), SQUAD (India), Aubert & Duval Irun (Spain) and EcoTitanium (France).

EVOLUTION OF ISO 14001 CERTIFIED SITES (INCLUDING MINES)



"Zero dispute" goal (environmental compliance)

The Eramet Group promotes a policy of strict regulatory compliance, transparency and dialogue with the supervisory authorities in all circumstances, particularly in the event of temporary difficulties or special operating conditions. The objective is to achieve zero formal notices or legal proceedings arising from a breach by Group sites of binding regulatory requirements.

To measure the achievement of this objective, the Group monitors four indicators:

- **Type 1 – Weak signals:** Written warning by the authorities as a reminder of a deadline which, if not observed, could lead to formal notice (known in the US as a "notice of violation"), a third-party claim against the plant or in the media.
- **Type 2: Declaration of a non-compliance** and notice by the authorities to take action by a specific deadline in order to avoid a fine; for example in mainland France, New Caledonia, Gabon: formal notice; in the US: "notice of enforcement" or "consent agreement" between the authorities and the operator, or an "administrative order".
- **Type 3 – Legal action:** Legal proceedings by the public prosecutor or any other public authority following a notice of violation or a claim brought before the courts by a third party. Legal claims by employees or third parties for damages arising from the breach of an obligation or environmental damage. Legal claims by third parties against an administrative permit issued pursuant to environmental legislation.
- **Type 4 – Actual sanction:** An administrative sanction (fine, suspension of permit), unfavourable legal ruling or criminal conviction.

In 2018, three type 3 and 4 events should be noted: the summons for summary proceedings with a request for an expert report on noise by a local resident of the Erasteel Commentry plant; concerning the Aubert & Duval Issoire site, the initiation of legal proceedings following the accidental leakage of oil into the natural environment in 2015; and finally the payment of a fine for non-compliant waste storage at the Comilog (Gabon) mineral port site.

One type 2 event was recorded this year at Setrag (Gabon), compared to four in 2017.

6.2.3 Emissions reduction

6.2.3.1 Airborne emissions

AIRBORNE EMISSIONS		2016	2017	2018
Sulphur oxides (SOx)	tonnes	14,848	13,072	14,847
Nitrogen oxide (NOx)	tonnes	6,038	6,910	7,623
Total dust channelled	tonnes	1,232	1,519	2,534
Nickel	tonnes	12.8	8.9	11.1
Manganese	tonnes	122	276	529

In terms of airborne emissions, the main contributors are pyrometallurgical activities with their fusion plants, heat treatment furnaces and the energy production plants that supply them. CO_2 emissions are discussed in Section 6.2.5.

Airborne emissions are a function of the nature of raw materials and ores used, the transfer and loading technologies in place, the installed capacity of the equipment and especially the level of activity of the sites.

In pyrometallurgy, channelled emissions are generated in the handling of materials, furnaces, grinding and milling operations, as well as operations involving molten liquid metal and slag. In hydrometallurgy, channelled dust emissions most often occur during the handling, grinding, drying or transfer of materials.

The air effluent treatment systems generally used in the Group's plants are electrostatic precipitators, baghouse dust collectors, scrubbers and washing towers. Specific treatment systems for certain pollutants can also be used, such as activated carbon filters. The different items of equipment are installed according to the characteristics of the effluent and the industrial processes, the target purification performances and regulatory requirements.

The sulphur oxide (SOx) emissions are mainly generated at SLN (thermal power station and Doniambo plant). The 10% increase recorded in 2018 for the Group is mainly due to an increase in power generation at the SLN thermal power station (New Caledonia) (due to lower energy availability from the Yaté dam and higher demand from the public grid) and lower use of very low sulphur fuel oil (VLS+) due to the ten-year maintenance of the associated storage capacity.

The measurement system of the Moanda Industrial Complex (CIM) in Gabon has been significantly improved, leading to an upward reassessment of the quantity of substances discharged.

Nitrogen oxide (NOx) levels increased this year (+10%). This is mainly due to the increase in discharges from CIM (Gabon) due to an update of the emission factor based on a new measurement campaign.

Channelled air emissions of dust and manganese rose significantly.

As indicated in the "objectives" section, as part of the CSR Roadmap, the Group has launched an extensive action plan to reduce these ducted dust emissions by 80% in 2023 compared to 2018 values.

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6.2.3.2 Aqueous waste

AQUEOUS WASTE		2016	2017	2018
Suspended solids (SS)	tonnes	10,304	10,944	8,084
Chemical oxygen demand (COD)	tonnes	96.7	126	155
Nickel	tonnes	7.2	6.7	3.6
Manganese	tonnes	36.1	37.5	29.9

As with its atmospheric emissions, Eramet is committed to reducing its aqueous waste. Industrial sites are working to improve treatment processes to ensure a better quality of discharged water.

In addition to preventive systems, such as basins and double-walled storage tanks, curative mechanisms, such as effluent treatment plants using physico-chemical processes or hydrocarbon separators (separation by decantation), are used to allow discharges that are in accordance with the statutory limit values.

COD emissions are up by 23%. This change is mainly due to the Moanda Metallurgical Complex (CMM) in Gabon, which, by improving its control system, has made an upward reassessment of the quantities emitted.

Discharges of suspended solids, nickel and manganese were significantly reduced compared to 2017 (between -20% and -46%). This is mainly linked to the progress made by the Doniambo site thanks to the strengthening of its monitoring activities, which allows a quicker response to potential excesses.

Finally, the Group's sites also closely monitor the quality of groundwater and the impact of the activity on soils and subsoils. Several hundred piezometers are distributed throughout the Group's various sites, both within and outside of the Company, to support the initial phases of any new project (characterisation of the initial state) and also to monitor any impacts on ground and surface water.

6.2.3.3 Rehabilitation/restoration of sites

The Group exercises the utmost vigilance against potential impacts on soils and subsoils resulting from its past, current or future activities, both in the area of its industrial and mining activities.

Over several years, the Group has developed expertise to support the cessation of activity of certain industrial sites. This expertise concerns the investigation, monitoring and management of potentially impacted land through various projects, such as the rehabilitation of industrial land, the end of life of landfills, or former mines. This expertise is also consulted in the context of internal audits or in advance of acquisitions and disposals. It is important to mention the implementation of a policy of systematic characterisation of soil conditions before any new project is undertaken. Finally, the Group is taking action to strengthen its knowledge of the state of the soils and subsoils of the various sites at which the Group operates.

The main recent advances in the management of closed industrial sites include:

- *Aubert & Duval Gennevilliers (France):* plants B and C ceased operations in 2011, and decommissioning and restoration work was carried out between 2013 and 2016. The inventory report (administrative clearance) was obtained in 2017. The land was sold to the Société d'Économie Mixte d'Aménagement de la Commune de Gennevilliers (SEMAG);
- *Valdi Feurs (France):* the site notified the authorities of the winding up of its business in 2014. The remediation work, which began in 2015, was completed in 2016. The inventory report (administrative clearance) was obtained in 2017;
- *Valdi Le Palais (France):* the site notified the authorities of the termination of its activities in September 2016. The site proceeded to secure and evacuate all the remaining stocks and products. A third-party claimant procedure has been validated by the administration for the benefit of CGEP, a subsidiary of Rio Tinto, which owns the subsoil. Dismantling and clean-up work is in progress.

The rehabilitation of mining sites is a major focus of the environmental policy; it is described in Section 6.2.6 "Mining environment", and Section 6.2.7 on biodiversity.

6.2.4 Circular economy

The circular economy can be defined as a system of trade and production which, at all stages of the product life cycle, aims to increase the efficiency of the use of natural resources and virgin raw materials and reduce the impact of economic activities on the environment.

The Eramet Group has long been committed to such a model. This model applies to all types of resources used: water, energy, raw materials. Given its business activities, Eramet is particularly active in optimising the use of primary metal resources. This commitment was further strengthened in 2018 with the adoption of a Circular Economy Action Plan, which covers both Eramet's mining and metallurgical activities.

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6.2.4.1 Optimisation of the consumption of primary raw materials

Concerning mining activities, the circular economy is reflected in the concept of sustainable management of mining resources. In concrete terms, this involves maximising the recovery of lower-grade ores or mine tailings from ore concentration processes. This makes it possible to recover more resources with an almost constant environmental footprint (mining operations have already been carried out). The actions undertaken in this area are described in Section 6.2.6.2 Responsible resource recovery.

Approximately 9 million tonnes of raw materials are consumed by the Group's plants, of which about 75% is ore (produced overwhelmingly by the Group's mines) and 7% is reducers (coal and coke). The rest of the consumption consists mainly of metals used in alloy factories, and various additives.

In metallurgical activities, Eramet's commitment to improving the efficiency of the use of primary metal resources takes several forms:

- the development of specific recycling activities;
- the development of the use of secondary raw materials wherever possible as a substitute for primary materials;
- maximising the internal or external recycling of waste containing metallic materials.

Two new recycling activities have been developed by the Group since 2017:

- the transformation of the Erasteel Commentry steel mill (France), with a new business line allowing it to recover industrial waste (oil catalysts, scalings and other metalliferous waste);
- in Auvergne, the EcoTitanium plant started operations in 2017. EcoTitanium is Europe's leading recycling business for aviation-grade titanium alloys. It produces alloys from massive titanium scrap and chips collected from major aircraft manufacturers and their subcontractors.

The steel mills of the High Performance Alloys division (Les Ancizes, Commentry and Söderfors) are true champions of the circular economy: their secondary raw material use rate varies between 85 and 95%, adding internal recycling flows and the processing of secondary raw materials purchased externally.

In the same Division, more than 90% of the waste produced is recovered internally or externally. More than a third of the waste produced by the Mining and Metals division's plants is already recovered. Furthermore, the Circular Economy Action Plan adopted aims to further develop these recovery rates.

6.2.4.2 Waste prevention and recovery

The implementation of an environmental management system results in specific waste management at operational sites, which respects the following management hierarchy: prevent waste generation/reuse/recycle/recover or otherwise dispose of safely and in an environmentally friendly manner.

Special efforts are therefore made to reuse the waste when their physical-chemical properties permit; for example, slag from SLN (New Caledonia) and the poor slags from Comilog Dunkerque are homologated and integrated for applications in road technology. The Group's sites are also very active in the areas of waste recovery for use as secondary raw materials (see previous Section 6.2.4.1 Optimisation of the consumption of primary raw materials).

WASTE PRODUCTION		2016	2017	2018
Amount of non-hazardous waste	thousands of tonnes	3,959	4,509	4,676
Amount of hazardous waste	thousands of tonnes	66	64	64

The concepts of hazardous and non-hazardous waste are defined in accordance with the regulations of the host countries. Indeed, to date the measures regarding waste are very disparate from one country to another.

Non-hazardous waste

The mining activities and their related industrial operations are the main source of non-hazardous waste. A significant tonnage of these is stored in industrial basins in Gabon. These are the fine fractions of manganese ore collected after the washing step which serves to isolate the grained fraction intended for the market. In terms of nickel activity, the Doniambo plant generates another important tonnage of non-hazardous waste through pyrometallurgical activity corresponding to the smelting of slag. The three major contributors — the SLN plant (New Caledonia), the Moanda mines and the Moanda Industrial Complex (CIM) (Gabon) — account for 99% of the total amount calculated for 2018.

The amount of non-hazardous waste produced in 2018 is roughly equivalent to that of 2017.

At much lower tonnages, industrial activities of the steelworks and of the smelting-reduction or of the ferro-alloys production sectors of the Group generate non-hazardous by-products or waste. They are in the form of slags or inert slag mainly stored in an internal landfill or are subject to some external recovery.

Finally, although quantities are still much lower, local initiatives are also being implemented at many sites to reduce food waste: accurate forecasts of the people present on site each day (absences, holidays, visitors, etc.) to inform the catering service, the composting of plant-based food waste or redistribution to neighbouring farms as animal feed.

Hazardous waste

The activities that generate hazardous waste are mainly derived from the pyrometallurgical processes of the Group's mining Divisions (74% of the total amount for the Group). The High Performance Alloys division's major sites, such as the plants in Pamiers and Les Ancizes, also generate significant quantities of hazardous waste.

These activities produce dust recovered by filtration systems, sludge and sodium-calcium slag which, depending on their intrinsic properties and the location of the operation, can be considered hazardous waste.

The hazardous waste is treated through specific, authorised channels. Controls are put in place to ensure the proper management of this waste throughout the process (transport of waste, delivery to approved centre and final treatment).

The amount of hazardous waste produced has remained stable over the last three years.

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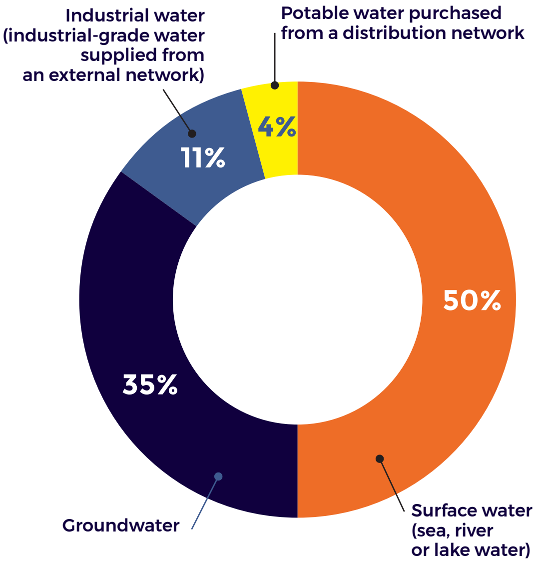
6.2.4.3 Optimisation of water consumption

CONSUMPTION		2016	2017	2018
Total water consumption	millions of m^3	31.9	33.5	32.1

Before any comment on the water consumption of Eramet Group sites, it is important to point out that none of the Group's industrial sites are located in a country confronted with "water stress" according to the definition adopted by the UN, that is to say, whose water resource per inhabitant, for all uses combined, is generally less than 1,700 m^3 per person per year. Although this water resource is often substantial or abundant on its sites, the Group attaches real importance to its preservation. Multiple actions are taken to use only the required amount.

Total water consumption breaks down in 2018 as follows:

BREAKDOWN OF WATER CONSUMPTION IN 2018



Mining, metallurgy and hydrometallurgy activities consume water in several ways:

- processes for cooling furnaces and other metallurgical installations;
- washing of ores, raw materials and by-products;
- hydrometallurgical processes: solubilisation and reaction media.

Water resources are essential for running some of the processes used within the Group. The cooling of electric furnaces, for example, must be perfectly managed and optimised. In some cases, a lack of water supply may lead to risky situations in which safety must be ensured before any other consideration.

Whenever technically possible, the sites:

- encourage internal recycling of the water consumed. The cooling of furnaces and other metallurgical facilities, as well as other high-consumption uses, are mainly done in a closed circuit. This is the case, for example, of the washing of ores in Gabon, or the mining facilities in Senegal. The water consumption is then essentially supplemented in order to compensate for evaporation or losses in the system;
- prioritise the use of water from a nearby industrial site such as Eramet Norway Porsgrunn.

In 2018, total water consumption decreased slightly compared to 2017 (-4%).

This is partly due to the sites of Comilog Moanda (Gabon) and Aubert & Duval Pamiers (France), both of which have significantly reduced their water consumption: one by improving its recycling rate, and the other by setting up a closed cooling water circuit.

Details about water management on mining sites are available in Section 6.2.6.3.

6.2.5 Fight against climate change

6.2.5.1 Analysis of carbon and climate risks and opportunities

6.2.5.1.1 Eramet incorporates climate issues into its business strategy

The transition to a low-carbon economy is a systemic issue and Eramet has chosen to broaden the perspectives of these climate change impacts beyond the matter of its direct carbon footprint by assessing the impacts on the entire value chain in which it operates. Indeed, the reduction of emissions among Eramet's customers (due to regulations or as a consequence of carbon recovery, for example) can pose a risk to the business. Conversely, Eramet offers products and solutions that contribute to reducing the carbon footprint in the first place, and the energy transition represents opportunities in terms of business development. This is reflected in one of the three pillars of the Group's strategy: "to expand the portfolio of activities towards energy transition metals".

In addition to the Group's essential contribution to energy and climate transition, Eramet has included in its strategy the physical and non-physical impacts of climate change on the Group's assets, productivity and the markets on which its products are sold.

6.2.5.1.2 Eramet identifies the risks associated with climate change

Risks related to the physical impacts of climate change include those related to extreme weather events and long-term changes in climate patterns (sea level rise, water stress, etc.).

Non-physical risks are related to various political, legal, technological and commercial issues affected by the challenges of climate change and the transition to a less carbon-intensive economy.

A study was initiated to assess and anticipate the impact of climate change on the Group's activities. Specific questions are addressed to the sites through the EraGreen environmental reporting tool on their risk assessment and the adaptation measures envisaged.

In 2018, nearly one in two sites reported that they could be affected by the consequences of climate change in the very long term. Most of them have already started considering how to limit the impact on their business.

At the Group level, climate change will lead to higher taxes on energy, and greater difficulty of access to financing for certain investments. At present, it is difficult to assess the consequences more accurately.

As a result of the processes implemented, energy bills represent a significant portion of the Group's production costs in the operation of its mines and industrial sites. The Group's competitiveness is therefore sensitive to energy prices and the control of its energy use.

European and Norwegian plants, representing approximately 25% of the Group's scopes 1 and 2 emissions, are subject to the European Union Emissions Trading Scheme (EU ETS), which entails increased financial risk due to the uncertainties inherent in the long-term quotas market, as well as uncertainties related to legal mechanisms that may evolve and be adopted in the future.

Indeed, there is currently no globally applicable carbon market or price, only fragmented and uncoordinated regional systems. The Group is preparing for the potential emergence of such a market by experimenting with an internal price for its investment projects, the evaluation of its strategic options, on the basis of €30 per tonne of CO_2. This value reflects a conviction that markets are moving towards a long-term price that is significantly higher (around 50%) than the European regional spot price as at the end of 2018. The consequence of this choice, throughout the entire Group and independently of the regions with an established carbon market and price, is a shift towards technological solutions that emit less carbon. In addition, the implementation of this policy of applying an internal Group carbon price helps to raise awareness of the climate challenge among all Eramet employees.

6.2.5.1.3 2°C scenario analysis

Eramet aims to take into account the impacts of climate change in its strategic process. The Group recognises that the world could react in different ways to combat climate change.

Two scenarios modelling a transition to a low-carbon society, compatible with the 2°C target of the Paris Agreement, were selected:

- the IEA 2°C scenario with CO_2 capture/storage (CCS – Carbon Capture Storage) as a benchmark;
- a variant of this first scenario, more cautious on the hypotheses of an improvement in energy efficiency and of CCS deployment kinetics.

In 2018, a business impact analysis was conducted to quantify the change in demand for metals needed for the energy transition. These scenarios highlighted, for example, the criticality of certain metals produced by the Group and necessary for the energy transition, which helped to guide the Group's strategy.

6.2.5.1.4 New opportunities related to climate change

Eramet is clearly positioned on the metals involved in the energy transition and the digital transition: lithium, nickel salts and cobalt salts. These markets are changing rapidly due to the demand for metals for batteries, particularly for electric vehicles, solar panels and electronics.

The development of batteries will lead to a very strong growth in demand for certain critical metals: demand for lithium is expected to increase sixfold by 2025, for pure nickel salts fivefold and for cobalt threefold. It is clear that securing access to critical metal resources is a structural competitive advantage in the supply chain.

Eramet is the only European player to have secured significant resources of critical metals in this fast-growing market. The Group's current mining assets offer key advantages: very rich geological resources allowing long-term mining.

These strategic developments are conducted in accordance with the highest Western health, safety and environmental standards, as well as in compliance with the highest corporate social responsibility and ethical standards: high metal recovery yields, environmental footprint, harmonious and respectful relationships with stakeholders and local communities. It is essential for us to ensure full product traceability to ensure strict compliance with Western corporate social responsibility standards and customer requirements.

Eramet is thus positioning itself as the supplier of energy transition metals produced to the highest standards of social and environmental responsibility.

This should enable the Group to diversify its asset base both financially and geographically:

- lithium, particularly via the Eramet deposit in Argentina;
- increased exposure to nickel salts and cobalt;
- development of short loop recycling, with a view to optimising the circular economy.

6.2.5.2 Governance

6.2.5.2.1 Reaffirmed policies

Eramet continues to implement its Climate Change and Energy policies, both in conducting its operations and in developing its strategy.

6.2.5.2.2 Creation of a new Energy and Climate Department

The Eramet Group takes the climate issue to the highest level of management. In 2018, this commitment was reflected in the establishment of an Energy and Climate Department, reporting to the Director of Strategy, Innovation and Investor Relations, a member of the Group's Executive Committee.

The topics of Energy and Climate are periodically reviewed during the Executive Committee's Business Review.

6.2.5.2.3 A network of supporting site energy contacts

In order to reinforce and improve the reliability of the operational deployment of the Energy and Climate strategy, the Group has decided to establish an efficient method of operation between the sites and the Corporate functions. Three types of interlocutors have been defined:

- the Group coordinator, whose main tasks are implementing the initiative to reduce the energy footprint, the methodological contribution (the Group coordinator is an AFNOR-certified ISO 50001 auditor and a member of the ISO 50001 expert committee), expertise on several of the Group's businesses, and regulatory and technological monitoring;
- site energy correspondents, who are representatives of site management within the meaning of ISO 50001 and whose missions are to locally support the process of continuous improvement around energy, in the aim of reducing the energy footprint of the scope in question;
- site management, whose main role is to manage an energy management system based on the principles of the ISO 50001 standard and to allocate resources that are suited to the challenges of each site. Division management is also involved to support site management.

6.2.5.3 Strategy to address climate challenges

In 2018, the Group conducted a review to define a target for reducing scopes 1 and 2 CO_2 emissions, based in particular on identified technical and organisational levers. These include the conversion of the Doniambo oil-fired power plant in New Caledonia (SLN, France) to LNG (liquefied natural gas) in 2023, as well as investments in solar panels at certain sites. In addition to these large-scale operations, many operational levers have been identified that contribute to the reduction in greenhouse gas emissions at each site. These include innovative technologies to control the gas-powered heating furnaces of the High Performance Alloys division and innovative systems to manage the variable speed of electric motors.

This work has led the Group to set a significant reduction target for the tonnes of CO_2 per tonne of production, i.e. for how carbon-intensive the Group's production activities are:

CSR 2023

Group target for 2023 vs. 2018	-26%	tCO_2/t outgoing product[2]
Impact of energy efficiency levers and decarbonisation of the energy consumed	-9.5%[1]	
Impact of the business mix effect related to the Group's strategic choice to develop its mining activity, which is lower in emissions than the Group's processing activities[3]	-16.5%	

(1) With the level of mining and processing activity in the year of reference (2018).
(2) Tonne of product leaving the sites: ingots, powder, ores, etc.
(3) Mining activity is about 80 times lower in emissions per tonne of outgoing product than the Group's other activities.

One of the major levers identified is the switch to LNG (liquefied natural gas) by SLN's oil-fired power plant. A delay in the implementation of this lever would lead to a 20% reduction in tonnes of CO_2 per tonne of outgoing product instead of the target of 26%.

Eramet continues to reflect on defining a longer-term ambition, which implies transformations of processes that must necessarily be based on new R&D and Innovation levers.

6.2.5.3.1 ISO 50001 as a source of energy optimisation

An ISO 50001 certification process for energy management systems is being implemented across the Group: it aims to encompass all sites that consume more than 200 GWh per year by 2020. In this context, five sites have already established an ISO 50001 certified energy management system (Eramet Norway, Aubert & Duval Pamiers and Comilog Dunkerque).

Eramet participated in the development of the ISO 50001 standard with AFNOR experts. The Group also has a presence on the "ENERGEST" standardisation committee, which aims to promote and standardise energy efficiency practices.

6.2.5.3.2 Support for customers in reducing their GHG emissions

The Eramet Group also makes a significant contribution to the GHG emissions avoidance strategy by offering its customers innovative solutions that reduce emissions downstream of its business activities (scope 3). This goes far beyond the production of metals essential for the energy and digital transition, and relates in particular to the High Performance Alloys division.

For example, by producing aluminium-lithium alloy forged parts for the aeronautics industry as well as titanium forged parts, the Group makes a significant contribution to aircraft weight reduction, which has the direct consequence of reducing fuel consumption and associated emissions. A second example is the ML340 alloy, selected by customers for the turbine shaft of LEAP aircraft engines, and used in all new generations of single-aisle aircraft. This alloy significantly reduces fuel consumption compared to the current generation of aircraft. This result is linked, among other things, to the increase in combustion temperature that this innovative alloy enables.

The level of emissions avoided through these various activities has not been precisely quantified, but it is an order of magnitude of several hundred kt CO_2 per year of "emissions avoided".

6.2.5.3.3 Reducing emissions through the circular economy

Through its subsidiary EcoTitanium (France), the Eramet Group is committed to a circular economy and rational management of resources by recycling aviation-grade titanium off-cuts and shavings generated throughout the manufacturing process of the parts required by the major customers in the aeronautics industry. EcoTitanium, which was inaugurated in 2017, is Europe's first recycling facility for aviation-grade titanium alloys. A study conducted by an independent third party shows that EcoTitanium® avoids 26.4 tCO_2 per tonne of titanium produced by recycling compared to traditional methods. The volume of emissions avoided is expected to increase in the future as EcoTitanium® reaches its nominal production rate.

Another site of the Alloys division, Erasteel Commentry (France), also recycles metalliferous materials as part of its activities. This mainly concerns the processing of used catalysts. The metals recycled in this way are mainly iron, molybdenum, nickel and cobalt. The contribution of these recycling operations is measured by the lower quantities of GHGs emitted per kg of recycled metal compared to the primary production chain. The study conducted by a third party shows that this avoided about 2.8 kt of CO_2 in 2018.

6.2.5.3.4 The Digital Transition supporting the Energy Transition

The teams of the Energy and Climate Department are supported by the Digital Transformation Department in the implementation of energy efficiency or energy mix optimisation projects.

In 2018, a proof of concept (POC) at the Les Ancizes site (Aubert & Duval, France) demonstrated the performance of a tool for monitoring the energy consumption of furnaces for heating alloys before forging or annealing forged parts or rolled products. This POC required the installation of smart meters; the project will be scaled up from 2019 and this new technology is currently being deployed in the High Performance Alloys division.

6.2.5.4 Performance

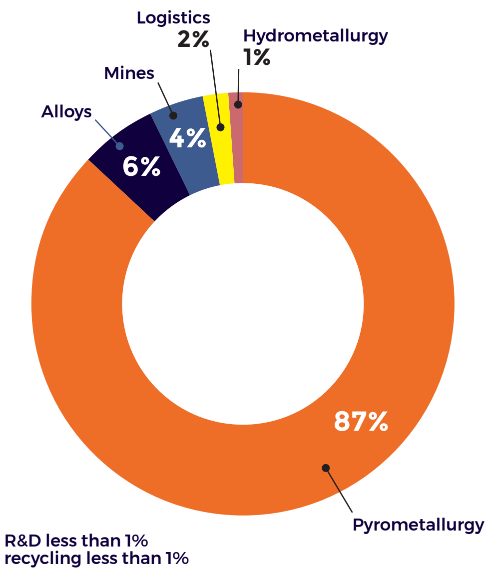
6.2.5.4.1 Energy consumption

To measure its performance, the Eramet Group's activities are grouped into seven business lines:

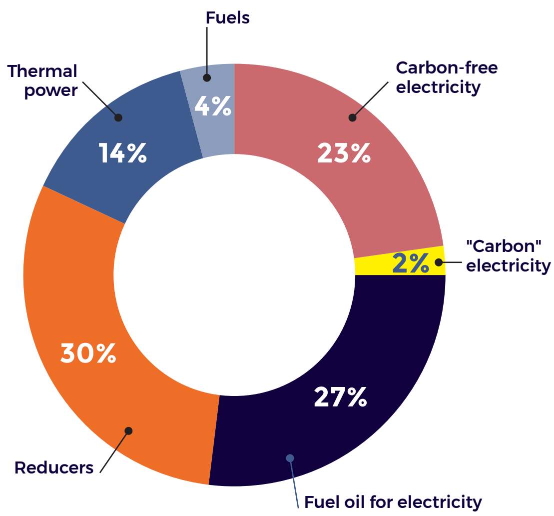
- **"Mining":** energy consumption is mainly fuel for mining machinery and electricity for fixed installations. Consumption trends are particularly dependent on the structure of the deposit, its morphology, the activity (volumes of ores produced) and especially stripping and preparatory work ratios (total volumes handled);
- **"Pyrometallurgy",** which is part of "extractive metallurgy", consists of converting, through reduction reactions, the oxides contained in the ores into metal alloys which are then marketed. These processes require an energy supply to reach the temperatures of the reduction or smelting reactions (around 1,500°C), in the form of electrical energy and reducers that also contain carbonaceous energy. This consumption is directly dependent on the activity. Good process control also requires upstream monitoring of the water content of ores. The energy consumption for these uses is therefore also highly dependent on climatic conditions;
- **"Hydrometallurgy",** which consists of producing metal salts, is also part of extractive metallurgy. The types of energy consumed are mainly electricity, steam and natural gas. Consumption is mainly dependent on the activity and type of manufacturing process;
- **"Internal logistics",** which corresponds to the Group internal rail transport between mines and ports. For Eramet, it therefore comes under scope 1 and is completely distinct from the logistics activities traditionally defined in scope 3. Energy consumption is mainly linked to the diesel locomotives operated in our mining countries;
- **"Alloy metallurgy",** the purpose of which is the production of alloys with high mechanical properties, their hot or cold processing and the associated heat treatments. These processes consume electricity and gas. Consumption is clearly dependent on the types of products delivered to customers and the complexity of the processes;
- **"Recycling",** which consists of recycling metal waste by smelting it into alloys that can be used internally (concept of secondary mining) or directly by customers. The types of energy consumed are the same as for processing metallurgy;
- **"R&D",** which operates upstream for all the Group's other business lines.

Energy consumption in 2018 was 16.4 TWh, down 3% compared to the average of the last three years (2015 to 2017). 87% of the Group's energy requirements are consumed by 14 pyrometallurgical plants.

CONSUMPTION PER ACTIVITY



ENERGY USE



The energy purchased by the Group is used for the following purposes:

- Electricity (4.1 TWh): includes all of the energy required for furnaces, motive power (motors and electric machines), lighting and services. As far as possible, the Group supplies electricity from carbon-free sources (hydraulic, nuclear);
- Electricity generation (4.4 TWh): use of electricity generated by "proprietary" heavy fuel oil power plants;
- Reducers (4.8 TWh): chemical and thermal energy provided by reducers in fusion reduction operations. Their consumption is determined by the degree of oxidation of the ores and must therefore be constantly adapted;

- Thermal (2.3 TWh): uses including drying, heating and heat treatment operations, necessary to ensure the quality of products produced by alloy metallurgy and for pyrometallurgy inputs;
- Fuels (0.6 TWh): used for combustion engine powered machinery, mainly for mining operations.

Purchases of very low carbon electricity

91% of the electricity purchased in 2018 (compared to 88% in 2017) was produced with little or no use of fossil fuels (Norway, Sweden, France, Gabon) and therefore with a low carbon footprint (73% hydroelectric and 19% nuclear). Electricity purchases represent approximately 75% of the Group's electricity consumption.

6.2.5.4.2 Greenhouse gas

Eramet first responded to the CDP questionnaire in 2018. It obtained a rating of C, which is in line with the average of companies in the sector.

CDP
DISCLOSURE INSIGHT ACTION

Scopes 1 and 2

Greenhouse gas emissions amount to 4.1 Mt of CO_2.

Scope 1 emissions are mainly due to:

- the processing of ores using pyrometallurgy (47%), for which there is currently no economically viable alternative technological solution. The main focus of emission control would be to develop a method of capturing process gases for storage or sale as a precursor chemical. The development of such technologies would require extensive R&D and would therefore only be a long-term solution, as the technology is not yet available;
- electricity generation (32%). Studies are currently being carried out on facilitating the generation of electricity using lower-emission technologies (LNG and solar power plants);
- various heating requirements (17%).

Scope 3

Items related to metal purchases and freight appear to be the most significant within scope 3.

Total scope 3 emissions for 2018 are estimated at around 1 million tonnes of CO_2, including 780 kt for metal inputs and 180 kt for upstream and downstream freight.

6.2.6 Mining environment

This section looks at environmental protection actions deployed at the mining sites in operation (with the exception of measures concerning biodiversity, which are detailed in Section 6.2.7). Provisions for developing mining projects are included in Section 6.4.4 "Governance of Industrial and Mining Projects".

The Group's mining operations do not include underground mines. The mining uses no chemicals.

The mine operated by Comilog (Gabon) on the Bangombé plateau is one of the richest manganese deposits in the world, covered by a layer of 4 to 5 metres of waste rock[1]. The properties of the deposit and the ore result in the production of very little mine waste.

SLN operates 15 nickel mines in New Caledonia; the seven largest are operated directly by SLN and the others are subcontracted to local operators. The mines are located in rugged terrain at altitudes between 250 and 1,000 metres. In this type of deposit, it is necessary to move about 7-9 tonnes of tailings to produce 1 tonne of ore that can be processed by the Doniambo plant. Storing these tailings in conditions that guarantee safety and protection of the environment is, therefore, a key issue.

The Grande Côte Opérations (GCO) mineral sands mine in Senegal produces zircon, ilmenite, rutile and leucoxene. The deposit is located in the sand dunes near the coast to the north-east of Dakar. The extraction operations take place in an artificial mobile basin of 12 hectares and about 6 metres deep and follow a route which is optimised to exploit the deposit. The mining process involves a dredge with a capacity of 7000 tonnes per hour, connected to a floating concentration plant, where minerals are separated from the sand by a grading and gravimetric process. After extracting the recoverable fractions (around 1.7% of the treated sand), the sand is directly put back at the rear of the facilities to reform the dune. The resulting heavy mineral concentrate is transferred to separation plants located on land, where the commercial products are obtained by separation. The low volumes of products extracted and not processed in this stage are reincorporated into the reconstituted dunes. The water needed to run operations is pumped from a deep aquifer and recycled to the maximum extent.

The following table summarises the main environmental issues and risks for the Group's mining sites.

(1) *Tailings is the material that remains after the ores are extracted from rocks mined with no or very little desired metal content.*

TABLE SUMMARISING THE ENVIRONMENTAL ISSUES AND RISKS AT ERAMET'S MINING SITES

MINES	NICKEL SLN (NEW CALEDONIA)	MANGANESE COMILOG (GABON)	MINERAL SANDS GCO (SENEGAL)	COMMENTS
Pressure on water resources (quantity)	Low sensitivity	Low sensitivity	High sensitivity	The high levels of rainfall at the sites in New Caledonia and Gabon make the issue of water consumption relatively low in sensitivity. Conversely, in Senegal, the two aquifers used by the mine are important reserves for local residents and for the country. Measures are being taken to limit the quantities taken from these aquifers.
Erosion	High sensitivity	Medium sensitivity	Medium sensitivity	The nature of the soils and rocks, the topography of the deposits and the presence of fragile receiver environments make erosion a very sensitive subject in New Caledonia. In Senegal, protecting the dunes reconstituted after dredging against wind and water erosion is an issue, but outside the freshly reconstituted areas this subject is of minor importance. In Gabon, the recent extension of the deposit into a sloping area has increased the acuity of the issue somewhat, but it remains low in significance for the rest of the mine.
Acid drainage	No acid drainage	Low risk of acid drainage	Low risk of acid drainage	Generally, Eramet mining sites are little concerned by the risk of acid mine drainage. In Gabon, only a horizon of tailings located in the current extension of the deposit is likely to present this risk in a localised way. In Senegal, a sandy horizon containing intercalated peat lenses may be encountered during mining operations and may potentially generate low acidification.
Production of tailings	High sensitivity	Low sensitivity	Low sensitivity	The tailings from the Moanda mine are mostly returned immediately to the mining area. In Senegal, the sand is returned directly to the environment after extracting the recoverable fraction, which represents only 2%. By contrast, in New Caledonia, the production of tailings is much larger. The methods of exploitation used by SLN (New Caledonia) are increasingly changing from stockpiles to filling pits with tailings.
Production of residues	Low sensitivity	Medium sensitivity	Low sensitivity	Only the Comilog mine (Gabon) and the Tiébaghi and Népoui mining sites (New Caledonia) produce significant quantities of mine tailings resulting from concentration steps by mechanical means. These residues are chemically stable and are not hazardous to the environment. In New Caledonia, residues from processing plants are, moreover, commercially processed as mining by-products. The characteristics of the small quantities of residues produced in Senegal allow their return to the natural environment during the reconstitution of the dune.
Impact on biodiversity	High sensitivity	High sensitivity	Medium sensitivity	The biodiversity of the New Caledonian sites is recognised as remarkable due, in particular, to its very high endemicity. The most recent studies conducted with regard to international standards in Gabon have shown that the Comilog mine is also located in an environment characterised by high biodiversity. The GCO mine (Senegal) does not have the same level of sensitivity. However, it should be noted that the Senegal mine is adjacent to major vegetable production areas.

6.2.6.1 Mining environment management structures

Teams dedicated to the consideration of the environment in mining are present at the sites and subsidiaries concerned in Gabon, Senegal and New Caledonia.

In the last few years, as part of its Sustainable Development policy, Eramet has strengthened the structuring, formalisation and international coordination of tools for environmental management at mines. As part of this, the following actions have been carried out:

- All mining subsidiaries have formalised a Mining Environment action plan; the progress of these action plans is reviewed regularly with the Group Environment, Industrial Risks and Products Department.
- A community of mining environment experts has been set up and meets regularly. Its role is to formalise good practices guidelines applicable throughout the Group and to encourage the exchange of expertise between sites. A compendium of Mining Environment good practices was published in November 2015.
- Environmental Management Systems compatible with the requirements of ISO 14001 have been deployed by the mining subsidiaries. In 2016, SLN became the first mining and metallurgical company to obtain ISO 14001 certification in New Caledonia. The certificate covers the mining activities of the seven main mines, which are operated directly by SLN. At the same time, in April 2016, Comilog successfully renewed its certification initially obtained in 2012 for a scope including the operations of the Moanda mine, the storage, the shipping of ore, the agglomerate activities in Owendo, as well as equipment maintenance. In Senegal, significant improvements are under way with the implementation of an environmental management system aligned with the requirements of ISO 14001 throughout the various functional units of GCO in collaboration with the Group's environmental team. In addition, in 2017, GCO updated its Environment, Biodiversity, Safety, Ethics, Quality and Communities policies and committed to a process leading to ISO 14001 certification.
- All SLN mining sites (New Caledonia) have updated their environmental impact assessments in recent years as part of the reform of the Mining Code of New Caledonia. This considerable work allows each site to have comprehensive studies on the environment and the ecosystems in which they are located, and effective environmental management plans adapted to their specific characteristics.
- At the same time, for the Comilog mine (Gabon), major environmental studies have been carried out to improve the level of knowledge of the environmental characteristics of the site with the aim of pursuing the development of a relevant rehabilitation strategy for the site. These studies focus on soils, hydrology and hydrogeology, as well as on biodiversity. Finally, in cooperation with the authorities, Comilog (Gabon) chose to carry out a full environmental impact study, going beyond the applicable regulatory requirements, to extend the operation of the mine on the Bangombé plateau to the edges of the deposit (part of the sloping deposit located within the Comilog concession). This study was validated by the authorities in 2018. An environmental and social study aligned with best international standards was also started by Comilog (Gabon), concerning the Okouma deposit mining project and the construction of a new washing plant. This study will be completed by the second quarter of 2019.
- In Senegal, the Grande Côte mining site, following the audit and updating of its Environmental Management and Social Plan (EMSP), received its environmental compliance certificate on 24 October 2016 from the supervisory authorities, and then, in 2017, the joint ministerial decision granting definitive authorisation for all its classified establishments.

6.2.6.2 Responsible resource recovery

The recovery of mining resources is one of the Group's core businesses and a key component of the Group's contribution to the development of the circular economy. Indeed, maximum recovery of the mineral profile, i.e. the mining of ores at the lowest possible grade, or the recovery of materials previously considered to be waste rock or residue, makes it possible to improve the environmental efficiency of mining operations by increasing the quantity of metal resources produced for the same environmental footprint.

In this respect, SLN (New Caledonia) has developed techniques for recovering ores initially considered marginal, thus significantly extending the life of the deposits while reducing the final environmental impact. These results have been obtained with the construction of ore washing plants which allow the ore to be concentrated without adding any chemicals. Since mid-2010, SLN has been recovering by-products from the ore washing plants, as well as selectively stockpiled products (laterites and low-grade saprolites). In seven years, more than 3 million tonnes of low-grade saprolites and by-products from ore washing plants were recovered.

Another example: since 2016, more than 20,000 tonnes of sand containing zircon, initially considered as a residue, have been recovered by the GCO teams (Senegal).

In 2018, the Group decided to strengthen this momentum to improve the recovery of mining resources by formalising a new circular economy action plan. The objective is, over the period 2019-2023, through a series of innovative actions, to recover more than 2 million tonnes of materials previously considered as residue or tailings.

6.2.6.3 Water management

At mining sites in New Caledonia, and to a lesser extent in Gabon, the major issue of water management is to prevent the entry of suspended solids (SS) into the receiving environment through run-off caused by erosion due to surface stripping.

To avoid this, SLN (New Caledonia) has long since equipped its sites with sedimentation basins that trap suspended solids in order to prevent their transport into the natural environment. Upstream of these works, many precautions are taken to minimise erosion: roofing of sites to prevent water entry, minimisation of open areas, conservation of natural embankments at the edges of stripping sites, organisation of run-offs to reduce speed, implementation of hydraulic locks, etc. These measures are documented for each SLN mining site in a Water Management Plan that meets the regulatory requirements of New Caledonia. The implementation of these Water Management Plans as mining progressively evolves represents an ongoing commitment and considerable investment. Finally, monitoring of the proper functioning of the water management works is now carried out using drones. In total, investments dedicated to water management for these sites exceed €17 million over the last five years.

The special expertise of SLN on the topic of erosion prevention is compiled in a revised technical guide (the "Blue Guide"), which serves as an industry reference in New Caledonia and beyond for the Group.

In Gabon, the subject of erosion is less significant given the topography of the plateau deposit and the draining characteristics of the upper geological layers of the plateau. Nevertheless, operators are aware of the measures to be taken to limit erosion. Attention is still paid to the topic due to the ongoing extension of the deposit into the sloping part. A specific water management plan associated with the extension of the deposit has been developed. As part of this plan, in addition to the recommendations relating to the construction of safe slopes and the size of sedimentation basins, a specific environmental monitoring system has been put in place which confirms the effectiveness of the measures taken and makes it possible to verify that the very limited and localised phenomenon of acid mine drainage does not have a significant impact on the natural environment.

In addition, in recent years, major advances have been made at the Moanda site for the management of aqueous waste from the ore mill. Since 2010, discharges to the River Moulili were stopped with the installation of (ultra-fine) tailings ponds. These ponds were constructed in such a way as to be able to recover the overflow waters and redirect them to the concentration facility, thus eliminating any direct discharge into the river.

In Senegal, the subject of water management is important, as the operation of the mine uses two aquifers, one of which is very important for local inhabitants and the country in general. Given this situation, every precaution is taken to ensure that the impact of the mine is controlled and minimised. GCO (Senegal) has an expert team dedicated to hydrogeology. It makes monthly use of the services of the Ministry of Water, which thus monitors it systematically.

The water management system was designed and authorised by the competent department of the Senegalese government to avoid additional pressure on the superficial water table used to supply local residents' agricultural crops. All mining installations are controlled to ensure minimal variations in the level of this water table. This aquifer is subject to twice-daily monitoring. More than 80% of the mine's net water consumption is used to ensure a constant water level in the basin in which the facilities float. For this, the mine uses a deeper aquifer, for which limits on pumping rates have been set by the authorities and respected by GCO (Senegal) since the start of production. The water from this aquifer is recycled to the maximum extent possible. In addition, this aquifer is also subject to continuous monitoring. To this end, nine piezometers are used to control the deep (Maastrichtian) aquifer.

"Water policing" and monitoring operations are carried out internally on an ongoing basis by the Environment Department of GCO (Senegal). Monthly reports on this matter are sent to the relevant authorities. Since the start of the operations, monitoring has demonstrated the effectiveness of the measures taken and the absence of damaging consequences on water resources.

6.2.6.4 Tailings and mine waste management

Given the considerable volume of tailings being handled at SLN operations (New Caledonia), the storage of tailings in appropriate structures and their revegetation is a vital environmental task in order to minimise erosion and the impacts on the ecosystem and landscape.

Thanks to its extensive experience, SLN (New Caledonia) has developed effective techniques that have been validated by the authorities, one of which is to create tailings stockpiles. The works are carried out according to professional standards and their stability is guaranteed in the long term, even during exceptionally heavy rains. These tailings stockpiles are subject to continuous internal monitoring and regular audits by an external third party. In relation to water management techniques, SLN has published a technical guide, updated in 2012, which explains the construction methods of tailings stockpiles and their design rules. This guide applies to all SLN mining sites operated directly or by outsourcing. Moreover, in order to minimise land clearing and promote site rehabilitation, SLN prioritises the creation of flat-top piles in old mining pits, when the environmental conditions are favourable.

In Gabon, the problem is again less sensitive since, on the one hand, the volumes of tailings being handled are much less, and on the other hand because the technique of exploiting by the successive opening/closing of "compartments" allows the majority of tailings to be placed directly into the "compartments" after extraction.

The Senegal mine is not at all affected by this problem, since the sand dune is reconstituted after passing the dredge and extracting the recoverable part.

Mine tailings, which are produced in ore concentration plants at mines in Gabon or at the Népoui and Tiébaghi sites in New Caledonia, are chemically stable and therefore are not hazardous waste within the definition of the regulations. In New Caledonia, all processing residues from enrichment plants (Népoui and Tiébaghi) are also commercially recovered as by-products of the mine. In Gabon, mine tailings are stored in nine basins with a capacity of about one million cubic metres, consisting of closed dykes with a maximum height of 16 metres. The residues of the metallurgical enrichment plant are stored in a retaining dyke with a maximum capacity of 6 million cubic metres. These structures are continuously monitored for their stability. Furthermore, in 2016, in the framework of its risk prevention initiative, a specific audit of these dykes was commissioned by geotechnical and environmental experts of the Group. The audit found a good level of risk control by respecting the design and operation standards of these structures. While they are still modest in size compared to those elsewhere in the world, an action plan to further strengthen this level of control has been established and implemented.

The GCO plant (Senegal) produces a very small amount of residues. The residual products have characteristics that allow their return to the natural environment when the dune is reconstituted.

6.2.6.5 Rehabilitation of mining sites

All mining sites are continuously rehabilitated.

In New Caledonia

The work includes land reshaping and revegetation operations, the methods and results of which are described in Section 6.2.7 Preservation of biodiversity.

As part of the implementation of the environmental management system for mines, over the past few years SLN has carried out a comprehensive review of its internal procedures and rehabilitation instructions and a formalisation of the expertise developed over the past ten years or so. The objective is to share best practices, ensuring greater consistency between sites, as well as better integration of rehabilitation operations in mine planning in the short and medium term. In this context, two Technical Guide references were published by SLN, one dedicated to the optimal management of top soil (2015) and the other devoted to principles and techniques of mining redevelopment in 2016.

Of SLN's five mining centres, four have a formal rehabilitation master plan in place, and the plan for the fifth site is partially completed.

In recent years, major redevelopment work, allowing for definitive rehabilitation, has been carried out, continued or completed. In addition to the revegetation work carried out on a recurring basis (hydraulic sowing and planting, excluding topsoil spreading), other major redevelopment projects are also being undertaken by SLN. Some examples are:

- the massive project to redevelop the SM2E tailings stockpile on the Thio Plateau, which was completed in 2018;
- the redevelopment of the A&B Debris landfill, also on the Thio Plateau, which will begin in 2019 and will take more than 10 years. This involves restoring an old mining landfill, a remnant of old operating methods, characterised by:
  - a steep incline of 350 metres,
  - a steep gradient ranging from 30% to more than 60%,
  - a total volume of approximately 2 million cubic metres of waste to be handled, composed of a mixture of laterite and boulders,
  - a strong visual impact, resulting in the build-up of silt in a creek downstream.

  The redevelopment will consist of stabilising the slopes (excavation and evacuation of material, lowering of the integrating slope and implementation of a sustainable water management system). To complete this redevelopment, revegetation work is planned in the long term to ensure the integration of the redeveloped landfill in the surrounding landscape;
- the redevelopment of ravines following past mining activities, for example on the Ningua massif in Thio (Absinthe Creek);
- the redevelopment of the Rachel tailings stockpile in Népoui, which is the subject of administrative winding-up proceedings, and on which SLN is developing a seed field and seed orchard (80,000 plants on 3 hectares), in order to develop a site with easy access to seed for its future revegetation work.

In terms of remediation of liabilities, over-silted waterways are also the subject of clean-up operations by SLN. In 2018, three creeks were treated in the Thio region.

In Gabon

Revegetation is much easier than in the New Caledonian environment because vegetation recolonisation occurs naturally. The challenge of redeveloping the sites is also landscaping with the need to remodel the tailings stockpiles of a few metres in size created by exploitation.

- Since 2010, the mining procedure has been revised to incorporate land remodelling as it evolves. An effort to remodel the areas disturbed before this date was undertaken in parallel and is subject to an annual target in the mine's environmental management system. The results are detailed in Section 6.2.7 Preservation of biodiversity. Beyond these concrete actions, preliminary studies for the definition of a

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comprehensive rehabilitation strategy of the Bangombé mine plateau have been continued.

- In addition, operations to rehabilitate the River Moulili by extracting the ultra-fine deposits downstream from the mine's ore washing plant have continued since 2010. At the end of 2018, approximately 13.1 million tons of manganiferous sediments were excavated. These operations are carried out in strict compliance with the Environmental Management and Social Plan prepared after the impact assessment of this work. In a spirit of transparency and dialogue, Comilog also organised, in June 2014, a seminar dedicated to the rehabilitation of the downstream segment of the river. The seminar brought together all relevant stakeholders (government, civil society, NGOs, scientists, etc.). It helped define a consensus and recommendations for the downstream segment, which were then proposed to the supervisory authorities. Such a consultation process was a first in Gabon. In 2018, approximately 1,000 linear metres of the downstream section (MT4 site) were excavated using specialised equipment (amphibious hydraulic excavator).

In Senegal

The particular exploitation mode of this mine, with an enrichment plant moving progressively along the deposit, involves the clearing of vegetation consisting of grasses and thinly distributed trees in the area. The revegetation of the reconstituted dunes at the rear of the mobile mining facilities is a strong expectation of the resident populations, and also a challenge in the context of rainfall limited to a short rainy season.

After consulting the relevant authorities, local populations and their representatives, a participatory rehabilitation strategy with strong involvement of communities and local authorities was formalised in late 2013. The implementation of rehabilitation is accompanied by the creation of income-generating activities for the host populations participating in the emergence of a local entrepreneurial culture. Rehabilitation work is regularly monitored as part of a dedicated formal consultation framework set up in 2015 by the *sous-préfet* of Méouane, and consultations with local residents on their expectations regarding rehabilitation were renewed in 2016.

The success of the rehabilitation operations and the rigorous application of the rehabilitation strategy have been confirmed by regular audits by the Water and Forest Inspectorate as well as during the recent visit of the Minister of the Environment and Sustainable Development. Rehabilitation techniques are constantly being improved. With the implementation of a supplementary irrigation system in 2017, rehabilitation is now carried out continuously throughout the year, thus making it possible to cover increasingly large areas. Maintenance of the new plantations with the supplementary irrigation system has resulted in very high survival rates (over 90%) and faster plant growth. The dynamics of natural resources (soil, flora, fauna, etc.) in the sites being rehabilitated are good. A doctoral thesis entitled "Contribution to environmental monitoring and sustainable rehabilitation of mining sites: Case of the mining of mineral sands in Grande Côte, Senegal" was successfully defended at the University of Thiès (Senegal). Rehabilitation results are detailed in the following Section 6.2.7 on biodiversity.

6.2.7 Preservation of biodiversity

The locations of Eramet's various mining and metallurgical activities have enabled it to acquire solid experience in relation to biodiversity and to build a network of internal specialists. Based on this experience, Eramet decided to formalise its actions with the adoption of a Biodiversity Policy common to all mining and industrial sites, which was rolled out and communicated to Group employees in 2015.

The principles are to be adapted at sites in a manner proportionate to local issues. The full text of this Policy is directly accessible on the Eramet website at the following address:

http://www.eramet.com/sites/default/files/Eramet_politique_biodiversite_fr.pdf

In application of this Policy, for several years now the Group has been committed to:

- participating in *ad hoc* discussions at local, national and international levels;
- developing skills within Eramet;
- developing methodological tools for coordinated management of biodiversity across Group sites.

The aim is to reduce the impact of the Group's activities throughout the life of the sites.

At an international level, Eramet has always strongly supported the work of the Business and Biodiversity Offsets Programme (BBOP), an international think tank on biodiversity compensation issues.

In France, Eramet participates in the ongoing discussions on the implementation of the law of 8 August 2016 on the recovery of biodiversity, notably through the chairmanship of the MEDEF Biodiversity Working Group[1].

CSR 2023

(1) MEDEF: Movement of Enterprises in France.

6.2.7.1 The challenges of biodiversity

Eramet, through its mining and metallurgical activities, may impact ecosystem species, habitats and services, which may be ordinary or remarkable biodiversity, depending on the location. As illustrated in the table below, the Group's most important biodiversity issues currently relate to New Caledonia, Gabon and Indonesia. Despite a moderate sensitivity to biodiversity at the operations site, Senegal is also the subject of specific focus given the significant rehabilitation and revegetation issues.

ON THE SITES	NEW CALEDONIA	GABON	INDONESIA	OTHER
Number of species (flora and fauna) classified as Critically Endangered (CR)(1) on the IUCN Red List(2)	4	2(*)	0(**)	0
Number of species (flora and fauna) classified as Endangered (EN)(3) on the IUCN Red List	24	1	14(**)	0

(*) These species may potentially be present, but they have not been observed on the Comilog and Setrag sites.
(**) These values are derived from the results of characterisation studies developed at the Weda Bay Nickel project.

The Group does not have any mining or metallurgical site in operation in a protected area. It should be mentioned, however, that the Setrag railway track crosses the Ramsar[4] site of Bas-Ogooué (for 56 km), the Ramsar site of the Mboungou Badouma and Doume rapids (for 30 km) as well as the National Park of Lopé (62 km), a UNESCO World Heritage Site[5]. The Ramsar sites and the National Park were created between 2007 and 2009, that is to say, 30 years after the construction of the Trans-Gabon railway. Setrag is also engaged with the Gabonese Ministry of Water and Forests and the National Agency of National Parks in the fight against poaching by raising awareness among its staff and through its policy prohibiting the transportation of protected species. The protocol agreement was renewed in 2018.

Number of sites within 10 km of a protected area	21
Average distance of these sites from the protected areas	2 km
Types of protected area	Nature Reserve, National Parks, ZNIEFF(6), ZICO(7), Natura 2000 area(8), Ramsar area, UNESCO World Heritage

(1) CR: IUCN classification for Critically Endangered Species.
(2) IUCN: International Union for Conservation of Nature.
(3) EN: IUCN classification for Critically Endangered Species.
(4) The Ramsar List refers to wetlands of international importance.
(5) UNESCO: The United Nations Educational, Scientific and Cultural Organization.
(6) ZNIEFF: Natural Area of Interest for Ecology, Fauna and Flora.
(7) ZICO: Important Area for Bird Conservation.
(8) The Natura 2000 network is a European ecological network made up of Special Protection Areas and Special Conservation Areas designated by the Member States.

6.2.7.2 In New Caledonia

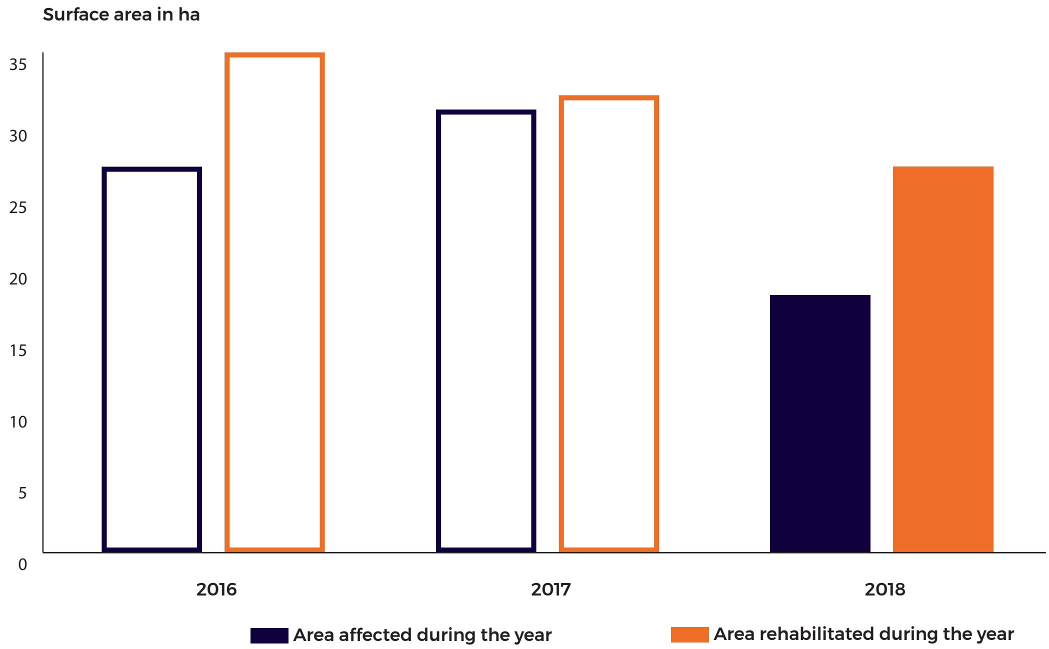
Société Le Nickel (SLN) operates nickel deposits on various sites in the heart of a region renowned for its rich biodiversity and a high rate of endemism among its flora and fauna species.

Since the 1980s, SLN has developed reliable and environmentally friendly rehabilitation methods. The naturally low fertility of the soils, rich in metals and poor in organic elements, as well as the extreme rainfall conditions, make it difficult to see the results of this work in the short term because of the very slow growth.

In the field, revegetation can take different forms. It is carried out by spreading topsoil, planting or hydraulic sowing, having most of the time enriched the soil beforehand. The species used for revegetation are all local species, including some endemic species.

The revegetation effort has been maintained consistently since 2015 with about 30 hectares covered per year. The effort is made both on the sites directly operated by SLN and on contracted sites.

NEW CALEDONIA



In parallel, SLN is very committed to preserving biodiversity, working on the reintroduction of rare and threatened plant species through inventories of mining centres and phenological monitoring to better control their propagation. A partnership with the *Institut agronomique néo-calédonien* has enabled SLN to produce around ten production sheets that are now available for nurseries. The work and methods are also shared and pooled in an *ad hoc* working group established within the Union of New Caledonia Mining Industries (SIM). In 2018, a first rare and threatened species planting campaign was carried out on areas already rehabilitated and enhanced with topsoil, as well as in the natural environment.

In 2018, SLN also continued to monitor the wildlife (reptiles, birds, bats), the marine environment and the water quality of its mining creeks on all of its active sites.

Finally, SLN continues to actively participate in the ongoing reflections on the territory, and relating to the compensation and implementation tools, with the SIM and the North and South Provinces, as well as the specialised firms that support them.

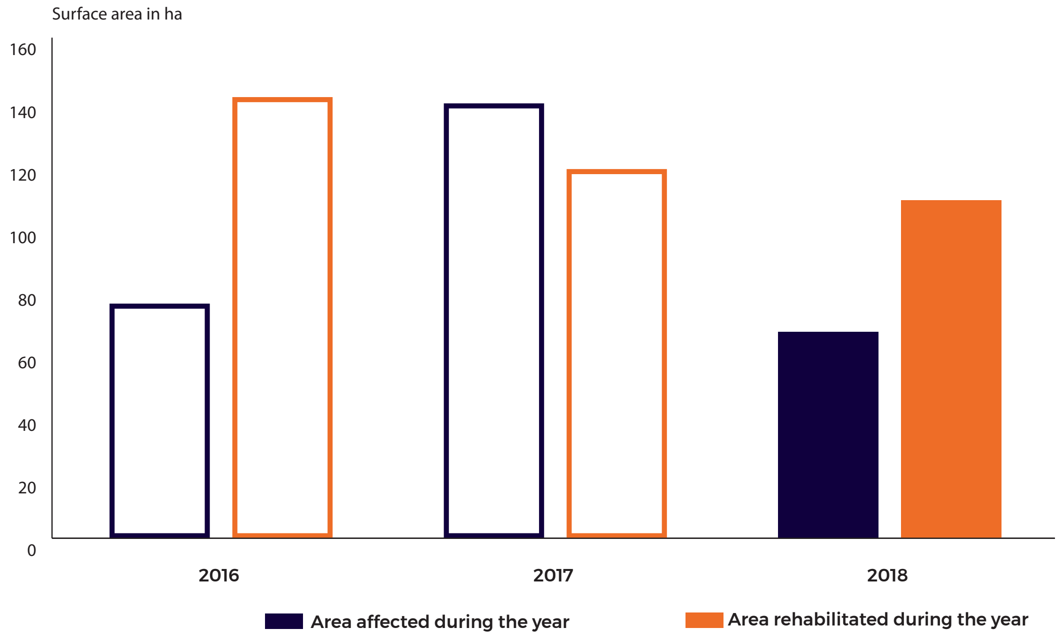
6.2.7.3 In Gabon

The Ogooué Mining Company (Comilog) has been exploiting manganese ore on the Bangombé Plateau in Moanda, Gabon for more than 50 years.

Although the manganese reserves of this plateau are still considerable and make it possible to envisage more than 10 or even 20 years of exploitation, part of the plateau has already been rehabilitated. The mining procedure has been revised to incorporate a remodelling step and the progressive upgrading of the topsoil. Since 2010, the gradual reshaping of historically disturbed surfaces has also been completed.

In 2014, a mining environment brigade was created, which contributed to the significant increase in rehabilitated areas: 581 hectares in five years.

GABON



At the same time, Comilog continues to improve its rehabilitation strategy, taking into account the results of the latest environmental studies developed for the Bangombé plateau and the exploitation of its borders, as well as the recommendations of the biodiversity specialists and experts involved in the Comilog 2020 project.

In addition to the mining activities, Lékédi Park (a subsidiary of Comilog), located 5 km from Bakoumba in the south-east of the Gabonese Republic, covers 14,000 hectares of savannahs, gallery forests, and bodies of water.

The park is dedicated to the preservation of protected species, the observation of animals and the reception of young orphans of poaching (mainly primates). It also conducts research on biodiversity and combating poaching in partnership with Gabonese and international scientists and organisations.

The park is mainly a rehabilitation centre for monkeys and primates; it is accredited by the Pan African Sanctuary Alliance (PASA — https://www.pasaprimates.org). Gabon's orphaned chimpanzees and gorillas are collected and raised in their natural environment.

Different groups of mandrill have also been introduced to the park and live in total freedom. They have been studied since 2012 by an international team of researchers: the *Mandrillus* Project. The aim is to answer fundamental questions about evolutionary ecology, anthropology, food ecology, animal communication (etc.), as well as more applied conservation and epidemiological questions.

A programme to reintroduce chimpanzees, gorillas and mandrills to the Batéké Plateaux National Park started in 2018 with the release of three gorillas in partnership with the Aspinall Foundation. An initial group of seven chimpanzees is in quarantine at the *Centre international de recherche médicale de Franceville* before their introduction in early 2019. They will be followed by a group of about 20 mandrills to start the National Park's large wildlife restoration programme.

In addition, since 2013, the Park has also been involved with the NGO Conservation Justice and the Haut-Ogooué Regional Water and Forest Administration to carry out mutual awareness-raising and anti-poaching campaigns. In 2018, four major anti-poaching operations were carried out. The last operation, which took place in December, resulted in the seizure of two rifles. A new partnership agreement was signed in October 2018 with the Provincial Directorate of Water and Forests to carry out awareness and monitoring missions around the Park. Six to eight missions are planned for 2019.

6.2.7.4 In Senegal

In Senegal, the Grande Côte operations began in 2014. The exploitation of mineral sands involves the clearing of vegetation as a floating dredge moves along the deposit.

Biodiversity is of medium sensitivity in the currently exploited areas. However, the mine is in an area where there is still significant plant and animal diversity despite the strong human impact. Three endemic grass species from Senegal have been identified in the mining pass for the next five years. The Senegal mine is also adjacent to very large vegetable production areas. The issues are mainly related to the rehabilitation and revegetation of large areas, as and when the exploited sites are made available, as well as to the management of biodiversity through a participative and inclusive approach.

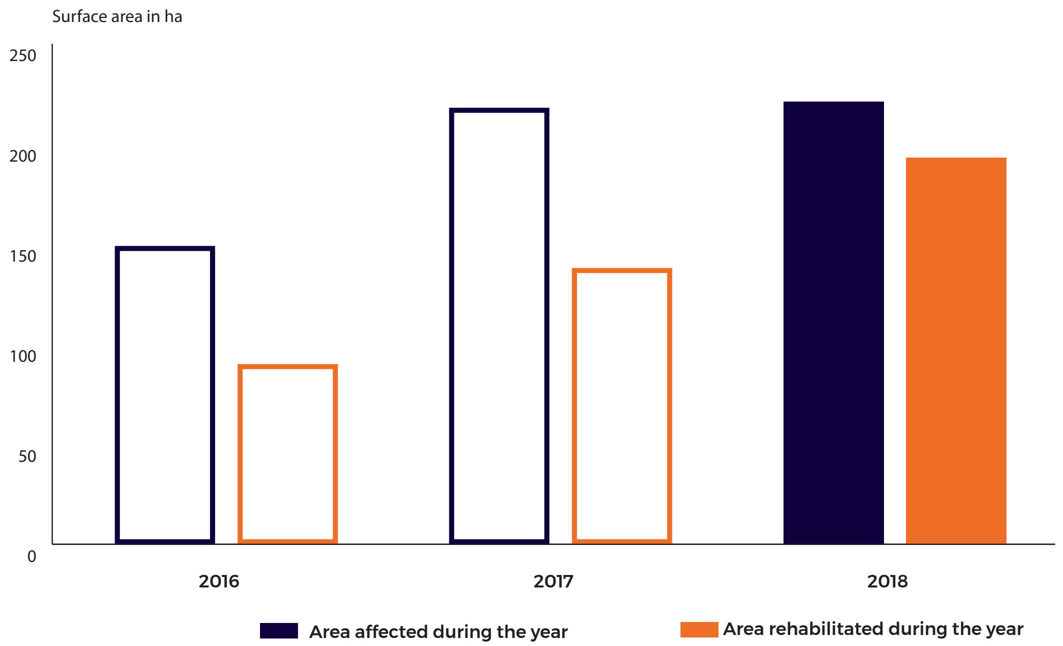
To best reflect the original landscape (dunes), rehabilitation will begin with the reshaping of the slag heaps. Then, nets will be installed to fight against wind erosion, and the surfaces will be covered with manure and vegetation.

The revegetation and soil improvement methods implemented in the field since 2014 are convincing. They include:

- the planting of woody species produced in the nursery;
- planting herbaceous seedlings from seeds harvested on site;
- the use of sheep and goat manure for soil fertilisation and indirect seed supply. Initially the soil was improved with additional topsoil, but this practice proved to be less effective than spreading manure during field tests.

Since 2016, GCO has put in place an additional irrigation system to allow the continuity of revegetation operations during the nine months of the dry season. The area planted in 2017 was thus increased by 50% compared to 2016, and it was further increased by 40% in 2018.

SENEGAL



GCO is also considering the services and products that the site will be able to offer after closure. A compendium of local biodiversity management practices is being developed in collaboration with the University of Dakar.

6.2.8 Responsibility for chemicals

6.2.8.1 Issues and risks

The Eramet Group is characterised by its dual role as a user and producer of chemical substances and mixtures.

Eramet is one of the world's leading producers of alloys, superalloys and high-performance steels. Some generate a series of chemicals: hydrometallurgical, pyrometallurgical or recycling processes.

At the same time, the production of alloys requires the use of ores, minerals, recycled secondary materials and a series of metal inputs to adjust the right compositions of the desired grades. The use of chemicals as "commodities" (acids, bases, salts, etc.) is also important. It is also necessary to manage the numerous products used at the laboratory level, as well as in maintenance of installations and for other specific purposes such as water treatment or the capture of vapours and aerial particles.

The Group pays particular attention to the management of the chemical substances and mixtures it uses or produces in order to substitute as far as possible the most dangerous substances and to ensure a high level of risk control, protection of human health and the environment.

The principles that guide the Group's action in this regard are as follows:

- characterise and be familiar with the products used;
- translate regulatory or normative constraints on the monitoring of occupational exposures and chemical risk assessment into a global approach for continuous improvement.

6.2.8.2 Improving technical and scientific knowledge of Group products

The complexity and diversity of Eramet's activities and products has led to the centralisation of the Group's toxicological and ecotoxicological expertise at Group level. This structure makes it possible to capitalise on the knowledge accumulated in the Group's various business sectors (nickel, cobalt, manganese, titanium, etc.) to improve the quality of available knowledge and reduce the investments and time spent on tests in order to obtain it. This knowledge is essential for defining appropriate and proportionate risk prevention measures.

Eramet is taking a proactive stance by pursuing research partnerships with Norwegian universities and official bodies to improve its knowledge of dust exposure in manganese alloy activities. Eramet also supports the scientific initiative by the Nickel Producers Environmental Research Association (NIPERA) in Europe and the US to establish methodological standards for linking the toxicity of a metal or alloy to its surface and solubility properties in biological liquids. The toxicity of an alloy does not simply result from the sum of the toxicities of its components. This last point was considered in 2018 by ECHA (European Chemical Agency), which appointed a group of experts to review the method for deriving a safe dose for a metallic carcinogen. The method was initially derived for organic compounds.

Knowing the products used also means having access to information quickly and clearly. Databases have been created – one for each site – which will include information from the Safety Data Sheets (SDS) and use a Group internal hazard scale. This makes it possible to group the classification according to five main categories and to simplify the identification of the product's hazard.

This continual support for the Group's sites also applies to the traceability of the products used, from the receipt of raw materials to the delivery of the finished product to the customer. Being able to trace upstream products makes it possible to guarantee the source of supply of raw materials and anticipate possible regulatory changes, such as a "hard Brexit", which could potentially impact the REACh registrations of our suppliers and supply deadlines.

6.2.8.3 Harmonising chemical risk management methods

Eramet Group production sites are found on five continents, and they must, therefore, follow and respect various regulations concerning hygiene and controls of chemical exposures in the workplace. In this area of regulation, there may be significant differences from one country to another for the same substance. Harmonisation and communication between sites is therefore important for exchanging, explaining and implementing practices and references, ensuring a level of protection that is greater than or equal to the regulations in force in the relevant country.

This harmonisation and synthesis action was consolidated in 2018, in particular through a Group document repository, which includes:

- a Group procedure for chemical risk prevention;
- a methodological guide for measuring exposure;
- 10 standard toxicological data sheets for the Group's main substances;
- a common chemical risk assessment method that allows each site to develop an improvement action plan, which can then be consolidated at Group level, to define common priorities.

At the end of 2018, this new methodology was deployed across two thirds of the sites and was accompanied by more than 100 hours of training for HSE and occupational medicine teams. This work will be continued in 2019, to reach 100% deployment.

As a result, the Group now has a centralised inventory of 3,500 chemicals used within the deployment area. 71% of the Group's sites have a synthetic statistical analysis of the exposure measurements carried out over the last three years, and nearly 650 biological measurements have been made by occupational medicine departments.

6.3 Social and societal commitments of the Group

6.3.1 Commitment to Human Rights

6.3.1.1 Human Rights risk assessment

In 2017, Eramet formalised its mapping of the risks of violations of Human Rights and Fundamental Freedoms, with the support of external expertise.

A risk universe was established by matching the impacts of the Group's activities with the list of rights contained in the UN Universal Declaration of Human Rights of 1948, the two UN International Covenants of 1966 (International Covenant on Civil and Political Rights; International Covenant on Economic, Social and Cultural Rights), as well as the European Convention on Human Rights of 1950. Sector benchmarks on the identification and management of risks of Human Rights abuses were also taken into account. The criteria for assessing these risks, in terms of severity of harm and probability of occurrence, were also defined. They involve an assessment of the severity of the impact, not directly for the Group, but for the potentially affected third party(ies) (employees, local residents or other people).

The assessment of the level of severity and probability of occurrence of these risks was carried out by a representative panel of the different Corporate functions and Group entities across all geographical areas.

The risk universe of Human Rights violations defined during this exercise for the Eramet Group can be broken down into the following three broad categories, and the main risks were assessed for each of them:

- the risks for Group employees, mainly those related to health, safety and security at work, and to a lesser extent those related to discrimination and harassment;
- risks for local communities related to potential impacts associated with the activities of Group entities;
- the risks generated by contributors to the supply chain, such as, for example, non-compliance with the fundamental conventions of the International Labour Organisation.

This assessment, which is integrated into Eramet's risk management, will be updated every three years. Assessments of the situation of the sites and entities with regard to these risks also allow regular monitoring between each update. These assessments are updated based on Human Rights audits, two of which took place in 2018. Carried out by the Risk Management, Internal Control and Audit Department, they are administered on the basis of a dedicated internal audit framework, based on the Quick Check published by the Danish Institute for Human Rights.

6.3.1.2 Organisation of the Human Rights approach

By placing respect for Human Rights at the core of its CSR performance, the Eramet Group has decided to strengthen its commitment to Human Rights through a declaration of principles.

CSR 2023

This specific declaration will enable Eramet to reaffirm the essential place of this topic in its managerial and operational approach, as well as in its relations with stakeholders. This commitment will complement the Human Rights commitments already included in other Group policies and charters, such as the Ethics Charter and the Sustainable Development Policy, which are presented in Section 6.1.3.1. Supported at the highest level of the Company, the final text of the commitment will be signed by General Management.

A Steering Committee was created in 2018, tasked with preparing and implementing a Human Rights commitment. This Committee is also responsible for rolling out the commitment to all employees. To this end, it brings together representatives of the Group's various Corporate departments who are involved in Human Rights issues, like the CSR Committee: the Communication and Sustainable Development Department, the Compliance and Ethics Department, the Human Resources Department, the Legal Department and the Risk Management, Control and Internal Audit Department. Depending on the topics discussed, other experts are invited to participate in this Committee.

The draft text is undergoing a consultation process with the Group's stakeholders, both internally and externally. Indeed, the theme of Human Rights is by nature universal, addressing all employees across all business lines and in all countries. Internally, this consultation process, which was initiated in 2018, aims to ensure a better understanding of the principles set out in this text released in April 2019.

The opinion of external stakeholders, such as Human Rights organisations, is also required in order to measure civil society's expectations of the Group's commitments.

Once the stakeholder consultation is completed, the milestone to be achieved in 2019 is the adoption and communication of this commitment to all sites. The

Steering Committee reports to the CSR Committee on the effective implementation of the commitments made in the CSR Roadmap, under objective 8 — Be a reference company in terms of respect for Human Rights in our field of activity.

6.3.1.3 Risk management and development of opportunities

As can be seen in Section 6.3.1.1 summarising the assessment of these risks, the Eramet Group's Human Rights risks can be divided into three main categories. The risk management measures and opportunities developed for each of these categories are managed by different departments, and are thus presented separately.

The approach to managing risks related to employees' Human Rights is described in Section 6.3.2 Commitments to employees, which also contains the Group's main social data.

Section 6.3.3. Commitments to communities details the measures implemented to manage the impact of the Group's activities on local communities, as well as the development of opportunities for them, following the Eramet Group's approach to positively contribute to local areas.

Section 6.4.2. Responsible value chain presents in particular the risk management approach relating to the supply chain.

As Human Rights is one of the objectives of the Group's CSR Roadmap, the implementation of the Human Rights approach is regularly monitored by the CSR Committee.

By 2023, the Group will consider itself to have succeeded in "Being a reference company in terms of respect for Human Rights in our field of activity" when it has been recognised for its application of the United Nations Guiding Principles. The Group measures its maturity on the subject by using the Reporting Framework in line with the United Nations Guiding Principles which was developed by RAFI (Shift Project — Mazars), and it aims for a mature level of reporting by 2023.

6.3.2 Social commitments to employees

Eramet considers its employees as the first pillar of its performance.

The first four objectives of the CSR Roadmap are thus dedicated to employees, focusing in particular on health and safety, professional development and employee engagement, as well as on diversity within the Group. The Group's progress on these priority themes is the subject of this section, which will focus on Social Commitments to Employees.

FOCUS AREA	OBJECTIVE	KPI 2023
Commitment to people	1 — Ensure the Health and Safety of employees and subcontractors	Zero facilities Workplace accident frequency rate with and without work stoppage **FR2 <4**
	2 — Build skills and promote talent and career development	**100% of employees participate in at least one training course per year**
	3 — Strengthen employee engagement	**Group employee engagement rate >75% (barometer)**
	4 — Integrate and foster the richness of diversity	**30% of managers are women**

6.3.2.1 Employee safety

6.3.2.1.1 Main safety issues and risks

Methodology
The prevention of risks of work-related accidents is based primarily on the analysis of risks in the workplace, conducted within the plants. This highly operational analysis makes it possible to secure a specific operation by identifying all the risks to which the operators are exposed and the means of control implemented to manage them.

These local analyses are compiled in the risk register of each site (known as the "single risk assessment document" for French sites). These risks are assessed according to a scale based on the Frequency x Gravity pair (FxG), taking into account the protection measures in place. This methodology makes it possible to identify the most critical risks and thus feed into the site's Safety Improvement Plan. Risk registers make it possible to group the risks by standard activities specific to each site. For example, they include mechanical handling, machine driving, walking, etc.

At Group level, the risk analysis is based on this segmentation by type of activity. The risk assessment is based on actual accident statistics taken from the reporting of accidents over a period of several years, according to the frequency of accidents actually observed and the average potential severity evaluated on a case by case basis.

Risk segmentation

The Group's risk analysis of workplace accidents allowed the risks identified to be grouped into three distinct categories:

- **Technological risks** associated with processes and facilities present the greatest potential severity: an explosion, a toxic gas leak, or equipment failure can impact several people in a single incident. The frequency of occurrence of these events is the lowest in our history.
- **Critical activities** are dangerous tasks that are carried out on a daily basis as part of the operation of our facilities. They include machine work, work at height, vehicle traffic, working in confined spaces, working with liquid metal, etc. Failure to control these risks can lead to serious accidents. In 60% of cases, the consequence of lack of control of these critical activities is work stoppage and, in a little over 10% of cases, serious injury.
- Finally, the Group's operations involve many routine activities, such as walking, lifting and moving objects and using hand tools. About two-thirds of the Group's accidents involve these activities, but the severity of the accidents associated with them is statistically less serious than for critical activities. For these routine activities, the accident rate that triggers a work stoppage is only 40% (compared to 60% for critical activities), while the rate of serious accidents is less than 1% (compared to more than 10% for critical activities). Eramet Groups these activities which are difficult to categorise under the heading **"non-standardised activities".**

6.3.2.1.2 Safety governance

The issues around Group employee safety are elevated to the highest level by the Group's Executive Committee. Eramet's Human Resources Director provides leadership for the dedicated actions.

This commitment is reflected in a Safety Charter, which was revised in 2015.

The Safety and Prevention Director reports to the Human Resources Director. Together, they establish and propose to the Executive Committee the Group's safety policy and guidelines. Once validated, these guidelines are defined in the Divisions by the Deputy General Managers, assisted by Health and Safety coordinators, and then by the Site Managers, who are themselves assisted by a site Health and Safety coordinator.

The prevention of accidents is at the heart of the system, and it concerns both Eramet employees and subcontractors who work on the sites. It is based on the analysis of risks in the workplace, which determines the actions and preventive measures to be implemented.

In relation to Safety, actions at Group level are coordinated within the framework of the "Group Safety Committee", which includes the Human Resources Director, the Deputy CEOs, the Safety and Prevention Director, and the Health and Safety coordinators of the Divisions.

The proper operational implementation of the Safety Policy is monitored through corporate audits. An annual programme is established and validated by the Group Safety Committee every year to focus these audits on the major issues of the year. They are conducted by the Group Safety Director and his/her team, or a Division coordinator. The audit reports are communicated to the General Management and the site and are tracked by the Division coordinators.

The effectiveness of accident prevention is monitored on a monthly basis by measuring accident frequency rates (FR). The Group has established a reporting system that makes it possible to monitor frequency rates on a monthly basis (FR1: frequency rate of accidents with work stoppage, FR2: frequency rate of accidents with and without work stoppage, FR3: frequency rate of accidents with first aid), and to react in the event of drift or non-achievement of objectives. Results and serious accidents are reviewed monthly by the Executive Committee.

6.3.2.1.3 Risk prevention strategy

The Eramet Group recognises that accident prevention tools must be adjusted to the types of risks: tripping is not prevented with the same tools used to prevent the rupture of a furnace in an industrial unit.

The **prevention of technological risks** is based on the implementation of barriers (technical, organisational and human) as a result of industrial risk analysis and hazard studies. The effectiveness of prevention depends greatly on the technical expertise of the teams that has been acquired over years of operations and their ability to identify and respond to weak signals.

The risks associated with **critical activities** are too important to leave the choice of method of operation to the stakeholders; these activities are also strongly governed by rules. Eramet has compiled a set of minimum essential rules — "Essential Safety Requirements" — that are required to be implemented by all sites.

Finally, **non-standard activities** cannot reasonably be governed by simple rules. It is not practical to write rules on how to use a hammer or adjust one's pace depending on the condition of the ground. For these work situations, Eramet develops the situational intelligence of its teams so that the stakeholders learn to make safety-related decisions.

These prevention tools must be part of a broader **safety management system,** the internal reference system for which was revised in 2018. Largely based on international standards (OHSAS 18001 and ISO 45000), it includes requirements that cover the following elements:

- regulatory compliance;
- risk analysis;
- action plans and progress loops;
- reception at the workstation and training of staff;
- monitoring, audits and inspections of field activities;
- the handling of safety events;
- and finally, leadership, objectives and safety management.

Safety roadmap

In 2018, the Group continued the roadmap established in 2017 to improve safety risk management with the objective of reducing the frequency rate of accidents with and without work stoppage (FR2) to less than 6 in 2020. The following areas have been defined:

- make the barriers robust following the review of technological risks at all sites. The Group is implementing a programme to support the sites in reviewing the "hazard studies", which will allow them to formalise the barriers and identify their criticality. Each site will then be able to set up barrier monitoring actions;
- comply with the Essential Requirements for critical activities: The Group requires each site to implement a plan to comply with the Essential Requirements for the critical activities it has selected, with the objective of achieving 100% compliance by the end of the plan. The Group aims to achieve at least 70% overall compliance with the applicable Essential Requirements by 2020 and 100% by 2023;
- work towards safe behaviour through coherent and repeated feedback, especially by using "safety interactions": this activity consists of observing a worker in a work situation, giving him/her feedback on his/her conscious or unconscious choices that impact his/her safety (positively or negatively) and finally, after listening to understand the reason for a dangerous choice, engaging in discussion with the worker to find another way to make it less dangerous. A "safety fundamentals" training course teaches this activity in a practical way to the Group's managers;
- address risks at their sources by updating risk analyses so that they match real-life situations on the production shops and by training employees to "Take 5" (think before action), a simple technique simple to implement before any intervention;
- implement "consequence management" in relation to safety. In addition to feedback from the field during interactions, the control and the willingness to apply the Group's prevention strategies must be an assessment and development factor both for operators and managers. The Group affirms that involvement in safety matters will have an impact on career development at Eramet.

Review of 2018 actions

Deployment of Essential Requirements

In 2018, each Group site self-assessed its compliance with all the Essential Requirements using Group-wide grids. This global overview makes it possible to improve the understanding and deployment of the requirements with cross-functional actions that are common to all these requirements.

More than 30 Group audits have also enabled us to support the sites in their adoption of the requirements. Conducted in pairs by a senior Corporate auditor and an auditor from another site, these audits also enable the exchange of information between sites and the establishment of internal benchmarks.

For all Group sites, the average compliance rate with the Essential Requirements is 63%[(1)], ahead of the CSR roadmap for 2018.

The specific training of stakeholders and the verification of equipment specific to critical activities are the areas that have made the most progress in 2018.

Risk analyses and compliance checks in the field remain the weakest points, on which particular emphasis will be placed in 2019.

Continuation of "safety fundamentals" training and implementation of safety interactions

More than 300 supervisors have completed the "Safety Management Fundamentals" training course. In total, since 2016, more than 2,000 supervisors have attended the one-day training at an industrial site with theoretical presentations and the practical application of safety interactions.

Once trained, managers must implement the interactions. More than 30,000 interactions were counted across the Group in 2018.

Formalisation and deployment of consequence management

The Group has formalised the classification of risk behaviours and clarified the violations that need to be penalised and the errors that need to be treated in a non-punitive manner. The behaviour of stakeholders cannot be analysed without simultaneously observing the behaviour of management. This systematic approach is implemented across the entire Group through the training of site management committees. To this effect, the Group is relaunching the "Safety Trophies" which reward sites which they achieve either two years without an accident with work stoppage, or 1 million hours worked without work stoppage.

(1) Compliance is assessed by taking the weighted average of the hours worked and the compliance of each site. Out of a total of 100% of the applicable requirements to be assessed, 22% were assessed by corporate audits, 56% by "self-assessment" where the site, led by its safety correspondent, established the level of compliance with the requirements, and 22% of the requirements could not be assessed.

Plant STOP Day and World Safety Day

After a series of accidents at the beginning of 2018, the Group's Executive Committee decided that each site should devote a full day to safety. Therefore, between February and March, each the Group sites convened all of their teams and subcontractors to attend safety events, which took the form of a risk hunt in the field, an awareness stand on a particular danger or a review of critical activities. The head office also participated in these events by bringing together all its staff for workshops focused on the risks of business travel and good practices to be implemented as part of the move.

Finally, Eramet supported the World Day for Safety and Health at Work on Friday 27 April at its sites by organising safety workshops, equipment demonstrations and awards for the best performers.

More than 9,000 employees will have actively participated in these events.

6.3.2.1.4 Safety Performance

2018 was marked by a fatal accident at the Doniambo site. A walkway at a height of about ten metres gave way while an operator was walking across it. The rescue teams arrived very quickly but were unable to revive the victim. Internal investigations identified a failure in the fixing of the metal grating. An inspection campaign was launched to immediately identify and correct faulty fixings of similar installations across all Group sites, and the annual inspection protocols were all reviewed. Finally, the fixing procedures have been reviewed with the subcontractor concerned.

Besides this tragic event, the Group measures its safety performance by means of the Frequency Rate and Severity Rate performance indicators, which are defined as follows:

- FR: frequency rate of accidents at work with and without stoppage of Eramet employees and temporary workers. The severity of these accidents corresponds at least to treatment of the victim by a health professional (doctor) going beyond first aid (e.g. closing a wound with stitches, prescribing regulated drugs, applying splints, etc.). FR2 is expressed as the number of accidents per million hours worked;
- SR: severity rate of accidents, calculated as the quotient of work days lost due to accidents with work stoppage (in thousands of days) by the number of hours worked (in hours).

The following tables show the trends of these indicators[(1)]:

FR2	2012	2013	2014	2015	2016	2017	2018
Eramet Group	20.03	17.28	16.84	13.64	13.22	10.30	7.91
Eramet Manganese	6.30	5.89	7.94	4.19	5.68	2.99	3.77
Eramet Alloys	28.00	24.60	21.60	21.30	20.20	17.60	11.30
Eramet Nickel	42.77	34.44	34.49	27.72	22.24	15.52	12.68

FR1	2012	2013	2014	2015	2016	2017	2018
Eramet Group	4.30	5.54	5.40	4.76	5.26	4.60	4.54
Eramet Nickel	4.86	4.28	6.81	5.23	9.00	5.72	7.78
Eramet Alloys	7.73	13.42	10.38	10.21	8.86	9.06	7.75
Eramet Manganese	1.89	1.53	2.62	1.47	1.72	0.90	1.23

FR2 fell to 7.9 in 2018, a decrease of 23%. This significant decrease is concentrated on the least serious accidents (accidents without work stoppage), while accidents with work stoppage remain stable.

The SR deteriorated, amounting to 0.32, an increase of 15% compared to 2017. 84% of the days of work stoppage are concentrated in the two subsidiaries SLN (New Caledonia) and Aubert & Duval (France), which account for 36% of the hours worked.

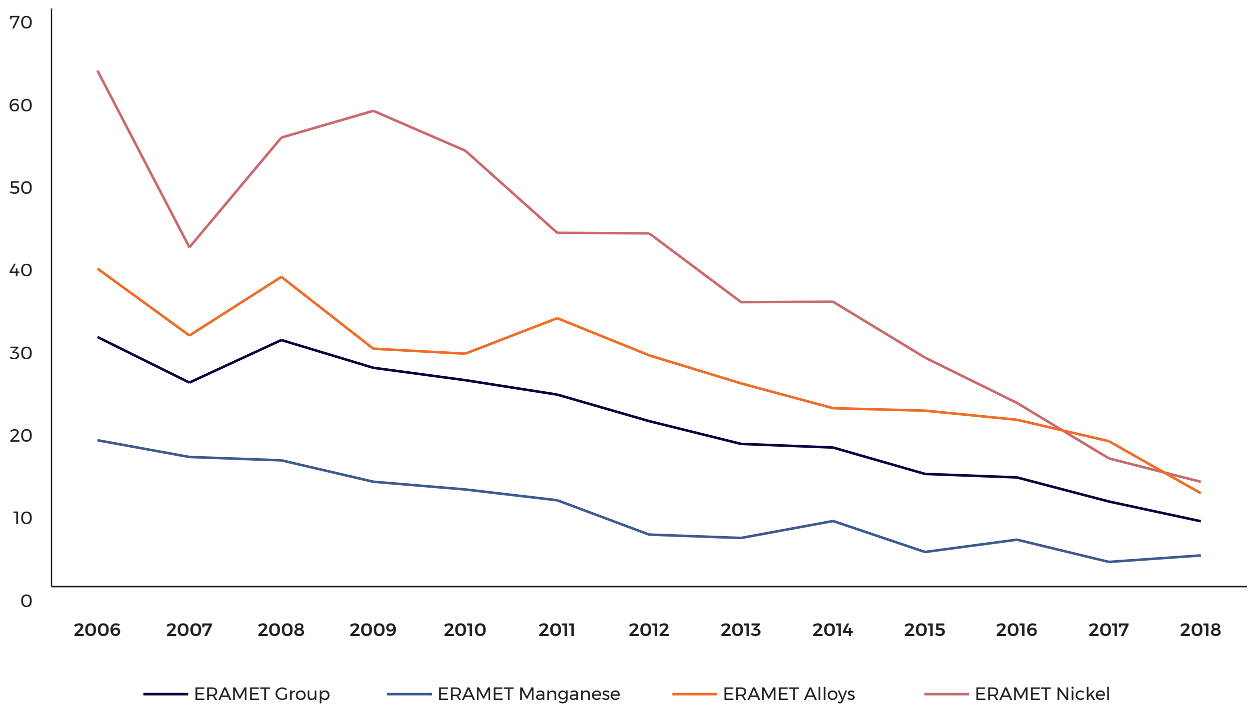
The control of critical activities measured by the frequency rate of these activities improved by 19% compared to 2017. Accidents related to critical activities represent only 20% of total personal injuries. Mechanical handling and working on or near machines are the main causes of accidents.

Non-standard activities also increased according to the same frequency rate criterion of 23% (rate down from 8.2 to 6.3 in 2018). The main causes of accidents are walking and access to workstations (falls, slips, shocks and trapping fingers in doors), followed by manual handling and the use of hand tools.

Finally, accidents related to technological risks are stable with frequency rates slightly below 0.2.

(1) The tables and graphs in the Safety section this year still maintain the distinction between the Nickel, Alloys and Manganese divisions, effective in 2018.

GROUP FR2 TREND (ERAMET AND EXTERNAL COMPANIES)



6.3.2.2 Employee health

6.3.2.2.1 Main health issues and risks

Methodology
The prevention of health risks is based on workplace risk analyses conducted by the health and safety teams.

The documents that identify these risks (see safety risk mapping above) allow health professionals to build their action plans for the individual medical monitoring of employees and actions to improve working conditions.

The Group's Medical Advisor coordinates these actions and organises the network of health professionals.

Risk segmentation
Based on the analysis of workstations and safety risks, occupational health professionals identify risks that may have a lasting or deferred impact on the health of employees.

These risks are:

- either physical (noise, vibrations, awkward postures, repetitive movements, night or alternating work, electromagnetic fields, extreme temperatures, exposure to dangerous chemical agents, including asbestos);
- or have a risk of impact on psychological health (workload, organisation of work, social support in the workplace, autonomy).

Deferred risks are risks of occupational diseases, which are reported separately based on reports sent to the employer or which result in investigations by internal or regulatory prevention services. In France, a Table of Occupational Diseases is regularly updated (Social Security Code)

In the other countries where the Group operates, there are regulations specific to each state.

The health risks of local populations are assessed by mapping the health risks of employees and the results of their assessment.

These risks may give rise to specific health risk surveys published to the various stakeholders: example of the Moanda epidemiological survey distributed to the Gabonese Ministry of Public Health and the local Cooperation group.

6.3.2.2.2 Health governance

The Group Medical Advisor reports directly to the Human Resources Director. He/she establishes and proposes to the Executive Committee the Group's health policy and guidelines. Once validated, these guidelines are defined in the Divisions by the Deputy General Managers, assisted by Health and Safety coordinators, and then by the Site Managers, who are themselves assisted by a site Health and Safety coordinator.

Employee health is monitored by Occupational Health professionals. The main French sites of the Group (Les Ancizes, Pamiers, Commentry, Interforge, Issoire, La Pardieu, Clermont and Gennevilliers) for Aubert & Duval, Eramet Sandouville, Comilog Dunkerque, all employees of La Tour Montparnasse and then 10 Grenelle (Paris), Trappes (Eramet Research and Eramet Engineering) are now grouped together under the autonomous department of Occupational Health, whose certification by DIRECCTE IDF was awarded on 29 April 2017. This service consists of three centres:

- North Centre: one Occupational Doctor and two Occupational Health Nurses;
- Auvergne Centre: three Occupational Doctors and six Occupational Health Nurses;
- South Centre: one Occupational Doctor and two Occupational Health Nurses.

The Doniambo sites for SLN (New Caledonia), Moanda (Gabon) for Comilog and Owendo (Gabon) for Setrag have an Occupational Health Service with one or more occupational doctors and nurses.

Eramet's Gabonese subsidiary (Comilog) manages a level 2 hospital structure (according to the classification of the Gabonese Ministry of Public Health): Marcel-Abéké Hospital (HMA).

This facility provides first-level care (General Medicine — General Surgery — Paediatrics — Maternity) for all employees and their dependants and has a public service mission by treating external persons by agreement with Gabon's *"Caisse nationale d'assurance maladie et de garantie sociale"* (CNAMGS).

Various specialists provide care at the HMA: ophthalmology, cardiology, gynaecology.

6.3.2.2.3 Risk prevention strategy

Health strategy and prevention actions

The health prevention strategy is based on the Group's health policy, which was presented to the Executive Committee on 29 August 2017.

The actions developed and measured in 2018 include:

- reducing and managing the effects and impacts of the Group's activities on the health of employees and local residents in 2017 and 2018. The Group has established eight standard sheets for products that constitute a health risk and which are handled by Group employees (manganese — nickel — oil mist — polycyclic aromatic hydrocarbons — chromium 6 — carbon monoxide — crystalline silica — cobalt). The application of these standards has been audited since 2018 in the sites concerned;
- continued employment for all employees during their working life, including when affected by poor health. Occupational doctors periodically monitor employees with a health problem with the departments and HR services. The indicators concerned are the number of visits made by doctors and nurses, the number of posts adapted after a health event, the number of posts permanently adapted and the number of occupational diseases.

Management of asbestos risk

For the Group, the asbestos risk is divided into environmental asbestos at nickel mines and also the management of asbestos products at industrial sites.

In New Caledonia, specific operating procedures exist to control veins of asbestos-containing ores in the event that the mining activity uncovers them. The operators are trained in the precautions to be taken, and special medical monitoring has been set up, in consultation with the authorities, social partners and other mining operators.

No industrial site of the Group has ever produced or processed asbestos, nor marketed composite materials made up entirely or partially of asbestos. This material has never been used as a raw material by Eramet but rather only as a component of certain materials of thermal protection equipment. As an example, refractory materials containing asbestos, used in the past at the Les Ancizes site, represented less than 1% of all refractory materials used at the site.

In accordance with applicable regulations, particularly in France, the Group has carried out asbestos technical diagnostics (DTA) on its industrial sites, by authorised firms, the conclusions and recommendations of which are then translated into detailed action plans.

The monitoring indicators for these actions are conveyed on a quarterly basis and analysed at the level of the General Management responsible for Health. These indicators specifically include declared and recognised occupational diseases (OD). In France, the ODs are grouped together in the form of tables. There are currently 99 of them. Each table has three criteria, namely:

- designation of pathology;
- care time limit (maximum time between the cessation of risk exposure and the first medical diagnosis of the disease). For example:
  - for carpal tunnel syndrome (TMS) this period is seven days,
  - for deafness, it is one year,
  - for lung cancer linked to asbestos, it is 40 years;
- indicative or restrictive list (according to the table) of work likely to cause the disease.

Excluding exceptions, occupational disease is recognised by the CPAM when the three criteria are met.

In 2018 for the Group sites based in France, 10 occupational diseases (ODs) were recognised by the CPAM and 10 occupational diseases were under investigation:

- **recognised ODs:** six Tables 30 and 30 *bis* (asbestos) and four Tables 57 (musculoskeletal disorders);
- **ODs under investigation:** two Tables 30 (asbestos), one Table 42 (noise), seven Tables 57 (musculoskeletal disorders).

6.3.2.1.4 Health performance

The indicators are included in the 2017 Registration Document.

The analysis performed in 2018 is as follows:

	T1	T2	T3	T4	TOTAL
Clinical examinations	1,813	2,365	832	727	5,737
Information and Prevention visits	96	214	135	127	572
Aptitude restrictions >3 months	115	29	78	59	281
Definitive reclassifications	14	23	6	6	49
Recognised Occupational Diseases					10

The measurement of the indicator on the application of standards on products that are toxic to health showed a compliance rate of 60% for the sites concerned; the target set for 2018 was 50%.

The Joint Monitoring Committee for the Occupational Health Service for sites based in France met twice in 2018 to review the actions of the Occupational Health Service in terms of administrative organisation and budget.

The other actions implemented in 2018 concern the Marcel-Abéké hospital in Moanda, Gabon.

Continued improvement in care processes and activity management continued in 2018:

- change of head of the facility;
- implementation of the computerised management of activities and a monthly dashboard;
- continued improvement of technical services:
  - start of the renovation of the Analysis Laboratory,
  - waste management process for healthcare activities,
  - sterilisation process,
  - hospital drug procurement process,
  - consultation and emergency reception process.

The Gamma programme, whose objective is to set up HIV-AIDS prevention and screening actions, provided care for more than 200 employees or beneficiaries in 2018 and coordinated the Awareness Day within Comilog and Setrag on 1 December.

6.3.2.3 Employee security

6.3.2.3.1 Main issues and risks

The Eramet Group's mining, industrial and commercial activities take place in many countries on all five continents. Some of these countries may at times experience unstable political, security or climatic situations, even if only temporary in nature. The Group's Security approach is centred around the protection of people, installations, information and business intelligence to support the Group's development and economic efficiency.

6.3.2.3.2 Security governance

The Group's Security policy is centred around protection of the people, facilities and information that support the Group's development and economic efficiency. Three objectives are pursued:

- a strategic objective that assesses the nature of the threats and measures the risks to the Group's people and assets;
- an operational objective that puts in place the resources and means necessary to prevent and protect;
- an educational objective that informs and raises awareness among Eramet Group employees about the reality of the risks, the means implemented to address them, and the behaviours to adopt.

This policy is supported by the Group's Security function. The Security function thus assists the Executive Committee and operational managers in the execution of their mission to protect:

- the physical assets;
- the intellectual assets and sensitive information;
- facilities held under the Group's responsibility;
- the Group's employees, whether on business travel, foreign residents or local residents, as well as relating to business intelligence.

The Group Security Director, who reports to the Group Human Resources Director, is responsible for:

- proposing the Group's security policies to the Executive Committee;
- leading and coordinating the network responsible for their implementation, in conjunction with the Group's Divisions;
- reporting to the Executive Committee on the application and effectiveness of this implementation;
- ensuring the application of the Group's regulatory and contractual security obligations;
- sharing feedback and best practices within the Group;
- acting as an interface with the competent authorities to define the policies in this area in France, in the countries where the Group operates and with international institutions.

The Security function is an integral part of the development of the approach presented in Chapter 5 on risk management in the countries where the Group operates mining activities, as well as in the countries in which it develops, processes and/or markets its products and services. The Security Department is one of the main contributors to the Country Risk Committee (CRP), created to manage and limit Eramet's exposure to "Country and Geostrategy" risk in the countries in which the Group operates as well as in those where it would like to develop activities.

6.3.2.3.3 Risk prevention strategy

The protection measures put in place by the Security Department are the result of analysis and monitoring of the security situation and the assessment of the threat. They also depend on the nature of the activities carried out by the Group's units in the region and the effectiveness of the public institutions in the countries concerned.

In all the countries or regions where the security situation and Eramet's activities justify it (Gabon, New Caledonia, Senegal and South Africa), a protection coordinator (the equivalent of a security correspondent) has been established. Acting as a local correspondent, he/she oversees the implementation of Eramet's security policy in coordination with the Group Security Department.

Various media are used to communicate and help memorise the safety instructions set up by Eramet, as detailed below:

- country sheets and/or assessments of current situation: written in English and/or French and regularly updated, these provide general information, advice on behaviour, and even instructions and directives. They are available on request from the Security Department and are communicated to the employees directly concerned once they are recorded in the travel register;
- security alerts: sent by email to managers, and then forwarded to all staff, these alerts provide rapid information in case of emergency as well as instructions and recommendations (attempted fraud or scams by telephone, etc.), or when a situation suddenly deteriorates in a country (demonstrations, attacks, specific threats, etc.);
- a Security/Health booklet: distributed on request or during on-site awareness sessions, it contains advice on how to behave in different situations depending on their seriousness, etc., for Group staff on business travel;
- awareness sessions: individual or group sessions, organised in particular before departure abroad, they are supplemented by the protection coordinator (where available) in the country of destination.

Before each trip abroad, employees must register online in a travel register. They then receive, based on the security analysis of the country concerned, information and advice for their upcoming trip. They also have access to a smartphone app that allows them to geolocate themselves if necessary.

6.3.2.4 Promotion and development of employees

6.3.2.4.1 Main social risks and general governance

6.3.2.4.1.1 Main risks

The main social risks identified are risks related to attracting and retaining talent, social relations and discrimination/harassment.

Risks related to attracting and retaining talent and social relations are included in the Group risk map and risks related to discrimination/harassment are included in the Human Rights map.

6.3.2.4.1.2 The Group's Human Resources Policy

The Eramet Group considers that the women and men who make up its community are the main drivers of its performance. Dependent upon them is the quality of customer relations which are at the heart of the Group's business plan. Dependent upon them are future developments based on enhanced technical leadership and the fullest possible expression of their managerial and technical skills. Dependent upon them is the proficiency of management and the operational excellence of each of their fields.

The Eramet Group's Human Resources strategy is a reflection of the Group's strategy to meet the challenges facing the Group. It aims to strengthen the commitment of the Group's employees and is structured around six strong strategic areas:

1. Identify, attract, retain and develop talent, which translates into the desire to attract the best talent, diversify our talent pool in order to make it more international, with a better representation of women at the managerial level, develop local talent, anticipate skills needs, develop cross-functionality, versatility and mobility to staff our projects and absorb cycles, prepare the leaders of tomorrow, develop and transmit skills.
2. Develop and recognise value-creating performance by ensuring the implementation and management of the performance cycle, accompanying employee performance and strengthening the link between compensation and performance: basic, variable and long-term remuneration.
3. Strengthen managerial skills, define and promote the role of managers, by associating them and training them to manage their teams.
4. Participate in the implementation of a work environment that is respectful of employees and of the Group's values by aiming at "zero accident", through

the promotion of well-being at work illustrated by fairness, transparency and exemplary management, ethics and respect for the Group's values, active management of Occupational Health issues, application of national regulations and ILO directives at all Group sites, while ensuring to all of our employees social protection to cover the major risks while preserving our competitiveness.

5. Develop and promote a constructive relationship with our social partners by ensuring the implementation of a decentralised but coordinated approach, anchored in the economic realities of companies and sites, by facilitating a transparent and continuous dialogue, by ensuring that structures and organisations evolve and are exemplary in their social treatment.
6. Develop the operational excellence of the HR function, by acquiring efficient and adapted tools, as part of the Group's digital transformation, by demonstrating a clear and readable organisation serving its internal customers, putting the HR function at the heart of strategic and business challenges.

The Eramet Group, while having a very strong international dimension (approximately 60% of the Group's workforce works outside Metropolitan France), also relies on subsidiary companies that have significant local presence and awareness. The Group's human resources management must take this into account, while relying on unifying principles and tools common to all of the Group's companies and sites.

6.3.2.4.2 Attracting and retaining talent

6.3.2.4.2.1 Employees involved in the Group's transformation

In line with the extensive NeWays transformation programme launched in 2017, aimed at unlocking the Group's performance potential and creating a change in mindset and corporate culture to achieve profitable and sustainable performance, in September 2018 the Group launched a vast engagement survey among all its employees worldwide to enable them to express themselves in relation to 12 key areas: work and decision-making processes, organisational transformation, relationship with their direct supervisor, agility and innovation, etc. More than 6,700 employees took advantage of this opportunity and responded to the survey.

The engagement rate measured in 2018 for the Group as a whole was 67%. Around 400 team managers received personalised results for their area and have been developing action plans since December 2018 in collaboration with their teams, which will be implemented throughout 2019.

The Group's main strengths highlighted by the survey are employees' understanding of the role of their job in achieving their Company's objectives (91% favourable score), respectful treatment by managers (83% favourable score) and finally employee motivation to go beyond expected performance levels to help their Company succeed (82% favourable score).

A new survey, planned for 2020, will measure progress in each of the areas.

6.3.2.4.2.2 A fair and competitive remuneration policy

The skills and level of responsibility of the employees are remunerated by a fixed salary in line with the experience gained and the practices observed for each trade on the market. The Group's remuneration policy aims to be fair and competitive but also tailored to the specific local factors of host countries.

One out of two managers benefits from individual variable remuneration schemes based on quantitative and qualitative annual objectives. As of 1 January 2018, the Group deployed a new variable compensation system common to all eligible managers worldwide: it is based on collective objectives (safety and financial indicators) for 60% and on individual objectives for 40%. The Group makes available a common framework for setting and assessing annual objectives.

Collective performance remuneration schemes may exist in certain countries, be they mandatory legal schemes (profit-sharing in France, etc.) or schemes voluntarily implemented by the Group in accordance with local practices (profit-sharing calculated in the light of the Company's results, collective savings plans). The profit-sharing plans are often based on negotiated criteria related to safety, environment and the activity of the Company. Depending on the arrangements in force, these bonuses may be invested in savings schemes on advantageous terms.

We conduct pay scale analyses every year to ensure our remuneration packages are competitive relative to practices in other companies operating in the same sectors.

In each country in which the Group operates, the remuneration policy implemented aims to reward individual and collective performance, while adapting to the local context.

Personnel costs – social security contributions

Salaries represent the largest component of staff remuneration.

In 2018, personnel costs for the Eramet Group amounted to €702 million, compared to €676 million in 2017.

More than 8,500 employees, or 65% of the workforce, benefited from a revaluation of their fixed salary in 2018, whether through a general increase or an individual merit-based increase.

Social benefits

In line with the Group's agreements relating to the provision of insurance against major risks and the uncertainties of life, the Eramet Group wanted all of its employees in Metropolitan France to benefit from additional health insurance. In France, a new collective agreement was signed in December 2016 by all the organisations representing staff. This agreement ensures that social protection is brought into line with legislation on responsible contracts, but also improves the reimbursement of certain costs, such as pharmacy, dental implants, alternative medicine and laser eye surgery.

In the area of pension insurance, a new agreement was signed for France in June 2016. It provides for a 10% reduction in employee and employer contributions and a 10-month moratorium on contributions in view of the excellent results of the scheme, but also the improvement of the death benefits, the introduction of a "Caregiver Assistance" guarantee allowing the employees concerned to have access to a solution of listening, assistance and advice from professionals.

Provisions are set aside for retirement benefits, severance payments, medical coverage, pension plans and other commitments for active or retired employees in accordance with the conventions in force in each country.

The portion not covered by insurance companies or pension funds, in particular for US and Norwegian companies, is also provisioned (defined benefit plans in general). The specific commitments for these schemes are in the United States, Norway, New Caledonia and France. Other plans are defined contribution plans where employer contributions are recognised as an expense in the period to which they relate. The main quantitative assumptions used to calculate these commitments are detailed in the consolidated financial statements.

Finally, an additional pension plan (Article 39) for a group of managers is also fully funded. The estimated actuarial value of the plan for active beneficiaries is €31.9 million as at 31 December 2018.

Employee stock ownership plan

In order to build Group membership in all areas of the world where it operates, and share the created value, the Eramet Group has opted, since 2009, for the deployment of global bonus share plans. This programme, called EraShare, originally consisted of allocating 5 bonus shares to each of the Group's employees, regardless of the country of activity, Division, occupation or level of responsibility.

Since July 2011 in France and Italy, and since July 2013 in other countries, employees have benefited from all the rights attached to the Eramet shares: voting and dividend rights. An information leaflet on EraShare was also prepared in the nine languages used within the Group to support the worldwide implementation of the plan.

Nine new bonus share plans were implemented from 2010 to 2018 with the same scope, and allowed the allocation of two additional shares each year to more than 12,000 employees.

Employee incentive plans

In Metropolitan France and New Caledonia, profit-sharing agreements are regularly negotiated and signed with the social partners. They complement, where they exist, the regulations governing participation. The incentive is paid to members of staff with more than three months of service as at 31 December in an amount that is partly uniform and partly dependent on gross annual remuneration. In 2014, the Group's Human Resources management specified, in a framework memorandum, the three components that the Eramet Group wishes to find in the new agreements renewed from 2014 onwards:

- Group financial result, with a criterion common to all entities in France;
- financial result of the entity;
- operational criteria specific to the entity (safety criterion, service rate, reject rate, variation in WCR, etc.).

In 2018, Group companies in mainland France paid profit-sharing for the year 2017. A gross amount of €9.4 million was paid to the beneficiaries concerned.

SLN in New Caledonia in turn paid over €4.9 million in profit-sharing to the employees concerned.

Employee savings plan

In Metropolitan France and New Caledonia, Eramet Group employees can sign up to a Company Savings Plan to build up their savings. The Savings Plan may receive the incentive bonus, profit sharing, as well as voluntary payments made monthly or on a one-off basis by the employees. Group companies participate in the savings plan through a system of matching the sums paid by employees (the methods for paying the matching contribution vary from company to company).

A range of diversified corporate mutual funds (*fonds communs de placement d'entreprise* or FCPE) is offered to Group employees. A collective retirement scheme also exists in the form of a PERCO (Collective Retirement Savings Plan), into which the payments are paid.

As at 31 December 2018, 6,784 employees and former employees of Eramet in mainland France were signed up for an Employee Savings Plan, with total assets representing roughly €80 million, or €11,800 per saver. Total assets are divided between the FCPE of the PEE/PEG (85% of the assets) and the PERCO (15%). In 2018, the Group's French companies paid approximately €3.1 million in contributions (gross value) to the Group Savings Plan (PEG) and the PERCO, or €951 per employee on average.

6.3.2.4.2.3 Employee development and career management

6.3.2.4.2.3.1 Career management process

The development of people is a key value of the Group, and the first theme of its HR Strategy.

The Group's Career and Mobility Development Charter defines the roles and responsibilities of each person (employee, manager and HR) so that the development and career paths of the Group's men and women can be promoted and encouraged within a clear, defined and shared framework, and with the help of tools and processes.

It places particular emphasis on promoting the initiative and the proactivity of the employee in his or her own career development.

In order to optimally implement these career developments, management processes are set up and run throughout the year.

The Annual Appraisal Interviews make it possible to identify mobility objectives and to take them into account both at monthly HRD network meetings and during People Reviews. These Talent reviews are organised at site, business unit, entity and even country level. They allow the identification of people to be developed, their potential, etc.

Other meetings are organised by business line according to the needs expressed by operational staff, making it possible to review these development needs in a cross-functional manner, and to assess medium-term needs and available business resources by business line.

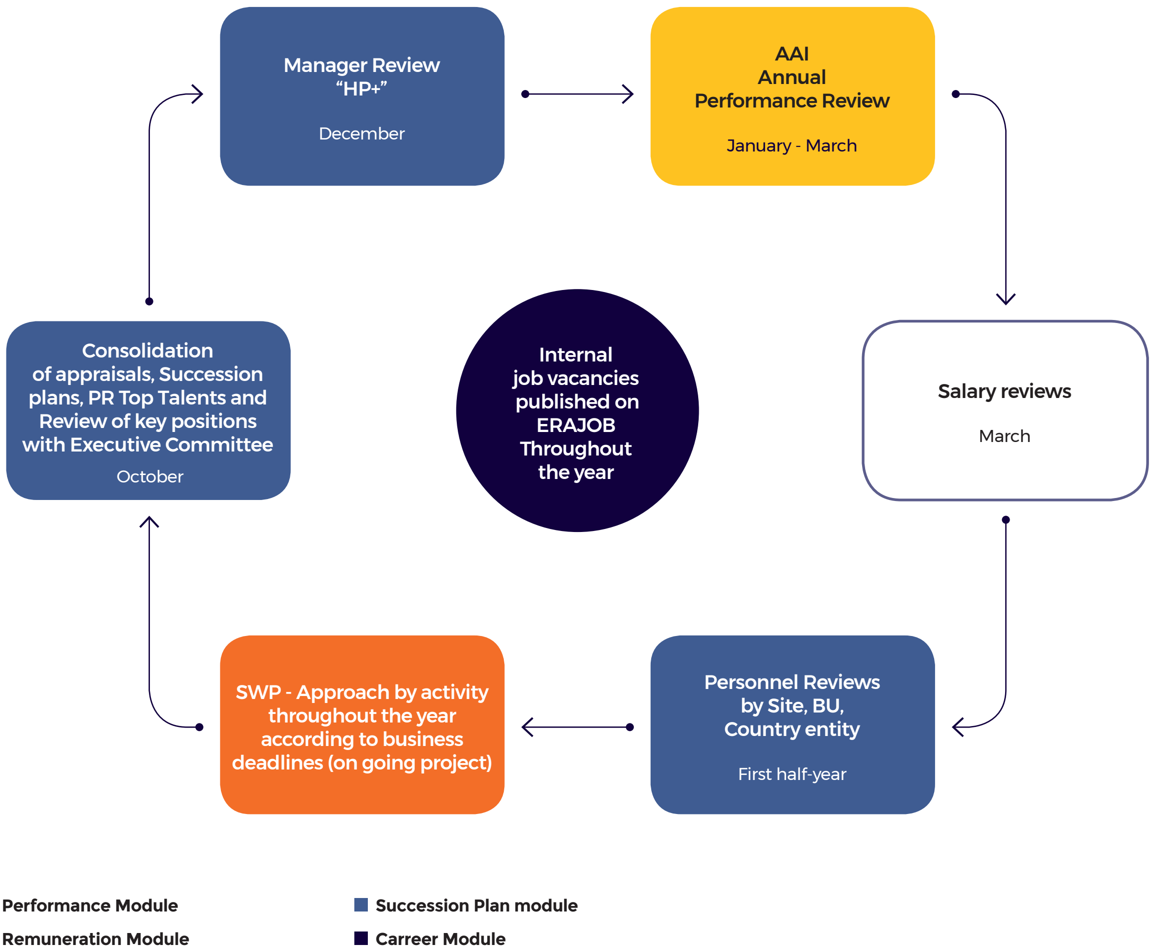
These exchanges are consolidated at the Division level during the reviews of Division management, thus making it possible to approach the Annual Appraisal Interviews with concrete development elements to be submitted.

A review of senior executives and holders of key Group positions is performed regularly with the Executive Committee.

Reports are drawn up and the Succession module of Talent@work, the Group HRIS, is used to record these outlooks.

A review of succession plans for key positions in the organisation is carried out on the occasion of the Selection Committee or Remuneration Committee of the Boards of Directors of Eramet or its subsidiaries.

THE HR PROCESSES ARE INTEGRATED INTO TALENT@WORK



In addition, a project relating to the implementation of an SWP (Strategic Workforce Planning) process was initiated in mid-2018 and will result in the implementation of a pilot on the mining activities in early 2019, which will then be extended to the Group's other business lines.

Lastly, the Professional Interview (set up in the framework of the application of the Act of 5 March 2014 on vocational training, employment and social democracy — Article L. 6315-1 of the Labour Code) for all employees in Metropolitan France has been deployed since 2015. It is devoted to the prospects for professional development, in particular, in terms of qualification and employment. It focuses on the employee's career path, career development, and training needs.

6.3.2.4.2.3.2 Performance evaluation

Successful mobility or career development involves the combination of three elements:

- performance;
- existence of an opportunity;
- willingness to demonstrate functional and/or geographical mobility.

As the cornerstone of operational improvement plans, performance is assessed individually in the context of Annual Appraisals based on objective evidence, with each assessment based on factual evidence.

In 2018, 6,427 employees (including managers as well as non-managers) benefited from an Annual Appraisal Interview. Many sites have extended the benefit of this scheme to non-management staff.

The supporting material for the Annual Appraisal Interview has been modified to take into account performance appraisal in the context of the responsibilities of a position, and the assessment of professional behavioural competencies.

Following on from the desire to better monitor and evaluate performance, the implementation of this new format, led by a working group, along with the Goal Management module, allows managers to evaluate the performance of their employees, to initiate actions with them and to develop and monitor, throughout the year, the progress of the goals set for the team, to adjust these if necessary, to use it as a tool for mid-year interviews, etc.

The now widespread use of the Annual Appraisal Interview form in Talent@Work means a significant improvement in access to information on expressed mobility wishes, better consideration of them in the career management and people review, and an optimised follow-up.

6.3.2.4.2.3.3 Erajob, career and Onboarding module

The Group's job vacancies are published via the HRIS on Erajob, the Group's internal career website, and on Eramet's careers website, making it possible to apply online, share job vacancies with others, or create alerts for specific positions.

The Recruitment module, developed in the HRIS, enables HR and managers responsible for recruitment, through internal or external mobility, to be able to track the progress of the process, from job description to filling the position.

To support managers in their role as career managers, a training module on recruitment and mobility is available as part of the training courses offered by the Group.

This module enables managers and HR staff to be trained in the same selection interview tools, to make their choices in an objective and transparent manner, to ensure high-quality feedback to internal and external candidates, and to educate their participants on the subject of non-discrimination.

Moreover, the use of a personality test by appropriately trained and authorised personnel within the HR teams makes it possible to complete candidate evaluations in the context of recruitments or certain mobilities.

In 2018, in order to facilitate the integration of employees into the Group, the Eramet Group developed an Onboarding module integrated into the Group HRIS, which is currently being deployed in France. The Onboarding module is a platform which is accessible to external employees as soon as they are recruited, making it possible to create a privileged link between the future employee and his or her future working environment (information on the Group and its business lines, welcome message from the manager, introduction to future colleagues, schedule of integration programme, etc.).

6.3.2.4.2.3.4 Vocational training

The Group designs training courses for Group employees:

- to facilitate their integration by giving them the keys to understanding the organisation and management processes of the Group;
- to develop their skills by giving them access to business and management programmes;
- to promote exchanges of best practices among participants;
- to build development paths.

Integrate, improve know-how, raise awareness of specific risks, share experience and best practices, develop cross-functionality at the Group level, foster the deployment of managerial methods, further strengthen the Group's expertise and technical leadership; these are the points of the training programmes and of the training effort initiated by the Group, each year, at all its sites and locations.

In relation to vocational training for its employees, the Eramet Group also gives priority to safety training and business skills development, which are aimed in particular at ensuring better control of processes and their environment.

Training courses are therefore offered to employees.

Programmes designed to improve executives' managerial skills are part of a broader managerial training path that also integrates key competencies in Safety, Project Management, Change Management, Continuous Performance Improvement and Communication.

In 2018, IMaGE (Eramet Group Institute of Management) designed a digital training programme consisting of five modules (Engaging and leading transformation and change, Empowering and delegating effectively, Providing effective feedback, Managing difficult situations, Creating value: an essential principle) aimed at all Group executives, with the objective of supporting the Group's managerial transformation (NeWays). This digital e-Learning format makes it possible to quickly reach all managers and offers complete organisational flexibility to the participant. It was offered to more than 1,600 participants in 2018 and recorded a completion rate of more than 70%.

A Mentoring Programme was launched in 2018. It is open to 14 managers who hold a key position in the Group: they are selected by the Executive Committee and monitored over a one-year period in order to support and facilitate the transition to their new responsibilities, to develop and support potential young talent, to improve the relationship between these managers and Executive Committee members, and to support the NeWays transformation.

In November 2018, the Eramet Leaders Program (ELP) gathered together 21 Group managers for a week for its 14^{th} year, bringing the number of executives who have participated in this programme since 2006 to 288, enabling them to build a network, improve their knowledge of the Group, exchange with managers on strategic development themes, etc.

In 2018, IMaGE provided nearly 27,400 hours of training. About 5,000 employees followed the various programmes. This institute now offers a body of 50 training courses designed to integrate and develop our employees.

The development programme for the Group's executive managers (EDP — Executive Development Program), which began in 2015, is continuing with a new format that will be offered for the programme's fourth year in 2019. This programme takes place over several months and is designed to strengthen the leadership of participants and prepare them for their advancement within the Group.

Training on the Ethics Charter, for example, aimed at all Group managers and “sensitive” staff, was completed by more than 2,773 additional employees in 2018.

Emphasis has been placed on the digitalisation of the training offer (“blended” learning, e-learning, training via videoconference, etc.) to reach a rate of 30% of all the training offered.

Overall, in 2018, Eramet employees received more than 472,000 training hours, approximately 37 hours per employee for the year. Almost 9,000 employees, or 71% of the total workforce, benefited from training in 2018 (compared to 374,000 hours in 2017, which corresponded to 30 hours per employee, with almost 8,600 employees trained last year).

6.3.2.4.3 Dynamic and meaningful social dialogue

The social policy of the Eramet Group is based on the clear desire:

- to strongly involve the Group’s management (information and exchange seminars, development paths, meetings with the Group’s management and the companies that comprise it, mobility and intra and inter-Division career development);
- to connect employees with the life of their Company and the Group through clear and regular information (regular company and site newspapers, Group intranet, integration days for new hires);
- to communicate with social partners, both formally (remuneration policy, training, social protection, employment management) and on a daily basis at the sites.

6.3.2.4.3.1 Social implications of Eramet’s strategy

In 2018, the social aspect of the Eramet Group’s strategy was marked by numerous transformative projects, such as the mapping and the organisation of the work of representative bodies, which have strengthened the relevance and richness of social relations, an essential factor in competitiveness.

Multiple in-depth and didactic exchanges on strategic issues with the social partners in the organisations and countries concerned made it possible to explain the technical and strategic choices and their organisational impacts.

In addition, during the two annual meetings of the European Works Council and the Group Works Council, the Group’s Executive Management was able to address social, financial and environmental questions in a direct exchange with the social partners. They also discussed the Group’s research and investment priorities.

6.3.2.4.3.2 The SLN 2020 Performance Plan

At SLN (New Caledonia), management and unions worked together to identify priority actions to restore competitiveness in order to stop the cash outflows as quickly as possible and thus achieve the expected gains. In late 2017, the draft SLN 2020 performance plan was presented to the Central Works Council together with target organisation charts and the proposed employment and skills management dynamics, which will be implemented in 2018-2019 to achieve the target organisation by 2020.

At the same time, discussions commenced between management and the unions to initiate the necessary productivity initiatives at the mining sites. This led to the implementation of a work organisation at 147 hours per week. This agreement, which applies to employees of the Thio, Népoui, Kouaoua and Tiébaghi mining centres, was signed on 22 November 2018 by the trade unions SICINC, SAMNC, SGCINC, SGTINC and SOENC Nickel.

6.3.2.4.3.3 The establishment of a new research organisation

At the beginning of 2018, after several months of discussions, the project to bring together the employee representatives of Eramet Research and Eramet Engineering to form an Economic and Social Union (ESU) took shape with the election of a joint Economic and Social Committee for both entities. In line with this, in May 2018, a project to create an internationally recognised European centre of excellence in innovation in extractive metallurgy was presented to the Committee. Eramet Ideas will be established on 1 January 2019.

6.3.2.4.3.4 Dynamic industrial relations

As in 2017, 2018 saw a variety of social developments in France, in particular with the negotiation of the Macron orders, leaving more room for social dialogue, and more negotiation opportunities for companies.

Eramet’s management and employee representatives have committed in a concerted manner to a negotiation process on the transformation of social dialogue with the aim of adapting the reform to the specific requirements of the Eramet Group in mainland France and reaching an agreement that proposes methods of operation that go above and beyond the legal framework, such as training management in social dialogue and supporting future elected officials in their new responsibilities; social dialogue on the ground with local representatives; the establishment of health, safety and working conditions committees at all industrial sites; and other measures as appropriate.

After several months of consultation and discussions, management and the trade unions CFE-CGC, FO and CFDT signed an agreement on 6 November 2018, however this agreement cannot be implemented because it has not been signed by CGT, the largest trade union within the Group.

At the level of each of our companies, management and staff representatives have initiated discussions and even negotiations on topics that have recently emerged: Gender equality, Quality of life at work, Teleworking, etc. The majority of Eramet sites around the world signed new agreements in 2018. These mainly concern remuneration, profit sharing and participation, and working time.

In addition, two new employee directors, employee representatives on Eramet's Board of Directors, were appointed in 2018 for a period of four years by the members of the European Works Council and Eramet SA's Works Council. This year, they will be able to enrol in a diploma course that will enable them to fully perform their role of ensuring that employees' points of view are taken into consideration during Board deliberations, and helping all employees to adopt the Company's strategy.

6.3.2.4.4 Equal opportunities – measures to foster non-discrimination and diversity

6.3.2.4.4.1 Respect for gender equality

Women now account for 16% of the total workforce of the Group, specifically: 7% of operators, 26% of supervisors, technicians and employees, and 22% of management.

% of women in the total workforce	16%
% of women in management	22%
% of women among new hires (permanent roles) in 2018	23%
% of women among new management hires (permanent roles) in 2018	25%

A large number of Group entities are mobilising to take action to promote the employment of women, including in jobs traditionally held by a workforce that tended to be male.

Efforts are thus being made locally to promote the technical professions to secondary school pupils and to students, to adapt facilities to accommodate female staff and to promote the provisions set out in the collective agreements for gender equality signed for numerous sites in metropolitan France.

In October 2018, the "Women at Eramet" network was launched, which aims to encourage all women employed by the Group to take an active part in their professional development, achieve job satisfaction and be sufficiently represented in all our organisations. This movement is at the heart of the Group's strategy.

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6.3.2.4.4.2 Work/life balance

In 2018, the Group stepped up its efforts to raise team awareness of the need to respect rest periods and personal and family life with the implementation of the agreement on the right to disconnect signed in December 2017 by all trade union organisations representing sites in metropolitan France. No radical or restrictive measures were taken, rather awareness-raising and prevention actions based on dialogue and the communication of positive, pragmatic practices by management.

Attention is also paid during the Annual Appraisal Interview to the prevention of psychosocial risks. Indeed, part of the exchange between the employee and his/her chain of command is devoted, at this important annual meeting, to the organisation of work, the workload and work-life balance.

In this area too, the Group promotes a number of local initiatives of a different nature but intended to promote this necessary balance: a listening service provided by an occupational psychologist, sabbatical leave was granted to employees wishing to devote time to a personal project, teleworking systems and agreements have been deployed in several entities, measures favouring parenthood: organisation of working time, allocation of CESU cheques (Cheques for Universal Employment Services) for the employment of domestic help (child care, tutoring, housework, etc.), inter-company nursery, concierge services, and workshops on the theme of quality of life at work, led by professionals (nutrition, sleep, sophrology, etc.) have also been implemented at some sites.

6.3.2.4.4.3 Employment and integration of persons with disabilities

The Eramet Group is paying attention to the employment and integration of people with disabilities.

The Group has 269 employees with disabilities (data from the CSR survey). This count is probably underestimated, as the regulations of certain countries do not permit the accounting of employees with disabilities.

At most Group sites, various actions are regularly undertaken to promote the employment of people with disabilities: adapting premises, access ways and workstations, awareness campaigns, financing of hearing aids, and contributing to organisations or associations dedicated to helping people with disabilities.

Subcontracting activities are also carried out by work centres or associations employing persons with disabilities. The accessibility of the premises is also a topic discussed at many of the Group's sites.

6.3.2.4.4.4 Employment of Youth and Seniors

One of our priorities, highlighted in our Human Resources policy, is to participate in preparing young people for working life through all the school/company programmes: internships, apprenticeship contracts, work-study agreements, International Volunteers in Business programme (VIE), theses, etc. In 2018, we welcomed more than 1,400 young people, representing approximately 12% of the Group's workforce (compared with 1,240 young people in 2017, representing 10% of the Group's workforce). The commitment and actions taken across all sites contributed to this significant increase.

Since 2013, Eramet has been involved with numerous major groups, and within the framework of the AFEP (French Association of Private Enterprises), for the employment of young people. The Group is a signatory to an initiative called *"Jeunes et Entreprises"* ("Young People and Companies").

With a strong commitment from the Trappes research centre (Eramet Ideas) and its teams, Eramet participates in numerous forums for schools in metropolitan France or in the countries in which it operates. This is an opportunity to introduce the Group and its businesses, to exchange ideas with young people and to advise them on their career directions. Many of the Group's employees also volunteer, for the most part in teaching courses, to present the Company or to deliver specialised technical courses. Some of these experts are also involved in school guidance councils or their Board of Governors. Scientific exchanges are also carried out on certain projects with the laboratories of *grandes écoles* or universities, and teachers.

The Group is also very involved in partnering with major schools through the payment of grants (graduation trips, etc.), the apprenticeship tax, in particular, to the National Chemical Engineering Institute in Paris (Chimie ParisTech), the National School of Geology (ENSG of Mines in Alès (Geology), the Mines ParisTech (ENSMP Soil and subsoil specialisation), the Central School Supélec (Energy specialisation), etc.

SLN engages in a partnership with the preparatory classes of the Jules-Garnier secondary school in Nouméa. The SLN competitive exam proves valuable for the young New Caledonians who end up continuing their scientific studies in Metropolitan France.

With regard to the employment of seniors, across the Group as a whole, 52 people aged 10 years younger than the statutory retirement age were recruited on a permanent or fixed-term contract.

6.3.2.4.4.5 Employees and compliance with ILO fundamental conventions and Human Rights

Eramet complies with the applicable regulations in the countries where the Group operates.

As the Group points out in the Ethics Charter, Eramet respects the international standards of the International Labour Organisation and, more generally, complies with the principles of international law relating to human rights. In particular, the Group refrains from using any form of forced labour or child labour, either directly or through its suppliers or partners, and respects the right of association.

The Group also ensures fair treatment of all its employees in terms of professional equality by fighting against discrimination at work, ensures the integrity of those present at each site, and respects the moral integrity of each employee. The Group ensures the quality of human relations within work teams. In particular, it engages in the fight against all forms of violence and helps promote respect for others and fellowship in working relations.

During the annual collection of feedback from the Group's sites on non-financial matters, the Group's various sites are asked whether they comply with the provisions relating to the fundamental ILO Conventions (freedom of association or the right to collective bargaining, the abolition of child labour, the fight against illegal work, the elimination of discrimination at work) and it is important to note the excellent feedback (96% positive replies out of 56 sites surveyed in 2018) demonstrating the attention paid to this subject.

The Group wants to make an even greater commitment to respect for Human Rights, setting the objective of becoming a benchmark company in terms of respect for Human Rights in our field of activity by 2023. The elements concerning this Group approach are presented in Section 6.3.1 Commitment to Human Rights.

6.3.2.5 Social indicators

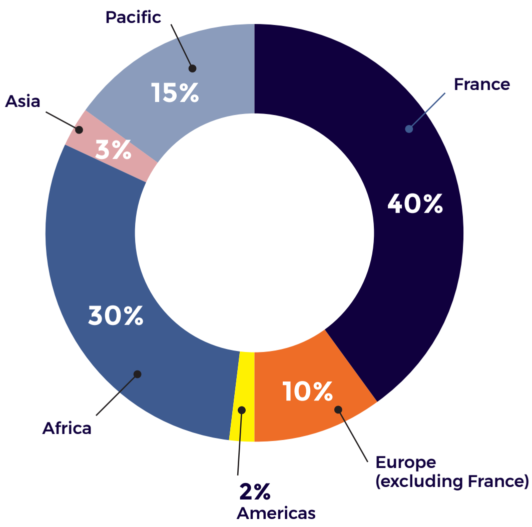
6.3.2.5.1 Total workforce and breakdown by geographical area

As at 31 December 2018, the Group employed 12,705 employees in 20 countries, compared to 12,590 employees at 31 December of the previous year. The Group's HR reporting in force concerns the consolidated workforce and the managed workforce.

NUMBER OF EMPLOYEES AS AT 31 DECEMBER (PERMANENT AND FIXED-TERM CONTRACTS)

	2016	2017	2018	2018 BREAKDOWN
France	5,136	5,049	5,089	40%
Europe (excluding France)	1,165	1,218	1,221	10%
Americas	325	250	265	2%
Africa	3,789	3,746	3,801	30%
Asia	245	298	381	3%
Pacific	2,117	2,029	1,948	15%
Total	12,777	12,590	12,705	100%

WORKFORCE REGISTERED IN 2018 BY GEOGRAPHICAL AREA



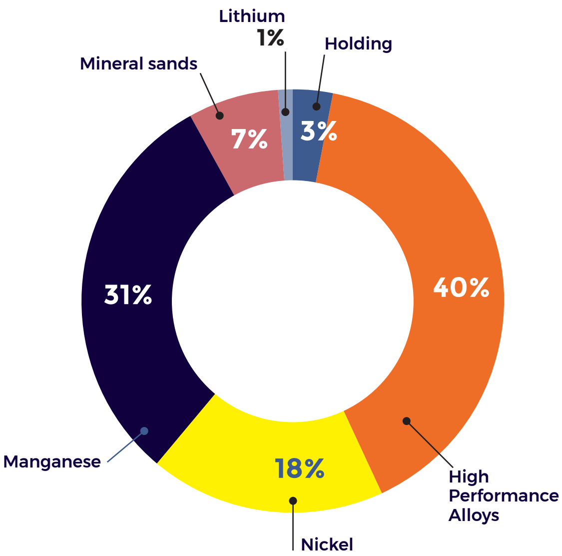
6.3.2.5.2 Breakdown of total workforce by Division and BU

The workforce increased by 0.9% between 2017 and 2018: it remained stable for the Mining and Metals division, and increased for the Holding company (+8.8%) and for the High Performance Alloys division (+1.4%). The increase in the number of employees is largely due to the increase in the number of apprentices on fixed-term contracts at Setrag in Gabon.

	2017	2017 RESTATED[(3)]	2018	2018 BREAKDOWN
Holding[(1)]	**440**	**386**	**420**	**3.3%**
High Performance Alloys	**5,021**	**5,021**	**5,092**	**40.1%**
Aubert & Duval	-	3,942	3,984	31.4%
Erasteel	-	966	987	7.8%
Other[(2)]	-	113	121	1%
Mining and Metals	**7,129**	**7,183**	**7,193**	**56.6%**
Nickel	2,320	2,320	2,282	18%
Manganese	4,809	3,909	3,923	30.9%
Mineral Sands	-	900	921	7.2%
Lithium	-	54	67	0.5%
Total	12,590	12,590	12,705	

(1) Holding: Eramet SA, Eramet Services, Eramet Ideas, Eramet International.
(2) Other: Forges de Monplaisir, Brown Europe, Construction Moules Métalliques.
(3) According to the new structure.

BREAKDOWN OF THE 2018 WORKFORCE BY DIVISION AND BU



6.3.2.5.3 Breakdown of total workforce by contract type

As at 31 December 2018, 95% of Group employees had permanent employment contracts.

The technical nature of the mining and metallurgy professions requires a long professional training period, and the use of short-term employment contracts remains very minor.

Employees on fixed-term contracts within the Group have the same rights and benefits (pension systems, healthcare costs, profit share, etc.) as employees on permanent contracts.

WORKFORCE BY CONTRACT TYPE

	2016	2017	2018	2018 BREAKDOWN
Permanent	12,285	12,113	12,098	95%
Fixed-term	492	477	607	5%
Total	12,777	12,590	12,705	100%
Temporary workers (IN FULL TIME EQUIVALENT)	680	900	930	

6.3.2.5.4 Breakdown of total workforce by socio-professional category

Eramet extended the French notion of socio-professional category to all its entities, which share the following definitions:

- Workers: workers (blue collars);
- Supervisory staff: clerks, technicians, foremen (white collars);
- Management: executives, managers, post-graduate staff, civil engineers (white collars).

BREAKDOWN OF WORKFORCE BY SOCIO-PROFESSIONAL CATEGORY

	2016	2017	2018
Workers	52%	53%	52%
Supervisory staff	34%	33%	33%
Management	14%	14%	15%

6.3.2.5.5 Average age and age distribution

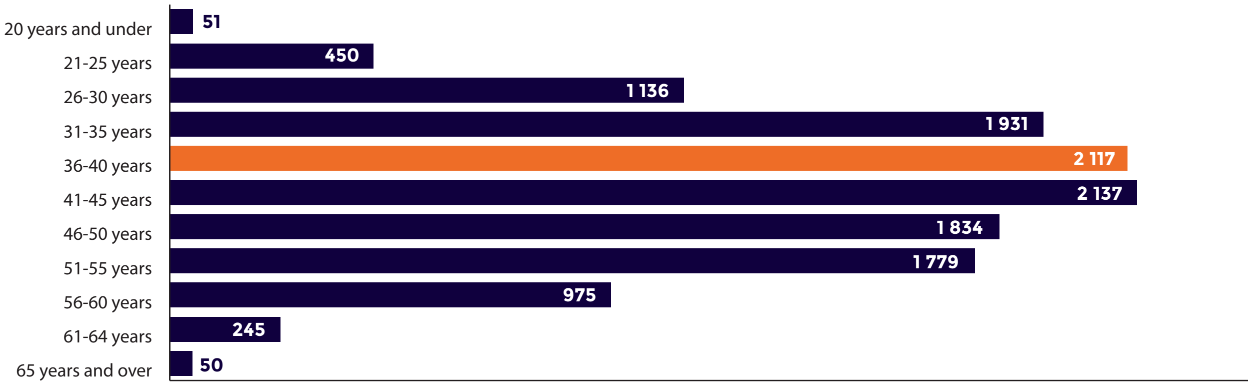
The average age of Group employees was 41.4 years as at 31 December 2018.

WORKERS	SUPERVISORY STAFF	MANAGEMENT
40.9	43	43.4

Employees aged 50 and over represent 27% of the total workforce; those aged 30 and under represent 13% of the total workforce.

Eramet carefully monitors the evolution of the age distribution of its managerial staff, particularly in order to anticipate the retirement of its key employees. Since the implementation of the People Review process at the local, Division and Group level, Eramet has succession plans updated every year for all its key positions.

AGE DISTRIBUTION OF THE GROUP



6.3.2.5.6 Recruitment

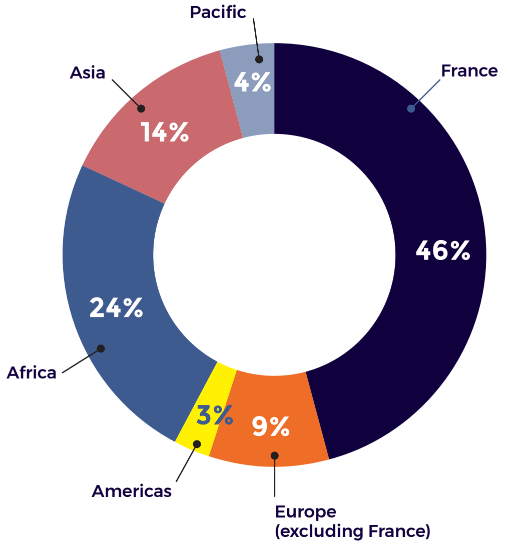
Group companies recruited, excluding transfers between Group companies, 1,254 employees in 2018, up 31.6% compared to 2017.

NEW RECRUITS BY REGION (EXCLUDING TRANSFERS WITHIN THE GROUP)

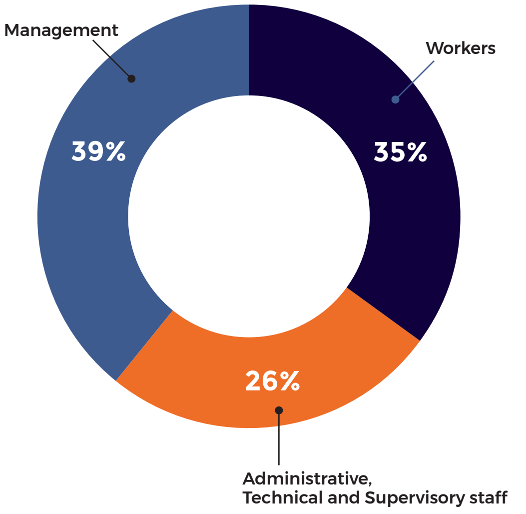
	2016	2017	2018
France	579	544	579
Europe (excluding France)	42	135	114
Americas	81	67	42
Africa	519	166	305
Asia	32	23	171
Pacific	16	19	44
Total	1,269	954	1,255

The external recruitment of 603 permanent employees is divided into the following professional categories:

NEW RECRUITS 2018 EXCLUDING TRANSFERS



PERMANENT CONTRACT RECRUITMENTS 2018 EXCLUDING TRANSFERS



Since 1 January 2013, Eramet has prioritised the recruitment of permanent employees under the age of 30 and over 55.

	PERMANENT CONTRACT RECRUITMENTS 2018	
	< 30 YEARS	> 55 YEARS
Total	247	52
% of total permanent contract recruitments	41%	9%

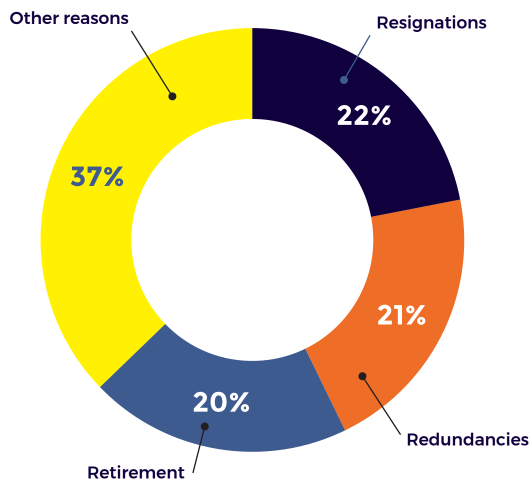
6.3.2.5.7 Departures

In 2018, the total number of departures (this concept includes resignations, redundancies, retirements and terminated contracts, but does not include Group transfers) amounted to 1,107, of which 242 were resignations (22% of departures), 230 were redundancies (21% of departures) and 224 were retirements (20% of departures). The other reasons for leaving (37% of departures) mainly consisted of end of fixed-term contracts.

DEPARTURES BY REGION (EXCLUDING TRANSFERS WITHIN THE GROUP)

	2016	2017	2018
France	570	592	514
Europe (excluding France)	206	85	109
Americas	419	140	32
Africa	495	208	244
Asia	603	29	85
Pacific	106	102	123
Total	2,399	1,156	1,107

BREAKDOWN OF DEPARTURES (EXCLUDING TRANSFERS) BY REASON IN 2018



6.3.2.5.8 Labour organisation

Working time

The organisation of working time depends on the companies, the nature of their activities and their location and is defined in order to best meet the requirements of the activity and the wishes of the employees. Wherever it operates, the Eramet Group complies with legislation on working time regulations. As an indication, the working hours are:

- in Metropolitan France: 35 hours per week;
- in Norway: 37.5 hours per week;
- in New Caledonia: 38 hours per week;
- in China, Gabon, the United States and Sweden: 40 hours per week over five days;
- in Senegal: 40 hours per week.

Part-time workers

Part-time employment contracts exist in many countries where the Group operates. The number of staff concerned by this arrangement represents 1.7% of the total number of staff.

As at 31 December 2018, 210 people were part-time, three fifths of whom were women.

71% of part-time employees, or 150 people, work in France and they account for 3% of the total workforce in Metropolitan France.

Organisation of work

In 2018, **55%** of employees worked fixed days, while **45%** worked shifts.

Absenteeism

(Data from the CSR survey)

The reasons for absence taken into account here are random and unplanned absences, such as sickness, maternity, accidents at work, commuting and unjustified absences.

The average absenteeism rate for the Group was 3.0% in 2018. The average absenteeism rate in France is 4.1%. For the rest of Europe, the average rate is 2.7%. The Americas has a rate close to 1.5%. Africa has an average rate of 2.0%, Asia 2.6%. Finally, the average rate recorded in the Pacific zone is 7.0%.

6.3.3 Commitments to communities

6.3.3.1 Management of impacts on local communities

6.3.3.1.1 Organisation

Eramet places its social commitment at the heart of its vision, especially its contribution to local populations. While the Group has previously focused on limiting and compensating the impacts of its activities and ensuring societal acceptability, it is now seeking to build a partnership relationship, a move which is appreciated by local residents. This challenge is addressed by objective 5 of the Roadmap, “Be a valued and contributing partner of our host communities”. A five-year programme in respect of host communities is implemented by the Divisions for this purpose. The achievement of the objective will be measured against two targets by 2023:

- 100% of sites have established a mechanism for dialogue with local stakeholders;
- 100% of sites have implemented an investment programme to contribute to local development, with a focus on actions in favour of young people.

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At the same time, tools necessary to take into account the needs and issues of communities are being developed, in line with international benchmarks, to prevent the risks inherent in the Group’s activities. The Group is implementing a specific approach to managing the possible impacts of activities on local communities.

The prevention of these impacts is primarily achieved through the implementation of dialogue mechanisms with the relevant stakeholders or their representatives. More targeted risk control measures are also implemented by the sites concerned, depending on the assessed risks for certain activities.

On large industrial sites, this issue is most often addressed by Health, Safety and Environment managers, as the impacts on local residents are mainly related to environmental issues.

In the case of mining activities, the management of community relations covers much broader themes. For this reason, the Group's mining sites have resources dedicated to these societal issues, which are essential for the development of responsible mining operations. These professionals are part of a network managed by the Group's Communication and Sustainable Development Department. The aim is to provide a platform to exchange documentation and good practices in order to increase the Group's internal expertise on community relations. Group Community Relations initiatives are shared with employees via the intranet to illustrate the Company's commitment to corporate citizenship.

6.3.3.1.2 Forms of dialogue with local communities

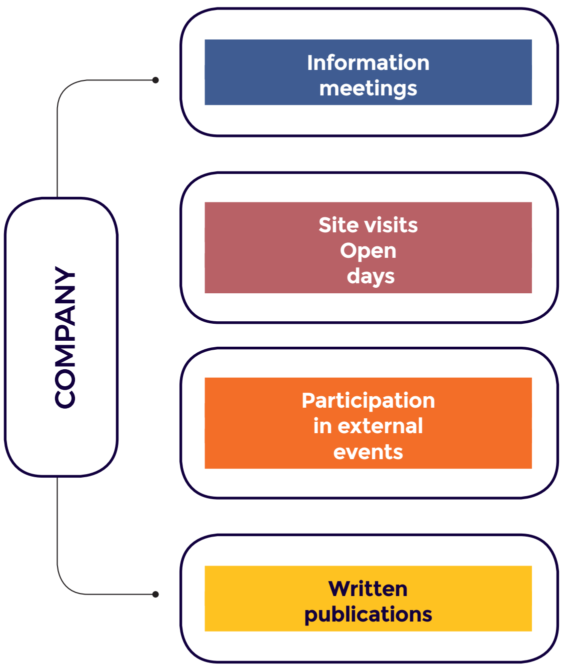
Sites that may have an impact on the environment and local residents carry out information and consultation actions with them, whether due to regulatory obligations or voluntary initiatives. Knowing the local populations and establishing dialogue with them anticipates and prevents the potential impact of activities. This universal approach is adapted by each entity according to its specific challenges.

In 2018, almost 60% of the sites – including 100% of the mining sites and projects – developed a dialogue with the communities, in an informative or consultative manner.

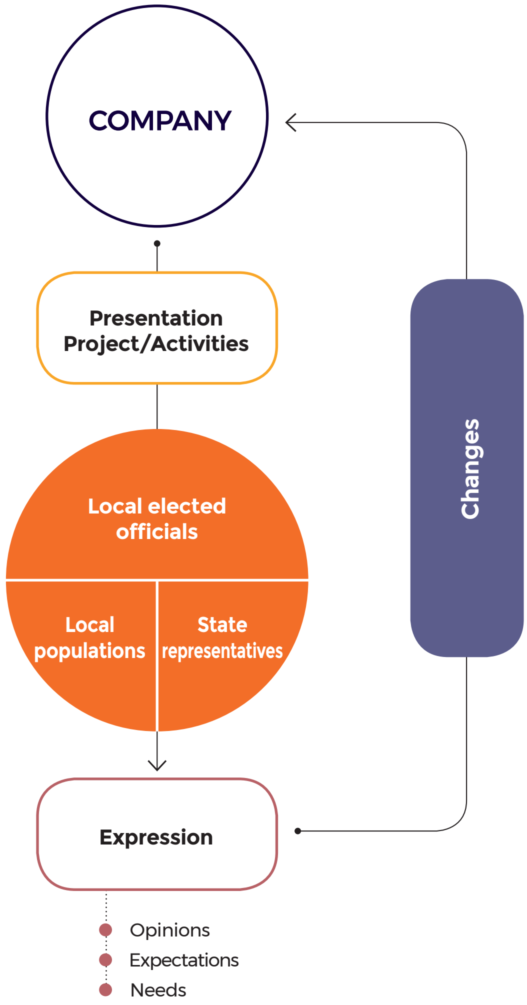
Sites that have initiated an information sharing process for their communities participated in information forums or organised information meetings with local residents.

In addition, certain sites, including all mining sites and projects, have established specific mechanisms for consulting with local residents to ensure that their expectations are taken into account as part of the decision-making process, whether in relation to the management of environmental and societal impacts, or the development of common opportunities.

INFORMATION: PREFERRED TOOLS



CONSULTATION: PROCEDURE



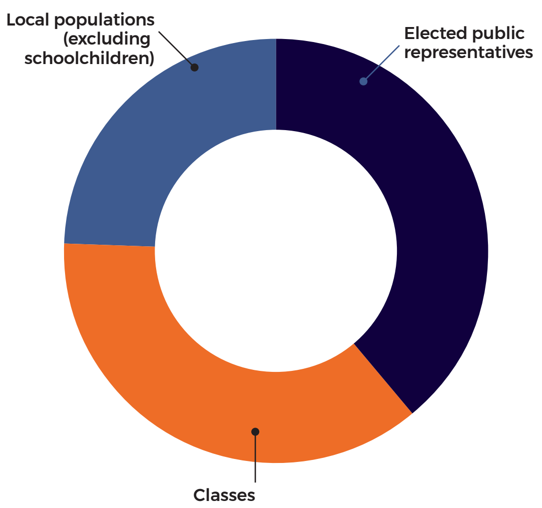
Information meetings are the preferred way for sites to communicate with local populations. The information shared encompasses the site's activities and also the environmental and/or societal impact.

For projects or sites developing new activities, these information meetings are essential to explain their characteristics and present the measures implemented to control the impacts. For example, in addition to maintaining its permanent contact with the communities, GCO (Senegal) organises periodic information and awareness meetings with local populations in their respective villages, in town halls or territorial administrative offices.

The sites in operation also have the opportunity to regularly inform their local residents. In France, because of their Seveso "High Threshold" status or their ICPE (Installation Classified for the Protection of the Environment) status, some sites participate in "Site Monitoring Committees", composed of representatives of the national government, local authorities, local residents, farmers and employees. These committees constitute a framework for the exchange and monitoring of site activities. In addition to regulatory obligations, some sites organise voluntary information meetings, such as Eramet Norway's sites.

In 2018, half of the Group's sites organised visits, during open days or special events. This openness was appreciated by the various visitors, which allowed them to visit the facilities and thus better understand the activities and challenges of the sites.

CATEGORIES OF PUBLIC PARTICIPATING IN SITE VISITS



Worldwide data.

In 2018, the SLN facilities (New Caledonia) welcomed more than 900 visitors from the general public. The mines — and in particular the Thio facility, which hosts monthly visits in partnership with the Tourist Office — account for the largest number of visitors, showing the level of public interest in the nickel business. Comilog Dunkerque (France) organised its first open day to coincide with the plant's 40th anniversary.

The presence of sites at external events organised locally, such as fairs or exhibitions, also allows them to communicate about their activities and their social commitments to various audiences. This type of communication is particularly favoured by industrial sites, such as the entities of Eramet Norway and Aubert & Duval (France).

Consultation, a more engaging form of dialogue with the communities, is continuing at a steady pace. Its frequency varies according to the sites and the needs of the consultation: from once or twice a year to as often as quarterly. This is particularly the case for Comilog in Gabon, which carries out at least one quarterly action through its consultation framework, and Eramine Sudamerica (Lithium Project in Argentina), which organises its consultation meetings at municipal centres.

Consultations may also be required for specific projects. As part of its project to restore the Transgabonais railway line, which particularly affects the Owendo area, Setrag (Gabon) organised public consultation sessions and monitoring committees with the municipality concerned.

Establishment of local complaint management mechanisms

More than half of the Group's sites, including the mining sites in Gabon, Senegal and the projects in Argentina and Indonesia, are developing their own mechanisms to receive and handle complaints from local communities. The procedures for the receipt and processing of complaints are managed directly by the sites. Like the management of community relations, for industrial sites, complaints are received and handled by local managers in charge of health, safety and the environment. For mining sites, this falls under the responsibility of community relations. Complaint tracking updates are most often presented to the site's Management Committee, thus receiving the attention of top management.

6.3.3.1.3 Management of specific risks

Some activities at Eramet sites may have impacts on local populations and are subject to control measures in compliance with the "mitigation hierarchy" of avoiding, reducing or compensating these impacts, in addition to the general information and dialogue approach presented above.

The presence of a company near an inhabited area is an additional source of business risk for local populations. As regards the risks for populations due to economic activities, two types of preventive measures can be implemented: measures to protect populations (infrastructure, security, access restrictions, etc.) and measures to inform the population of the risks involved (information display, raising awareness, etc.).

As Eramet pays particular attention to preventing these risks as early as possible in its industrial or mining projects, an industrial risk prevention approach is continuously implemented by the Group, as detailed in Section 6.2.1.4. The sites concerned control access to the sites, set up barriers and information signs, and some sites also use security guards.

Information relating to business risks is shared as part of the dialogue with local communities. In 2018, Setrag (Gabon) organised a large-scale communication campaign to raise awareness of the risks of collisions between trains and people due to non-compliance with safety instructions. A video clip broadcast on national television, which included accidents that had taken place and safety instructions, was supplemented by radio ads in several local languages. In areas identified as more at risk, direct discussions with people living beside the tracks were carried out over several months, and tens of thousands of people were met.

Security measures protecting employees and infrastructure, such as security guards, are governed by the Security Policy adopted by Eramet. This is in accordance with international law, French law and the law of the countries in which Eramet operates. As part of this policy, the prevention of security risks first requires dialogue and a relationship of mutual respect with local residents. Training and rules governing the use of force and the equipment of the security personnel are decided, designed and controlled by a Site Security Officer, who acts within the framework defined by the Group Security Director. The use of force is strictly limited to cases of extreme necessity and must be proportional to the threat.

The activities of certain Group mining sites require the acquisition of land from communities that reside or carry out economic activities (agricultural or commercial) in the area. These operations may present risks of Human Rights violations (property rights or the right to an adequate standard of living of these communities). The sites concerned set up dedicated teams to manage the potential impact, which refer to the strict principles set out in the Performance Standards of the International Finance Corporation (World Bank Group) concerning these relocation activities, with particular focus on the implementation of resettlement action plans.

This is the case of Grande Côte Opérations in Senegal, which performs mobile mining activities as part of the mining concession granted by the State. Due to the specific problems relating to this site, the Environment and Communities Department has a team specialised in population displacement and restoration of the living conditions, which is responsible for anticipating displacement requirements and working on the implementation of resettlement action plans, requiring long-term work with the populations concerned.

In Gabon, as part of Setrag's project to restore the Transgabonais railway line, work is planned on the first 30 kilometres of railway from Libreville to guarantee the safety of the track and local residents. This work resulted in the displacement of populations and traders occupying the area surrounding the railway line, which is non-transferable State property. A resettlement unit has been established within the project's management team. This unit is responsible for driving the implementation of resettlement action plans and local development plans (livelihood restoration) in the context of involuntary population displacement in accordance with the international standards mentioned above. For example, in 2018, traders were displaced from a market located along the tracks in Owendo, but these traders will be installed in a new market in 2019.

Comilog (Gabon) has maintained long-term dialogue with communities on the subject of project-related travel. As part of the mining of the edge of the Bangombé Plateau, meetings have been organised since 2007 between Comilog, the administration and representatives of the main districts concerned. These meetings continued throughout 2018 with residents, in the presence of representatives of public and local authorities. The final construction project, a development of more than 400 housing units and public infrastructure, is expected to involve some 20 national and local companies for two years. As regards the Comilog 2020 project, public consultations will continue in 2019 and relate to agricultural land.

Some sites also present environmental impact risks that may affect local residents. The Group is deploying all necessary means to reduce its environmental footprint, both at its operating sites and in the context of its development projects. The measures implemented to mitigate environmental and industrial risks (part 6.2. Environmental conservation) also aim to limit disturbances to local communities and avoid pollution risks and those related to a reduction in their access to natural resources.

Nearly half of the Group's sites have special relations with local public or community organisations regarding environmental issues. These mainly consist of direct discussions organised by the sites or meetings within the framework of regular meetings organised by local authorities.

Going even further, some entities have also developed partnerships with specialised organisations. This is particularly the case for Eramet Norway's sites, which for several years now have been working with the NGO Bellona on environmental issues. SLN, which is also a member of Scalair, also supports New Caledonian research organisations such as the Environment Observatory *(L'Œil)*, which monitors the marine environment and air quality. Eramine Sudamerica (Lithium Project in Argentina) has developed a network of environmental observers consisting of local volunteers trained in the measurement of pollution and environmental emissions, in conjunction with the University of Salta. This partnership approach aims to encourage local populations to take an active role in managing the environmental risks associated with the project. In 2018, Setrag signed a partnership agreement with the *Agence nationale des parcs nationaux*, a Gabonese public scientific and environmental institution, which aims to preserve biodiversity and combat the poaching of protected species.

In 2018, the mining centre of Kouaoua (SLN, New Caledonia) was physically blocked by a group of young local residents protesting against the start of mining operations at three deposits, which had been authorised in May of the same year after several years of consultation with public authorities and the local traditional authorities. The site was able to resume its activity after consultation with all stakeholders (young people, traditional leaders, trade unions and authorities). This event helped to establish a new structure for the relationship with the site stakeholders.

6.3.3.2 Development of opportunities for communities

As a corporate citizen, Eramet aims to become a company that contributes to public interest issues in the territories where it operates, dedicating one of the objectives of its CSR Roadmap to this topic. Especially in its relations with local communities, the Group is working to move from an approach limiting and compensating the impacts of its activities to a partnership approach, seeking to contribute positively to local populations by improving their situation according to their priorities and aspirations. This is all the more true for the Group's mining activities, for which the development of good relations between all stakeholders in the region is essential for the creation of shared value in the long term.

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6.3.3.2.1 Local job creation

The major subsidiaries of the Group contribute significantly to job creation in the areas in which they operate, recruiting the vast majority of their teams locally. The Eramet Group, through its subsidiaries Comilog and Setrag, directly employs nearly 3,000 people in Gabon. 98% of the positions created are occupied by Gabonese citizens, making the Group Gabon's second largest private employer. SLN, New Caledonia's biggest private employer, provides more than 2,000 direct jobs. The Auvergne-Rhône-Alpes region accounts for more than half of the jobs created by the Group in metropolitan France.

In Senegal, Grande Côte Opérations (GCO), which represents more than 700 direct jobs, created a Recruitment Committee with the municipal authorities in order to foster the dynamism of a local employment pool. Eramine Sudamerica (Lithium Project in Argentina) has also developed a community development programme for local communities focused on employment. Nearly 45% of employees come from the villages closest to the project, with the rest from the capital of Salta Province.

In addition, many sites are working to develop local skills over the long term in order to develop employability in the regions.

In Gabon, Comilog continued its contribution to the Moanda School of Mines and Metallurgy (E3MG, which opened in 2016), the result of a public-private partnership between the Gabonese State and Eramet Group. This school, which aims to train young Gabonese people in the fields of geoscience, process engineering, mining research and mining, celebrated the school's first graduation in 2018, in the presence of the Gabonese President and the Group's Chief Executive Officer. The Jacques Libizangomo Joumas class has 27 graduates, several of whom have signed a contract with Comilog.

Setrag has developed a partnership with a Gabonese public institution, the National Employment Office, with the aim of creating apprenticeship contracts for young people. 282 young people were trained in 2018. The majority of these young people were recruited by the Company at the end of their apprenticeship.

Aubert & Duval (France) has also made learning assistance and support one of its long-term commitments. It supports the activity of local structures that offer mobility and accommodation solutions for work/study students in Auvergne, such as Sira and Corum Saint Jean.

In 2018, more than 55% of Group sites welcomed and trained trainees, apprentices or PhD students, ranging from a few weeks to several months. This represents several hundred students or apprentices each year.

6.3.3.2.2 Local economic development

The Eramet Group contributes to the development of economic activities in the areas in which it operates, both through its purchasing practices and by supporting initiatives aimed at developing local activities.

95% of Group entities reported local purchases in 2018. The share of local purchases made by the entities surveyed, representing 40% on average, can reach up to 90%. In 2018, two thirds of SLN's purchases of services and products (taking into account local purchases as a percentage of total expenditure, excluding payroll and CAPEX) were made in New Caledonia. For the same year, 65% of Comilog's purchases were made in Gabon. 2018 was marked by significant investments (equipment and machinery not produced in Gabon), which slightly decreased the share of domestic purchases compared to previous years (75% on average).

The activities of the Group's sites may require subcontracting, which encourages the establishment of local companies. This is particularly the case with SLN in New Caledonia, whose mines, plant and support services subcontract activities and draw from the base of local businesses.

Some sites support local micro-entrepreneurship in particular. Setrag (Gabon) participates in the development and rehabilitation of markets, as was the case in Franceville in 2018. In New Caledonia, SLN continued its financial support for the Association for the Development of Economic Initiative (ADIE), of which it has been a partner for 18 years, which offers support services to micro-entrepreneurs, as well as to the Créadie competition at which SLN awards a prize, the "Social media award", which was given in 2018 to a home help service in Thio. Through its contribution to the association *Initiative Nouvelle-Calédonie*, it participates in the creation and development of sustainable companies based in New Caledonia that generate added value and employment, including projects developed by SLN employees, subcontracting projects and projects by inhabitants of the municipalities in which the Company is located — amounting to 20 in 2018.

6.3.3.2.3 Construction and rehabilitation of local infrastructure

In 2018, the Group's mining sites continued to participate in the construction and rehabilitation of local infrastructure, promoting the communal and economic development of the areas in which they operate.

In New Caledonia, SLN contributes to the implementation of municipal facilities through tripartite agreements with mining municipalities and the provinces. In 2018, for example, the Company participated in the financing of drinking water supply works and cultural infrastructure (music school, cultural centre, multimedia library, etc.) for the municipality of Koumac (North Province) and in the renovation of the sports centre and studies for the creation of a footpath for the municipality of Thio (South Province).

GCO has established a social mining programme with the Senegalese government, which commits the Company to making annual investments in local communities. These expenses are managed by the Company, which decided to create a tripartite committee for this purpose. This committee, which includes mayors and representatives of GCO, local residents and civil society, is responsible for allocating the funds for the actions to be taken. The area covered by this programme, which includes several villages, is quite extensive. A system of rotating allocations has been established, allowing a concentration of funds per municipality each year, and therefore more substantial investments.

In Gabon, Comilog and Setrag are heavily involved in the development of the surrounding areas. Comilog has provided the populations of four villages around Lastourville with water and electricity infrastructure. The Company was also approached by the local authorities of Moanda to rehabilitate the city's laterite roads. Setrag's work this year focused particularly on water. For the benefit of the areas based around the network, the railway company contributed to the rehabilitation of public fountains, the drinking water supply in residential areas, and sanitation works.

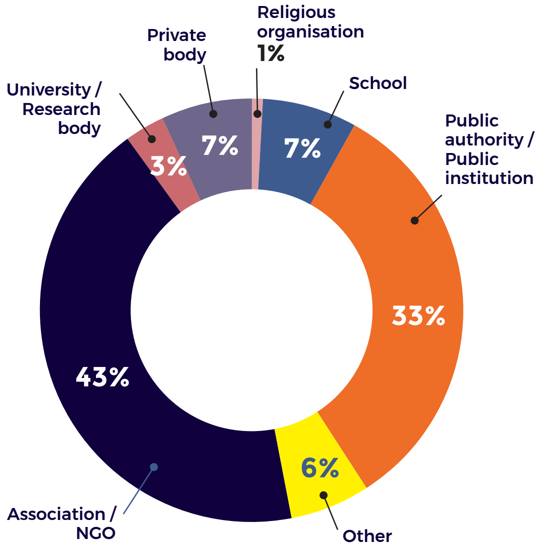
Municipal development also includes actions relating to health and education infrastructure, as presented below.

6.3.3.2.4 Societal initiatives and skills transfer

The Eramet Group is involved at various levels in actions in favour of the communities surrounding the sites, aiming to develop local life through a partnership approach. The societal expenditure presented here is mainly provided through collaborations for the benefit of communities, the environment or the region.

In 2018, the Group's entities carried out more than 140 partnership or sponsorship actions.

PRESENTATION OF ACTIONS BY TYPE OF PARTNER(1)

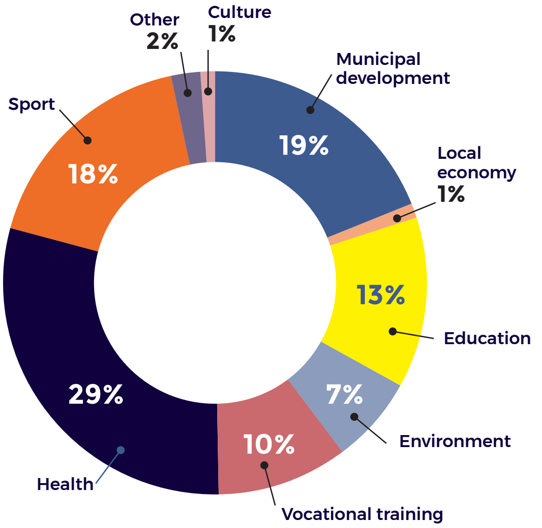


As can be seen in the diagram above, which shows the breakdown of partnerships concluded (in number) by organisation type, associations (sports, cultural or local) and NGOs are the main beneficiaries of the Group's partnership approach. The second type of preferred partner for the Group consists of public players, including local authorities (government, municipality, region, department, etc.) and public institutions (public agencies, national parks, hospitals, chambers of commerce, etc.).

In terms of amounts, this time the Group's entities allocated more than €7.4 million to partnerships and sponsorships during the year. Comilog Gabon's management of the Marcel-Abéké Hospital also contributes to the Group's social commitment through an annual grant of €3 million. It should be noted that this significant contribution is not included in the amount of partnerships and sponsorships above, as it is a structure operated directly by a Group entity.

(1) The graph also includes Comilog Gabon's annual contribution of €3 million to the Marcel-Abéké Hospital, managed by Comilog, which is not included in the amount of partnerships/sponsorships during the year.

BREAKDOWN OF EXPENDITURE BY AREA OF ACTION(1)



The main areas of action supported by Eramet are **health, communal development, sport and education.**

Health

Health is one of the Eramet Group's priority areas of commitment.

The Group's entities in Gabon are particularly active in developing local residents' access to health infrastructures. Marcel-Abéké Hospital is open to the entire population. The rates for services were lowered in 2018 to facilitate access to treatment.

Section 6.3.2.2 Employee health presents the organisation and developments of the Hospital in 2018 in more detail.

Setrag continued its action on free consultations and health care for local residents in the railway line's seven health centres, spread over some 600 kilometres, in addition to its sponsorship actions for the stations' medical centres.

Comilog is also continuing to develop its Gamma programme in support of the Government of Gabon's HIV/AIDS awareness actions. Set up by Comilog in 2006 to fight AIDS, this programme covers a wide range of actions: from general public information on the disease to anonymous screening and comprehensive care for employees or beneficiaries. For example, during a scientific rally organised with the Moanda Students' Association in 2018, the Company raised awareness of the benefits of voluntary testing, allowing everyone to be tested free of charge and anonymously.

In Senegal, vaccination is the subject of a specific commitment by GCO. As a long-term partner of AFRIVAC, the Company supports the foundation's projects, which include the implementation of campaigns to vaccinate children in Senegal and raise parents' awareness on the subject.

In Argentina, the Eramine Sudamerica project (Lithium Project) provides logistical support to various public agencies, by facilitating access to health specialists on the plateau or representatives responsible for conducting a health and social census, making it possible to better identify and meet the needs of isolated populations.

Communal development

Communal development means the financing of public infrastructure covering one or more areas for the benefit of a municipality or local area (economy, health, sport, education, etc.). This particular point is addressed in Section 6.3.3.2.3 above. This is an imperative issue because of the Group's mining activity, which is part of its ongoing commitment to local communities.

Sport

The Group's involvement in sport is universally shared by its entities. This commitment pursues several objectives, including supporting local associations, often aimed at young people, and developing the attractiveness of the region for employees. More than a dozen sites directly support local sports associations, particularly in Auvergne-Rhône-Alpes, but also in New Caledonia, the Scandinavian countries of Eramet Norway and Erasteel Kloster (Sweden), and in Gabon.

For Comilog (Gabon), the main contributor to AS Mangasport, the active support of several Moanda sports associations is a key element of its commitment to young people, enabling local youth to achieve fulfilment through sport, in addition to its actions in favour of education.

VI

(1) The graph also includes Comilog Gabon's annual contribution of €3 million to the Marcel-Abéké Hospital, managed by Comilog, which is not included in the amount of partnerships/sponsorships during the year.

Education

The Group is committed to a policy of active support for education for local communities, and young people in particular. This support is provided in several ways on Group sites and projects, in particular through financial or in-kind donations, and also through actions aimed at schoolchildren.

In this context, Comilog (Gabon) has established a multi-year programme to support schools in the city of Moanda. This takes the form of donations of teaching and computer equipment, as well as water and electricity supply and building repairs. In 2018, the rehabilitation of schools in Moanda and Bakoumba was an important achievement by Setrag (Gabon), which also continued to provide school transport to about 400 secondary school students from the areas around its stations.

Many sites and subsidiaries maintain close relations with educational structures. This is reflected in site visits organised for classes at all levels to promote Eramet's business lines and industrial and mining challenges — in 2018 more than half of the Group's entities ran such activities.

There are also collaborative actions with educational institutions, in the form of interventions by employees in institutions or skill-based sponsorship, as carried out by employees of more than a third of the sites in 2018. Representatives of the sites or of the Group contribute as experts to specialised training courses, such as the *École des mines de Moanda* in Gabon, the CFTMC in Poro in New Caledonia, or vocational secondary schools at the request of the Regional Chambers of Commerce in France.

Aubert & Duval Foundation

Created in 2010, the Aubert & Duval Foundation aims to develop initiatives that contribute to the dynamism of the French regions where the Company's sites are located, and to support projects in the non-profit and micro-economy sectors. The Foundation collects sponsorship requests from French Aubert & Duval sites, reviews the projects and decides which ones to support. Five sites were involved with the Foundation in 2018, allowing the Foundation to carry out more than 30 actions in favour of local participants in education, sport and culture in the Auvergne-Rhône-Alpes region.

6.4 Governance

6.4.1 Ethics, Compliance and Anti-Corruption

The Group undertakes to conduct its activities, everywhere in the countries in which it operates, in strict compliance with the laws and regulations applicable to it. Rigour, transparency and sincerity are the values that form the basis of Eramet's ethical conduct.

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In order to preserve the integrity of its business and to better understand international challenges, particularly with regard to compliance with the highest ethical standards and the conduct of its activities in a constantly changing environment, the Group has adopted an Ethics Charter, which forms the basis of the Compliance Programme.

This document is translated into the Group's 12 main languages (French, English, Italian, Spanish, Portuguese, Japanese, Korean, Chinese, German, Swedish, Norwegian and Indonesian) and can be viewed directly on the Group's website:

http://www.eramet.com/en/system/files/publications/pdf/eramet_group_ethics_charter_2018_en.pdf

The Ethics Charter states that the fight against corruption is an absolute priority for the Group, recalling the principle of compliance with the OECD Convention and local laws.

The members of the Executive Committee undertake, alongside all Group employees, to uphold these values. In 2018, this commitment was demonstrated through communications from General Management to all employees, emphasising the importance of ethics and the need to act in full accordance with them.

6.4.1.1 Main risks

In 2017, the Group — in addition to the existing Group risk mapping, and in accordance with the Law of 9 December 2016, known as the "Sapin 2 Act" — produced a map of its Corruption and Influence Peddling risks, relying on a qualified external contractor to ensure transparency and independence during the financial year.

In accordance with a proven methodology for analysing the criticality of the risk of Corruption and Influence Peddling, depending on its impact and probability of occurrence by business sector and/or geographical area, the "Eramet risk universe" was assessed through interviews, workshops and a self-assessment questionnaire involving the Group's key functions, i.e. more than 151 people in all the geographical areas in which Eramet operates.

The main categories of risks identified have been addressed by dedicated action plans and are monitored at the highest level of the Group in close collaboration with the Audit, Risks and Ethics Committee, which every year will assess the need to update the risk map to reflect changes in the Group's business activities.

6.4.1.2 Ethical governance

In 2018, the Group decided to implement a new ethical dynamic by strengthening its organisation and Compliance Programme, which was approved in 2016 by the Executive Committee.

This resulted in the creation of an Ethics and Compliance Department. A new Chief Compliance Officer was appointed, who reports to General Management, to ensure regular and structured ownership by the Group's top management bodies of these priority issues.

Eramet's Compliance function is organised as follows:

- the Executive Committee defines the overall approach to ethical compliance and periodically reviews the corruption prevention policy;
- a Compliance session of the Executive Committee is held on a quarterly basis, during which a review of confidential alerts is carried out with respect for the rights of whistleblowers;
- the "Ethics Compliance" Steering Committee, composed of members of the corporate HR and legal functions and chaired by the Chief Compliance Officer, meets when convened, at least every two months. Its mission is to monitor ongoing actions to improve the Compliance Programme, to reflect on major actions to promote a culture of ethics within the Group, to ensure the communication and implementation of the Ethics Charter and its principles, and to make recommendations regarding Ethics Compliance and in particular regarding related procedures. The Committee also develops the content of ethics training courses for Group employees;
- an Ethics Compliance network consisting of:
  - 19 "Ethics Compliance Officers" (ECOs), appointed by the Executive Committee and covering the entire Group, a key element of the system, local and operational representatives of the Ethics and Compliance Department.
    The mission of the ECOs is to ensure the local implementation of and compliance with Group procedures, ensure communication with employees, and implement the necessary training programmes. As part of the Group's whistleblowing procedure, the ECOs can be contacted by employees directly. To this end, in full respect of the rights of whistleblowers, they ensure full confidentiality and the immediate communication of the alert to the Chief Compliance Officer. With explicit prior delegation by the Chief Compliance Officer, they may be required to conduct field investigations in accordance with the Group's alert management procedure — a professional whistleblowing system, available on the intranet.

In 2018, the Group significantly improved its approach and decided to appoint new Ethics Compliance Officers, including the appointment of Ethics Compliance Officers dedicated to the Group's three major operational projects;

- 45 "Ethics Compliance Ambassadors" (ECAs), appointed by the Area/Division Ethics Compliance Officer. In order to ensure close communication with its employees, in 2018 the Group decided to appoint new local Ethics Compliance Ambassadors (for example, in New Caledonia, five Ethics Compliance Ambassadors were appointed per mining site, and in GABON, new Ambassadors were appointed for each main station on the railway line operated by Setrag, a Group subsidiary).

  Their duties consist of supporting the Ethics Compliance Officer locally in promoting, communicating, raising awareness and training Group employees.

  This Ethics Compliance Network is regularly informed by the Chief Compliance Officer of ongoing actions, in particular through access to an Ethics SharePoint where all Group procedures are posted, a regularly updated communication framework (infographic), as well as the reports of the "Ethics Compliance" Steering Committee. In addition, there is a six-monthly plenary session of the Ethics Compliance Network organised by the Ethics and Compliance Department (two French/English sessions in compatible time zones organised in September 2018).

  Finally, in 2019, specific training sessions for this Network, particularly on Corruption and Influence Peddling issues, will be conducted specifically by the Chief Compliance Officer, by video or for certain areas through on-site training sessions (New Caledonia, Gabon, Senegal and Argentina).

  The Chief Compliance Officer regularly interacts with the Ethics Compliance Network and promotes close collaboration through regular travel to the different areas.

6.4.1.3 Risk prevention strategy

Risk mapping

An action plan has been adopted by the Executive Committee to ensure that all the risks identified by the risk mapping exercise relating to Corruption and Influence Peddling are covered by procedures and controls. A real risk prevention strategy, both internally and externally, has thus been defined.

Reference frameworks and procedures

A reference framework, supported by the Ethics Charter, provides all Group employees with information and guidance on the main ethical issues, including the fight against corruption. It consists of several policies and procedures implemented and regularly updated to prevent, identify and mitigate the occurrence of risks. For example, a specific "gifts and entertainment" procedure and a "conflict of interest management" procedure, both supported by an annual reporting system by area involving the Ethics Compliance Officers, were implemented in 2017. It is already planned to update this process in 2019.

In parallel with this reference framework, several campaigns to raise awareness about the Ethics culture have also been launched since 2017. In 2018, the Chief Compliance Officer continued these awareness-raising activities through training sessions coupled with site visits. Following these visits, an analysis of the situation was carried out and dedicated action plans are being drawn up for 2019.

Training

With regard to training, in addition to the regular awareness campaigns planned and organised with the support of the Group Communications Department, Eramet ensures that all its employees are regularly trained in these important matters through on-site training conducted by the Chief Compliance Officer, the Ethics Compliance Network and, above all, through an e-learning course entitled "Ethics Charter Awareness" deployed two years ago and made mandatory for all new employees joining the Group, which is monitored by Human Resources.

In 2017, 4,324 employees registered for and attended this training, and in 2018, 2,273 employees were trained.

Regular awareness and training campaigns are carried out each year.

Priority for future actions is given to improving information systems, with the support of the Group Information Systems Department, in order to provide online access to all employees equipped with computers or, alternatively, in some countries to make self-service computer workstations available to the rest of the Group's employees. Finally, the Ethics Compliance Ambassadors, alongside the Chief Compliance Officer, are responsible for conducting local training. These actions are currently under way.

Since 2018, the Group has actively participated in the meetings of professional associations dedicated to business ethics (Transparency International, *Cercle Éthique des Affaires, Cercle de la Compliance*). In addition, the Chief Compliance Officer regularly attends internal seminars of the Division Management Committees and support functions in order to constantly raise awareness about these issues among all Group employees.

Whistleblowing system

The Group's Compliance framework also includes a professional whistleblowing system. This system allows each employee to alert the Group's highest authorities about unethical behaviour and/or violation of Group rules. Several whistleblowing channels are available to employees: the Group Chief Compliance Officer, the

Ethics Compliance Officer (ECO) of the employee's entity, or the IT system deployed, namely: a dedicated, secure and confidential e-mail address and a telephone alert number. Any employee anywhere in the world can notify the Company of anything that might violate the principles and commitments of the Ethics Charter and the laws or rules relating to ethics applicable to our business activities.

In particular, the Group encourages employees to disclose the following:

- corruption, fraud, conflict of interests;
- anticompetitive practices;
- discrimination and harassment at work;
- conduct contrary to the Group's policies and standards in relation to health, hygiene, safety at work and protection of the environment.

The Group is also working to ensure that, in 2019, alerts are received regarding violations or risks of violation of Human Rights by Group employees or external parties affected by the Company's business activities.

The whistleblowing procedures are set out in the Ethics Charter available on the Group's website and made available to all employees, and an infographic is displayed on the premises of each entity.

These alerts can be submitted anonymously where permitted by local regulations.

Alerts are dealt with following a dedicated procedure, which can be viewed on Eramet's intranet. This procedure guarantees that the employee giving the alert has complete confidentiality, and insofar as the employee acts selflessly and in good faith, it also guarantees that no action can be taken against him or her as a result of the use of this mechanism. Finally, in full compliance with the new legislative provisions, the protection of whistleblowers who disclose information in good faith is ensured.

The Group, with the aim of ensuring constant improvement and compliance with the latest and highest ethical standards, has decided to review these issues on a regular basis.

It also plans to establish *ad hoc* monitoring committees to manage and monitor alerts, as described below.

Transparency

In addition to these internal actions, Eramet also promotes transparency in the extractive industries. Eramet has been a member of the Extractive Industries Transparency Initiative (EITI) since 2011. This initiative is based on a set of principles and rules, bringing together governments, companies, civil society groups, investors and international organisations to promote revenue transparency at a local level. By adhering to these principles, Eramet demonstrates its willingness to ensure the responsible development of natural resources and to ensure transparency in financial flows between companies and host countries, and also to ensure regular accountability to its stakeholders.

Eramet has sites in three EITI member or candidate countries: Senegal, Indonesia and Norway. In Senegal, Grande Côte Opérations (GCO) is contributing to the preparation of the country's EITI reports; in 2018 Senegal was recognised as the first African country and the fourth in the world to achieve satisfactory progress in the implementation of the EITI standard. In Indonesia, Eramet does not yet have a mining operation, and it only has non-extractive sites in Norway: its subsidiaries have not been required to contribute to the EITI reports of these two countries.

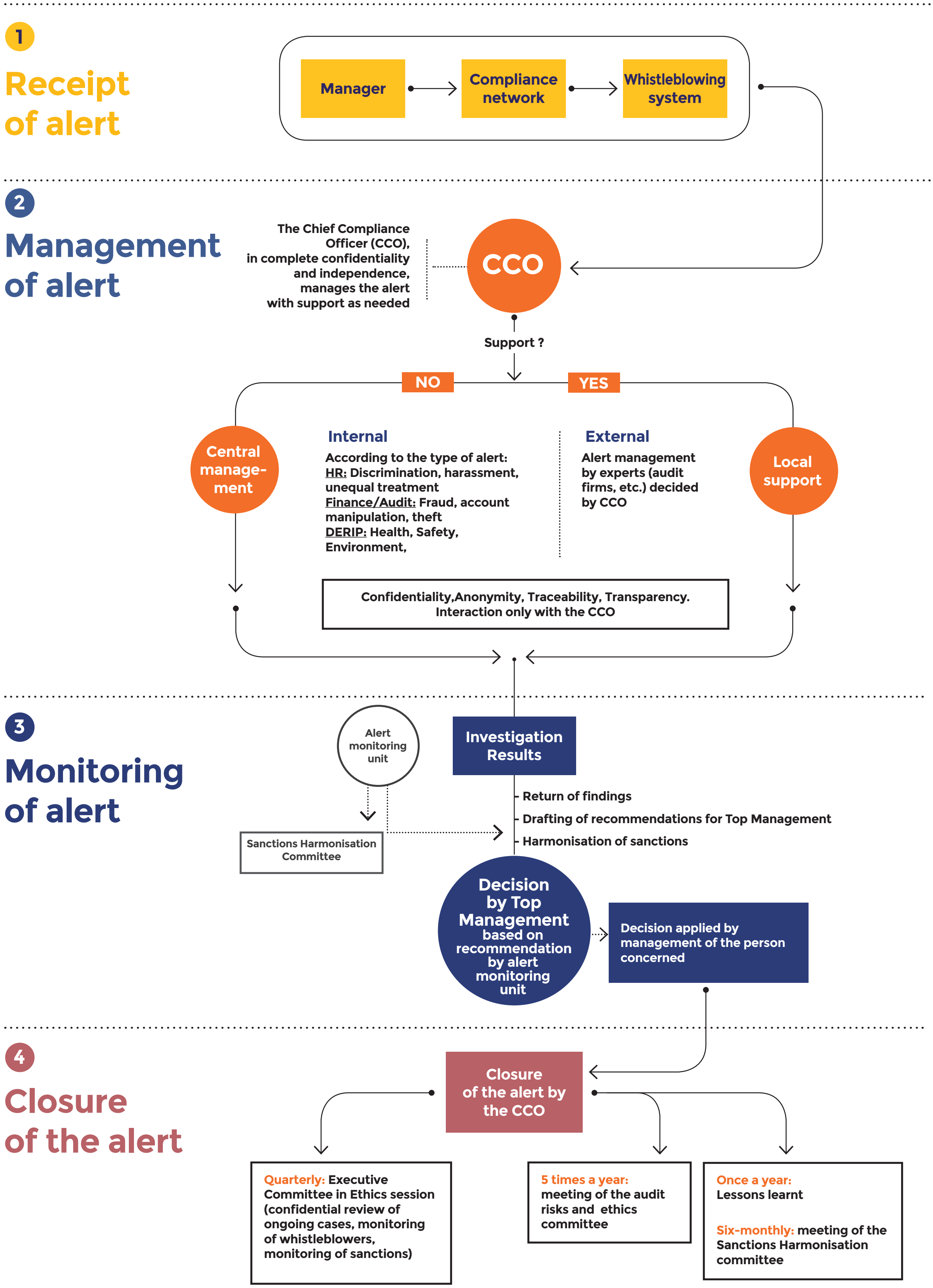
6.4.1.4 Performance

Several key performance indicators have been identified and are regularly monitored by the Group. In addition, specific KPIs have been taken into consideration and are already included in the Group's internal control framework with control points dedicated to Compliance, which will be regularly reviewed as part of the internal control self-assessment campaigns from 2019.

Furthermore, several specific audits have been launched by the Group Internal Audit Department and the Ethics component has now been incorporated into the internal control audit framework.

These indicators are monitored as part of the annual CSR Roadmap and the action plan for monitoring Group risk mapping, as well as at meetings of the Risk, Audit and Ethics Committee. The Ethics and Compliance Department and the Group Internal Audit Department work closely together on these matters.

Alerts are now monitored in accordance with a new procedure entitled "Alert Management Procedure — Professional Whistleblowing System", detailed below. The entire process is supervised in complete independence, confidentiality and transparency by the Chief Compliance Officer.


1
Receipt of alert
Manager
Compliance network
Whistleblowing system
2
Management of alert
The Chief Compliance Officer (CCO), in complete confidentiality and independence, manages the alert with support as needed
CCO
Support ?
NO
YES
Central manage-ment
Internal
According to the type of alert:
HR: Discrimination, harassment, unequal treatment
Finance/Audit: Fraud, account manipulation, theft
DERIP: Health, Safety, Environment,
External
Alert management by experts (audit firms, etc.) decided by CCO
Local support
Confidentiality,Anonymity, Traceability, Transparency.
Interaction only with the CCO
3
Monitoring of alert
Alert monitoring unit
Sanctions Harmonisation Committee
Investigation Results
- Return of findings
- Drafting of recommendations for Top Management
- Harmonisation of sanctions
Decision by Top Management based on recommendation by alert monitoring unit
Decision applied by management of the person concerned
4
Closure of the alert
Closure of the alert by the CCO
Quarterly: Executive Committee in Ethics session (confidential review of ongoing cases, monitoring of whistleblowers, monitoring of sanctions)
5 times a year: meeting of the audit risks and ethics committee
Once a year: Lessons learnt
Six-monthly: meeting of the Sanctions Harmonisation committee

Investigations may be monitored, again in accordance with the above procedure, either internally or by the external expertise of audit firms.

Given the rate of alert escalation, it is already planned to significantly improve the entire system in 2019, both with regard to the alert channels made available to employees and the automated system already in place, as well to update its reference frameworks and the organisation dedicated to the requirements of the latest legislative provisions on sanctions policy, whistleblower protection and personal data protection (GDPR).

Statistics will be regularly communicated, in particular to the Audit, Risks and Ethics Committee.

It should be noted that, in 2018, all Group procedures in terms of Ethics and Compliance were implemented. These procedures have all been standardised and disseminated more widely. It is planned to provide communication on these dedicated procedures and any updates via the Ethics Compliance Network on a regular basis.

Finally, as part of its development of a responsible value chain, the Group has carried out an evaluation of all its suppliers according to pre-defined criteria.

In this context, two dedicated Responsible Purchasing and Sales Committees, described in detail in Section 6.4.2, have been established, supported by a training campaign aimed at the employees concerned, in particular through on-site training and the deployment in 2019 of e-learning modules dedicated to Corruption issues. It is also planned to improve the existing conflict of interest reporting system, which should be automated in the near future.

6.4.2 Responsible value chain

6.4.2.1 Governance

As a responsible economic player, Eramet has established a structure to address new challenges in the value chain. Two dedicated committees, stemming from the Ethics Compliance Committee (mentioned in 6.4.1), meet on a quarterly basis to manage the responsible value chain approach, both upstream and downstream of Eramet's operations.

The Responsible Purchasing Committee includes members of the Group Communication and Sustainable Development Department, the Group Legal Department and the Purchasing Departments, including a Supplier Performance Coordinator recruited in 2018, with specific responsibility for CSR matters. The Committee leads the Group-wide responsible purchasing approach.

This approach is governed in particular by the Eramet Responsible Purchasing Charter. This charter formalises the Group's desire to strengthen the integration of sustainable development issues related to procurement, and promotes a dynamic of continuous improvement. Eramet's expectations with regard to its suppliers, subcontractors and service providers primarily target three main areas: Human Rights and working conditions, environment and products, and good business practices. It is available on the Eramet website at the following address:

http://www.eramet.com/en/system/files/publications/pdf/eramet_responsible_purchasing_charter.pdf

The Responsible Sales Committee is made up of members of the Sales Departments, the Group Legal Department and the Group Communication and Sustainable Development Department. The Committee oversees the gradual implementation of the Group's CSR and ethical commitments to customers, as set out in the Group's Ethics Charter. In addition, particular vigilance is exercised in relation to exports potentially involving countries subject to international sanctions.

Following the work begun by the committees in 2017, two internal procedures for the CSR and ethics assessments of suppliers on the one hand, and customers and commercial intermediaries on the other, were formalised and implemented in 2018.

These procedures and their application have been the subject of awareness-raising sessions within the various Group entities. In 2019, e-learning training courses on this subject will also be deployed for the employees concerned.

The progress of the "Responsible Value Chain" approach is monitored through one of the objectives of the Commitment to Economic Responsibility focus area of the CSR Roadmap.

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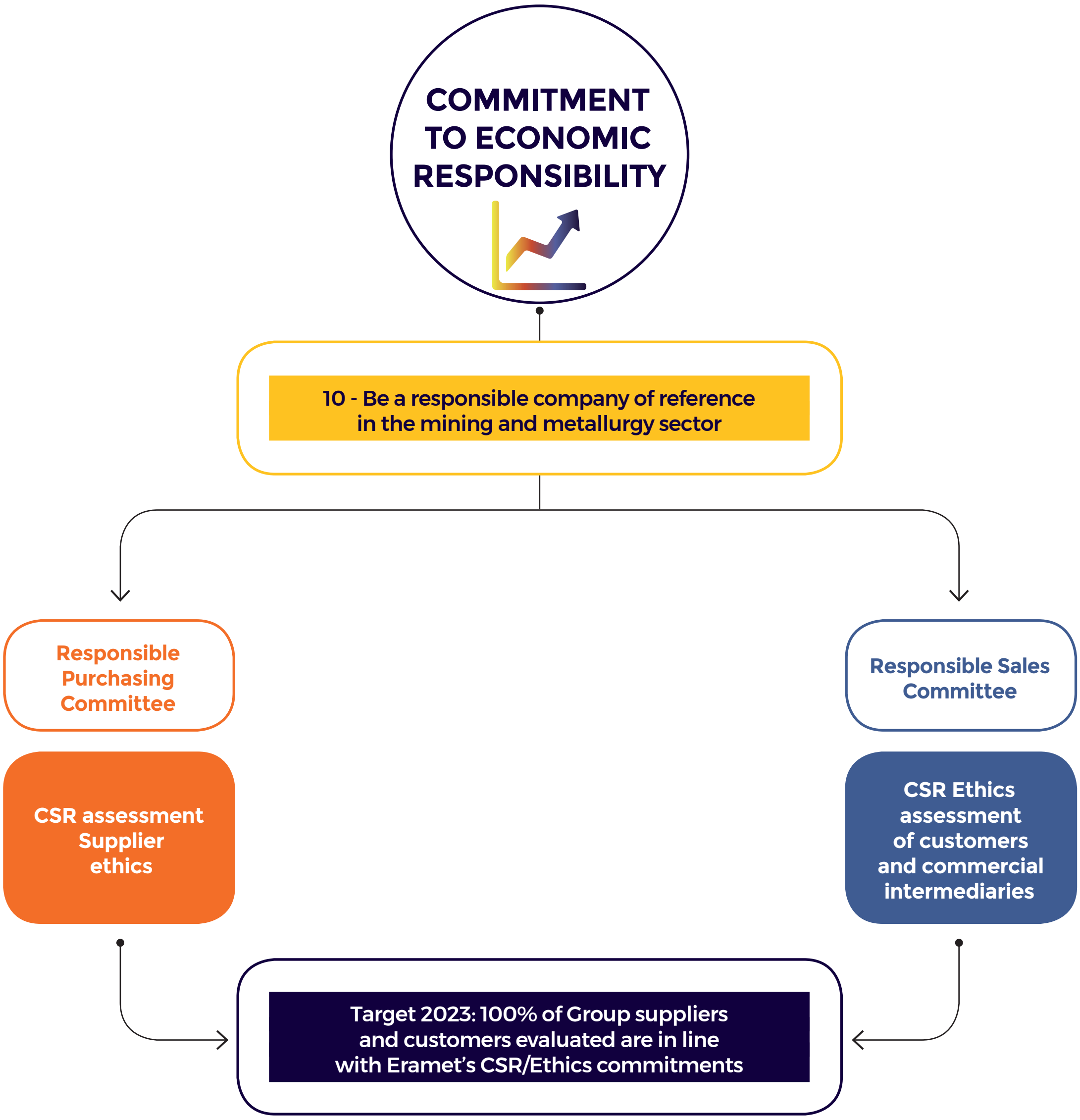
GROUP RESPONSIBLE VALUE CHAIN APPROACH



By suppliers and customers evaluated, the Group is referring to third parties evaluated as "critical and/or sensitive" (in terms of importance to Eramet or CSR risk – depending on the business activity or country concerned). These parties must comply, according to the results of CSR/Ethics evaluations, with the Group's commitments on these themes. If there is a discrepancy between the evaluation results and the Group's expectations, the Group encourages dialogue and support, but reserves the right to terminate the business relationship.

6.4.2.2 Responsible purchasing

Due to the issues associated with the Group's businesses, purchases are the subject of particular attention and also strong expectations from stakeholders in this issue. Eramet is committed to a responsible purchasing approach, which aims to favour suppliers offering products or services that respect environmental and social criteria while maintaining a high level of competitiveness. 93% of the entities surveyed as part of the annual CSR reporting process are aware of this responsible purchasing approach.

Moreover, in France the Eramet subsidiary Aubert & Duval is a signatory of the "Responsible Supplier Relations Charter" (formerly the "Inter-Company Relations Charter"), which was jointly developed in 2010 by the Business Ombudsman and the association of purchasing managers in France (CDAF). This promotes equitable relationships between buyers and suppliers with respect to everyone's rights and duties, with particular attention on the relationship between major contractors and SMEs.

Supplier and subcontractor performance evaluation

In order to reinforce existing practices at the level of certain sites or subsidiaries, Eramet launched a comprehensive and progressive approach to evaluating the CSR performance of its suppliers. As a first step, in 2017 the Group's top 50 suppliers and subcontractors in terms of purchasing volume were invited to complete an evaluation questionnaire that was checked and analysed by an external third party (EcoVadis). The questionnaire focuses on CSR criteria, such as respect for the environment, the management of the value chain, respect for Human Rights and labour relations, and business ethics.

In parallel, and with reference to the obligations imposed by the Law of 27 March 2017 relating to the duty of care of parent companies and contractors, the Group formalised its responsible purchasing approach by structuring it around a risk approach. The Responsible Purchasing Committee created a mapping of the CSR risks related to the activities of its suppliers and subcontractors, and defined a procedure for assessing the situation of its suppliers and subcontractors with regard to these risks.

Based on the results of this mapping, an evaluation campaign was launched between the end of 2017 and mid-2018 to assess suppliers that had been highlighted due to the high CSR stakes of their activity and their importance for the Group's business. Eramet chose to focus its evaluation efforts on the Group's 180 or so suppliers in the seven highest-risk business categories, using the same operating method as that used in the 2017 campaign, mentioned above. In 2018, suppliers in these categories were evaluated in accordance with the internal procedure and will be the subject of more targeted risk management actions led by the Responsible Purchasing Committee.

Among the actions to control potential risks, dialogue with suppliers, the development of targeted action plans and on-site audits are given priority. A pilot audit was carried out this year, and the Group's Purchasing Department has determined the target for potential audits for next year.

Additional elements relating to this approach are described in the Eramet Group's Vigilance Plan, which is attached to this Registration Document.

Monitoring of the "conflict ores" theme

Some of the Group's activities require the use of tungsten in metal form in their manufacturing processes. This metal comes from ores that may be called "conflict" ores if their exploitation is used to finance armed groups and fuel civil wars in some parts of the world. Eramet is therefore very attentive to the conditions of supply of these materials and in particular to compliance with the specific provisions of the "US Dodd Frank Act", as well as the guidelines set by the OECD for multinational companies.

The Eramet buyers in charge of these supplies thus systematically require their suppliers to provide information concerning the origin of the ores used for the manufacture of tungsten metal sold to the Group. They are also asked what due diligence measures they have put in place to verify this origin. To this end, buyers use the Conflict Minerals Reporting Template (CMRT), supplied and updated regularly by the Responsible Minerals Initiative (RMI).

To expand its commitment to this theme, this year Eramet became a partner member of the Responsible Minerals Initiative (formerly known as the Conflict Free Smelter Initiative). By supporting the RMI, the Group is contributing to the advancement of best practices in the sector.

The RMI, created in 2008 by the Responsible Business Alliance (RBA) and the Global e-Sustainability Initiative (GeSI), implements due diligence measures regarding conflict ores, in particular through audits of foundries supplying T3G (Tungsten, Tin, Tantalum and Gold). This initiative is currently working to also encompass Cobalt from sensitive areas.

6.4.2.3 Responsible sales

As part of its commitments in terms of ethics, governance and responsible performance, the Group attaches particular importance to CSR and Ethics issues and risks related to its value chain. The approach to the downstream part of the value chain was officially launched in 2018, following the establishment of the Responsible Sales Committee in 2017.

The internal procedure mentioned in 6.4.2.1 formalises the CSR and Ethics risk analysis measures adopted by the Group to evaluate its customer's situation in relation to these issues. Eramet is committed to ensuring that the practices and behaviour of third parties with whom it interacts do not generate risks of the same nature as those assessed by the Group in the context of its own activities. In particular, it covers corruption and influence peddling, the violation of Human Rights and fundamental freedoms, the health and safety of individuals, damage to the environment, as well as the CSR and ethical situation of suppliers and subcontractors of these third parties.

In order to carry out this first evaluation, the Group uses a specialised Know Your Customer (KYC) database. The results of this platform are then reviewed by the Responsible Sales Committee, which is tasked with following up on these evaluations and implementing additional due diligence actions as necessary.

Implemented in 2018, all customers identified as risk carriers were the subject of this first CSR Ethics assessment. The potential risk carried by the business relationship is evaluated using two criteria: the amount of turnover achieved in 2017 and the risk of the country in which the third party operates, according to the results of an evaluation carried out by an external service provider. Nearly 1,000 customers underwent this first evaluation in 2018, thus the annual target set by the CSR Roadmap was achieved.

6.4.3 Combating tax evasion

As stated in its Ethics Charter, the Group works to develop lasting relationships with local populations, local authorities and communities in the regions where it operates. Eramet's employees demand exemplary behaviour from themselves, ethical conduct that does not violate the laws of the countries in which they operate or the values to which they adhere.

The Group's activities are subject to tax regulations that are specific to their geographical location (see Chapter 5 of the Registration Document, "Monitoring specific tax systems").

In accordance with its legal obligations, Eramet has carried out its "country by country reporting" by declaring to the French tax authorities the distribution of its profits, taxes and activities by tax jurisdiction (Article 223 *quinquies* of the French General Tax Code), as well as its "mining reporting" on its extractive activities, which includes payments made to governments (Article L. 225-102-3 of the French Commercial Code).

This "mining reporting" obligation is directly inspired by the Extractive Industries Transparency Initiative (EITI), of which Eramet has voluntarily been a member since 2011. The EITI aims to contribute to the fight against corruption by promoting transparency in money transfers between oil, gas and mining companies and the countries that host their activities. The Group's financial transparency reporting is available on Eramet's website — www.eramet.com.

6.4.4 Governance of the sustainable development of industrial and mining projects

All projects carried out by the Group are developed in accordance with the internal procedure "Integration of HSE/CSR factors into projects", which was renewed in 2018. This procedure requires compliance with both national and local regulations of the country where the project is located, Eramet policies and standards, and the requirements of the project funders. In addition, international financing standards (Equator Principles, World Bank Group standards) and best practices of the Group's businesses are referenced and applied as far as reasonably possible to the economic performance of the project. The compliance of the Group's projects with this standard is verified at regular intervals.

The aim is to build a long-term trusting relationship with the communities present in the settlement sites and to prevent any risk of infringement on the fundamental rights of these communities, particularly, where applicable, indigenous communities. This requires the implementation of mechanisms for dialogue with the representatives of relevant stakeholders.

Environmental, social, societal and health aspects are taken into account from the most upstream phases of projects. Sustainable development experts and specialists are integrated into the industrial, technical, legal and financial teams, and participate in the various steering committees, from pre-project phases to feasibility studies and pre-construction. Likewise, they participate in acquisition audits in the case of merger or acquisition projects, as well as in due diligence related to the transfer of assets.

The following sections detail the consideration of sustainable development factors in the main projects undertaken by the Group in 2018.

6.4.4.1 Project to improve the safety and reliability of the railway in Gabon

The Transgabonais railway, which crosses Gabon from Libreville to Franceville, has a total of 710 km of tracks, 52 bridges, and 22 stations. In addition to transporting the ore from Comilog to the port of Owendo, it plays a strategic role in the economic development of the country.

Setrag (the Transgabonais operating company) operates the railway under a Concession Agreement established in 2005 and updated in 2015. Setrag is the manager of the railway infrastructure, traffic and operations (passengers, timber, ore and other goods).

For several years, Setrag has stepped up the pace of maintenance and rehabilitation work on the Transgabonais railway. However, the overall condition of the track continued to hinder the operation of the network so Setrag decided to intensify the infrastructure renovation programme. The Company applied to the International Finance Corporation (IFC) and Proparco (French Development Agency Group) to finance the programme, and it successfully obtained funding in 2016.

The concession contract stipulates a contribution from the concession grantor, the State, to certain works, in particular those associated with the reinforcement of infrastructures, the rehabilitation of civil engineering structures, the securing of level crossings and the renovation of "employee" housing developments. In this context, the State has taken steps similar to Setrag to obtain financing from the French Development Agency, whose terms were finalised in December 2016.

The work, which began in September 2017, continued in 2018.

In accordance with Eramet's standards, the project was designed to minimise the potential associated environmental or societal impacts, based on comprehensive and relevant studies. Among these we can mention: an environmental and social diagnosis, an impact notice dedicated to a production unit of steel-concrete sleepers, an impact notice for the rehabilitation of the track and an impact study for the exploitation of the sandpit feeding the sleeper unit. On this basis, management plans and dedicated actions have been developed and implemented.

Setrag reports its results in terms of Environment, Health, Safety and Stakeholder Dialogue to the two financial institutions once a year. It hosts on-site representatives twice a year for follow-up visits to verify the project's compliance with the environmental and social requirements of IFC and Proparco.

6.4.4.2 The Lithium project in Argentina

The project aims to produce 24,000 tonnes per year of lithium carbonate, used in the manufacture of cathodes for lithium-ion batteries using an alternative process for the manufacture of lithium salts from brines that differs fundamentally from the conventional process for the natural evaporation of brines.

The project is located in the province of Salta, in northern Argentina, on the Centenario-Ratones salt lake.

The social and environmental studies required for the development of the project have been completed and are currently being considered by the local authorities. These include the environmental and social baseline study and the environmental and social impact assessment, and involved more than 25 external experts, local teams and Eramet's corporate support functions.

A special effort has been made to integrate sustainable development criteria into the design of the project and the plant. For example, this ongoing effort has reduced projected water consumption by about 30% in two years, which is very important in this very arid region of the world. This progress has been accomplished either by modifications that reduce water requirements, or by adding elements that better recycle water in the process. The recycling rate of water within the process is now over 60%. Finally, it should be pointed out that thanks to the improved extraction efficiency of the innovative process implemented by Eramet, the impact of evaporation losses on the water balance of the catchment area is significantly reduced compared to the conventional evaporation process.

Eramine Sudamerica maintains regular multi-channel dialogue with the inhabitants of the few communities surrounding the project site as well as with all project stakeholders (local and provincial authorities, etc.). Eramine Sudamerica is also implementing a robust Community Development Plan, the focus of which has been decided in conjunction with the communities. These include the revitalisation of quinoa cultivation for the purpose of economic development and to fight against malnutrition, the partnership with the Ministry of Health to develop access to health services for the inhabitants of the *Altiplano*, and a plan to develop local skills.

6.4.4.3 Weda Bay Nickel project in Indonesia

The year 2018 marked the start of work following the signing of partnership agreements between Eramet and the Chinese steel group Tsingshan, the world's leading producer of stainless steels, to develop the Weda Bay Nickel deposit on Halmahera Island.

This partnership, in which Eramet is now a minority shareholder, consists of using a pyrometallurgical process to produce nickel ferroalloy, with an annual volume of about 30,000 tonnes of nickel content, from the ore mined from the Weda Bay deposit.

The desire to implement strong environmental and societal commitments for this project is an integral part of the objectives set out in the agreements signed between Eramet and Tsingshan.

6.4.4.4 Moanda Mine Extension project

As part of the development of its activities, Comilog is considering a scenario to increase production capacity at its Moanda site in Gabon.

The project includes the launch of the exploitation of a new Okouma-Bafoula plateau and the construction of a new washing plant in the Moulili valley.

The project is being developed in accordance with the performance criteria and guidelines of the International Finance Corporation, one of the most stringent sustainable development standards in the world.

These commitments were applied from the early stages of design, by carrying out studies to characterise the human, physical and biological environments. In 2018, these studies were completed and consultations were conducted with local communities and public authorities. The environmental and societal impact study, carried out with the participation of internationally recognised specialists in their field, is currently being finalised. It will be the subject of new consultations with the local communities and authorities. It will then be submitted to the governmental authorities and financial institutions as part of operating licence and financing applications.

Biodiversity issues are important for the project. The main focus is the chimpanzee — an emblematic species which is classified as endangered by the international organisation IUCN[1]. Their presence on the site means that special measures must be implemented. Avoiding their habitats is a central concern of the project's biodiversity conservation strategy. The mapping of future quarries is the result of collaborative work between environment, biodiversity, mining and engineering representatives of the project and Eramet, and the international specialists and experts of consultants Golder and Biotope. As a result, for the preservation of biodiversity it was decided to leave untouched a significant proportion of the mining reserves initially identified (more than 15%).

(1) IUCN: International Union for Conservation of Nature.

6.5 Methodological note

6.5.1 Framework of indicators

The purpose of Chapter 6 is to inform stakeholders about actions undertaken by Eramet in relation to Sustainable Development and CSR. The indicator framework used for this purpose has been designed to provide the most accurate picture of the significant issues facing the Group given its activities. It firstly includes the list of information required by Article R. 225-101-1 of the French Commercial Code. In addition, and in order to report on monitoring of implementation of the Group's policies and its performance, other indicators were chosen based on those proposed by the Global Reporting Initiative's framework and its variant specific to the Mines and Metallurgy sector.

6.5.2 Scope of reporting

The non-financial reporting scope has changed little compared to 2017. The changes mainly relate to mergers, restructuring or site closures:

- Germany: Aubert & Duval Special Steels GmbH and AD Deutschland merged into Erasteel GmbH, which became Eramet Alloys GmbH;
- China: removal/closure of Eramet China Guilin Comilog Ferro Alloys Ltd;
- China: Erasteel Trading merged into EIML;
- USA: removal/closure of Aubert & Duval USA;
- France: removal/closure of:
  - Comilog International,
  - Aubert & Duval Gennevilliers,
  - Valdi;
- Gabon: removal/closure of Maboumine;
- Italy: ADES and Eramet Italia merged into a new company: Eramet Alloys Italia;
- UK: removal/closure of TiZir Ltd.

The SQUAD (India) and EIML (China) sites were added to the reporting scope in 2018.

The Eramet Group's non-financial reporting covers:

- for the Social and Societal part (information provided in Section 6.3): all companies consolidated from an accounting point of view (full consolidation), and also those accounted for by the equity method, as well as the following additional companies: Sodepal, Eramet Alloys UK, Eramet Alloys GmbH and Erasteel India. The corporate scope does not include the commercial or administrative offices or distribution sites in Bolingbrook (USA) or Erasteel India;
- for the Safety part: all companies consolidated for accounting purposes (full consolidation) and also those accounted for by the equity method, as well as EcoTitanium and Sodepal, and finally the Eramet International sales offices, which have been added to the reporting this year. Recent Group entities (acquisitions, new projects) may be excluded from the scope of consolidation if their reporting is not reliable or if the project does not yet represent a significant Group activity;
- for the Environment and Energy part: all of the Group's sites as long as these sites meet the following criteria:
  - Eramet holds a controlling interest in the financial sense of at least 50%,
  - the sites are subject to environmental regulations (permit, code, national regulations).

  Within this scope, it does not apply to sites:
  - whose activity is solely administrative (e.g. sales offices),
  - in the project or closure phase, as long as no commercial production is carried out (with the exception of Eramet Research, to which this reporting does apply),
  - since 2016, to sites whose activity is limited to distribution, it being understood that their cumulative impact is less than 0.1% of the Group total in relation to the main indicators concerned (six sites whose characteristic of non-significant impact is monitored).

The Aubert & Duval Irun (Spain) and EIML (China) sites, which were already reporting their social, societal and safety data, are included in this year's environmental reporting.

The following table summarises the entities covered by the various reporting scopes.

COUNTRY	LEGAL ENTITY	SITE	SOCIAL DATA SCOPE	SAFETY SCOPE	ENVIRONMENT AND ENERGY SCOPE	SOCIETAL
Germany	Eramet Alloys GmbH	Mönchengladbach	x	x		x
	Eramet International	Frankfurt	x	x		
Argentina	ERAMINE Sudamerica	Salta	x	x		x
Brazil	Eramet Latin America	Sao Paulo	x	x		
China	Aubert & Duval Moulds & Die Technology (ADMDT)	Wuxi	x	x		x
	Erasteel Innovative Materials Ltd (EIML)	Tianjin	x	x	x	x
	Comilog Far East Development (CFED)	Hong Kong	x			
	Eramet Comilog Shanghai Trading (ECST)	Shanghai	x			
Korea	Eramet International	Seoul	x	x		
Spain	Aubert & Duval	Irun	x	x	x	x
United States	Erasteel Inc.	Boonton	x	x	x	x
		Bolingbrook	x	x		
	Eramet North America	Pittsburgh	x	x		
	Eramet Marietta	Marietta	x	x	x	x
France	EcoTitanium		x	x	x	x
	Aubert & Duval	Les Ancizes	x	x	x	x
		Clermont-Ferrand La Pardieu	x	x		x
		Issoire	x	x	x	x
		Heyrieux	x	x		x
		Imphy	x	x	x	x
		Pamiers	x	x	x	x
		Firminy	x	x	x	x
	Aubert & Duval TAF	Gennevilliers	x	x	x	x
	Brown Europe	Laval-de-Cère	x	x	x	x
	Construction de Moules Métalliques (CMM)	Landévant	x	x		
	Aubert & Duval TMM	Paris	x	x		
	Erasteel	Commentry	x	x	x	x
		Champagnole	x	x	x	x
		Paris and Chalon	x	x		
	Forges de Monplaisir	Saint-Priest	x	x	x	x
	Interforge	Issoire	x	x	x	x
	UKAD	Les Ancizes	x	x	x	x
	Eramet Holding	Paris and Trappes	x	x		
	Eramet Engineering	Trappes	x	x		
	Eramet Research	Trappes	x	x	x	x
	Comilog Dunkerque	Dunkirk	x	x	x	x
	Eramet Comilog Manganese	Paris and Trappes	x	x		
	Eramet Sandouville	Sandouville	x	x	x	x
	Eramet Nickel	Paris and Trappes	x	x		
	Eramet Services	Clermont-Ferrand	x			

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COUNTRY	LEGAL ENTITY	SITE	SOCIAL DATA SCOPE	SAFETY SCOPE	ENVIRONMENT AND ENERGY SCOPE	SOCIETAL
Gabon	Comilog SA	Moanda Complexe C2M	x	x	x	x
		Moanda Complexe CIM	x	x	x	x
		Owendo Mineral Port	x	x	x	x
		Moanda Mine	x	x	x	x
	Setrag	Owendo	x	x	x	x
	Sodepal	Bakoumba	x	x		x
India	Eramet India Private Limited	Mumbai	x	x		
	Erasteel India	Mumbai	x			
	SQUAD	Belgaum	x	x	x	
	ADEI	India	x	x		
Indonesia	Pt Weda Bay Nickel	Jakarta, Halmahera	x	x		x
Italy	Eramet Alloys Italia	Ferrara	x	x		x
	Eramet International	Trezzano	x	x		
Japan	Eramet International	Tokyo	x	x		
Norway	Eramet Norway	Kvinesdal	x	x	x	x
		Sauda	x	x	x	x
		Porsgrunn	x	x	x	x
	TiZir Titanium & Iron (TTI)	Tyssedal	x	x	x	x
	Eralloys Holding		x			
New Caledonia	SLN	Nouméa (Doniambo)	x	x	x	x
		Kouaoua	x	x	x	x
		Népoui	x	x	x	x
		Poum	x	x	x	x
		Tiébaghi	x	x	x	x
		Thio	x	x	x	x
United Kingdom	Eramet Alloys UK	Sheffield	x			
	Erasteel Stubs	Warrington	x	x	x	x
Senegal	Grande Côte Opérations – TiZir	Diogo	x	x	x	x
Sweden	Erasteel Kloster	Söderfors	x	x	x	x
		Långshyttan	x	x	x	x
		Vikmanshyttan	x	x	x	x
Taiwan	Eramet International	Taipei	x	x		

6.5.3 Collection, consolidation and control of data

Social reporting (including safety reporting) is based on the dedicated Era-Link acquisition and consolidation tool and on a qualitative questionnaire, sent in parallel, to the entities concerned (which also enables feedback on the societal commitment of the sites). Comparing the figures from these two tools for some common indicators allows for data verification.

The procedure "Safety and Information Reporting in case of personal accident" is the reference in terms of safety reporting. The applicable version was revised in 2018.

Data relating to occupational accidents are cross-checked with the monthly declarations made by the sites to the Safety and Prevention Department via the Group's HSSE SharePoint.

The process of environmental and energy reporting is subject to a procedure that was updated in 2016, which clearly defines the responsibilities and operating procedures.

Environmental and energy reporting is based on a dedicated information system, called EraGreen, deployed at all relevant sites since 2011. All the quantitative information provided in this report (environmental indicators) is extracted from EraGreen and comes exclusively from the data entered by each of the Group's sites and validated by each site manager.

EraGreen contains systems for checking data automatically through comparison with previous years. In addition, the annual reports of EraGreen sites are systematically checked for consistency by experts from Division or Group departments.

6.5.4 Specific points and methodological limitations

- From 2015 onwards, the frequency rates[1] and severity rates[2] of occupational accidents are calculated by including temporary workers in the workforce.
- Due to planning constraints, some monthly environmental data may not be available for the last month of the year. In this case, the missing data is estimated as accurately as possible, based on the historical site data and correlated, where appropriate, to production, in accordance with the Group's standards.
- When an environmental measurement is deemed to be faulty or is unavailable, an estimate based on historical ratios is used, adjusted according to the level of production of the site. This situation may arise in particular for nitrogen oxides (NOx) and channelled dust parameters, for which the quantities reported are based on a limited number of measurements during the year.
- Waste: waste is reported in the environmental reporting by the sites in accordance with the national regulations applicable to them. The reported quantities correspond to the quantities of waste discharged into the treatment systems during the year. The criteria that lead to the identification of hazardous or non-hazardous waste are variable according to the regulations of the different countries, so the reporting cannot be completely homogeneous in this respect.

  The measurement of non-hazardous waste does not include tonnages of deliberately rich slag that is generated as part of the ferromanganese pyrometallurgical process to feed the silico-manganese production furnaces as a secondary raw material, thus contributing to the concept of circular economy.
- Water consumption: the quantities of seawater used for the cooling of the thermal power plant and for the granulation of SLN slag (New Caledonia), and water used for the cooling of the facilities at the Marietta site (USA) are not accounted for as the water is directly returned to the natural environment without undergoing transformation.
- Greenhouse gas emissions: reporting is done in accordance with the rules of the GHG Protocol (WRI). The emission factors used are those most recently published by ADEME (in its Carbon Database), and by the International Energy Agency for electricity.
- Biodiversity: from 2018 onwards, the figures given for the cleared and revegetated area indicators have been made more comprehensive in scope by including contracted sites. The values for 2017 and 2016 are given with this same definition. This explains the discrepancy with the data published in previous Registration Documents.
- Enrolled workforce: employees with a contract of employment with the Company (fixed-term contract "CDD", permanent contract "CDI") and entered in the personnel records on the last day of the period concerned. This information corresponds to the number of people regardless of their working time (full or part time). Each employee is counted as one.

*(1) The **frequency rate** of workplace accidents is the number of accidents that take place at work, occurring in a given period, in relation to one million hours worked. FR = (number of occupational accidents x 1,000,000)/number of hours worked.*

*(2) The **severity rate** of workplace accidents is the number of calendar days not worked after an occupational accident, occurring during a given period, based on one thousand hours worked. SR = (number of days not worked due to occupational accident x 1,000)/number of hours worked.*

6.6 Report by one of the Statutory Auditors, appointed as an independent third party, on the consolidated non-financial performance statement in the Management Report

This is a translation into English and it is provided solely for the convenience of English speaking users.

For the year ended 31 December 2018

To the shareholders,

In our capacity as Statutory Auditors of your Company (hereinafter the "entity") appointed as the independent third party, certified by the French Accreditation Committee (*Comité français d'accréditation* or COFRAC) under number 3-1049,[1] we hereby report to you on the consolidated non-financial performance statement for the year ended 31 December 2018 (hereinafter the "Statement"), included in the Group Management Report, in accordance with the legal and regulatory provisions 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

It is the Board of Directors' responsibility to prepare a Statement in accordance with legal and regulatory provisions, including a presentation of the business model, a description of the main non-financial risks, a presentation of policies applied to mitigate these risks and the outcomes of those policies, including key performance indicators.

The Statement has been prepared applying the procedures of the entity (hereinafter the "Guidelines"), the most significant aspects of which are presented in the Statement and available upon request at the entity's headquarters.

Independence and quality control

Our independence is defined by the provisions of Article L. 822-11-3 of the French Commercial Code and the French Code of Ethics for Statutory Auditors *(Code de déontologie).* Moreover, we have implemented a quality control system that includes documented policies and procedures to ensure compliance with applicable ethical rules, professional standards, laws and regulations.

Responsibility of the Statutory Auditor appointed as independent third party

On the basis of our work, it is our responsibility to express a limited assurance opinion about whether:

- the Statement complies with the provisions of Article R. 225-105 of the French Commercial Code;
- the information provided (hereinafter the "Information") is fairly presented in accordance with Article R.225-105-I-(3) and II of the French Commercial Code concerning policy outcomes, including key performance indicators and actions relating to the main risks.

However, it is not our responsibility to express an opinion on:

- the entity's compliance with other applicable legal and regulatory provisions, particularly relating to Duty of Care and the fight against corruption and tax evasion;
- the compliance of products and services with applicable regulatory provisions.

(1) Accreditation scope available at www.cofrac.fr.

Nature and scope of our work

We performed our work described below in compliance with Article A. 225-1 *et seq.* of the French Commercial Code *(Code de commerce)*, defining the conditions under which the independent third party performs its engagement, and with the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie nationale des commissaires aux comptes* or CNCC) relating to this engagement and with ISAE 3000 (International standard on assurance engagements other than audits or reviews of historical financial information).

We conducted work to form an opinion on the Statement's compliance with legal and regulatory provisions and the fair presentation of the Information therein:

- we gained an understanding of the activity of all companies in the consolidation scope, of the entity's exposure to the main social and environmental risks relating to the business activity and, if applicable, of its effects on respect for human rights and the fight against corruption and tax evasion, including any related policies and their outcomes;
- we assessed the appropriateness of the Guidelines in terms of their relevance, completeness, reliability, neutrality and clarity, by taking into consideration, where relevant, the sector's best practices;
- we verified that the Statement covers every category of information required under Article L. 225-102-1, paragraph III concerning social and environmental matters as well as respect for human rights and the fight against corruption and tax evasion;
- we verified that the Statement includes a clear, substantiated explanation in the event that the information required by sub-paragraph two of Article L. 225-102-1, paragraph III of the French Commercial Code is missing;
- we verified that the Statement presents the business model and the main risks relating to the activity of all companies in the consolidation scope, including — if relevant and proportionate — risks due to its business relationships, products or services, as well as policies, actions and outcomes, including key performance indicators;
- we verified that the Statement presents the disclosures required under Article R. 225-105, paragraph II, of the French Commercial Code if they are relevant given the main risks or policies presented;
- we obtained an understanding of the process for selecting and validating the main risks;
- we enquired about the existence of internal control and risk management procedures implemented by the entity;
- we assessed the consistency of the outcomes and key performance indicators with the main risks and policies presented;
- we verified that the Statement covers all companies in the consolidation scope in accordance with Article L. 233-16 within the limits specified in the Statement;
- we assessed the data collection process implemented by the entity to ensure the completeness and fair presentation of the Information;
- for key performance indicators and the other quantitative outcomes[2] that we considered the most important, we set up:
  - analytical procedures to verify that collected data is correctly consolidated and that any changes to the data are consistent,
  - tests of details based on sampling to verify that definitions and procedures are correctly applied and to reconcile data with supporting documents. The work was carried out with a selection of entities contributing[3] to the reported data and represents between 20% and 66% of consolidated data of key performance indicators and outcomes selected for these tests;
- we referred to documentary sources and conducted interviews to corroborate the qualitative disclosures (actions and outcomes) that we deemed the most important[4];
- we assessed the overall consistency of the Statement based on our understanding of all companies within the consolidation scope.

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(2) Quantitative social information: Workforce on 31 December 2018; Workforce by type of employment contract; Workforce by socio professional category; New recruits; Departures; Number of resignations; Number of dismissals; Percentage of women in managerial positions; Number of training hours held during the exercise; Lost time injury frequency rate (TF2); Accident severity rate.
Quantitative environmental information: Energy consumption; CO_2 emission related to energy; Total canalised dust; Chemical oxygen demand (COD); Quantity of hazardous waste; Total water consumption.

(3) Complexe Métallurgique de Moanda (C2M) de la Comilog (Gabon); Complexe Industriel de Moanda (CIM) de la Comilog (Gabon); Société d'Exploitation du Transgabonais — Setrag (Gabon); Eramet Norway Sauda (Norway); Eramet Norway Kvinesdal (Norway); Aubert & Duval — Les Ancizes (France).

(4) The policies implemented on safety matters, the measures taken on social cohesion, the projects on reorganization, the policies and actions for the evaluation, the certification and the investment in terms of environment, the reduction of canalized dust emissions, the monitoring of chemical discharges in water and soil which affect the environment, the adaptation to the consequences of climate change, the reduction of CO_2 emissions, the action plan for circular economy, the management of the risk of corruption and influence peddling, the audits in terms of human rights, the implementation of the commitments on Human Rights, the relations with local communities, the partnerships and sponsorships, the processes for CSR and ethical evaluation of suppliers.

We believe that the work carried out, based on our professional judgment, is sufficient to provide a basis for our limited assurance opinion. A higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our work drew on the skills of five individuals and was conducted between October 2018 and February 2019 for a total working time of approximately five weeks.

To assist us in conducting our work, we called on our firm's sustainable development and corporate social responsibility (CSR) specialists. We conducted a dozen interviews with the individuals responsible for preparing the Statement.

Opinion

Based on our work, we have no material misstatements to report that would call into question the compliance of the non-financial performance statement with the applicable regulatory provisions, or the fair presentation of the Information, taken as a whole, in accordance with the Guidelines.

Paris-La Défense, on 29 March 2019

KPMG S.A.

Anne Garans
Partner Sustainability Services

Denis Marangé
Partner

VII. Remuneration of the management and administration bodies

7.1 Remuneration policy for the executive corporate officer

The remuneration of the executive corporate officer is set annually by the Board of Directors at the recommendation of the Remuneration Committee. The remuneration of the executive corporate officer is broken down into a fixed portion and a variable portion. The goals of executive corporate officers are determined by the Remuneration and Governance Committee and submitted to the Board of Directors for approval.

The remuneration policy for the executive corporate officers established by the Board of Directors is based on the following elements:

- Remuneration includes a fixed and a variable portion, determined each year by the Board based on the recommendations of the Remuneration Committee, based in particular on market practices and a survey of the remuneration of corporate officers of companies with comparable Group turnover and market capitalisation. C. Bories' fixed remuneration was defined as part of his contract as a corporate officer in accordance with her appointment as Chairman and CEO on 23 May, 2017.
- The annual variable remuneration of the Chairman and CEO is determined:
  - 60% on the basis of quantitative targets relating to safety and working conditions and economic performance: current operating income and operating cash flow;
  - 40% on the basis of qualitative objectives.

  This annual variable remuneration structure is applied to the Group's executives.

  For quantitative safety and economic performance objectives, the weighting is as follows:
  - 10% on safety (accident frequency rate);
  - 50% on the Group's financial results.

  The objectives achieved (100%) correspond to the budget figures.

  If the Group's net income for the financial year in question is negative, a 50% allowance will be applied to the amount of the variable part due under the objective linked to economic performance.

  Qualitative objectives are determined by the Board of Directors on the proposal of the Remuneration and Governance Committee and focus on strategic, business and managerial issues specific to the coming financial year. They may concern the implementation of strategic orientations approved by the Board of Directors, major industrial and commercial developments and programmes, organisational and management actions and achievements that are part of the Group's corporate social responsibility (CSR) and sustainable development approach. They do not fall under routine tasks but are specific actions for which the Board of Directors expects a particular performance.

  The target-based annual variable portion is set at 100% of gross annual fixed remuneration and can vary from 0% to 150% of gross annual fixed remuneration depending on the level of achievement of the various objectives, with 100% of the fixed rate corresponding to 100% of the objectives achieved. It may not exceed 150% of gross annual fixed remuneration. The variable portion for goals achieved and the maximum variable portion are reviewed each year by the Remuneration Committee in relation to market practice, as part of remuneration surveys conducted annually.
- Full details are set out in the section on remuneration items falling due or granted to each executive corporate officer of the Company for the financial year ended and submitted to a vote at the General Shareholders' Meeting.
- In addition, in respect of stock-based remuneration plans, the executive corporate officer may benefit from performance share plans or share subscription or purchase option plans, the terms and conditions of which are decided upon by the Board of Directors, at the recommendation of the Remuneration and Governance Committee. Since the Board meeting of 23 July 2007, corporate officers are required to retain 20% of shares acquired under performance share plans throughout their entire term of office. Share grants are awarded annually at the same time of year and are not discounted. Since these concern existing shares as opposed to new shares, there is no share dilution. With regard to the dilution of voting rights, the allocation of existing shares only has a marginal impact, given the composition of Eramet's equity, on one hand, and the selectivity of the criteria established for these plans, on the other. The share plan regulations prohibit hedging operations and executive corporate officers give a formal undertaking in this respect. A total of 10,000 performance shares, existing shares, subject in their entirety to performance conditions, were granted to Christel Bories, Chairman and Chief Executive Officer, on 22 March 2018. The performance conditions are calculated over a three-year period, as follows: the relative performance of Eramet shares for a third of the share grant (this entails comparing the change in total shareholder return over a three-year period with that of a panel of around 37 comparable companies on the Euromoney Global Mining Index: Diversified Metals & Mining, Steel; the performance conditions are only met at 150% if the share is ranked among the top 15% of the panel) and the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for two thirds of the share grant (one third of the EBITDA (Earnings before interest, taxes, depreciation and amortization) and one third of the ROCE (Return on capital employed), the annual objectives referring to the Company's budgetary targets); this performance condition is only met at 150% when these targets are significantly out-performed.

- Christel Bories' corporate officer contract specifies that in case of dismissal (except for gross misconduct) or forced resignation, particularly following a change of control of the Company or substantial imposed changes to the scope of responsibility, Christel Bories will be awarded severance pay equal to one year of her gross fixed and variable remuneration for departure up until 1 January 2019, and two years from 1 January 2019.

  This benefit is subject to the condition that the sum of gross variable remuneration received over the last three complete years of her term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period. In the event that the number of full years is less than three, the performance will be assessed based on the actual duration of the term of office, at the discretion of the Board of Directors on the proposal from the Remuneration Committee.

  In accordance with the provisions of Article L. 225-42-1 of the French Commercial Code, these modified arrangements were the subject of a resolution put before the annual General Shareholders' Meeting of 24 May 2018.

  In addition, in accordance with AFEP/MEDEF Code recommendations, Christel Bories does not hold a contract of employment binding her with the Company.

  There is no provision for corporate officers to receive payment in respect of a non-competition commitment upon conclusion of their respective terms of office.

  In the event of a change in control of Eramet and the termination of an employment contract that is considered to be attributable to the employer, a specific guarantee, which may not be combined with other indemnities applicable under contracts or collective bargaining agreements, was decided in 2005 and implemented. At 31 December 2018, this guarantee applied to six of the Group's senior executives (certain members of the Group Executive Committee who are not corporate officers and members of the Divisional Executive Committees). This guarantee, which represents an indemnity of three years' remuneration (fixed plus variable) for each executive concerned, was estimated at a total of €2.9 million at 31 December 2018. Christel Bories does not benefit from this guarantee.

- Corporate officers also benefit from a supplementary healthcare plan and a supplementary disability and life insurance scheme, offered to all Eramet Group employees.

The table below sets out an individual breakdown of gross remuneration due to corporate officers in 2018:

Table 1 – Summary table of the remuneration, shares and options granted to each executive corporate officer

	REMUNERATION DUE IN THE YEAR(1)		VALUE OF SHARES GRANTED DURING THE YEAR(2)		TOTAL	TOTAL
(€)	2018	2017	2018	2017	2018	2017
Christel Bories Chairman and CEO	1,868,993	1,805,036	1,169,800	433,375	3,038,793	2,238,411
Total corporate officers	**1,868,993**	**1,805,036**	**1,169,800**	**433,375**	**3,038,793**	**2,238,411**
Michel Carnec Human Resources Director	452,769	594,266	339,447	219,739	792,216	814,005
Thomas Devedjian Deputy CEO Group Finance	576,983	765,413	433,031	278,875	1,010,014	1,044,288
Philippe Gundermann Director of Strategy and Financial Communication	380,425	319,105	286,806	152,155	667,231	
Jean de L'Hermite Group Legal Director	247,773	204,686	194,391	90,907	442,164	
Catherine Tissot-Colle Director of Communications and Sustainable Development *(until 30/09/2018)*	261,218	377,703	216,618	152,155	477,836	529,858
Philippe Vecten Deputy CEO Mining divisions *(until 31/03/2018)*	1,254,013	800,027		278,875	1,254,013	1,078,902
Jérôme Fabre Deputy CEO Alloys division *(from 01/02/2018)*	386,486	0	323,654		710,140	0
Kléber Silva Deputy CEO Mining divisions *(from 19/02/2018)*	519,862	0	916,509		1,436,371	0
Virginie de Chassey Director of Communications and Sustainable Development *(from 01/10/2018)*	62,687	0			62,687	0
Total corporate officers and Executive Committee	6,011,209	4,866,236	3,880,255	1,606,081	9,891,464	5,705,464

Note: There is no long-term remuneration plan

(1) The valuation method used to calculate the value of performance shares does not permit the actual remuneration of executives to be extrapolated from these figures for the years in question.

(2) Calculated according to the fair value per share on the day of granting by the Board of Directors, namely €116.98 at 22 March 2018, €34.67 at 23 May 2017 and €42.24 at 23 February 2017 — no options were granted during the financial year.

Valuation of other long-term remuneration plans

There is no long-term remuneration plan.

Table 2 – Summary of the remuneration of each executive corporate officer

	AMOUNT FOR 2018		AMOUNT FOR 2017	
(€)	DUE	PAID	DUE	PAID
Christel Bories **Chairman and CEO**				
Fixed remuneration	800,000	800,000	652,836	652,836
Annual variable remuneration	566,160	854,600	854,600	-
Contribution to the standard scheme Art. 82	502,833	502,833	297,600	296,000
Benefits in kind[1]	0	0	0	0
Total	**1,868,993**	**2,157,433**	**1,805,036**	**948,836**
Sub-total Corporate officers	**1,868,993**	**2,157,433**	**1,805,036**	**948,836**
Michel Carnec **Human Resources Director**				
Fixed remuneration	320,030	320,030	315,300	315,300
Annual variable remuneration	127,177	273,404	273,404	136,788
Benefits in kind[1]	5,562	5,562	5,562	5,562
Total	**452,769**	**598,996**	**594,266**	**457,650**
Thomas Devedjian **Deputy CEO Group Finance**				
Fixed remuneration	420,126	420,126	401,650	401,650
Annual variable remuneration	152,249	359,155	359,155	292,877
Benefits in kind[1]	4,608	4,608	4,608	4,608
Total	**576,983**	**783,889**	**765,413**	**699,135**
Philippe Gundermann **Director of Strategy and Financial Communication**				
Fixed remuneration	267,650	267,650	161,117	161,117
Annual variable remuneration	107,860	154,933	154,933	
Benefits in kind[1]	4,915	4,915	3,055	3,055
Total	**380,425**	**427,498**	**319,105**	**164,172**
Jean de L'Hermitte **Group Legal Director**				
Fixed remuneration	180,000	180,000	109,438	109,438
Annual variable remuneration	64,915	93,364	93,364	
Benefits in kind[1]	2,858	2,858	1,884	1,884
Total	**247,773**	**276,222**	**204,686**	**111,322**
Catherine Tissot-Colle[2] **Director of Communications and Sustainable Development**				
Fixed remuneration	151,500	151,500	200,000	200,000
Annual variable remuneration	106,050	172,725	172,725	97,081
Benefits in kind[1]	3,668	3,668	4,978	4,978
Total	**261,218**	**327,893**	**377,703**	**302,059**
Philippe Vecten[3] **Deputy CEO Mining divisions**				
Fixed remuneration	103,460	103,460	413,838	413,898
Annual variable remuneration		451,988	379,491	333,789
Retirement package	1,148,879	1,148,879		
Benefits in kind[1]	1,674	1,674	6,698	6,698
Total	**1,254,013**	**1,706,001**	**800,027**	**754,385**

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(€)	AMOUNT FOR 2018 DUE	AMOUNT FOR 2018 PAID	AMOUNT FOR 2017 DUE	AMOUNT FOR 2017 PAID
Jérôme Fabre[4] Deputy CEO Alloys division				
Fixed remuneration	275,000	275,000		
Annual variable remuneration	109,977			
Benefits in kind[1]	1,509	1,509		
Total	**386,486**	**276,509**	**0**	**0**
Kléber Silva[5] Deputy CEO Mining divisions				
Fixed remuneration	368,333	368,333		
Annual variable remuneration	151,529			
Benefits in kind[1]	0	0		
Total	**519,862**	**368,333**	**0**	**0**
Virginie de Chassey[6] Director of Communications and Sustainable Development				
Fixed remuneration	46,250	46,250		
Annual variable remuneration	16,437			
Benefits in kind[1]	0	0		
Total	**62,687**	**46,250**	**0**	**0**
Total corporate officers and Executive Committee	6,011,209	6,969,024	4,866,236	3,437,559

(1) This relates to the provision of a Company car.
(2) Member of the Executive Committee until 30 September 2018.
(3) Member of the Executive Committee until 31 March 2018.
(4) Appointed CEO Alloys division as from 1 February 2018.
(5) Appointed CEO Mining divisions as from 19 February 2018.
(6) Appointed Director of Communications and Sustainable Development as of 1 October 2018.

No multi-year variable remuneration fell due or was paid out during the financial year.

The combined total remuneration received by the top five earners at Eramet in respect of 2018 was €6, 296,142.50, which has been certified by the Statutory Auditors.

Table 3 – Directors' fees and other remuneration received by non-executive corporate officers

The amount of directors' fees paid to Eramet's Board members in early 2019 in respect of 2018 was €910,816 (€788,627 for 2017). The total sum allocated to the Board of Directors was set at €950,000 at the General Shareholders' Meeting of 23 May 2017 (seventeenth resolution), to be distributed freely among the directors by the Board of Directors.

From 2017 onwards, and in accordance with recommendation 20.1 of the AFEP/MEDEF Code, in order to have a predominant variable portion, the distribution rules for directors' fees are as follows:

- €10,000 per year per member of the Board of Directors;
- €5,000 per member of the Appointments Committee, no annual fee for members of the Strategy and CSR Committee, for members of the Audit, Risks and Ethics Committee or for members of the Remuneration and Governance Committee;
- payment of €2,500 for each attended meeting of the Board of Directors, each attended meeting of the Strategy and CSR Committee and each attended meeting of the Remuneration and Governance Committee. This amount is increased to €5,000 for the Chairman of each of these two committees;
- payment of €3,000 for each attended meeting of the Audit, Risks and Ethics Committee. This amount is increased to €6,000 for the Chairman of the Committee;
- no fees are paid for attendance at Appointments Committee meetings;
- there is no annual limit per Board or Committee;
- a travel allowance of €1,525 is paid to each director living outside Europe for each trip to attend a Board or Committee meeting.

The directors' fees paid to Eramet directors by other companies in the Group amounted to an overall total of €29,000 in 2018 (€39,754 in 2017).

No other remuneration was paid to non-executive corporate officers, with the exception of the remunerations specified below.

The distribution of directors' fees at the beginning of 2019 in respect of 2018 was as follows (in euros, before deductions):

	ERAMET	OTHER COMPANIES	TOTAL 2018	TOTAL 2017
Michel Antsélévé	41,650	-	41,650	36,650
Christel Bories(1)	-	-	-	-
Patrick Buffet(2)	-	-	-	27,420
Christine Coignard(3)	60,000	-	60,000	24,333
Cyrille Duval (SORAME)	50,000	29,000	79,000	57,000
Édouard Duval	50,000	-	50,000	40,000
Georges Duval	42,500	-	42,500	35,000
Nathalie de La Fournière(CEIR)	37,500	-	37,500	25,000
Frédéric Gaidou(4)	6,666	-	6,666	-
Other remuneration: €11,801				
Marie Axelle Gautier(5)	50,334	-	50,334	44,500
Other remuneration: €86,151				
Jean Yves Gilet	45,000	-	45,000	32,500
Philippe Gomes	35,125	-	35,125	28,600
Manoelle Lepoutre	47,500	-	47,500	52,500
Jean-Philippe Letellier(6)	15,000	-	15,000	-
Other remuneration: €51,741				
Miriam Maes	69,000	-	69,000	29,000
Louis Mapou(7)	13,883	-	13,883	-
Ferdinand Poaouteta(8)	3,333	-	3,333	20,000
Pia Older(9)	22,500	-	22,500	30,000
Other remuneration: €28,918				
Catherine Ronge	35,000	-	35,000	25,500
Sonia Sikorav	60,000	-	60,000	41,000
Claude Tendil	60,000	-	60,000	69,583
Frédéric Tona(3)	-	-	-	24,666
Antoine Treuille	90,825	-	90,825	94,375
Bruno Vincent(10) (FSI Equation)	75,000	-	75,000	51,500
Total	910,816	29,000	939,816	788,627

(1) Other remuneration: see other tables related to executive corporate officers' remuneration.
(2) Mr Buffet's term of office as a director ended on 23 May 2017.
(3) Appointment of Christine Coignard by the General Shareholders' Meeting of 23 May 2017 to replace Frédéric Tona.
(4) Director representing employees — Term of office begins 12 November 2018.
(5) Director representing employees — Appointment 12 November 2014 — End of term of office 11 November 2018.
(6) Director representing employees — Term of office begins 23 June 2018.
(7) Appointment at the General Shareholders' Meeting of 24 May 2018
(8) Ferdinand Poaouteta's term of office ended on 4 May 2018.
(9) Director representing employees — Appointment 23 June 2014 — End of term of office 22 June 2018.
(10) Amount paid to the Ministry of Finance — On 26 July 2017, Bruno Vincent replaced Mr Zajdenweber as permanent representative of FSI Equation.

Tables 4 and 5 – Not applicable

No share purchase or subscription options were granted to executive corporate officers during the financial year.
No share purchase or subscription options were exercised by executive corporate officers during the financial year.

Table 6 – Performance shares granted to each executive corporate officer during the year

	PLAN NO. AND DATE	NUMBER OF SHARES GRANTED	VALUE OF SHARES(1)	ACQUISITION DATE	DATE AVAILABLE	PERFORMANCE CONDITIONS
						Relative performance of Eramet shares (TSR) compared to that of companies included in the indices (Euromoney Global Mining Index: Diversified Metals & Mining, Steel) (1/3) and intrinsic performance of economic indicators (1/3) EBITDA and (1/3) ROCE at constant economic conditions of the budget; progressive acquisition over 3 years
C. Bories	Plan from 22/03/2018	10,000	1,169,800	Plan from 22/03/2021	Plan from 22/03/2023	as above
Total		10,000	1,169,800			

(1) Calculated according to the fair value of the share on the date of grant by the Board of Directors, namely €116.98 on 22 March 2018.

Table 7 – Non applicable

No performance shares became available during the financial year for the executive corporate officer.

Table 8 – Not applicable

There is no share purchase or subscription option plan currently in operation.

Table 9 – History of performance share grants – Information on performance shares

	2012 PLAN	2013 PLAN	2014 PLAN	2015 PLAN	2016 PLAN	2017 PLAN	2018 PLAN
Date of Shareholders' Meeting	20/05/2010	15/05/2012	15/05/2012	15/05/2012	27/05/2016	27/05/2016	27/05/2016
Date of Board meeting	15/02/2012	21/03/2013	20/02/2014	19/02/2015	27/05/2016	23/02/2017	22/03/2018
Total no. of shares granted, of which number granted to (total)(1)	89,885	145,040	143,510	132,680	134,327	142,546	206,056
including the corporate officer							
• C. Bories(1)						12,500	10,000
Date of vesting of France Plan shares	15/02/2015	21//03/2016	20/02/2017	19/02/2018	27/05/2019	23/02/2020	22/03/2021
End date of holding period France	15/02/2017	21/03/2018	20/02/2019	19/02/2020	27/05/2021	23/02/2022	22/03/2023
End date of vesting and holding period for International Plan shares	15/02/2016	21/03/2017	20/02/2018	19/02/2019	27/05/2020	23/02/2021	
Performance conditions	Performance of the Eramet share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (50%) and intrinsic performance according to financial indicators (50%) (operating margin (current operating income/ revenue) and operating cash flow); progressive acquisition over 3 years	Performance of the Eramet share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (1/3) and intrinsic performance of financial indicators (2/3) (operating margin (current operating income/ revenue) and operating cash flow); progressive acquisition over 3 years	Performance of the Eramet share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (1/3) and intrinsic performance of financial indicators (2/3) (operating margin (current operating income/ revenue) and operating cash flow); progressive acquisition over 3 years	Relative performance of Eramet shares (TSR) compared to that of companies included in the indices (Euromoney Global Mining Index: Diversified Metals & Mining, Steel) (1/3) and intrinsic performance of economic indicators (2/3) (current operating income/CA and cash flow from operating activities; progressive acquisition over 3 years	Relative performance of Eramet shares (TSR) compared to that of companies included in the indices (Euromoney Global Mining Index: Diversified Metals & Mining, Steel) (1/3) and intrinsic performance of economic indicators (2/3) (current operating income/CA and cash flow from operating activities; progressive acquisition over 3 years	Relative performance of Eramet shares (TSR) compared to that of companies included in the indices (Euromoney Global Mining Index: Diversified Metals & Mining, Steel) (1/3) and intrinsic performance of economic indicators (2/3) (current operating income/CA and cash flow from operating activities; progressive acquisition over 3 years	Relative performance of Eramet shares (TSR) compared to that of companies included in the indices (Euromoney Global Mining Index: Diversified Metals & Mining, Steel) (1/3) and intrinsic performance of economic indicators (1/3) EBITDA and (1/3) ROCE at constant economic conditions of the budget; progressive acquisition over 3 years
Number of shares vested at 31/12/2018 (International Plan)	6,745	5,209	10,045				
Number of shares vested at 31/12/2018 (France Plan)	13,836	18,165	34,626	59,939			
Cumulative number of cancelled or lapsed shares	69,304	121,666	98,839	47,487			
Performance shares remaining at financial year end	0	0	0	25,402			

(1) Number of shares at the performance target.

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The performance conditions, calculated over a three-year period, for the 2012 performance share plans are as follows: the relative performance of Eramet shares for 50% of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel of around 30 comparable companies on the Stoxx 600 Basic Resources Index, with the performance conditions being fully achieved if the Eramet share is ranked among the top 15% of the panel) and the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for 50% of the share grant (25% of the current operating income and 25% of the operating cash-flow from operating activities, the annual objectives referring to the Company's budgetary targets, with performance conditions only being fully achieved when these targets are significantly out-performed). Taking into consideration the performance conditions, the vesting rate as a percentage of shares awarded is as follows: 2012: 22.4%.

For the 2013 and 2014 performance share plans, the performance conditions are calculated over a three-year period, as follows: the relative performance of Eramet shares for one-third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel of around 30 comparable companies on the Stoxx 600 Basic Resources Index, with the performance conditions being fully achieved if the Eramet share is ranked among the top 15% of the panel) and the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for two-thirds of the share grant (one-third of the current operating income and one-third of the operating cash-flow from operating activities, the annual objectives referring to the Company's budgetary targets, with performance conditions only being fully achieved when these targets are significantly out-performed). Taking into consideration the performance conditions, the vesting rate as a percentage of shares awarded is as follows: 2013: 16.37% — 2014: 32.19%.

For the 2015, 2016 and 2017 performance share plans, the performance conditions are calculated over a three-year period, as follows: the relative performance of Eramet shares for one-third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel of around 50 comparable index companies (Euromoney Global Mining Index: Diversified Metals & Mining, Steel), with the performance conditions being fully achieved if the Eramet share is ranked among the top 15% of the panel) and the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for two-thirds of the share grant (one-third of the current operating income and one-third of the operating cash-flow from operating activities, the annual objectives referring to the Company's budgetary targets, with performance conditions only being fully achieved when these targets are significantly out-performed). Taking into consideration the performance conditions, the vesting rate as a percentage of shares awarded is as follows: 2015: 49.44% — 2016: 86.67%

The very rigorous performance conditions for the 2018 plan are calculated over a three-year period, as follows: the relative performance of Eramet shares for a third of the share grant (this entails comparing the change in total shareholder return over a three-year period with that of a panel of around 37 comparable companies on the Euromoney Global Mining Index: Diversified Metals & Mining, Steel; this performance condition is only met at 150% if the share is ranked among the top 15% of the panel) and the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for two thirds of the share grant (one third of the current operating income and one third of the operating cash-flow from operating activities, the annual objectives referring to the Company's budgetary targets); this performance condition is only met at 150% when these targets are significantly out-performed.

Table 10 – Not applicable

There is no multi-year variable remuneration for executive corporate officers.

Table 11 – Summary by corporate officer

CORPORATE OFFICERS	EMPLOYMENT CONTRACT	SUPPLEMENTARY PENSION PLAN	COMPENSATION OR BENEFITS FALLING DUE OR WHICH MAY FALL DUE, AS THE RESULT OF DEPARTURE OR A CHANGE OF POSITION	COMPENSATION RELATED TO A NON-COMPETE CLAUSE
Christel Bories Chairman and CEO: 23/05/2017 End of term of office for the director at the General Shareholders' Meeting called to approve the 2020 financial statements	No	No, but the Company is financing a life insurance contract	Yes	No

7.2 Article L. 225-37-2 of the French Commercial Code — Report on the principles and criteria for determination, distribution and allocation of the fixed, variable and exceptional elements that make up the total remuneration and benefits of any kind attributable to the Chairman and CEO, subject to shareholder approval

The **15th resolution** proposes that shareholders approve, in accordance with Article L. 225-37-2 of the French Commercial Code (based on law 2016-1691 known as "Sapin II"), the principles and criteria for determining, distributing and allocating the fixed, variable and exceptional items comprising the total compensation and benefits of any kind attributable to the Chairman and CEO.

In accordance with the wording of Article L. 225-37-2, the General Shareholders' Meeting is required to approve any change to the above elements, including at each renewal of the term of office. If the General Shareholders' Meeting does not approve the resolution, the principles and criteria previously approved by shareholders continue to apply. In the absence of principles and criteria approved by the General Shareholders' Meeting, the remuneration is determined in accordance with the remuneration assigned in the previous year, or, in the absence of remuneration assigned in the previous year, in accordance with existing practices within the Company.

Christel Bories, Chairman and CEO

Article L. 225-37-2 of the French Commercial Code – Principles and criteria for determination, distribution and allocation of the fixed, variable and exceptional elements that comprise the total remuneration and benefits of any kind attributable to Christel Bories, Chairman and CEO, subject to shareholder approval

	PRESENTATION
	No suspended contract of employment; C. Bories has a corporate officer contract
Fixed remuneration	The gross fixed remuneration for C. Bories is reviewed annually by the Remuneration Committee. The Remuneration Committee assesses the situation and makes recommendations, which are then submitted to the Board of Directors for approval. These recommendations are based in particular on market practices and on a survey of the remuneration of corporate officers of companies with turnover and market capitalisation comparable to that of the Eramet Group.
Annual variable remuneration	The annual variable remuneration of the Chairman and CEO is determined: ● 60% on the basis of quantitative targets relating to safety and working conditions and economic performance: current operating income and operating cash flow; ● 40% on the basis of qualitative objectives. This annual variable remuneration structure is applied to the Group's executives. For quantitative safety and economic performance objectives, the weighting is as follows: ● 10% safety (accident frequency rate); ● 25% current operating income; ● 25% operating cash flow. The objectives achieved (100%) correspond to the budget figures. If the Group's net income for the financial year in question is negative, a 50% allowance will be applied to the amount of the variable part due under the objective linked to economic performance (current operating income and operational cash flow). Qualitative objectives are determined by the Board of Directors on the proposal of the Remuneration and Governance Committee and focus on strategic, business and managerial issues specific to the coming financial year. They may concern the implementation of strategic orientations approved by the Board of Directors, major industrial and commercial developments and programmes, organisational and management actions and achievements that are part of the Group's corporate social responsibility (CSR) and sustainable development approach. They do not fall under routine tasks but are specific actions for which the Board of Directors expects a particular performance. The target-based annual variable portion is set at 100% of gross annual fixed remuneration and can vary from 0% to 150% of gross annual fixed remuneration depending on the level of achievement of the various objectives, with 100% of the fixed rate corresponding to 100% of the objectives achieved. It may not exceed 150% of gross annual fixed remuneration. The variable portion for goals achieved and the maximum variable portion are reviewed each year by the Remuneration Committee in relation to market practice, as part of remuneration surveys conducted annually.
Deferred variable remuneration	Christel Bories does not receive any deferred variable remuneration.
Multi-year variable remuneration	Christel Bories does not receive any multi-year variable remuneration.
Exceptional remuneration	Christel Bories does not receive any exceptional remuneration.

	PRESENTATION
Performance shares or stock options, or any other long-term remuneration item	In respect of stocked-based remuneration plans, Christel Bories may benefit from performance share plans or share subscriptions or purchase option plans, the terms and conditions of which are decided by the Board of Directors. In 2010, Eramet implemented an annual international performance share award programme, in compliance with AFEP-MEDEF recommendations and developed it based on the best practices of comparable companies. The objective of this programme is to provide a sustainable link between management and the Group's share performance, as well as to attract and retain talent through a competitive remuneration package. It covers more than 200 of the Group's managers and high-potential employees every year. This programme is in addition to the worldwide bonus share policy attributable to all Eramet Group employees, in place since 2009. The plan for the allocation of bonus shares provides for the allocation of a volume of shares based on the level of responsibility. For 2018 and 2019, 10,000 bonus shares will be allocated to Christel Bories in accordance with the terms of her contract as a corporate officer and in strict compliance with the provisions of the plan in force. The award of shares is subject to performance conditions. They are calculated over three years, as follows: ● the relative performance of Eramet shares for one-third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel of around 37 comparable companies on the comparable companies on the Euromoney Global Mining Index: Diversified Metals & Mining, Steel with the performance conditions being achieved at 150% if the Eramet share is ranked among the top 15% of the panel); and ● the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for two-thirds of the share grant (equal to EBITDA and one-third of ROCE, the annual objectives referring to the Group's budgetary targets). This performance condition is only met at 150% if these objectives are significantly exceeded. These performance shares are subject to an additional two-year holding period and 20% of these shares are prohibited from sale until the end of the corporate officer's term of office.
Directors' fees	Christel Bories does not receive directors' fees for the offices she holds at Eramet and its subsidiaries.
Benefits of any kind	Christel Bories does not have a Company car.
Compensation related to taking up or leaving a post	In case of dismissal (except for gross misconduct) or forced resignation, particularly following a change of control of the Company or substantial imposed changes to the scope of responsibility, Christel Bories will be awarded severance pay equal to one year of her gross fixed and variable remuneration for departure up until 1 January 2019, and two years as from 1 January 2019. This benefit is subject to the condition that the sum of gross variable remuneration received over the last three complete years of her term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period. In the event that the number of full years is less than three, the performance will be assessed based on the actual duration of the term of office, at the discretion of the Board of Directors on the proposal from the Remuneration Committee.
Non-competition compensation	Christel Bories is not bound by a non-compete clause.

VII

	PRESENTATION
Article 82 scheme	Christel Bories is covered by a life insurance policy under Article 82 of the French General Tax Code. The annual amount of this remuneration is 30.39% of the gross total annual remuneration (fixed remuneration + variable remuneration subject to performance conditions) paid to Christel Bories during the reference year. The amount thus determined shall be paid in two instalments: • payment by the Company to an insurance company of an annual contribution, up to 50% of the total amount of the additional remuneration; • annual payment by the Company to Christel Bories of an amount in cash, up to 50% of the total amount of the additional remuneration, to finance the corresponding social security and tax charges. The subscription of the life insurance contract was authorised by the Board of Directors on 26 July 2017 and approved by the General Meeting of 24 May 2018 under the procedure for regulated agreements (Article L. 225-38 *et seq.* of the French Commercial Code). The basis for calculating this additional remuneration includes fixed and variable remuneration and is therefore *de facto* subject to performance conditions.
Supplementary insurance scheme and healthcare plan	Christel Bories benefits from the supplementary healthcare plan and the supplementary disability and life insurance scheme operating within the Eramet Group. In accordance with the procedures related to regulated agreements and commitments, this commitment was authorised by the Board of Directors on 23 February 2017 and approved by the General Shareholders' Meeting of 24 May 2018.
ASSEDIC entitlement	Christel Bories does not benefit from this entitlement.
Customary severance pay	Christel Bories does not benefit from any customary severance pay, whether upon retirement or upon departure for any other reason.

The payment of the variable and exceptional remuneration elements related to financial year 2019 is subject to approval by a General Shareholders' Meeting to be held in 2020 of the remuneration elements of the person concerned, in accordance with the new wording of Article L. 225-100 of the French Commercial Code laid down by Law 2016-1691.

7.3 Article L. 225-100 paragraph 9 of the French Commercial Code — Fixed, variable and exceptional items comprising the total remuneration and benefits of any kind paid or allocated for the 2018 financial year to C. Bories, Chairman and CEO, subject to shareholder approval

The **16th resolution** proposes that shareholders approve, in accordance with the 9th paragraph of Article L. 225-100 of the French Commercial Code (based on law 2016-1691 known as "Sapin II"), the fixed, variable and exceptional items comprising the total remuneration and benefits of any kind, paid or granted to Christel Bories, Chairman and CEO, in respect of the 2018 financial year.

The payment of the variable and exceptional remuneration elements related to financial year 2018 is subject to approval by the General Shareholders' Meeting to be held in 2019 of the remuneration elements of the person concerned, in accordance with the new wording of the 10th paragraph of Article L. 225-100 of the French Commercial Code laid down by Law 2016-1691.

Christel Bories, Chairman and CEO

REMUNERATION ITEMS FALLING DUE OR GRANTED FOR THE FINANCIAL YEAR ENDED

	AMOUNT OR CARRYING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
		No suspended contract of employment; Christel Bories has a corporate officer contract
Fixed remuneration	€800,000 (amount paid)	Gross fixed remuneration, paid for the 2018 financial year in accordance with the provisions adopted by the Board of Directors of Eramet SA on 23 February 2017.
Annual variable remuneration	€566,160 (amount approved for 2018)	At its meeting of 20 February 2019, the Board of Directors, on recommendation by the Remuneration Committee and following validation of the financial items by the Audit Committee, approved the amount of variable remuneration for Christel Bories for the financial year 2018 at €566,160 (70.77% of her maximum permitted variable remuneration). The variable portion is based on quantitative and qualitative objectives, whose selection and weighting are proposed by the Remuneration Committee and approved by the Board of Directors. These objectives are based for 60% on safety and working conditions and on quantitative economic performance objectives and for 40% on qualitative objectives: ● Quantitative objectives (60%): – 10% on safety (accident frequency rate); – 25% on current operating income; – 25% on operating cash flow. The objectives achieved (100%) correspond to the budget figures. ● Qualitative objectives (40%): – strategic options proposed to the Board; – continued managerial transformation of Eramet. The level of accomplishment required, for each of these criteria, is precisely established at the start of the financial year but cannot be disclosed to the general public for reasons related to trade secrets and confidentiality. The target-based annual variable portion is set at 100% of gross annual fixed remuneration based on the achievement rate of various goals. This remuneration may vary from 0 to 150% of gross annual fixed remuneration, 100% of fixed remuneration corresponding to 100% of goals achieved. It may not exceed 150% of gross annual fixed remuneration. The variable portion for goals achieved and the maximum variable portion are reviewed each year by the Remuneration Committee in relation to market practice, as part of remuneration surveys conducted annually.
Deferred variable remuneration	N/A	Christel Bories does not receive any deferred variable remuneration.
Multi-year variable remuneration	N/A	Christel Bories does not receive any multi-year variable remuneration.
Exceptional remuneration	N/A	Christel Bories does not receive any exceptional remuneration.

VII

	AMOUNT OR CARRYING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Performance shares or stock options, or any other long-term remuneration item	10,000 bonus shares = €1,169,800 (applying the method used in the consolidated financial statements, fair value of the share on the day of granting by the Board of Directors) Options = N/A Other items = N/A	In accordance with the provisions of the corporate officer contract and the nomination of Christel Bories as Chairman and CEO, the Board of Directors' meeting on 22 March 2018 confirmed, pursuant to the authorisation of the General Shareholders' Meeting of 27 May 2016 (14th resolution), the allocation to Christel Bories of 10,000 bonus shares (equal to 0.04% of share capital), for a valuation of €1,169,800 according to the method used for the consolidated financial statements (fair value of the share on the date of allocation by the Board of Directors). A maximum number of 15,000 shares corresponds to the number of shares that may be vested, fully or partially, three years following granting provided that the performance conditions are fully or partially met. Furthermore, these performance shares are subject to an additional two-year holding period and 20% of these shares are prohibited from sale until the end of the corporate officer's term of office. These very rigorous performance conditions are calculated over a three-year period, as follows: ● the relative performance of Eramet shares for one-third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel of around 37 comparable companies on the Euromoney Global Mining Index: Diversified Metals & Mining, Steel; this performance condition being achieved at 150% if the Eramet share is ranked among the top 15% of the panel); and ● the intrinsic performance of certain financial indicators achieved in three instalments over a three year period for two-thirds of the share grant (equal to one-third of EBITDA and one-third of ROCE, the annual objectives referring to the Company's budgetary targets); this performance condition is only met at 150% when the targets are significantly out-performed. Christel Bories was not granted any stock options or any other long-term remuneration item during the financial year ended 31 December 2018.
Directors' fees	N/A	Christel Bories does not receive directors' fees for the offices she holds at Eramet and its subsidiaries.
Benefits of any kind	N/A	Christel Bories does not have a Company car.

REMUNERATION ITEMS FALLING DUE OR GRANTED FOR THE FINANCIAL YEAR ENDED WHICH HAVE BEEN OR ARE SUBJECT TO SHAREHOLDER APPROVAL PURSUANT TO THE PROCEDURES RELATED TO REGULATED AGREEMENTS AND COMMITMENTS

	AMOUNT SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Compensation related to taking up or leaving a post	No payment	In case of dismissal (except for gross misconduct) or forced resignation, particularly following a change of control of the Company or substantial imposed changes to the scope of responsibility, Christel Bories will be awarded severance pay equal to one year of her gross fixed and variable remuneration for departure up until 1 January 2019, and two years as from 1 January 2019. This benefit is subject to the condition that the sum of gross variable remuneration received over the last three complete years of her term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period. In the event that the number of full years is less than three, the performance will be assessed based on the actual duration of the term of office, at the discretion of the Board of Directors on the proposal from the Remuneration Committee. In accordance with the procedures related to regulated agreements and commitments and to the provisions of Article L. 225-42-1 of the French Commercial Code, this commitment was authorised by the Board of Directors on 23 February 2017 and approved by the General Shareholders' Meeting of 24 May 2018.
Non-competition compensation	N/A	Christel Bories is not bound by a non-compete clause.
Contribution of Article 82 scheme	€502,833	Christel Bories is covered by a life insurance policy under Article 82 of the French General Tax Code On 26 July 2017, the Board of Directors, acting on a proposal from the Remuneration Committee, authorised the implementation of the system under the following conditions: The annual amount of the additional remuneration paid is 30.39% of the total gross annual remuneration (fixed + variable) paid to Christel Bories during the reference year. The basis for calculating this additional remuneration includes not only fixed remuneration but also variable remuneration. The additional remuneration determined in accordance with the preceding provisions shall give rise to the following two payments: • The financing of a life insurance contract: The Company has arranged for Christel Bories to join a life insurance policy underwritten by the Company with an approved insurance company. This contract, known as "Article 82", is an individual life insurance contract. The financing of this contract is fully covered by the Company and represents 50% of the additional remuneration determined in accordance with the above. It does not constitute a retirement commitment. • An annual cash payment: Each year, the Company pays an amount in cash equal to 50% of the additional remuneration determined in accordance with the above provisions, in order to cover the related social and tax charges. For 2018, the benefit of the plan is subject to performance conditions. The amount of the employer's contribution is €502,833, distributed in the proportions mentioned above. The Company's commitment is limited to the payment of the contribution mentioned above and it remains free to terminate this contract at any time.

	AMOUNT SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Supplementary insurance scheme and healthcare plan		Christel Bories benefits from the supplementary healthcare plan and the supplementary disability and life insurance scheme operating within the Eramet Group. In accordance with the procedures related to regulated agreements and commitments, this commitment was authorised by the Board of Directors on 23 February 2017 and approved by the General Shareholders' Meeting of 24 May 2018.
ASSEDIC entitlement	N/A	Christel Bories does not benefit from this entitlement.
Customary severance pay	N/A	Christel Bories does not benefit from any customary severance pay, whether upon retirement or upon departure for any other reason.

Information relating to pension commitments for corporate officers

Article D. 225-104-1 of the French Commercial Code laid down by Decree No. 2016-182 of 23 February 2016

Christel Bories does not benefit from this pension plan.

7.4 Shares held by members of the Board of Directors and General Management

Some directors have a material interest in the share capital of the Company.

Indirect interest

Georges, Édouard and Cyrille Duval are shareholders of SORAME and CEIR and Chairs or CEOs of SORAME and CEIR. Nathalie de La Fournière is a shareholder of SORAME and CEIR.

Direct interest

No director has a direct material interest in any of our subsidiaries.

Loans and guarantees granted or provided

The Company has not granted or provided any loans or guarantees to members of the administrative, management or supervisory bodies.

SHARES HELD AT 31 DECEMBER 2018	SHARES	VOTING RIGHTS
Michel Antsélévé	100	200
Christel Bories	100	100
Christine Coignard	100	100
SORAME	8,051,838	16,103,676
Cyrille Duval	6,041	11,917
Édouard Duval	1,391	2,492
Georges Duval	6,143	9,165
CEIR	1,788,305	3,572,301
Nathalie de La Fournière	100	200
Frédéric Gaidou	19	34
Jean-Yves Gilet	100	100
Philippe Gomes	101	102
Manoelle Lepoutre	100	200
Jean-Philippe Letellier	19	34
Miriam Maës	100	100
Louis Mapou	99	198
Catherine Ronge	100	200
Sonia Sikorav	100	120
Claude Tendil	100	200
Antoine Treuille (also holds 1,078 2017 Eramet bonds)	530	690
FSI Equation	6,810,317	13,620,634
Bruno Vincent	N/A	N/A

7.5 Special report on bonus share grants

Financial Year 2018

Dear Shareholders,

Pursuant to the provisions of Article L. 225-197-4 of the French Commercial Code, this report is presented to the General Shareholders' Meeting.

A/ Grants to corporate officers of the Company

PLAN OF 22 MARCH 2018	NUMBER OF SHARES	VALUE
Christel Bories	10,000	1,169,800

B/ Grants to non-corporate officer employees of the Company and its subsidiaries

PLAN OF 22 MARCH 2018	NUMBER OF SHARES[1]	VALUE
Kleber Silva	7,833	916,304
Thomas Devedjian	3,700	432,826
Michel Carnec	2,900	339,242
Jérôme Fabre	2,765	323,450
Philippe Gundermann	2,450	286,601
Catherine Tissot-Colle	1,850	216,413
Hervé Montegu	1,800	214,974
Jean de L'Hermite	1,660	194,187
Marc Blanquart	1,200	140,376
Mohamed Bouzidi	1,200	140,376

(1) Indicated and valued at target for shares subject to performance conditions.

C/ Grants to all beneficiary employees

Each employee on the payroll received two bonus shares, subject to length of service conditions, as part of the bonus share plan of 22 March 2018.

Board of Directors

VIII. Eramet and its shareholders

8.1 Company's market shares

8.1.1 Listing Market

The Company's shares are traded at Euronext on the Euronext Paris market (ISIN code: FR0000131757, LEI code 549300LUH78PG2MP6N64).

No shares of another Group company are admitted for trading on another stock exchange.

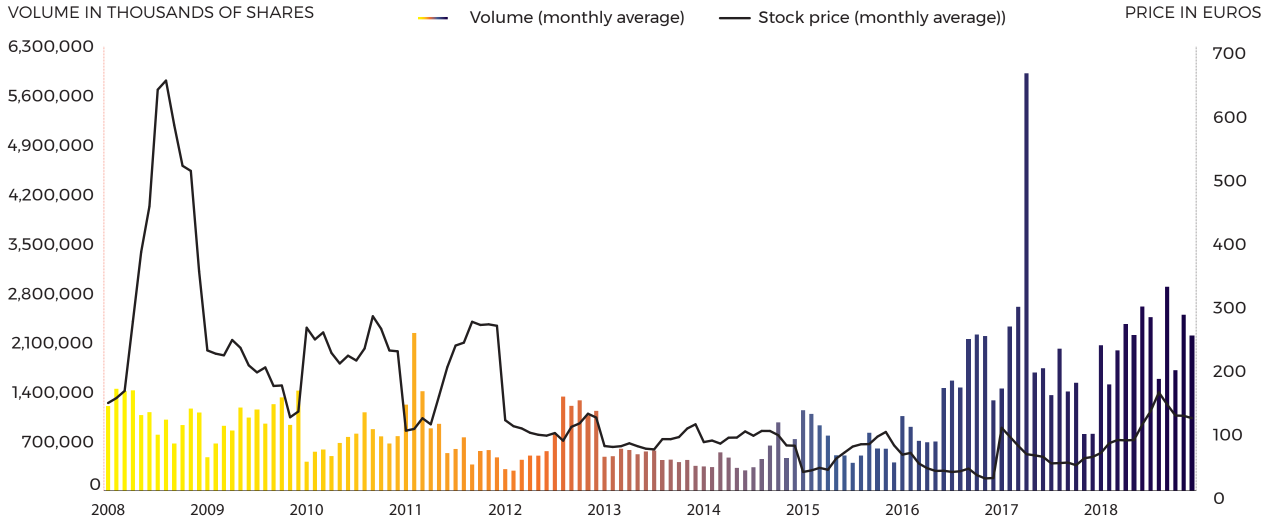
8.1.2 Price trends

The Eramet share closed 2018 at €60.35 per share, a decrease of 39% over the year, to reach a market capitalisation of €1.6 billion. This evolution is the result of a very contrasted course over the year, with a high of €167.2 per share on 19 April 2018. After a first half-year period marked by the success of the takeover bid for TiZir and a favourable price environment for nickel and manganese, the second half-year was less positive: the average LME nickel price was on a downward trend, while nickel production in New Caledonia was disrupted by a several-month obstruction at the Kouaoua site. Finally, the announcement of an internal review of quality processes in the Alloys division in 2018 increased pressure on the share price at the end of the year.

Nevertheless, the volumes traded increased sharply from 23,600,088 shares in 2017 to 26,041,295 in 2018, or an average of approximately 102,120 shares traded per session (compared with approximately 92,550 shares/session in 2017).

Trends in volumes and the Eramet share price

VOLUME IN THOUSANDS OF SHARES/PRICE (€)



STOCK MARKET DATA

	PRICE (€)			MARKET CAPITALISATION AT 31/12	VOLUME
	EXTREMES OVER THE PERIOD				
	HIGHEST	LOWEST	CLOSING AT 31/12	(€ MILLION)	(AVG./DAY)
2008	669.98	96.06	138.00	3,618	52,945
2009	272.30	108.00	220.75	5,821	47,589
2010	298.40	193.70	256.50	6,801	33,419
2011	276.65	80.05	94.50	2,505	46,402
2012	139.90	75.95	110.95	2,944	36,742
2013	116.00	63.76	70.29	1,866	22,927
2014	102.00	65.85	76.50	2,031	22,980
2015	94.39	23.05	29.50	783	32,166
2016	66.72	15.36	56.74	1,506	63,607
2017	99.81	36.43	99.03	2,640	92,549
2018	167.20	46.00	60.35	1,607	102,123

	PRICE (€)			VOLUME (X 1,000)
2018	LOWEST	HIGHEST	AVERAGE (CLOSING)	(AVG./MONTH)
December	46.00	76.45	59.39	108.4
November	65.20	88.00	74.65	68.4
October	67.30	91.95	79.79	86.4
September	66.75	96.00	79.19	118.0
August	70.25	88.00	79.77	95.6
July	80.45	119.60	104.21	118.6
June	107.30	158.70	125.02	117.0
May	144.60	161.40	154.67	72.0
April	108.40	167.20	135.79	144.4
March	106.70	131.70	118.3	81.3
February	102.70	131.70	117.88	124.6
January	98.20	126.10	114.09	99.6

8.1.3 Share service

The Company's share register is maintained by:

- BNP Paribas Securities Services

  GCT — Issuer Services

  Grands Moulins de Pantin — 9, rue du Débarcadère — 93761 Pantin Cedex

The implementation of the liquidity agreement was entrusted to Exane BNP Paribas.

8.2 Share capital

8.2.1 Subscribed capital

8.2.1.1 Representative amount and shares

The share capital, as of 31 December 2018 amounted to €81,239,446.20, represented by 26,635,884 shares with a nominal value of €3.05, all of the same class and fully paid up.

8.2.1.2 Rights attached to the shares

Each share entitles the holder, in the ownership of the Company's assets and in the sharing of profits, to a share equal to the portion of the share capital it represents, taking into account, where appropriate, the amortised and unamortised capital, paid and unpaid, of the nominal amount and the rights of the shares of different classes.

Each share shall give the right, during the Company's life and in the event of liquidation, to payment of the same net amount in any allocation or redemption, such that all shares shall be considered together, where applicable, regardless of any tax exemptions or any taxation likely to be assumed by the Company.

8.2.1.3 Subscribed capital not yet paid

None.

8.2.2 Securities not representing capital

8.2.2.1 Founders' shares, voting certificates

None.

8.2.2.2 Other securities — Potential capital

The potential capital consists of ODIRNAN.

On 5 October 2016, the Company issued 2,158,428 perpetual bonds with an option to repay in cash and/or new shares (ODIRNAN) for a total amount of €99,999,969.24.

Total amount of the issue	€100 million
Maturity	Indefinite
Number of bonds issued	2,158,428
Number of bonds at 31 December 2018	2,065,761
Nominal value (with a 30% premium based on the reference price of €35.64)	€46.33
Fixed interest rate until 4 October 2022	4%

The ODIRNANs are admitted to trading on the regulated market of Euronext Paris (ISIN code FR0013204492).

The purpose of the ODIRNAN issue was to strengthen Eramet's balance sheet structure by accounting treatment of shareholders' equity and the proceeds from the issue will be used to finance the Group's general needs.

The nominal unit value of ODIRNAN was set at €46.33, showing a conversion premium of 30% over the reference price of the Company's share at €35.64 on the Euronext Paris regulated market.

The ODIRNANs were issued at par on 5 October 2016, the settlement date. The bonds constitute direct, general, unconditional, non-subordinated and unsecured obligations.

From the date of issue until 4 October 2022, the ODIRNANs will bear interest at the annual nominal rate of 4%, payable semi-annually in arrears on 5 October and 5 April of each year, and for the first time on 5 April 2017, subject to suspension of interest payment. Effective from 5 October 2022, the ODIRNANs will bear interest at a rate deducted on the basis of the six-month EURIBOR variable interest rate plus 1,000 basis points, expressed on an annual basis, payable semi-annually in arrears on 5 October and 5 April of each year, and for the first time on 5 April 2023, subject to a suspension of interest payment.

Subject to early amortisation at the option of the Company, the ODIRNANs will only be redeemable in the event of liquidation of the Company or at the end of the lifetime specified in the Company's Articles of Association (23 September 2062), unless this period of life is extended under the conditions provided for by the applicable legislation. The refund will be, in both cases, equal to par.

The ODIRNAN holders may exercise their share allotment right at any time from the date of issue (inclusive) until the 18th trading day (excluded) before 5 October 2022, or any earlier date of early redemption. In the event of the exercise of the share allotment right, the ODIRNAN holders will receive, at the option of the Company, either an amount in cash, or a combination of an amount in cash and new shares, or new shares only.

The *Autorité des marchés financiers* has affixed to the prospectus visa No. 16-448 dated 26 September 2016.

The Company has not issued any other currently valid financial instruments — that do not represent a share in capital — but are likely to give access to capital in the future or by option.

However, authorisations exist to do so, by decision of the Board. This has not been used to date.

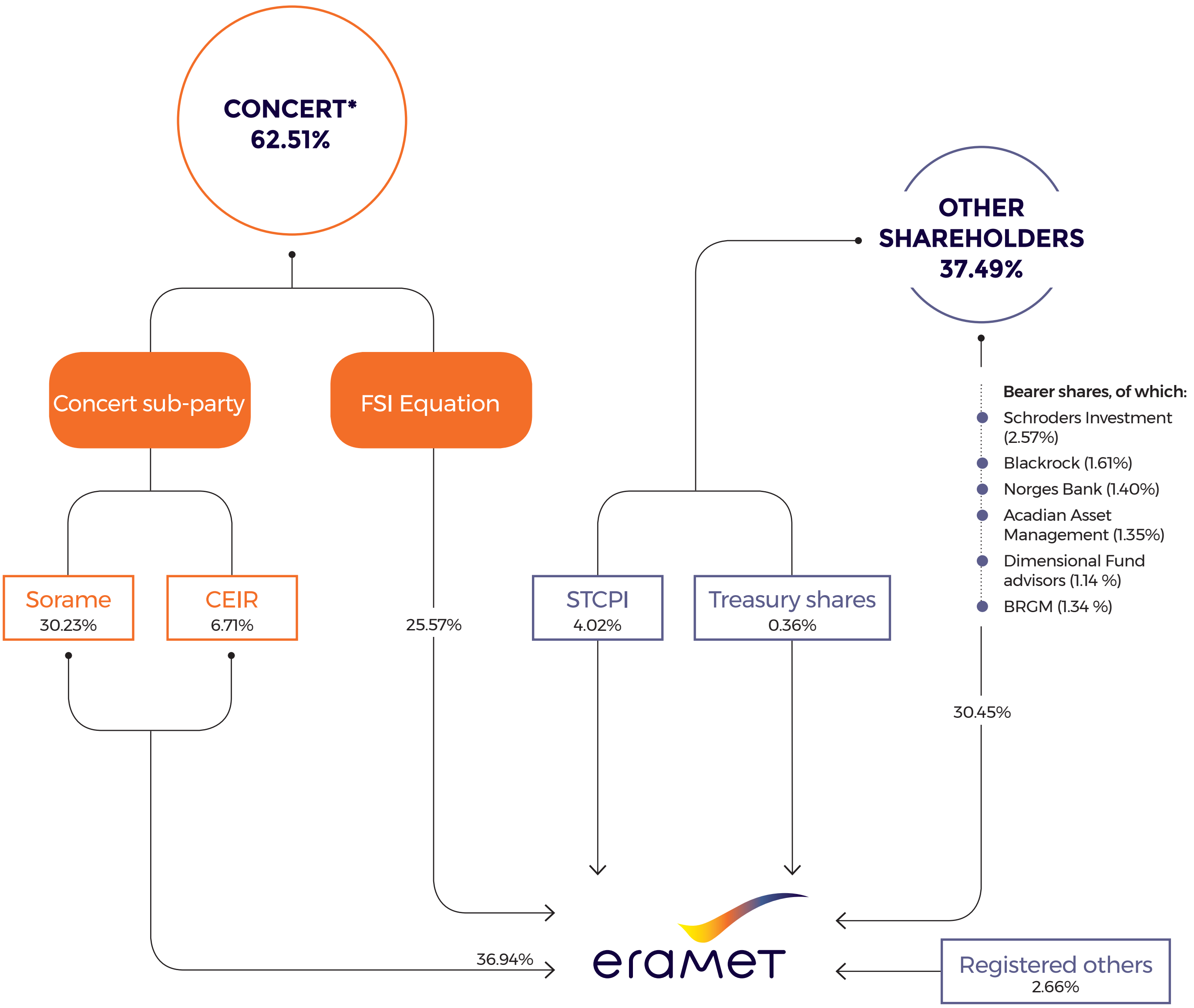
8.2.3 Recent changes in share capital and its distribution

Since the close of the financial year, the Company has not been informed of any significant change in shareholding.

8.2.4 Distribution of share capital

8.2.4.1 Control organisation chart

SHAREHOLDERS OF THE COMPANY AS AT 31 DECEMBER 2018 (% OF SHARES)



* *Pursuant to a Shareholders' Agreement which was the subject of a decision and information from the AMF published on 12 April 2012 under the No. 212C0486 at the time of its conclusion and a decision and information of the AMF published on 28 July 2016 under the No. 216C1753, relating to the changes in the Group at the time of the acquisition of the entire FSI Equation capital by the* **Agence des participations de l'État** *(APE).*

8.2.4.2 As at 31 December 2018 (including shareholders holding — or those likely to hold — at least 1% of capital or voting rights, and known to the Company)

MAJOR SHAREHOLDERS	SHARES	% CAPITAL	THEORETICAL VOTING RIGHTS	PERCENTAGE OF THEORETICAL VOTING RIGHTS	VOTING RIGHTS EXERCISABLE AT SHAREHOLDERS' MEETING	PERCENTAGE OF VOTING RIGHTS EXERCISABLE AT SHAREHOLDERS' MEETING
SORAME(1)	8,051,838	30.23%	16,103,676	35.85%	16,103,676	35.92%
CEIR(1)	1,788,305	6.71%	3,572,301	7.95%	3,572,301	7.97%
Total for the SORAME/ CEIR subgroup(1)	**9,840,143**	**36.94%**	**19,675,977**	**43.80%**	**19,675,977**	**43.89%**
FSI Equation (held by the French State)(1)	6,810,317	25.57%	13,620,634	30.32%	13,620,634	30.38%
State (direct ownership)	100	not significant	200	not significant	200	not significant
Group total (SORAME/ CEIR/FSI)(1)	**16,650,560**	**62.51%**	**33,296,811**	**74.12%**	**33,296,811**	**74.28%**
Schroders plc(2)	685,644	2.57%	685,644	1.53%	685,644	1.53%
Blackrock(2)	428,114	1.61%	428,114	0.95%	428,114	0.96%
Norges Bank(2)	373,706	1.40%	373,706	0.83%	373,706	0.83%
Acadian Asset Man. llc(2)	360,172	1.35%	360,172	0.80%	360,172	0.80%
Dimensional Fund Advisors lp(2)	302,451	1.14%	302,451	0.67%	302,451	0.67%
STCPI	1,070,587	4.02%	2,141,174	4.77%	2,141,174	4.78%
BRGM(2)	356,044	1.34%	356,044	0.79%	356,044	0.79%
Employees (Eramet share fund)(3)	136,306	0.51%	184,538	0.41%	184,538	0.41%
Corporate officers	**15,143**	**not significant**	**25,952**	**not significant**	**25,952**	**not significant**
Eramet treasury shares	95,164	0.36%	95,164	0.21%	0	0.00%
Other	6,161,993	23.19%	6,672,838	14.91%	6,672,838	14.94%
Total Shares	26,635,884	100.00%	44,922,608	100.00%	44,827,444	100.00%
Total Registered Shares	**18,525,883**	**69.55%**	**36,780,500**	**81.88%**	**36,685,336**	**81.84%**
Total Bearer Shares	**8,110,001**	**30.45%**	**8,110,001**	**18.05%**	**8,110,001**	**18.09%**

(1) The companies SORAME, CEIR and FSI Equation are signatories to a Shareholders' Agreement constituting a joint action and have been the subject of a decision and information of the Financial Markets Regulator under the No. 212C0486.
(2) Estimate based on last TPI survey.
(3) According to the new drafting of Article L. 225-102 of the French Commercial Code, issued after Article 135 of the Law 215-990 of 6 August 2015 (Macron law), the share of capital held by employees on the last day of the year includes, in addition to the shares allocated to a salary savings plan or an FCPE, free registered shares issued from bonus share plans authorised by a General Meeting subsequent to the entry into force of the law, i.e. from 8 August 2015. At 31 December 2018, there were 136,306 shares corresponding to this definition (126,298 Eramet employee mutual funds and 10,008 under the Erashare 2016 resident plan).

8.2.4.3 As at 31 December 2017 (including shareholders holding — or those likely to hold — at least 1% of capital or voting rights, and known to the Company)

MAJOR SHAREHOLDERS	SHARES	% CAPITAL	THEORETICAL VOTING RIGHTS	PERCENTAGE OF THEORETICAL VOTING RIGHTS	VOTING RIGHTS EXERCISABLE AT SHAREHOLDERS' MEETING	PERCENTAGE OF VOTING RIGHTS EXERCISABLE AT SHAREHOLDERS' MEETING
SORAME[(1)]	8,051,838	30.23%	16,103,676	35.86%	16,103,676	35.97%
CEIR[(1)]	1,783,996	6.70%	3,567,992	7.94%	3,567,992	7.97%
Total for the SORAME/ CEIR subgroup[(1)]	**9,835,834**	**36.93%**	**19,671,668**	**43.80%**	**19,671,668**	**43.94%**
FSI Equation (held by the French State)[(1)]	6,810,317	25.57%	13,620,634	30.33%	13,620,634	30.43%
State (direct ownership)	100	not significant	200	not significant	200	not significant
Group total (SORAME/ CEIR/FSI)[(1)]	**16,646,251**	**62.50%**	**33,292,502**	**74.13%**	**33,292,502**	**74.37%**
Schroders plc[(2)]	619,137	2.32%	619,137	1.38%	619,137	1.38%
Acadian Asset Man. llc[(2)]	454,540	1.71%	454,540	1.01%	454,540	1.02%
Dimensional Fund Advisors lp[(2)]	267,807	1.01%	267,807	0.60%	267,807	0.60%
STCPI	1,070,587	4.02%	2,141,174	4.77%	2,141,174	4.78%
BRGM[(2)]	356,044	1.34%	356,044	0.79%	356,044	0.80%
Employees (Eramet share fund)[(3)]	132,165	0.50%	184,538	0.41%	184,538	0.41%
Corporate officers	**14,002**	**not significant**	**18,614**	**not significant**	**18,614**	**not significant**
Eramet treasury shares	147,642	0.55%	147,642	0.33%	0	0.00%
Other	6,925,485	26.06%	7,799,143	16.59%	7,430,067	16.64%
Total Shares	26,633,660	100.00%	44,912,065	100.00%	44,764,423	100.00%
Total Registered Shares	**18,509,540**	**69.50%**	**36,663,450**	**81.63%**	**36,640,303**	**81.85%**
Total Bearer Shares	**8,124,120**	**30.50%**	**8,124,120**	**18.09%**	**8,124,120**	**18.15%**

(1) The companies SORAME, CEIR and FSI Equation are signatories to a Shareholders' Agreement constituting a joint action and have been the subject of a decision and information of the Financial Markets Regulator under the No. 212C0486.
(2) Estimate based on last TPI survey.
(3) According to the new drafting of Article L. 225-102 of the French Commercial Code, issued after Article 135 of the Law 2015-990 of 6 August 2015 (Macron law), the share of capital held by employees on the last day of the year includes, in addition to the shares allocated to a salary savings plan or an FCPE, free registered shares issued from bonus share plans authorised by a General Meeting subsequent to the entry into force of the law, i.e. from 8 August 2015. As at 31 December 2017, there were no bonus shares corresponding to this definition. The share capital held by employees as at 31 December 2017 is therefore equal to 132,165 shares, corresponding to 0.50% of the share capital.

8.2.4.4 As at 31 December 2016 (including shareholders holding — or those likely to hold — at least 1% of capital or voting rights, and known to the Company)

MAJOR SHAREHOLDERS	SHARES	PERCENTAGE OF CAPITAL	THEORETICAL VOTING RIGHTS	PERCENTAGE OF THEORETICAL VOTING RIGHTS	VOTING RIGHTS EXERCISABLE AT SHAREHOLDERS' MEETING	PERCENTAGE OF VOTING RIGHTS EXERCISABLE AT SHAREHOLDERS' MEETING
SORAME[(1)]	8,051,838	30.33%	16,103,676	35.95%	16,103,676	36.04%
CEIR[(1)]	1,783,996	6.72%	3,567,992	7.97%	3,567,992	7.98%
Total for the SORAME/ CEIR subgroup[(1)]	**9,835,834**	**37.05%**	**19,671,668**	**43.92%**	**19,671,668**	**44.02%**
FSI Equation (held by the French State)[(1)]	6,810,317	25.65%	13,620,634	30.41%	13,620,634	30.48%
State (direct ownership)	100	not significant	200	not significant	200	not significant
Group total (SORAME/ CEIR/FSI)[(1)]	**16,646,251**	**62.70%**	**33,292,502**	**74.33%**	**33,292,502**	**74.51%**
Intesa SanPaolo[(2)]	2,094,146	7.89%	2,094,146	4.68%	2,094,146	4.69%
UniCredit[(2)]	1,080,000	4.07%	1,080,000	2.41%	1,080,000	2.42%
STCPI	1,070,587	4.03%	2,141,174	4.78%	2,141,174	4.79%
BRGM[(3)]	356,044	1.34%	356,044	0.79%	356,044	0.80%
Employees (Eramet share fund)[(4)]	52,373	0.20%	104,746	0.23%	104,746	0.23%
Corporate officers	**30,786**	**not significant**	**48,765**	**not significant**	**48,765**	**not significant**
Eramet treasury shares	105,801	0.40%	105,801	0.24%	0	0.00%
Other	5,114,455	19.38%	5,566,384	12.54%	5,566,384	12.57%
Total Shares	26,550,443	100.00%	44,789,562	100.00%	44,683,761	100.00%
Total Registered Shares	**18,375,085**	**69.21%**	**36,570,694**	**81.65%**	**36,508,403**	**81.70%**
Total Bearer Shares	**8,175,358**	**30.79%**	**8,175,358**	**18.25%**	**8,175,358**	**18.30%**

(1) The companies SORAME, CEIR and FSI Equation are signatories to a Shareholders' Agreement constituting a joint action and have been the subject of a decision and information of the Autorité des marchés financiers *under the No. 212C0486.*
(2) Since the last declaration concerning the crossing of Intesa SanPaolo thresholds No. 2016C2860 of 20 December 2016 and of Unicredit of 19 December 2016.
(3) Estimate based on last TPI survey.
(4) According to the new drafting of Article L. 225-102 of the French Commercial Code, issued after Article 135 of the Law 2015-990 of 6 August 2015 (Macron law), the share of capital held by employees on the last day of the year includes, in addition to the shares allocated to a salary savings plan or an FCPE, free registered shares issued from bonus share plans authorised by a General Meeting subsequent to the entry into force of the law, i.e. from 8 August 2015. As at 31 December 2016, there are no bonus shares corresponding to this definition. The share capital held by employees as at 31 December 2016 is therefore equal to 52,373 shares, corresponding to 0.20% of the share capital.

To the best of the Company's knowledge, there are no other shareholders directly or indirectly holding more than 1% of the Company's capital or voting rights and there are no pledged securities. Except for the treasury-held shares mentioned in the table above, there are no other treasury shares. The holding of shares by corporate officers is detailed in the Governance Chapter.

8.2.4.5 Foreseeable changes to voting rights

At 31 December 2018, 207,052 shares registered for less than two years in registered form do not benefit from the double voting right. Should these shares qualify for double voting rights, double voting rights would be increased to a total of approximately 36,700,000, to which the simple voting rights of the bearer shares should be added i.e. 8,110,001 additional rights as of 31 December 2018.

8.2.5 Stock option plans and bonus shares

As at the date of this Registration Document, there are no other dilutive instruments (convertible or exchangeable negotiable securities or any negotiable securities with warrants) issued by the Company besides the ODIRNANs described in Section 8.2 above.

The bonus shares allocated, including details of the granted and open plans as at 31 December 2018, are presented in the notes to the consolidated financial statements of Eramet described in Chapter 3 of this document. There are no other stock-option plans in force.

8.2.6 Summary of financial authorisations

AUTHORISED CAPITAL INCREASES	
A – By issuing shares, other securities and/or warrants, with preferential subscription rights for the shareholders. Art. L. 225-129 CC	
By the EGM for an amount of €24,000,000	23 May 2017 (19th resolution)
Duration of the delegation	26 months until 22/07/19
Use of authorisation	None.
B – By issuing shares, various securities and/or warrants, without preferential subscription rights for part of a public offering.	
By the EGM for an amount of €16,000,000	23 May 2017 (20th resolution)
Duration of the delegation	26 months until 22/07/19
Use of authorisation	None.
C – By issuing shares, other securities and/or warrants, with the cancellation of the preferential subscription rights of the shareholders in the context of an offer referred to in II of Article L. 411-2 of the Monetary and Financial Code.	
By the EGM for an amount of €16,000,000	23 May 2017 (21st resolution)
Duration of the delegation	26 months until 22/07/19
Use of authorisation	None.
D – By issuing shares, with the cancellation of shareholders' preferential subscription rights, as a result of subsidiaries issuing securities which give access to the Company's capital.	
By the EGM for an amount of €16,000,000	23 May 2017 (22nd resolution)
Duration of the delegation	26 months until 22/07/19
Use of authorisation	None.
E – By incorporation of reserves, profits, premiums or otherwise, the capitalisation of which would be permitted.	
By the EGM for an amount of €24,000,000	23 May 2017 (18th resolution)
Duration of the delegation	26 months until 22/07/19
Use of authorisation	None.
F – By issuing shares, other securities, as compensation for contributions in kind granted to the Company, with cancellation of the preferential subscription rights of the shareholders. Art. L. 225-147 paragraph 6 CC	
By the EGM for an amount of 10% of the capital	23 May 2017 (23rd resolution)
Duration of the delegation	26 months until 22/07/19
Use of authorisation	None.
Limitation of the amount of issues (Total A+B+C+D+F)	
By the EGM	23 May 2017 (24th resolution)
Maximum amount	€24,000,000
Use of authorisations	None.

Capital increase reserved for employees	
G – By the EGM	**23 May 2017 (25th resolution)**
Duration of the delegation	26 months until 22/07/19
Maximum amount	€500,000
Use of authorisation	None.
Capital reduction	
H – By the EGM	**23 May 2017 (26th resolution)**
Duration of the delegation	26 months until 22/07/19
Maximum amount	10% of capital
Use of authorisation	None.
Allocation of bonus shares (Art. L. 225-197-1 and L. 225-197-2 CC)	
By the EGM	27 May 2016 (14th resolution)
Maximum total number	550,000 shares
Duration of authorisation	38 months until 26/07/2019
Used in 2016/2017/2018	550,000
Available balance	0
By the EGM	24 May 2018 (11th resolution)
Maximum total number	550,000 shares
Duration of authorisation	38 months until 23/07/2021
Used in 2018	0
Available balance	550,000

8.2.7 Description of the share buyback programme

8.2.7.1 Review of the 2018 buyback programme

The Combined General Meeting of 24 May 2018 authorised the Company to repurchase its own shares within the limit of 10% of the share capital and for a maximum purchase price of €300 per share, the maximum amount payable by the Company being €799,009,800. This authorisation expires at the Ordinary General Meeting called to approve the 2018 financial statements and has been given for the purpose of:

- supporting the share price via a liquidity agreement with a market maker, in accordance with the AMAFI Code of conduct recognised by the AMF;
- the delivery of shares upon the exercise of rights attached to securities giving access to the share capital by redemption, conversion, exchange or otherwise;
- the implementation of any stock option plan of the Company pursuant to the provisions of Articles L. 225-177 *et seq.* of the French Commercial Code;
- the allocation of bonus shares under the provisions of Articles L. 225-197-1 *et seq.* of the French Commercial Code;
- the allocation or the transfer of shares to the employees with respect to their participation in the benefits of the expansion of the Company, or the implementation of any employee savings plan under the conditions stipulated by the law, in particular, the Articles L. 3332-1 *et seq.* of the French Labour Code;
- their cancellation, in accordance with the 26th resolution of the Combined Shareholders' Meeting of 23 May 2017, authorising the reduction of the share capital of the Company for a period of twenty-six months.

8.2.7.2 Details of the purchase and sale of treasury shares during the year (Article L. 225-211 of the French Commercial Code)

The table below summarises the treasury share transactions that were made by the Company between 1 January and 31 December 2018.

	TOTAL NUMBER OF SHARES	MARKET MAKER[1]	ALLOCATIONS TO EMPLOYEES	TOTAL
Position at 1 January 2017	**26,550,443**	**62,291**	**43,510**	**105,801**
As a percentage of capital		*0.23%*	*0.16%*	*0.40%*
Redemption mandate – March 2017			25,000	25,000
Redemption mandate – September 2017			120,000	120,000
Final allocation of bonus shares			(64,015)	(64,015)
Purchases/sales		(39,144)		(39,144)
Position at 31 December 2017	**26,633,660**	**23,147**	**124,495**	**147,642**
As a percentage of capital		*0.09%*	*0.47%*	*0.55%*
Final allocation of bonus shares			(92,388)	(92,388)
Purchases/sales		39,910		39,910
Position at 31 December 2018	26,635,884	63,057	32,107	95,164
As a percentage of capital		*0.24%*	*0.12%*	*0.36%*

(1) Liquidity agreement signed with Exane BNP Paribas.

During the year, 371,084 shares were purchased at an average price of €105.07 and 331,174 shares were sold at an average price of €106.24.

The book value of the portfolio of 95,164 shares with a nominal value of €3.05 per share, held as at 31 December 2018, amounted to €12,977,160.44, with a market value, on the same date, of €60.35 per share, or €5,743,147.40.

The Company did not use derivatives during the year.

No Group company holds shares in the parent company Eramet.

8.2.7.3 Liquidity agreement

To ensure minimum liquidity at any time of its title, the Company entered into a liquidity agreement with Exane BNP Paribas on 18 July 2003. This liquidity agreement is in accordance with market practice accepted by the AMF. The summary of the stock market operations is given in the details of the purchase and sale transactions carried out above. With a close-out date of 31 December 2018, the following means were included in the liquidity account: 65,307 Eramet shares and €3,730,851.

8.2.8 Description of the 2019 share buyback programme

8.2.8.1 Legal framework

In accordance with the provisions of Article 241-2 of the general regulations of the *Autorité des marchés financiers*, the aim of this description is to state the purposes, terms and conditions of the Company's share buyback programme. This programme, which falls within the scope of Article L. 225-209 of the Commercial Code, will be subject to authorisation by the General Shareholders' Meeting of 23 May 2019, meeting the quorum and majority requirements in ordinary matters.

8.2.8.2 Number of shares and portion of capital held by the Company

As at 31 December 2018, the share capital consisted of 26,635,884 shares.

On that date, the Company held 95,164 treasury shares, representing 0.36% of share capital.

8.2.8.3 Breakdown by equity securities objectives held by the Company

As at 31 December 2018, 95,164 treasury shares held by the Company were distributed as follows by objective:

- market maker (liquidity agreements): 63,057 shares;
- allocation to employees: 32,107 shares.

8.2.8.4 Objectives of the new share buyback programme

The objectives of this programme are:

- supporting the share price via a liquidity agreement with a market maker, in accordance with the market practice accepted by the AMF;
- the delivery of shares upon the exercise of rights attached to securities giving access to the share capital by redemption, conversion, exchange or otherwise;
- the implementation of any stock option plan of the Company pursuant to the provisions of Articles L. 225-177 *et seq.* of the French Commercial Code;
- the allocation of bonus shares under the provisions of Articles L. 225-197-1 *et seq.* of the French Commercial Code;
- the allocation or the transfer of shares to the employees with respect to their participation in the benefits of the expansion of the Company, or the implementation of any employee savings plan under the conditions stipulated by the law, in particular, the Articles L. 3332-1 *et seq.* of the French Labour Code;
- their cancellation, in accordance with the resolution proposed at the Combined Shareholders' Meeting of 23 May 2019, authorising the reduction of the share capital of the Company for a period of twenty-six months.

8.2.8.5 Maximum share of capital, maximum number and characteristics of equity securities

10% of the share capital as at 31 December 2018, or 2,663,588 shares, before deducting the shares held by the Company.

The Eramet shares are listed on Euronext Paris (ISIN code: FR0000131757).

The maximum purchase price would be €300 per share.

The maximum amount allocated to these acquisitions would be €799,076,400 for 2,663,588 shares representing 10% of the Company's share capital.

8.2.8.6 Terms of repurchase

Shares, disposals, and transfers may be made by any means on the market or over the counter, including by transactions in blocks of securities or via derivatives, provided that the resolution proposed to the vote of the shareholders does not limit the part of the programme which can be realised by purchase of blocks of titles.

The Company specifies that in the event of the implementation of derivatives, the objective of the Company would cover optional positions taken by the issuer (purchase options or subscription of shares granted to Group employees, debt securities giving access to the capital of the issuer). The use of derivatives will more specifically consist of buying call options and the Company will not be required to use sales of put options.

8.2.8.7 Duration of the buyback programme

The validity of the programme is limited to a period ending with the General Shareholders' Meeting convened to approve the financial statements for 2019.

8.3 Information about the Company

8.3.1 Corporate name (Article 2 of the Articles of Association)

Eramet. In this document, the Company is called "the Company" or "the issuer": the Group comprising Eramet and its subsidiaries is referred to as "the Group".

8.3.2 Registration number of the Company

The Company is registered in the Paris Trade and Companies Register under the No. 632 045 381 and under the SIRET No. 632 045 381 000 27. Its industry is the research and exploitation of mineral deposits of all kinds, metallurgy of all metals and alloys, and their trading.

8.3.3 Date of incorporation and duration of the Company (Article 5 of the Articles of Association)

The Company has been incorporated for a period of 99 years commencing on 23 September1963 and expiring on 23 September 2062, except in the case of early dissolution or extension.

8.3.4 Headquarters (Article 4 of the Articles of Association)

10, boulevard de Grenelle

75015 Paris

Telephone: +33 (0)1 45 38 42 42

Website: www.eramet.com

8.3.5 Legal form and applicable law

Eramet is a limited company under French law, with a Board of Directors, governed by the provisions of Articles L. 224-1 *et seq.* of the Commercial Code (Legislative and regulatory section) and the provisions of its Articles of Association.

8.3.6 Legal audit of the Company (Article 19 of the Articles of Association)

In accordance with the law, the legal audit of the Company is provided by two Statutory Auditors and two alternate Statutory Auditors.

8.3.7 Corporate purpose (Article 3 of the Articles of Association)

"The objective of the Company in all countries is the research and exploitation of mineral deposits of all kinds, the metallurgy of all metals and alloys, and their trading.

To this end, it operates directly, or indirectly, by way of participation in the following activities:

- research, acquisition, leasehold, alienation, concession and operation of all mines and quarries of any nature whatsoever;
- treatment, processing and sale of all ores, mineral substances and metals, as well as their by-products, alloys and all derivatives;
- the manufacture and marketing of all products in the composition of which the aforesaid materials or substances are incorporated;
- more generally, all operations directly or indirectly related to the above items, or to promote the development of corporate interests.

To achieve this objective, the Company may:

- create, acquire, sell, exchange, take or lease, with or without a promise to sell, manage and exploit directly or indirectly all industrial and commercial establishments, factories, sites, and premises, movable and immovable objects;
- obtain or acquire any patents, licences, processes and trademarks, use, assign or provide them, grant licences in any country;
- generally carry out all commercial, industrial, financial, movable or immovable transactions, which may relate, directly or indirectly, to the Company's objective or which may facilitate its implementation. It may act, directly or indirectly, on its own behalf or on behalf of third parties and either alone or in association, partnership, or Company, with any other companies or persons and carry out, directly or indirectly, in France or abroad, under whatever form it may take, the operations falling within its purpose. It may take, in any form, all interests and participations, in all companies or enterprises, French or foreign, such as to favour the development of its own affairs."

8.3.8 Fiscal year (Article 23 of the Articles of Association)

The financial year, of twelve months, begins on 1 January and ends on 31 December of each year.

8.3.9 General Shareholders' Meeting

8.3.9.1 Convocation and conditions for admission (Articles 20 to 22 of the Articles of Association)

Composition

The General Shareholders' Meeting is composed of all the shareholders of the Company, regardless of their number of shares.

Convocation

The General Shareholders' Meeting is convened and deliberates in accordance with the provisions of the French Commercial Code and Articles 20 to 22 of the Articles of Association.

Meetings are held at the head office or any other place within the same department specified in the Meeting notice.

Conditions of admission

Any shareholder has the right to participate in the Meetings, either by attending personally or by being represented by another shareholder, his spouse, the partner with whom he has entered into a civil union, or by any other natural or legal person of his choice under the conditions provided for by the regulations in force.

Holders of registered shares and holders of bearer shares must complete the formalities prescribed by the regulations in force. These formalities must have been completed no later than the second business day preceding the Meeting at midnight Paris time prior to the convening of the Meeting. Shareholders are also entitled to vote by correspondence in accordance with Articles L. 225-107 and R. 225-75 *et seq.* of the French Commercial Code, by means of a form to be sent to the Company at least three days before the Meeting.

If the Board of Directors so decides at the time of convening the Meeting, participation in the Meeting by video conference or by any means of telecommunication and remote transmission, including the Internet, is authorised in accordance with the regulations. If applicable, this decision is communicated in the Meeting notice published in the Bulletin of Mandatory Legal Notices.

Undivided, split, pledged or sequestered shares

In the absence of specific statutory provisions, and pursuant to the provisions of Article L. 225-110 of the Commercial Code, any holder of an undivided share, a split share (bare owner and beneficiary), a pledged share or a sequestered share, is called to the Meeting and may attend, subject to compliance with the legal or statutory provisions below with respect to the exercise of voting rights.

8.3.9.2 Conditions for exercise of voting rights (Articles 8 and 20 of the Articles of Association)

Each shareholder has as many votes as the shares he owns or represents, subject to the double voting rights attached to certain shares. The Extraordinary Shareholders' Meeting convened on 21 July 1999 conferred a double voting right to each fully paid-up share for which a nominal registration has been valid for at least two years in the name of the same shareholder, with effect from 1 January 2002.

Shares granted free of charge, with respect to an incorporation of reserves, profits, or issue premiums, on the basis of old shares with double voting rights, also confer double voting rights at the end of a period of two years.

Double voting rights cease for any share which has been converted into bearer form or transferred, except, by law, any transfer by succession, liquidation of community property between spouses or family donation or a merger or division of the shareholding company.

In accordance with the law, double voting rights may only be abolished by a decision of the Extraordinary General Shareholders' Meeting and after ratification by the Special Shareholders' Meeting.

Electronic voting

Any shareholder may also, if the Board of Directors so decides at the time of the convening of the Meeting, transmit a vote by correspondence or proxy, by any means of remote transmission, including the Internet, in accordance with the regulations applicable at the time of use.

In the case of the use of an electronic form, the signature of the shareholder may take the form either of a secure signature or of a reliable identification process guaranteeing its connection with the act to which it relates, specifically consisting of an identifier and a password. If applicable, this decision is communicated in the Meeting notice published in the Bulletin of Mandatory Legal Notices.

Proxies or votes expressed electronically in this way before the Meeting, and the confirmation of receipt given in reply, shall be regarded as irrevocable written instructions enforceable on all parties, it being stipulated that if the shares are sold before midnight, Paris time, on the second business day preceding the Meeting, the Company shall invalidate or amend, as the case may be, proxies or votes expressed before such date and time.

Undivided, split, pledged or sequestered shares

In the absence of specific statutory provisions and pursuant to the provisions of Article L. 225-110 of the Commercial Code, the voting right is exercised by the usufructuary at the Ordinary General Shareholders' Meeting, by the bare owner at the Extraordinary General Shareholders' Meeting, by one of the undivided co-owners or by a single representative in the case of co-owners of undivided shares and by the owner of securities pledged or under escrow.

8.3.10 Transmission of shares

Since the elimination of the approval clause adopted by the Meeting of 15 June 1994, shares are exchanged freely subject to compliance with the rules applicable to companies whose shares are admitted to trading on a regulated market.

8.3.11 Identification of shareholders

8.3.11.1 Crossing thresholds/ Declaration of Intent

Legal declarations

Under Articles L. 233-7 to L. 233-11 of the Commercial Code, any natural or legal person, acting alone or in concert, holding a number of shares representing more than one twentieth, one tenth, three-twentieths, one fifth, one quarter, three-tenths, one third, one half, two thirds, eighteen twentieths or nineteen twentieths of the Company's capital and/or voting rights must inform the *Autorité des marchés financiers* and the Company — within the agreed time limits by registered letter with acknowledgement of receipt, of the total number of shares and/or voting rights in his possession. The same people are also required to inform the Company when their participation falls below any of the above mentioned thresholds.

Finally, this reporting obligation is supplemented by the legal obligation to report, on time, the objectives over the next six months for any person crossing, upward or downward, the above mentioned thresholds of one tenth, three-twentieths, one fifth, or one quarter.

In the event of non-compliance with these reporting obligations, the provisions of Article L. 233-14 of the said Code shall be applied.

Additional statutory declarations

Since the amendment of Article 9 of the Articles of Association by the General Shareholders' Meeting on 15 June 1994, any natural or legal person, acting alone or in concert, who comes to hold or ceases to hold a fraction equal to 1% of the capital and/or voting rights, or any multiple thereof, is required to inform the Company within ten days by registered letter with acknowledgement of receipt addressed to the Company's head office, including the number of shares and voting rights held.

Failure to do so results in the deprivation of voting rights for the shares or voting rights exceeding the fraction that should have been declared for a period of two years commencing from the regularisation and on request, at a Meeting, of one or more shareholders owning 5% of capital or voting rights of a Meeting.

8.3.11.2 Identifiable bearer shares

Pursuant to Article L. 228-2 of the Commercial Code and Article 9 of the Articles of Association, the Company may at any time appeal to Euroclear SA for the procedure for identifying the holders of bearer shares called "identifiable bearer share".

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8.3.12 Publicly made declarations of threshold crossing

DATE	AMF DECISION NO.	SUBJECT
03/08/1999	199C1045	Declaration of threshold crossing (ERAP – CEIR – SORAME). Declaration of intent. Appointment of five people qualified as directors. Reminder: exemption from the obligation to file a public tender offer.
29/12/1999	199C2064	Declaration of threshold crossing Cogema replaces ERAP.
30/12/1999	199C2068	Declaration of threshold crossing AFD replaces ERAP.
25/07/2001	199C0921	Draft amendment to the shareholders' agreement: reclassification of Eramet shares held by Cogema at CEA Industrie.
12/09/2001	201C1140	Declaration of threshold crossing Amendment to the shareholders' agreement following the substitution of Cogema by AREVA.
20/12/2004	204C1559	Declaration of threshold crossing and declaration of intent. Substitution of Maaldrift BV by Carlo Tassara International.
14/02/2006	206C0296	Declaration of threshold crossing upward to 5.0034% of capital and 2.98% of voting rights by M&G Investment Management Limited.
17/01/2007	207C0134	Declaration of threshold crossing upward to 13.16% of capital and 7.74% of voting rights and declaration of intent by Carlo Tassara France.
18/01/2007	207C0137	Declaration of threshold crossing downward (0%) by Carlo Tassara International.
24/07/2007	207C1569	Declaration of threshold crossing downward to 4.14% of capital and 4.81% of voting rights by STCPI.
30/05/2008	208C1042	Amendment to the Shareholders' Agreement (CEIR – SORAME – AREVA) of 17/06/99
03/06/2008	208C1083	Declaration of threshold crossing downward to 4.95% of capital and 2.93% of the voting rights of M&G Investment Management Limited.
21/07/2009	209C1013	Amendment to the SORAME – CEIR Agreement of 19/07/99
20/03/2012	212C0416	Declaration of threshold crossing upward and then downward (4.92% of capital and 2.94% of voting rights) by BlackRock Inc.
12/04/2012	212C0486	Advertising of the SORAME-CEIR-FSI Shareholders' Agreement clauses
21/05/2012	212C0634	Declaration of threshold crossing downward by AREVA – End of SORAME-CEIR-AREVA Shareholders' Agreement.
23/05/2012	212C0647	Declaration of threshold crossing upward by FSI
22/07/2013	213C1027	Declaration of threshold crossing upward by BPI Group through BPIfrance Participations (ex FSI)
22/07/2013	213C1028	Declaration of participation of the Caisse des Dépôts et Consignations through the BPI Group
21/07/2014	214C1461	Declaration of threshold crossing upward by Caisse des Dépôts et Consignations and BPI Group, through BPI France Participations, as a result of the allocation of double voting rights.
28/07/2016	216C1753	Consideration of the consequences of the change within the Group (change of control of FSI Equation without affecting the equilibrium of the controlling group Eramet, the SORAME-CEIR-FSI Equation shareholder agreement remaining unchanged)
2/09/2016	216C1953	Declaration of threshold crossing upward by the *Agence des participations de l'État* (APE), together with the FSI Equation which it controls and the companies SORAME and CEIR
2/09/2016	216C1957	Declaration of threshold crossing downward by Bpifrance, through Bpifrance Participations, and the end of collaborative action with FSI Equation, SORAME and CEIR
5/09/2016	216C1971	Declaration of threshold crossing downward by Caisse des Dépôts et Consignations, through Bpifrance Participations
20/12/2016	216C2860	Declaration of threshold crossing upward by Intesa SanPaolo S.p.A.
21/12/2016	216C2884	Declaration of threshold crossing downward by Carlo Tassara France SAS
19/09/2017	2017C2159	Declaration of threshold crossing downward by Intesa SanPaolo S.p.A.

8.3.13 Elements likely to have an impact in the event of a public offer

In addition to the information on threshold crossings, double voting rights, shareholder agreements and commitments detailed in this Section, the following items are to be noted.

8.3.14 Possibility of using the capital increase authorisations during public offers

According to the new wording of Article L. 233-32 of the Commercial Code, resulting from Law No. 2014-384 of 29 March 2014, the capital increase authorisations put to vote at the General Shareholders' Meeting in May 2019 to increase the capital-authorisations with preferential subscription rights, without preferential subscription rights through public offering or private placement, by subsidiaries or in consideration of contributions in kind, within the limit of a nominal amount defined by shareholders, may be used during a takeover bid or exchange by the Board of Directors, subject to the powers expressly granted to General Meetings and within the limits of the corporate interest of the Company.

8.3.15 Loans

The Multicurrency Revolving Credit Facility Agreement (RCF) described in Note 7 to the consolidated accounts (Section 3), which was drawn up at the beginning of January 2016 for an amount of €980 million, provides for the possibility for each bank, in the event of a change of control of the Company, to notify the cancellation of its commitment and the early repayment of its participation in the advances in progress.

In addition, the bond loan with an option to repay in cash and/or new shares (ODIRNAN) in the amount of approximately €100 million described in Note 7 to the consolidated financial statements provides for:

- the possibility of early redemption at the option of the Company within forty-five days following the change of control of the Company for all outstanding bonds;
- In the event that the Company decides not to proceed with the early repayment of the bonds following the change of control, an automatic surcharge of 500 basis points of the nominal rate will apply as of the first interest period following said change of control.

The bond loans described in Note 6 to the consolidated financial statements include a change of control clause that could lead to the mandatory early redemption of bond loans at the request of each bondholder in the event of a change of control of the Company.

8.4 Shareholder agreements

Pursuant to a Shareholders' Agreement concluded on 16 March 2012, which entered into force on 16 May 2012 and was renewed on 31 December 2018 for a period of one year expiring on 31 December 2019, which was the subject of a decision and information from the *Autorité des marchés financiers* under No. 212C0647 at the time of its conclusion, and a decision and information from the *Autorité des marchés financiers* under No. 216C1753 relating to the development of the Group during the acquisition by the *Agence des participations de l'État* (APE) of the entire share capital of FSI Equation, the Company is majority controlled by a group of shareholders having declared to be acting in concert, including:

- a subgroup between SORAME and CEIR, companies controlled by the Duval Family, under a concurrent shareholders' agreement dated 19 July 1999, which came into force on 21 July 1999 and was the subject of an amendment on 13 July 2009;
- the *Agence des participations de l'État* (APE), through its subsidiary FSI Equation.

The Shareholders' Agreement provides that the Board of Directors include five directors proposed by SORAME/CEIR, three directors nominated by APE, five directors must be natural persons, including three individuals proposed by the subgroup SORAME/CEIR and two proposed by APE, selected on the basis of their competence and independence, two directors nominated by the Caledonian Territorial Corporation of Industrial Participation (hereinafter "STCPI"), a director proposed by agreement between SORAME/CEIR and APE, and a director called upon to chair the Eramet Board of Directors.

The provisions of the Shareholders' Agreement referred to above as well as those of the subgroup are contained in the main extracts of the AMF's decision and information texts No. 216C1753, No. 212C0486 and No. 209C1013 (amendment of13 July 2009) reproduced below (the full text of these texts is available on the AMF website).

VIII

8.4.1 Decision and Information No. 216C1753 of 28 July 2016

On 29 August 2016, the *Agence des participations de l'État,* acting on behalf of the State, acquired the entire capital of FSI Equation, which holds 6,810,317 Eramet shares, i.e. 25.66% of the capital of this company.

In this context, the *Agence des participations de l'État* filed a request for dismissal of a proposed public offer for the Eramet shares with the AMF, which issued a decision No. 216C1753 on 28 July 2016, the terms of which are reproduced below.

"At its meeting of 13 July 2016, the Autorité des marchés financiers considered a request to dismiss a proposed public offer for the Eramet shares, which is part of the amendment to the shareholding of this company[(1)]. The group consisting of SORAME[(2)] and CEIR[(3)] (both controlled by the Duval family) and FSI Equation[(4)] holds 16,646,151 Eramet shares, representing 33,292,302 voting rights, or 62.71% of the capital and 74.34% of voting rights of this company[(5)], apportioned as follows:

	SHARES	PERCENTAGE OF CAPITAL	VOTING RIGHTS	PERCENTAGE OF VOTING RIGHTS
SORAME	8,051,838	30.33	16,103,676	35.96
CEIR	1,783,996	6.72	3,567,992	7.97
SORAME/CEIR subtotal	**9,835,834**	**37.06**	**19,671,668**	**43.93**
FSI-Equation	6,810,317	25.66	13,620,634	30.41
Concert total	16,646,151	62.71	33,292,302	74.34

(1) See, in particular, the communication issued by the State (APE) on 27 July 2016.

(2) Société de Recherche et d'Applications Métallurgiques controlled by the Duval family.

(3) Compagnie d'Études Industrielles de Rouvray, controlled by the Duval family.

(4) 100% owned by Bpifrance Participations, itself 100% owned by Bpifrance SA, which is jointly controlled 50% by the public institution Bpifrance and 50% by the Caisse des Dépôts et Consignations.

(5) Based on share capital of 26,543,218 shares representing 44,783,479 voting rights under the second paragraph of Article 223-11 of the general regulations.

The Agence des participations de l'État (APE), acting on behalf of the State, intends to acquire, in the second half of 2016, the entire capital of FSI Equation, which holds 6,810,317 Eramet shares, i.e. 25.66% of the share capital of this company. As a result of the APE's acquisition of the entire share capital of FSI Equation, the direct shareholding of Eramet will not be changed, so the above-mentioned shareholding table will remain unchanged. Nevertheless, due to the APE replacing Bpifrance Participations in the control of FSI Equation and in the group formed with the SORAME-CEIR subgroup, it will indirectly increase the threshold of 30% of the voting rights of Eramet and, in collaboration with the SORAME-CEIR subgroup, the thresholds of 30% of the capital and voting rights of this company.

In this context, the APE has asked the Autorité des marchés financiers to note that there is no reason to file a public offer for the shares of Eramet, particularly on the basis of Article 234-7 of the general regulations.

In particular, the applicant contends that:

- *Eramet is controlled by a group composed of SORAME, CEIR and FSI Equation, which holds 74.34% of Eramet's voting rights (of which 30.41% of the voting rights are held by FSI Equation), i.e. the majority of voting rights in the Company;*
- *the subgroup SORAME-CEIR is predominant within the group it forms with FSI Equation(1) and the result of the proposed substitution transaction for the capital of FSI Equation, this predominance of the subgroup SORAME-CEIR will not be called into question insofar as the balance of the interests between the said shareholders in the capital of Eramet will remain unchanged;*
- *the transaction will not entail any change in the terms of the exercise of power within Eramet due to the absence of any modification of the provisions of the shareholders' agreement concluded on 16 March 2012 between the current collaborators, which provides, in particular, for the composition of the corporate bodies and the rules for cooperation(1).*

On this basis, the AMF noted (i) that the change of control of FSI Equation in favour of the APE will have no implication for the balance of the group controlling Eramet, within which SORAME and CEIR remain predominant over FSI Equation, (ii) the shareholders' agreement between the subgroup SORAME-CEIR and FSI Equation will remain unchanged, particularly with regard to the terms of exercising governance within Eramet and, therefore, on the basis of Article 234-7 of the general regulations there was no need for the compulsory filing of a draft public offer.

In the event of a modification of the agreements concluded or the respective interests of the collaborators, the AMF would need to be informed so that it can assess the consequences of these changes with regard to the obligation to file a public offer.

8.4.2 Decision and Information No. 212C0486 of 12 April 2012

The main clauses of the said agreement are as follows:

Composition of the Eramet Board of Directors

The Board of Directors will be made up of five directors proposed by SORAME/CEIR, three directors proposed by FSI, four directors who must be natural persons, of which two natural persons will be proposed by the SORAME/CEIR subgroup and two proposed by FSI, selected on the basis of their competence and independence, two directors nominated by the Caledonian Territorial Corporation of Industrial Participation (hereinafter "STCPI") and a director called upon to chair the Board of Eramet.

This composition must be maintained except in the case of (i) a capital change of more than 10% of the share capital of Eramet of the capital interests held at the signing of the Agreement, either by SORAME and CEIR, or by FSI, or (ii) a significant change in STCPI's participation in Eramet, in terms of capital, constituting a reduction to below 635,372 Eramet shares.

Chair and committees of the Board of Directors

The parties (i.e. SORAME, CEIR and FSI) plan to consult before any appointment of a Chairman of the Board, a managing director, or a deputy CEO, or appointment of leaders of each of the three Divisions of the Eramet Group. The composition and duties of the committees of the Board of Directors, namely the Selection Committee, the Remuneration Committee, and the Audit Committee, are also defined. In the event of failure of the collaboration, the rules of general law apply.

Stability of the Group

Commitment of the collaboration

The parties agree to consult before any meeting of the Eramet Board of Directors and any General Shareholders' Meeting with a view to a concerted exercise of their voting rights and the implementation of a common approach to it, and stipulate that, in instances of disagreement on a matter before the Board of Directors, they will ensure that its decision is postponed to its next meeting(2).

(1) See in particular D&I 212C0486 of 12 April 2012 and 212C0647 of 23 May 2012.

(2) It is specified that in such a case, the parties are not required to agree and remain free to exercise their voting rights as they wish; in particular, they did not provide veto rights.

Commitment to retain

The companies SORAME and CEIR undertake to hold the first 70% and the second 30% of their total interest in Eramet and, as long as FSI does not increase its overall interest in Eramet, to retain 2% more of the Eramet capital than FSI, which ensures the overall group the retention of 51% of the Eramet voting rights as long as the participation of FSI in Eramet will remain equal to 25.68% of the capital. However, the SORAME/CEIR subgroup remains free to sell at least 80% of its interest in Eramet, and its commitment to retention ceases if FSI exercises its option to purchase the Eramet shares from SORAME.

Obligations in case of public offer

Each party undertakes to make or execute in due time the declarations and obligations to which it is bound, to bear only the penalties for their possible non-performance, and to deposit and assume alone the mandatory public tender offer for its possible acquisitions of Eramet shares, or any of its acts, or a breach of any of its obligations.

Options to buy and sell the Eramet shares of SORAME and CEIR

SORAME grants to FSI an indivisible purchase option for its Eramet shares, exercisable in the event of a transfer of shares or one or more shares of general partners or of any transaction on SORAME that results in the Duval Family losing control of SORAME. CEIR grants to FSI an indivisible purchase option for all of its Eramet shares, and FSI grants CEIR an indivisible put option for all of its Eramet shares. These two options will be exercisable upon exercise by FSI of its option to purchase the Eramet shares held by SORAME.

Rights of reciprocal first refusal (pre-emption)

The parties agree to a right of reciprocal first refusal, (i) in case of a firm intention to sell, on the market to unidentified third parties on an *ad hoc* basis or by accelerated bookbuilding (ABB) or by a fully marketed offer (FMO), a specified number of Eramet shares; (ii) in the event of a proposed assignment to one or more identified third parties of one or more Eramet share blocks, by application or off the market; and in the case of plans to contribute all or part of its interest in Eramet, paid for by the shares of the company benefiting from the contribution.

The right of first refusal is excluded in the following cases:

- transfers in the market: for SORAME and CEIR, as long as the commitment to retain is respected, and for FSI, as long as it retains 20% of Eramet's share capital;
- transfers to a third party or several third parties identified or proposed contribution: for SORAME and CEIR, as long as the commitment to retain is respected and that a block of more than 5% of the capital is not sold to the same group of investors and for FSI, as long as it keeps 20% of the Eramet capital and that more than 5% of the capital is not sold to the same group of investors.

Generally, there is no obligation of notification and rights of first refusal for (i) free transmissions, upon death or *inter vivos*, to individuals, (ii) assignments within the SORAME/CEIR subgroup, provided that the first of these retains at least 70%, and the second at most 30% of their overall participation in Eramet, (iii) in case of a merger of SORAME and CEIR, if SORAME is the absorbing firm and remains controlled by the Duval family, and (iv) in case of FSI making a transfer or contribution of its Eramet shares to one of its subsidiaries, provided that the recipient adheres to the shareholders' agreement and replaces FSI in the resulting rights and duties.

Duration

The pact will enter into force on the actual transfer by AREVA to FSI of the interest it holds in Eramet. It is concluded for a fixed term ending on 31 December 2016, and extends beyond that date by tacit agreement for periods of one year, unless one of the parties notifies the other of its termination at least one month before the expiration of the current period. The pact will cease immediately and automatically in the event of (i) a change of predominance within the global group due to acquisitions or share subscriptions by FSI, (ii) sale or contribution or transfer by one of the parties of more than 80% of its stake in Eramet, or (iii) reduction to less than 15% of FSI's direct or indirect stake in Eramet capital.

Consequently, SORAME and CEIR decided by addendum No. 2, concluded on 16 March 2012, to amend the duration clause of the shareholders' agreement which they concluded on 17 June 1999, already amended by addendum No. 1 of 13 July 2009.

Finally, it is specified that SORAME and CEIR have committed to FSI to convert the required number of Eramet shares to bearer shares so that the current interest of the SORAME/CEIR subgroup is not bound by more than 2% as a result of the loss of the double voting rights attached to the Eramet shares sold to FSI. After the sale of Eramet shares, SORAME and CEIR and FSI will ask Eramet to re-register all of their Eramet shares in order to recover the double voting rights two years later.

8.4.3 Decision and information No. 209C1013 of 21 July 2009

By letter dated 16 July 2009, the AMF has been the recipient of a shareholder agreement entitled "Amendment No. 1 to the Eramet Shareholders' Agreement of 19 July 1999 between SORAME and CEIR" concluded on 13 July 2009 between the company SORAME, partnership limited by share capital, and the company CEIR, by simplified joint-stock.

A/ It is recalled that the companies SORAME and CEIR (companies controlled by the Duval family) concluded on 19 July 1999 a shareholders' agreement establishing them in concert for 10 years, effective 21 July 1999.

This pact planned, in particular:

- the inalienability of their Eramet shares for five years, except, for each of them, up to a maximum of 1.5% of the Eramet share capital;
- complete freedom to sell between themselves their Eramet shares, provided that SORAME continues to hold at least 70% of the Eramet shares held by their collaboration and CEIR, a maximum of 30%, with the commitment to maintain this distribution between them in case of an increase in their holdings;
- reciprocal pre-emption rights over their Eramet shares;
- a commitment to collaborate prior to any Eramet General Shareholders' Meeting, with a view to the concordant exercise of their voting rights for the implementation of a common policy regarding that company.

B/ It is further recalled that the companies SORAME and CEIR, certain members of the Duval family and AREVA are united by a shareholders' agreement establishing them in collaboration with Eramet, which results from a private agreement dated 17 June 1999, and a supplementary agreement of 27 July 2001 having substituted AREVA for COGEMA, itself already substituted for ERAP on 1 December 1999, pursuant to the provisions of the said agreement.

Amendment No. 2 to the aforementioned private deed of 17 June 1999 was signed on 29 May 2008, by which the parties extended their agreement of collaboration until 31 December 2008, and made various modifications to it, and for that reason substituted, as of 29 May 2008, a new wording to the previous drafting of their shareholders' agreement as of 17 June 1999.

In the absence of termination by the parties before 15 December 2008 and then 15 June 2009, the new agreement was tacitly extended twice, the last time from 1 July 2009 for a period of six months ending on 31 December 2009.

As of 16 July 2009, the parties to the agreement together hold 61.57% of the capital and 73.57% of the voting rights of Eramet, broken down as follows:

	SHARES	% CAPITAL	VOTING RIGHTS	PERCENTAGE OF VOTING RIGHTS
SORAME	7,818,919	29.37	15,637,838	35.16
CEIR	1,783,996	6.70	3,567,992	8.02
SORAME/CEIR subtotal	**9,602,915**	**36.07**	**19,205,830**	**43.18**
AREVA	6,787,277	25.39	13,514,554	30.63
Subgroup total	16,390,192	61.57	32,720,384	73.57

C/ On 13 July 2009, SORAME and CEIR signed an amendment to the agreement of 19 July 1999 described in point A above, extending their collaboration agreement until 21 July 2014, by providing different modifications, and, as of 13 July 2009, substituted it with a new wording to that of the shareholders' agreement of 19 July 1999.

The main clauses of the amendment between SORAME and CEIR are as follows:

- stability of the SORAME/CEIR group: except in the event of a sale representing at least 80% of the Group's interest in Eramet and as long as AREVA does not increase its stake in Eramet by more than 2%, the parties undertake to retain the number of shares and voting rights required for their subgroup to remain predominant in the overall collaboration;
- transfer of Eramet shares between SORAME and CEIR: any sale of Eramet shares may be carried out freely between the parties, provided that SORAME continues to hold at least 70% of the Eramet shares held by the subgroup and CEIR, a maximum of 30%;
- increase in holdings by SORAME and CEIR in Eramet: the parties are free to increase their participation in Eramet, provided that they do not increase their shareholding by more than 2% of the capital or voting rights in less than twelve months;
- commitment to collaborate between the parties prior to any Eramet General Shareholders' Meeting, with a view to the concordant exercise of their voting rights for the implementation of a common policy regarding Eramet.

This agreement replaces the agreement of 19 July 1999. It is concluded for a period expiring on 21 July 2014 and shall thereafter be tacitly renewed for periods of two years, in the absence of its termination notified by either party with one month's notice before the expiry of the period in progress.

It shall cease, as will the concerted action between the parties, in the event of the sale by one of the parties of more than 80% of its interest in Eramet.

Furthermore, the distribution of directors on the Board and committees is detailed in Chapter 4 "Governance" of this document.

To the knowledge of Eramet, there is no other agreement or pact.

IX. General Shareholders' Meeting

9.1 Explanatory statement

Dear Shareholders,

Please find below an explanatory note regarding the resolutions proposed for voting at your General Meeting.

Resolutions 1 and 2 concern the approval of the individual and consolidated financial statements for the previous year. The financial statements are set out in detail in the documents submitted to shareholders and are also commented on in the management report.

In **resolution 3,** you are asked to approve the special report prepared by the Company's Statutory Auditors concerning the agreements referred to in Articles L. 225-38 *et seq.* of the French Commercial Code for the previous financial year. It should be noted that this report provides an account of agreements previously made by your General Meeting which were ongoing in the previous financial year. Having already received approval from your General Meeting, these agreements will not be submitted to a vote at this Meeting.

Resolution 4 proposes to the General Meeting the allocation of the profit for the past financial year and the payment of a dividend for the 2018 financial year.

Resolutions 5 and 6 concern the insertion in the Articles of Association of Eramet of the legal provisions applicable to all companies which are partially owned by the French State, as per *"ordonnance"* (regulation) No. 2014-948 dated 20 August 2014 concerning the governance and capital transactions of companies with public shareholders.

The main provisions of Section II of the *ordonnance* which are applicable to Eramet are as follow:

- when the French State, acting alone, directly holds between 10% and 50% of a company's capital, it may put forward one or more directors, in proportion to the size of its shareholding;
- when the French State, acting alone, directly holds at least 10% of a company's capital, and the Board of Directors has more than ten members, the State is entitled to hold at least two seats on that company's Board;
- one Board representative can be appointed directly by the State whereas the nomination of other Board members representing the State is put forward to an Ordinary General Meeting;
- the State representatives on the Board of Directors have the same rights and powers as the other Board members.

Resolution 7 proposes the appointment of Mr François Corbin as a new director, replacing Mr Georges Duval whose current term of office expires at the end of this meeting. A graduate of *École centrale de Paris,* Mr François Corbin, after having held several international operational Executive Vice President positions within the Michelin group since 2004, is currently Chairman's Executive Officer for international matters. He had previously, from 1980 till 2003, held several management positions in production, supply chain and human resources at Pechiney.

The **resolutions 8 to 12** concern the reappointment of directors for a four-year term, whose current terms of office expire at the end of this Meeting:

- renewal of the mandate of SORAME, represented by Mr C. Duval. Mr C. Duval is CEO of SORAME and Chairman of CEIR;
- renewal of the mandate of CEIR, represented by Ms Nathalie de La Fournière. Ms de La Fournière is Finance and Administrative Director of the *Agence d'urbanisme et d'aménagement Toulouse Aire Métropolitaine*;
- renewal of the mandate of Mr Jean-Yves Gilet. Mr Gilet is Chairman of Gilet Trust Invest SAS, a consulting company offering services in corporate strategy and management;
- renewal of the mandate of Ms Manoelle Lepoutre (independent director). Ms Lepoutre is Director of Civil Society Engagement at Total;
- renewal of the mandate of Mr Claude Tendil (independent director). Mr Tendil is Chairman of the Board of Generali Iard.

Resolution 13 proposes the appointment of Mr Émeric Burin des Roziers as a new director, replacing Mr Antoine Treuille whose current term of office expires at the end of this Meeting. Mr Émeric Burin des Roziers is General Manager of Endel (a French subsidiary of Engie, the French leader in industrial maintenance works and nuclear services). He started his career as a consultant at Boston Consulting Group and then worked five years in the public sector, at the Regulatory Commission of Energy and as an advisor to the deputy chief of staff for energy ministers under the governments headed by F. Fillon. From 2011 until 2016, he held several management positions, both in France and overseas, within the Eramet Group. A graduate of *École polytechnique* and ENSTA, he has been teaching at HEC since 2011.

Resolution 14 proposes the appointment of Mr Jérôme Duval as a new director, replacing Mr Édouard Duval whose current term of office expires at the end of this Meeting. Mr Jérôme Duval, son of Mr Édouard Duval, Managing Director and Head of Americas Shipping & Offshore Finance at Crédit Agricole CIB, is a graduate of ISG business school and holds the company director Certificate of *Sciences-Po* IFA. He has an international experience and expertise in specialized structured financing.

In accordance with the provisions of Article L. 225-37-2 of the French Commercial Code (laid down by Law 2016-1691 of 9 December 2016, known as "Sapin II"), the General Shareholders' Meeting is called upon to approve **resolution 15** concerning the principles and criteria for the determination, distribution and allocation of the fixed, variable and exceptional elements constituting the total remuneration and benefits of any kind attributable to Christel Bories — "Say on Pay

Ex Ante". These elements are contained in Chapter 7 of the Registration Document, "Remuneration of the management and administration bodies".

In accordance with the wording of Article L. 225-37-2, the approval of the General Meeting is also required each year for any changes to the above-mentioned items, including at each renewal of the term of office. If the General Shareholders' Meeting does not approve the resolution, the principles and criteria previously approved by shareholders continue to apply. In the absence of principles and criteria approved by the General Shareholders' Meeting, the remuneration is determined in accordance with the remuneration assigned in the previous year, or, in the absence of remuneration assigned in the previous year, in accordance with existing practices within the Company. The payment of the variable and exceptional remuneration elements related to financial year 2019 is subject to approval by an Ordinary General Shareholders' Meeting to be held in 2020 of the remuneration elements of the person concerned, in accordance with Article L. 225-100 of the French Commercial Code.

In accordance with the same provisions, the General Meeting is also called upon to approve in **resolution 16** the fixed, variable and exceptional elements constituting the remuneration and benefits of any kind paid or allocated to Christel Bories, Chief Executive Officer, for the 2018 financial year — "Say on Pay Ex Post". These elements are contained in Chapter 7 of the Registration Document, "Remuneration of the management and administration bodies".

Resolution 17, pursuant to the provisions of Article L. 225-209 of the French Commercial Code, requests the General Shareholders' Meeting to authorise the Board to renew the Company's share buyback programme in accordance with legal and regulatory provisions, by any means, including during a public offer period. The maximum buyback amount is 10% of the share capital and the maximum purchase price is €300 per share. This resolution concerns the annual renewal of this authorisation. The purpose of this authorisation is to allow the existing liquidity agreement to continue, and to implement bonus share awards to employees through the allocation of existing shares.

The **18th, 19th, 20th, 21st, 22nd, and 23rd resolutions** propose the renewal of authorisations previously agreed by the General Shareholders' Meeting of 23 May 2017 permitting the Board of Directors to carry out one or more capital increases:

- by incorporation of reserves or earnings up to a maximum par value of €24,000,000 (18th resolution);
- in cash with preferential subscription rights, up to a maximum par value of €24,000,000 (19th resolution);
- in cash without preferential subscription rights, up to a maximum par value of €16,000,000, via a public offer (20th resolution);
- in cash without preferential subscription rights, up to a maximum par value of €16,000,000, via a private placement (21st resolution);
- in cash without preferential subscription rights, up to a maximum par value of €16,000,000, via the issue of securities, by subsidiaries, granting access to the Company's share capital (22nd resolution);
- in consideration for a contribution in kind without preferential subscription rights, up to a maximum of 10% of the share capital (23rd resolution).

The powers delegated under **resolutions 20 to 22** (without preferential subscription rights) are each subject to a par value limit of €16,000,000 (that is slightly less than 20% of the share capital). The powers delegated under **resolutions 19 to 23** are subject to an overall par value limit of €24,000,000 (that is, slightly less than 30% of the share capital) proposed in the **24th resolution.** This resolution concerns the renewal of the arrangement approved by the General Shareholders' Meeting of 23 May 2017.

According to Article L. 233-32 of the French Commercial Code, as modified by law 2014-384 of 29 March 2014, it is proposed that the capital increase authorisations specified in **resolutions 19 to 23** to be submitted to the General Shareholders' Meeting — authorisations to increase share capital with preferential subscription rights (19th), without preferential subscription rights by a public offer (20th) or by a private placement (21st), by subsidiaries (22nd) or in consideration for contributions in kind (23rd), up to a par value limit of €24 million for resolutions 19 to 23 (that is, slightly less than 30% of share capital) — may be used during a public purchase or exchange offer by the Board of Directors, subject to the powers expressly assigned to General Shareholders' Meetings and within the limits of the Company's corporate interests.

The **25th resolution** proposes a capital increase reserved for employees for a maximum amount of €500,000 (0.6% of the share capital), in compliance with the statutory obligation arising when a General Shareholders' Meeting is called to vote to authorise a capital increase in cash (L. 225-129-6 of the French Commercial Code). This proposal is for the same amount as the authorisation given by the General Shareholders' Meeting of 23 May 2017 (25th resolution), the latter authorisation having remained unutilised. At 31 December 2018, employees held approximately 0.51% of the share capital under the definition of Article L. 225-102 of the French Commercial Code.

The **26th resolution** concerns the renewal upon expiry of the reduction in the Company's share capital authorised on 23 May 2017, up to a maximum of 10% of the share capital and in accordance with legal provisions.

Resolution 27 authorizes the fulfilment of formalities involved in implementing the other resolutions passed by the combined Ordinary and Extraordinary General Shareholders' Meeting.

The Board of Directors

9.2 Text of draft resolutions

Within the remit of the Ordinary General Shareholders' Meeting

First resolution

(2018 annual financial statements)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, having heard the report of the Board of Directors and the report of the Statutory Auditors on the annual financial statements for the year ended 31 December 2018, approves said financial statements as presented to it and the transactions reflected in those financial statements or summarized in these reports.

Second resolution

(2018 consolidated financial statements)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, having heard the report of the Board of Directors and the report of the Statutory Auditors on the consolidated financial statements for the year ended 31 December 2018, approves said consolidated financial statements as presented to it and the transactions reflected in those financial statements or summarized in these reports.

Third resolution

(Related-party agreements)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, having heard the special report established by the Statutory Auditors on the agreements covered by Articles L. 225-38 *et seq.* of the French Commercial Code, approves the transactions subject to its vote referred to therein.

Fourth resolution

(Allocation of earnings)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings,

- notes that the result of the past financial year amounts to €54,371,401.22
- to which are added retained earnings at 31 December 2018 of €249,486,562.78
- giving a distributable amount of €303,857,964.00

The General Shareholders' Meeting decides:

- to add to the legal reserve the necessary amount to reach the maximum amount of 10% of share capital, i.e. the sum of €28,263.13
- to distribute an amount of €0.60 per share, i.e. for 26,635,884 shares comprising the share capital at 31 December 2018, the sum of €15,981,530.40
- leaving retained earnings after distribution of €287,848,170.47

The ex-dividend date will be 29 May 2019. The record date will be 30 May 2019. The dividend will be paid as of 31 May 2019. If, at the time of dividend payment, new shares have been created following the conversion of ODIRNAN into new shares, the amount of the dividend corresponding to these shares will be automatically deducted from retained earnings.

The General Shareholders' Meeting, acting as an Ordinary Shareholders' Meeting, notes that the dividends per share paid out with respect to the past financial year and the three previous financial years, were as follows:

	2015	2016	2017	2018
Number of shares subject to dividends	26,543,218	26,550,443	26,633,660	26,635,884
Dividend (€)	0	0	2.30	0.60

Within the remit of the Extraordinary Shareholders' Meeting

Fifth resolution

(Amendment to Article 1 of the Articles of Association)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the provisions of Regulation No. 2014-948 dated 20 August 2014 for the governance and changes in share capital of companies which are partially owned by the French State, resolves to amend Article 1 of the Articles of Association to adopt the following text:

CURRENT VERSION	NEW VERSION
On 23 September 1963 a Public Limited Company *"société anonyme"* was founded, originally governed by the Law of 24 July 1867; it currently exists among the owners of the shares that constitute its share capital, as indicated in Article 6 below.	<u>Eramet is a *"société anonyme"* governed by laws and regulations applicable to commercial companies, including notable the French Commercial Code, to the extent exceptions are made by specific provisions, such as Regulation No. 2014-948 of 20 August 2014 for the governance and changes in share capital of companies which are partially owned by the French State, and by the Articles of Association of Eramet.</u>

Sixth resolution

(Amendment to Article 10.1 of the Articles of Association)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the provisions of Regulation No. 2014-948 dated 20 August 2014 for the governance and changes in share capital of companies which are partially owned by the French State, resolves to amend Article 10.1 of the Articles of Association to adopt the following text:

CURRENT VERSION	NEW VERSION
10.1. The Company is administered by a Board of a maximum of seventeen members.	10.1. The Company is administered by a Board of <u>a minimum of three members and</u> a maximum of seventeen members, <u>including as applicable a representative of the French State as well as directors appointed upon proposal of the French State in compliance with Articles 4 and 6 of Regulation No. 2014-948 of 20 August 2014</u>.

All other sections of Article 10 remain unchanged.

Within the remit of the Ordinary General Shareholders' Meeting

Seventh resolution

(Appointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, noting the expiry of the term of office as director of Georges Duval at the end of this Meeting, appoints François Corbin as director for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Eighth resolution

(Reappointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, renews the directorship, expiring at this Meeting, of SORAME, represented by Cyrille Duval, for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Ninth resolution

(Reappointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, renews the directorship, expiring at this Meeting, of CEIR, represented by Nathalie de La Fournière, for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Tenth resolution

(Reappointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, renews the directorship, expiring at this Meeting, of Jean-Yves Gilet for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Eleventh resolution

(Reappointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, renews the directorship, expiring at this Meeting, of Manoelle Lepoutre for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Twelfth resolution

(Reappointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, renews the directorship, expiring at this Meeting, of Claude Tendil for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Thirteenth resolution

(Appointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, noting the expiry of the term of office as director of Antoine Treuille at the end of this Meeting, appoints Émeric Burin des Roziers as director for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Fourteenth resolution

(Appointment of a director)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, noting the expiry of the term of office as director of Édouard Duval at the end of this Meeting, appoints Jérôme Duval as director for a four-year term, that is until the General Shareholders' Meeting called to approve the financial statements for 2022 to be held in 2023.

Fifteenth resolution

(Approval of the principles and criteria for determination, distribution and allocation of the fixed, variable and exceptional elements constituting the total remuneration and benefits of any kind attributable to the Chairman and CEO – "Say on Pay Ex Ante")

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, approves the principles and criteria for determination, distribution and allocation of the fixed, variable and exceptional elements constituting the total remuneration and benefits of any kind attributable to the Chairman and CEO, as set out in the report of the Board of Directors prepared pursuant to Article L. 225-37-2 of the French Commercial Code and included on pages 323 to 326 of the 2018 Registration Document, under Section 7 "Remuneration of the Management and Administration Bodies".

Sixteenth resolution

(Approval of the fixed, variable and exceptional elements constituting the total remuneration and benefits of any kind paid or allocated in the 2018 financial year to Christel Bories, Chairman and Chief Executive Officer – "Say on Pay Ex Post")

Pursuant to Articles L. 225-37-2 and L. 225-100 of the French Commercial Code, the General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, approves the fixed, variable and exceptional elements constituting the total remuneration and benefits of any kind paid or allocated in respect of the previous financial year 2018 to Christel Bories, Chairman and Chief Executive Officer, as set out in the Company's Corporate Governance report referred to in Article L. 225-37 of the French Commercial Code, included on pages 326 to 330 of the 2018 Registration Document, under Section 7 "Remuneration of the Management and Administration Bodies".

Seventeenth resolution

(Authorization to trade in the Company's shares)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Ordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the description of the Company's share buyback programme, exercising the option provided for in Article L. 225-209 of the French Commercial Code, authorizes the Board of Directors to buy, or to arrange the purchase of the Company's shares up to a limit of 10% of the share capital, in order to:

- support the share price via a liquidity agreement with an investment services provider, in accordance with a liquidity agreement compliant with the market practice recognized by the *Autorité des marchés financiers* ("AMF");
- provide shares upon the exercise of rights attached to securities granting access to share capital through redemption, conversion, exchange or any other means;
- implement any share purchase option plan concerning the Company's shares pursuant to the provisions of Articles L. 225-177 *et seq.* of the French Commercial Code;
- allocate bonus shares pursuant to the provisions of Articles L. 225-197-1 *et seq.* of the French Commercial Code;
- allocate or transfer shares to employees as their share in the profits of the business or for the purpose of implementing any employee savings plan under the statutory provisions, with particular reference to Articles L. 3332-1 *et seq.* of the French Labour Code;
- cancel those shares, in accordance with the 26th resolution of the General Shareholders' Meeting of 23 May 2019, authorizing a reduction in the Company's share capital for a period of 26 months.

Such shares may be purchased, sold, transferred or exchanged, by any means, in the market or over the counter, including, where appropriate, by means of derivatives. The capital that may be acquired or transferred in the form of blocks of securities may amount to the entire share buyback programme.

Such transactions may also be carried out during a public offer period if the purchase offer for the Company's shares is fully paid in cash.

Payment may be made by any means.

The maximum purchase price may not exceed **€300** per share.

This authorization is granted for a period that will end at the General Shareholders' Meeting convened to approve the financial statements for 2019.

Based on the number of shares comprising the share capital at **31 December 2018,** assuming a price of **€300** per share, the maximum theoretical investment would amount to **€799,076,400.**

For the purposes of implementing this resolution, the Board of Directors is granted full powers and may, in turn, delegate those powers, in order to:

- place any stock market orders, entering into any agreements particularly with regard to the keeping of share purchase and sale records;
- make all relevant filings with the AMF;
- assign or reassign the acquired shares to the various objectives in line with the applicable legal and regulatory provisions;
- carry out all other formalities and generally do whatever is necessary.

Within the remit of the Extraordinary Shareholders' Meeting

Eighteenth resolution

(Delegation of authority to the Board of Directors for the incorporation of reserves, profits, premiums or any other amounts that may be capitalised)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings pursuant to Article L. 225-130 of the French Commercial Code, having reviewed the report of the Board of Directors in accordance with the provisions of Articles L. 225-129-2 and L. 225-130 of the French Commercial Code:

1. delegates to the Board of Directors the authority to increase the share capital of the Company on one or more occasions, in the amounts and at the times it sees fit, either by the incorporation of reserves, profits, premiums or any other amounts that may be capitalised, or in combination with a cash increase carried out pursuant to the 19th resolution, in the form of an allocation of free shares or by increasing the par value of existing shares, or a combination of both;
2. decides that the maximum aggregate par value of the capital increases that may be undertaken immediately or in the future under the terms of this delegation of authority is set at €24 million;
3. decides that the Board of Directors will have full powers, with the option to sub-delegate such powers, under the conditions provided by law, to implement this delegation, in particular to:
   - determine all the terms and conditions of the authorised transactions and in particular to set the amount and nature of the reserves and premiums to be capitalised, set the number of new shares to be issued or the amount by which the par value of existing shares comprising the share capital will be increased, set the vesting date for the new shares, which may be retroactive, or the date on which the increase in par value will take effect, as well as to make any appropriate deductions from the issue premium, including any costs incurred by these issues,

- decide, if necessary, in the event of free share distributions, in accordance with the provisions of Article L. 225-130 of the French Commercial Code, that fractional rights will not be negotiable and the corresponding shares will be sold, the proceeds of the sale being allocated to the rights holders within 30 days of the date on which the whole number of shares allocated were registered to their account,
- and, in general, take all appropriate or necessary actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This delegation of authority, which supersedes any previous authorisation, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Nineteenth resolution

(Delegation of authority to the Board of Directors to increase the share capital by issuing ordinary shares or any other securities granting access to share capital with preferential subscription rights for shareholders)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors, in accordance with Articles L. 225-129-2 and L. 228-92 of the French Commercial Code, delegates to the Board of Directors, with the option to sub-delegate said delegation under the conditions provided by law, the authority to decide, at its sole discretion, to increase the share capital of the Company by issuing, on one or several occasions, in France and abroad, securities granting access, either immediately or at a future date, to a portion of the share capital, in the form of:

a) ordinary shares in the Company by issuing new shares to be subscribed either for cash or by offsetting debt, with or without issue premium;

b) securities other than shares giving the right, either directly or indirectly, by conversion, exchange, redemption, presentation of a warrant or any other means, to the allocation, at any time or on specific dates, of securities which, in this respect, shall be issued to represent a portion of the share capital of the Company. These securities may be in the form of bonds convertible into shares, bonds with share warrants, bonds redeemable in shares, or any other form that is not incompatible with applicable legal provisions. These securities may be issued in euros or in a foreign currency, or in any monetary unit established with reference to several currencies.

c) warrants granting their holders the right to subscribe for securities representing a portion of the share capital of the Company, provided that the issue of such warrants may take place either by subscription for cash or by a bonus grant and that, moreover, these warrants may be issued either separately or combined with the shares and securities referred to in (a) and (b) above, issued simultaneously.

The maximum aggregate par value of the capital increases that may be undertaken immediately or in the future under the terms of this delegation of authority is set at €24 million. If necessary, the par value of any additional shares that may be issued will be added to this upper limit, in the event of further financial transactions, to preserve the rights of holders of securities giving access to share capital. This amount will be included in the overall ceiling established in the 24th resolution.

The owners of existing shares on the issue date for cash of the securities referred to in (a), (b) and (c) shall be entitled, as of right and in proportion to the number of shares they own at that time, to a preferential right to subscribe for those securities; the Board of Directors shall set the terms and timeframes within which shareholders may exercise their subscription rights, for each issue, in line with applicable legal provisions.

The Board of Directors may introduce a right of subscription for excess shares for shareholders, which shall be exercised in proportion to their rights and up to the amount subscribed for.

If the subscriptions as of right and, where applicable, the subscriptions for excess shares do not take up the whole share, security or warrant issue, the Board of Directors may limit the issue, in the legally prescribed manner, to the amount of subscriptions received or may freely allocate the shares, securities or warrants that have not been subscribed for as of right and, where applicable, unsubscribed excess shares, or even offer all or part thereof to the general public; the Board of Directors may use the abovementioned powers, or some of them, in any order it sees fit.

In the event that the issue of securities gives entitlement to the allocation of shares on presentation of a warrant, the Board of Directors shall be fully empowered to set the terms and conditions under which the Company shall be entitled to buy subscription warrants on the stock market at any time or during specific periods, in order to cancel them.

The General Shareholders' Meeting acknowledges that the decision to issue securities giving access to share capital involves a waiver on the part of shareholders of their preferential subscription right in respect of the shares that the securities issued grant a right to, pursuant to the provisions of Article L. 225-132 of the French Commercial Code.

The General Shareholders' Meeting notes that the Board of Directors may make use, in whole or in part, as provided by law, of this delegation of authority, in the event of the occurrence of one or more public purchase or exchange offers for the securities issued by the Company.

The General Shareholders' Meeting gives full powers to the Board of Directors, with the option to sub-delegate such powers under the conditions provided by law, to implement this delegation of authority, on one or more occasions, in particular to:

- establish the terms and conditions for capital increases and decide upon the dates and procedures for issues of securities carried out pursuant to this resolution;
- set the opening and closing dates for subscriptions, the price, the vesting date for securities issued, the payment terms for the shares and timeframes for such payment;
- charge, if it deems fit, the expenses, duties and fees arising from the share issues against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each increase;
- and, in general, take all appropriate or necessary actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This delegation of authority, which supersedes any previous authorisation, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Twentieth resolution

(Delegation of authority to the Board of Directors to increase the share capital by issuing ordinary shares or any other securities granting access to share capital without preferential subscription rights for shareholders, in the context of a public offering)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors, in accordance with Articles L. 225-129-2, L. 225-135, L. 225-136 and L. 228-92 of the French Commercial Code, delegates to the Board of Directors, with the option to sub-delegate said delegation under the conditions provided by law, the authority to decide, without preferential subscription rights for shareholders, to increase the share capital of the Company by issuing, on one or several occasions, in France and abroad:

a) new ordinary shares in the Company to be subscribed either for cash or by offsetting debt, with or without issue premium;

b) securities other than shares giving the right, either directly or indirectly, by conversion, exchange, redemption, presentation of a warrant or any other means, to the allocation, at any time or on specific dates, of securities which, in this respect, shall be issued to represent a portion of the share capital. These securities may be in the form of bonds convertible into shares, bonds with share warrants, bonds redeemable in shares, or any other form that is not incompatible with applicable legal provisions. These securities may be issued in euros or in a foreign currency, or in any monetary unit established with reference to several currencies.

c) warrants granting their holders the right to subscribe for securities representing a portion of the share capital of the Company, provided that such warrants may be issued either separately or combined with the shares and securities referred to in (a) and (b) above, issued simultaneously.

The maximum aggregate par value of the share capital increases that may be undertaken immediately or in the future under the terms of this delegation of authority is set at €16 million. If necessary, the par value of any additional shares that may be issued will be added to this upper limit, in the event of further financial transactions, to preserve the rights of holders of securities giving access to share capital. This amount will be included in the overall ceiling established in the 24th resolution.

The securities referred to in (a), (b) and (c) above may be issued as consideration for securities that would be contributed to the Company as part of a public exchange offer satisfying the terms of Article L. 225-148 of the French Commercial Code.

The General Shareholders' Meeting decides to withdraw the shareholders' preferential right to subscribe for ordinary shares in the Company or securities granting access to the Company's share capital, issued pursuant to this resolution, and decides to offer these securities as part of a public offer under the conditions and up to the maximum limits prescribed by law and regulations, on the understanding that the Board of Directors may introduce a preferential right for shareholders to subscribe for shares as of right and/or for excess shares, pertaining to all or part of the issue, within the timeframe and under the conditions that it will establish in accordance with legal and regulatory provisions, which must be exercised in proportion to the number of ordinary shares held by each shareholder. It is further understood that such preferential right shall not give rise to the creation of any marketable or transferable rights.

The General Shareholders' Meeting acknowledges that this resolution involves a waiver on the part of shareholders of their preferential subscription right in respect of the ordinary shares that the securities issued on the basis of this authority would grant a right to.

The General Shareholders' Meeting notes that the Board of Directors may make use, in whole or in part, as provided by law, of this delegation of authority, in the event of the occurrence of one or more public purchase or exchange offers for the securities issued by the Company.

The General Shareholders' Meeting decides that (i) the issue price of ordinary shares will be at least equal to the minimum amount prescribed by laws and regulations in force at the time of application of this delegation of authority, following adjustment, if necessary, to take into account differences in vesting dates, and that (ii) the issue price of securities granting access to the Company's share capital will be such that the amount immediately received by the Company, plus any amount that may subsequently be received by the Company will, for each ordinary share issued as a consequence of the issuance of these securities, be at

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least equal to the minimum stipulated in sub-section (i) above, following any adjustment of that amount to take into account differences in vesting dates;

The General Shareholders' Meeting gives full powers to the Board of Directors, with the option to sub-delegate such powers under the conditions provided by law, to implement this delegation of authority, on one or more occasions, in particular to:

- establish the terms and conditions for capital increases and decide upon the dates and procedures for issues of securities carried out pursuant to this resolution;
- set the opening and closing dates for subscriptions, the price, the vesting date for securities issued, the payment terms for the shares and timeframes for such payment;
- charge, if it deems fit, the expenses, duties and fees arising from the share issues against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each issue;
- and, in general, take all appropriate or necessary actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This delegation of authority, which supersedes any previous authorisation, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Twenty-first resolution

(Delegation of authority to the Board of Directors to increase the share capital by issuing ordinary shares or any other securities granting access to share capital without preferential subscription rights for shareholders, in the context of an offer specified in Section II of Article L. 411-2 of the French Monetary and Financial Code)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors, in accordance with Articles L. 225-129-2, L. 225-135, L. 225-136 and L. 228-92 of the French Commercial Code, delegates to the Board of Directors, with the option to sub-delegate said delegation under the conditions provided by law, the authority to decide, without preferential subscription rights for shareholders, to increase the share capital of the Company by issuing, on one or several occasions, in France and abroad:

a) new ordinary shares in the Company to be subscribed either for cash or by offsetting debt, with or without issue premium;

b) securities other than shares giving the right, either directly or indirectly, by conversion, exchange, redemption, presentation of a warrant or any other means, to the allocation, at any time or on specific dates, of securities which, in this respect, shall be issued to represent a portion of the share capital. These securities may be in the form of bonds convertible into shares, bonds with share warrants, bonds redeemable in shares, or any other form that is not incompatible with applicable legal provisions. These securities may be issued in euros or in a foreign currency, or in any monetary unit established with reference to several currencies.

c) warrants granting their holders the right to subscribe for securities representing a portion of the share capital of the Company, provided that such warrants may be issued either separately or combined with the shares and securities referred to in (a) and (b) above, issued simultaneously.

In the event that the issue of securities gives entitlement to the allocation of shares on presentation of a warrant, the Board of Directors shall be fully empowered to set the terms and conditions under which the Company shall be entitled to buy subscription warrants on the stock market at any time or during specific periods, in order to cancel them.

The maximum aggregate par value of the share capital increases that may be undertaken immediately or in the future under the terms of this delegation of authority is set at €16 million. If necessary, the par value of any additional shares that may be issued will be added to this upper limit, in the event of further financial transactions, to preserve the rights of holders of securities giving access to share capital. This amount will be included in the overall ceiling established in the 24th resolution.

The General Shareholders' Meeting decides to withdraw the shareholders' preferential right to subscribe for ordinary shares in the Company or securities granting access to the Company's share capital, issued pursuant to this resolution, and decides to offer these securities as part of an offer specified in Section II of Article L. 411-2 of the French Monetary and Financial Code under the conditions and up to the maximum limits prescribed by law and regulations, on the understanding that the Board of Directors may introduce a preferential right for shareholders to subscribe for shares as of right and/or for excess shares, pertaining to all or part of the issue, within the timeframe and under the conditions that it will establish in accordance with legal and regulatory provisions, which must be exercised in proportion to the number of ordinary shares held by each shareholder. It is further understood that such preferential right shall not give rise to the creation of any marketable or transferable rights.

The General Shareholders' Meeting acknowledges that this resolution involves a waiver on the part of shareholders of their preferential subscription right in respect of the ordinary shares that the securities issued on the basis of this authority would grant a right to.

The General Shareholders' Meeting notes that the Board of Directors may make use, in whole or in part, as provided by law, of this delegation of authority, in the event of the occurrence of one or more public purchase or exchange offers for the securities issued by the Company.

The General Shareholders' Meeting decides that (i) the issue price of ordinary shares will be at least equal to the minimum amount prescribed by laws and regulations in force at the time of application of this delegation of authority, following adjustment, if necessary, to take into account differences in vesting dates, and that (ii) the issue price of securities granting access to the Company's share capital will be such that the amount immediately received by the Company, plus any amount that may subsequently be received by the Company, will, for each ordinary share issued as a consequence of the issuance of these securities, be at least equal to the minimum stipulated in sub-section (i) above, following any adjustment of that amount to take into account differences in vesting dates;

The General Shareholders' Meeting gives full powers to the Board of Directors, with the option to sub-delegate such powers under the conditions provided by law, to implement this delegation of authority, on one or more occasions, in particular to:

- establish the terms and conditions for capital increases and decide upon the dates and procedures for issues of securities carried out pursuant to this resolution;
- set the opening and closing dates for subscriptions, the price, the vesting date for securities issued, the payment terms for the shares and timeframes for such payment;
- charge, if it deems fit, the expenses, duties and fees arising from the share issues against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each issue;
- and, in general, take all appropriate or necessary actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This delegation of authority, which supersedes any previous authorisation, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Twenty-second resolution

(Delegation of authority to the Board of Directors to issue ordinary shares following the issue by the Company's subsidiaries of securities convertible into shares of the Company)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors, pursuant to Articles L. 225-129 to L. 225-129-6, L. 225.132, L. 225-136, and L. 228-91 to L. 228-93 of the French Commercial Code delegates authority to the Board of Directors so that it may:

(i) authorise, in accordance with Article L. 228-93 of the French Commercial Code, the issue by a company or companies in which the Company directly or indirectly holds over half the share capital (the "Subsidiary" or "Subsidiaries"), on one or several occasions, both in and outside France, with the Company's consent, of all securities granting rights, either immediately or in the future, over existing or future ordinary shares of the Company.

(ii) decide, as a consequence, to issue further ordinary shares in the Company, on one or several occasions, both in and outside France, with or without an issue premium, which the securities that may be issued by the Subsidiaries, as referred to in paragraph (i) above, would grant a right to.

The General Shareholders' Meeting acknowledges that this decision automatically involves a waiver on the part of shareholders of their preferential subscription right in respect of the ordinary shares of the Company that the securities referred to in paragraph (i) above issued by the subsidiaries would grant a right to, in favour of holders of any such securities that may be issued by the Subsidiaries.

The General Shareholders' Meeting acknowledges that the Company's shareholders have a preferential subscription right to the securities referred to in paragraph (i) above, issued by the Subsidiaries under legal conditions.

The General Shareholders' Meeting notes that the Board of Directors may make use, in whole or in part, as provided by law, of this delegation of authority, in the event of the occurrence of one or more public purchase or exchange offers for the securities issued by the Company.

The General Shareholders' Meeting decides that the maximum aggregate par value of the share capital increases that may be undertaken immediately or in the future under the terms of this delegation of authority is set at €16 million. If necessary, the par value of any additional shares that may be issued will be added to this upper limit, in the event of further financial transactions, to preserve the rights of holders of securities giving access to share capital. This amount will be included in the overall ceiling established in the 24th resolution.

The General Shareholders' Meeting decides that in the event that the Board of Directors makes use of this delegation of authority, the sum paid to the Company, at the time of the issue or subsequently, for each ordinary share issued as a consequence of the issuance of the securities referred to in paragraph (i) above, must be at least equal to the weighted average share price over the three stock market sessions immediately preceding the fixing of the issue price of the securities referenced in paragraph (i) above, which may be reduced by a discount of up to 5% following any adjustment to that weighted average to take into account differences in vesting dates.

The General Shareholders' Meeting grants all powers to the Board of Directors, with the option to sub-delegate such powers, in order to implement this resolution, with the agreement of the Boards of Directors, Executive Boards or other management or administrative bodies of the issuer Subsidiaries, in accordance with French law and regulations and, as the case may be, applicable foreign law and regulations and, in particular, to:

- set the amounts to be issued, the kind of securities to be created, their features and issuance procedures (including payment conditions for the Company's ordinary shares), and the vesting date, retrospective or otherwise, of shares to be created;
- charge expenses arising from the capital increase against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each capital increase;
- take all measures and enter into any agreements or arrangements required to achieve the successful conclusion of the intended issues, execute the capital increases and all consequent formalities and make any necessary amendments to the Articles of Association by application of this delegation of authority, in accordance with the terms of the report of the Board of Directors addressed to this Meeting and, in general, do whatever may be necessary.

This delegation of authority, which supersedes any previous authorisation, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Twenty-third resolution

(Delegation of authority to the Board of Directors to increase the share capital by issuing shares or any other securities giving access to share capital in consideration for contributions-in-kind in the form of shares or securities giving access to share capital, without preferential subscription rights for shareholders)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors, in accordance with the provisions of the last sub-section of Article L. 225-147 of the French Commercial Code:

1. delegates authority to the Board of Directors to compensate, up to a maximum of 10% of the share capital, contributions in kind granted to the Company consisting of equity securities or securities granting access to share capital, where the provisions of Article L. 225-148 of the French Commercial Code are not applicable, by issuing, on one or more occasions, both in and outside France, ordinary shares or securities giving access to the Company's share capital;
2. resolves, insofar as this is necessary, to withdraw shareholders' preferential subscription rights in respect of the shares and securities that will be issued, in favour of the holders of shares or securities that are the subject of contributions in kind;
3. acknowledges that the decision to issue securities giving access to share capital involves a waiver on the part of shareholders of their preferential subscription right in respect of the shares that the securities issued grant a right to, pursuant to the provisions of Article L. 225-132 of the French Commercial Code;
4. notes that the Board of Directors may make use, in whole or in part, as provided by law, of this delegation of authority, in the event of the occurrence of one or more public purchase or exchange offers for the securities issued by the Company;
5. decides that the par value of any capital increases decided by virtue of this resolution shall be included in the overall ceiling established in the 24th resolution of this Meeting;
6. decides that the Board of Directors shall have all powers to implement this resolution and, in particular, to approve the report of the Asset Transfer Auditors *("Commissaires aux apports")*, establish all the terms and conditions of issues, draw up the list of contributors, the value of the contributions and the list of securities contributed, record the resulting capital increase(s), allocate all charges to the contribution premium(s), particularly the costs or taxes incurred in carrying out the transactions or the sums necessary to raise the legal reserve to its maximum and, in general, take all appropriate or necessary actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading;
7. sets the period of validity during which the Board of Directors may make use of this delegation of authority at twenty-six months from the date of this General Shareholders' Meeting.

Twenty-fourth resolution

(Ceiling applicable to issues)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, resolves that the capital increases that may result from the use of the delegations of authority governing the issue of shares, other securities and warrants, as provided for in resolutions 19 to 23 above, whether immediate or deferred, may not exceed a maximum par value of €24,000,000, plus the total amount of additional capital increases required in order to preserve the rights of holders of securities granting an entitlement, in any form whatsoever, to shares representing a portion of the share capital.

Twenty-fifth resolution

(Delegation of authority to the Board of Directors to increase the share capital reserved for employees without preferential subscription rights for shareholders)

The General Shareholders' Meeting, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors and deliberating in accordance with Articles L. 225-129, L. 225-129-6 and L. 225-138-1 of the French Commercial Code and Articles L. 3332-18 to L. 3332-24 of the French Labour Code, delegates to the Board of Directors, with the option to sub-delegate, the powers required to increase the Company's share capital, on one or several occasions, by a maximum par value of €500,000, via the issue of new shares for cash reserved for employees and former employees of the Company and of its affiliated companies, within the meaning of Article L. 225-180 of the French Commercial Code, who are members of an employee savings plan or pension scheme.

The Meeting resolves to withdraw the shareholders' preferential right to subscribe to the ordinary shares to be issued, in favour of these employees and former employees, in the event that they are granted as bonus shares on the basis of this resolution.

This delegation of authority is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

The subscription price of the shares shall be set in accordance with the provisions of Articles L. 3332-18 *et seq.* of the French Labour Code.

Twenty-sixth resolution

(Authorisation to reduce the share capital by cancelling shares)

The General Shareholders' Meeting, deliberating in accordance with the quorum and majority requirements for Extraordinary Shareholders' Meetings, having reviewed the report of the Board of Directors and the special report by the Statutory Auditors, in accordance with Articles L. 225-209 of the French Commercial Code, authorises, subject to prior approval by the General Shareholders' Meeting of the 16th resolution concerning authorisation to trade in the Company's shares, the Board of Directors, granting it additional powers to sub-delegate under the conditions provided by law, to reduce the Company's share capital by cancelling, on one or several occasions, all or part of the shares acquired in accordance with the provisions of Article L. 225-209 of the French Commercial Code.

The General Shareholders' Meeting bestows all powers on the Board of Directors in order to decide upon the cancellation of shares, record the share capital reduction, allocate the difference between the buyback value of the cancelled shares and their par value from the premiums and available reserves, make corresponding amendments to the Articles of Association and, generally, do whatever is necessary and complete all formalities.

This authorisation is valid for 26 months from the date of this General Shareholders' Meeting, up to a maximum of 10% of the Company's share capital in any 24-month period. It supersedes any previous delegation of authority having the same purpose.

Within the remit of the Ordinary General Shareholders' Meeting

Twenty-seventh resolution

(Powers)

The Combined Ordinary and Extraordinary General Shareholders' Meeting fully empowers the bearer of an original, an extract or a copy of the minutes of this Meeting to carry out any filing or formality that may be necessary.

X. Additional information

10.1 Persons responsible for the Registration Document

10.1.1 Name and status of officials

Christel Bories
Chairman and CEO of Eramet.

Thomas Devedjian
Deputy CEO in charge of Finance and Digital Transformation

10.1.2 Declaration by the persons responsible for the Registration Document

We declare that to the best of our knowledge, having taken all reasonable measures in this regard, the information in this Registration Document is accurate and does not contain any omission that could affect its scope.

We certify to the best of our knowledge that the financial statements have been prepared in accordance with the applicable accounting standards and give a true and fair view of the financial position and results of the Company and of all the companies included in the consolidation, and that the management report (presented in Chapters 1 — Presentation of the Group, 2 — Activities, 4 — Corporate governance, 5 — Risk management in 2018, 6 — Non Financial Performance Statement, 7 — Remuneration of the management and administration bodies and 8 — Eramet and its shareholders) faithfully reflects the changes in the business, earnings and the financial position of the Company and all of the companies included in the basis for consolidation, while presenting the main risks and uncertainties faced by them.

The Auditors have provided us with a letter of completion of assignment in which they state that they have checked the information concerning the financial position and the financial statements presented in this Registration Document, and that they have read the document in its entirety.

The consolidated financial statements for the year ended 31 December 2018 were the subject of a report by the auditors found on page 158 of the present document, which contains the following observation:

"We draw attention to the following matters described in the following notes to the consolidated financial statements:

- *2.5 "Review of the quality process within the High Performance Alloys Division" which sets out the framework for the internal review of quality processes within Aubert & Duval and the provision of €65 million recognized as such and 15.3 "Contingent liabilities" which indicates that during the finalisation of this review and depending on potential requests from certain customers, additional costs may be incurred and cannot be estimated at this stage;*
- *2.6 "Continuation of the restructuring plan and new economic model of Société Le Nickel-SLN (SLN)" which sets out the framework in which the SLN's going concern is assessed."*

The statutory financial statements for the year ended 31 December 2018 were the subject of a report by the Statutory Auditors on page 189 of this document, which contains the following observation:

"We draw your attention to the following matters described in the following notes to the consolidated financial statements:

- *Note 2 "Review of the quality process within the High Performance Alloys Division" which sets out the framework for the internal review of quality processes within Aubert & Duval;*
- *Note 2 "Continuation of the restructuring plan and new economic model of Société Le Nickel-SLN (SLN)" which sets out the framework in which the SLN's going concern is assessed."*

Done in Paris, on 3 April 2019

Thomas Devedjian	Christel Bories
Deputy Director in charge of Finance and Digital Transformation	Chairman and CEO

10.2 Statutory Auditors

The Company's corporate and consolidated financial statements are audited by the Auditors listed below:

10.2.1 Statutory Auditors

Ernst & Young Audit
Address: Tour First — 1, place des Saisons 92400 Courbevoie, 344 366 315 RCS Nanterre.

Partner in charge of audit: Jean-Roch Varon.

Date of appointment: General Shareholders' Meeting of 29 May 2015, replacing Ernst & Young and Others.

Term expiry date: General Shareholders' Meeting called in 2021 to approve the 2020 financial statements.

The Ernst & Young network has been Eramet's Statutory Auditor since 1991.

KPMG
Address: Tour Eqho — 2, avenue Gambetta — CS 60066 — Paris-La Défense Cedex, 775 726 417 RCS Nanterre.

Partner in charge of audit: Denis Marangé.

Date of appointment: General Shareholders' Meeting of 29 May 2015.

Term expiry date: General Shareholders' Meeting called in 2021 to approve the 2020 financial statements.

10.2.2 Deputy auditors

Auditex
Address: Tour First — 1, place des Saisons 92400 Courbevoie, No. 377 652 938 in the RCS Nanterre.

Date of appointment: General Shareholders' Meeting of 13 May 2009, renewed at the General Shareholders' Meeting of 29 May 2015.

Term expiry date: General Shareholders' Meeting called in 2021 to approve the 2020 financial statements.

Salustro Reydel
Address: Immeuble Le Palatin — 3, cours du Triangle 92800 Puteaux, 652 044 371 RCS Nanterre.

Date of appointment: General Shareholders' Meeting of 29 May 2015.

Term expiry date: General Shareholders' Meeting called in 2021 to approve the 2020 financial statements.

10.3 Financial information

10.3.1 Name of Information Officer

Head:	Philippe Gundermann
Position:	Director of Strategy, Innovation and Investor Relations
Address:	Eramet
	10, boulevard de Grenelle — CS 63205
	75015 Paris
	Telephone: 33 (0) 1 45 38 42 78

10.3.2 Communication methods

Periodicity: in accordance with regulations, Eramet publishes its annual and interim results and releases quarterly sales figures.

Information release: in addition to legal publication in financial publications, press releases and all regulated financial information are made available to the public on the Company's website (http://www.eramet.com — in the Investors section) and released in accordance with AMF regulations.

The Articles of Association, minutes of AGMs, Company and consolidated financial statements, reports by the auditors and all documents made available to shareholders can be consulted at the the Company's headquarters.

All data indicated in this document for which no source is specifically indicated is from the Company's internal reporting and data.

All copies of documents included in this Registration Document may be viewed on the Eramet website (http://www.eramet.com) or consulted by making a request to the Company's Director of Legal Affairs at its headquarters.

During an embargo period (quiet period) of 15 calendar days before the quarterly sales publications or annual or interim results, the Company refrains from contact with analysts, investors or brokers who operate both in securities and credit.

List of financial information releases, including press releases

21 February 2018:	2017 results
28 March 2018:	2017 Registration Document
19 April 2018:	2018 first quarter revenue
27 April 2018:	announcement of takeover bid on the shares of Mineral Deposits Ltd (MDL)
2 May 2018:	documents for the AGM 2018
14 May 2018:	opening of the takeoverbid on MDL
24 May 2018:	AGM 2018
6 June 2018:	new headquarters
7 June 2018:	adjustment to the conversion ratio for ODIRNAN bonds
13 June 2018:	increase in price in the takeover bid on MDL
5 July 2018:	release of conditions in the takeover bid on MDL
11 July 2018:	control over MDL in the takeover bid
24 July 2018:	2018 half-year results
4 September 2018:	appointments within the Group
11 October 2018:	new trademark identity
25 October 2018:	2018 third quarter revenue
5 December 2018:	Léod-Paul Batolo appointed Director and General Manager of Comilog
8 December 2018:	Eramet takes corrective actions as part of a quality process review within its Alloys division
19 December 2018:	Hervé Montégu appointed General Manager of BU Lithium
8 January 2019:	Technical and commercial partnership agreement between Aubert & Duval and Pyrogenesis for the distribution of plasma-atomized titanium powders
14 February 2019:	Eramet Ideas in R&D
20 February 2019:	2018 results

2019 financial communication timetable

25 April 2019:	2019 first quarter revenue
24 July 2019:	2019 half-year results
23 October 2019:	2019 third quarter revenue

BALO Publications

6 April 2018:	announcement of the General Shareholders' Meeting
7 May 2018:	notice calling the General Shareholders' Meeting

10.4 Reconciliation table with the annual financial report

This Registration Document contains all the information required in annual financial reports pursuant to Article L. 451-1-2 of the French Monetary and Financial Code and Article 222-3 of the General Regulations of the AMF.

In order to facilitate the reading of this annual financial report, the concordance table below identifies the sections contained herein.

NO.	INFORMATION IN THE ANNUAL FINANCIAL REPORT	REGISTRATION DOCUMENT
1	Statement by management on the accuracy of the information	Section 10.1
2	Consolidated financial statements	Section 3.1
3	Auditors' Report on the consolidated financial statements	Section 3.1
4	Financial statements of the parent company	Section 3.2
5	Auditors' report on the financial statements	Section 3.2
6	Management report	See management report reconciliation table
7	Fees of the Statutory Auditors	Section 3.1
8	Report by the Board of Directors on Corporate Governance attached to the management report	Chapter 4

10.5 Management report reconciliation table

The reconciliation table below identifies the main sections required by the French Commercial Code, the French Monetary and Financial Code, the French General Tax Code and the AMF's General Regulations.

ACTIVITY	REGISTRATION DOCUMENT
Major events after the reporting date	Chapter 1
Foreseeable outlook	Chapter 1
Results of subsidiaries and companies controlled, by areas of activity	Chapter 2 – Chapter 3
Research and development	Chapter 2
Description of the main risks and uncertainties	Chapter 3 – Chapter 5
Group policy concerning management of financial risks, exposure to price, credit, liquidity and cash risk	Chapter 3
Analysis of business developments, results and the financial position of the Company in the course of the year	Chapter 3
Stakes or controlling interests in companies based in France	Chapter 3
Information on supplier payment terms	Chapter 3
Table of the financial results of the Company over the past five years	Chapter 3
Reincorporation of general costs and sumptuary expenses	Chapter 3
Legal information and information concerning shareholder structure	
Sum of dividends paid out over the last three financial years	Chapter 3
Identity of shareholders with more than 5% of equity	Chapter 8
Employee shares held on the last day of the year	Chapter 8
Information on share buybacks during the year – treasury shares	Chapter 8
Table summarising valid authorisations granted to the Board by the General Shareholders' Meeting concerning share capital increases, and the use made of these authorisations during the year	Chapter 8
Elements likely to have an impact in the event of a public offer	Chapter 8
Information concerning corporate officers	
Terms and functions of members of the Board of Directors and General Management	Chapter 4
Total remuneration and any benefits granted to each corporate officer	Chapter 7
Information provided for in Article L. 225-102-1-II of the French Commercial Code – Non-Financial Performance Declaration	
1/ The Group's CSR issues and approaches	**6.1**
2/ Environmental protection	**6.2**
Challenges, objectives, organisation and resources for the prevention of environmental risks	6.2.1
ISO 14001 certification and environmental compliance indicators	6.2.2
Emissions reduction (air emissions, water emissions, site remediation/restoration)	6.2.3
Circular economy (waste, water consumption)	6.2.4
Fight against climate change	6.2.5
Mining environment (water management, waste rock and tailings management, mine site remediation)	6.2.6
Preservation of biodiversity	6.2.7
Responsibility for chemicals	6.2.8

ACTIVITY	REGISTRATION DOCUMENT
3/ Social and societal commitments	**6.3**
Commitments to human rights	6.3.1
Social commitments to employees	6.3.2
Employee safety	6.3.2.1
Employee health	6.3.2.2
Employee security	6.3.2.3
Promotion and development of employees	6.3.2.4
Social indicators	6.3.2.5
Commitments to communities	6.3.3
Management of impacts on local communities	6.3.3.1
Development of opportunities for communities	6.3.3.2
4/ Governance	**6.4**
Fight against corruption	6.4.1
Responsible value chain (purchasing, sales)	6.4.2
Combating tax evasion	6.4.3
Sustainable development governance of projects	6.4.4

10.6 Reconciliation table with European regulation 809-2004

The following reconciliation table identifies the main sections required under European Regulation No. 809-2004, implementing the "Prospectus" directive.

CHAPTER	INFORMATION	REGISTRATION DOCUMENT
10	**Cash and equity**	
10.1	Capital	1
10.2	Cash Flow	1
10.3	Funding Structure	1
10.4	Potential Restrictions on Capital Use	1
10.5	Sources of Financing	1
11	**Research and development — Patents and licences**	**2**
12	**Trend Information**	
12.1	Trends	1
12.2	Potential Influence	1
13	**Profit forecasts or estimates**	
13.1	Assumptions	not applicable
13.2	Report	not applicable
13.3	Comparison	not applicable
13.4	Updating	not applicable
14	**Administrative, management and supervisory bodies and General Management**	
14.1	Information on members	4
14.2	Conflicts of interest	4
15	**Compensation and benefits**	
15.1	Compensation	7
15.2	Pensions, retirement or other benefits	7
16	**Functioning of the administrative and management bodies**	
16.1	Date of expiry of mandates	4
16.2	Service contracts	4
16.3	Committees	4
16.4	Declaration on corporate governance	4
17	**Employees**	
17.1	Information on employees	6
17.2	Participations and options for share subscriptions	6
17.3	Participation of employees	6
18	**Major shareholders**	
18.1	Shareholders	8
18.2	Voting rights	8
18.3	Ownership and control	8
18.4	Agreements related to control	8
19	**Related party transactions**	**3**
20	**Financial information concerning the issuer's assets and liabilities, financial position and results**	
20.1	Historical financial information	3
20.2	Pro forma financial information	not applicable
20.3	Financial statements	3
20.4	Verification of historical financial information	3
20.5	Date of latest financial information	3
20.6	Interim and other financial information	not applicable
20.7	Dividend distribution policy	3
20.8	Legal and arbitration proceedings	3 and 5
20.9	Significant change in the financial or commercial situation	not applicable
21	**Additional information**	

XI. 2017 Vigilance Plan

I. Scope and objectives

The aim of this vigilance plan is to meet the requirements of Law No. 2017-399 of 27 March 2017 on the duty of care of parent companies and contracting companies.

The scope of this plan primarily covers all Group entities: the parent company, Eramet SA, and the companies it directly or indirectly controls. This scope is also described in the chapter on Corporate Social Responsibility (CSR) in the Group's Registration Document. The measures concerning the in-scope entities are set out in Sections 2, 3, 4 and 6 of this plan.

The scope of the plan also covers suppliers and sub-contractors of Group entities (parent company or controlled subsidiaries). Risks related to entities are discussed in Section 5 of this plan, as the assessment and management of risks in the supply chain is subject to specific measures.

The Eramet Group

(See also www.eramet.com.)

Eramet is one of the world's leading producers of:

- manganese and nickel, used to improve the properties of steels, mineral sands (titanium dioxide and zircon);
- parts and semi-finished products in alloys and high-performance special steels used by industries such as aerospace, power generation, and tooling.

Eramet is also developing activities with strong growth potential, such as lithium mining and recycling, which will play a key role in the energy transition and mobility of the future.

The Group employs around 12,700 people in 20 countries.

A more detailed description of the Eramet Group is provided in Chapters 1 and 2 of the management report in which this vigilance plan is published.

II. Risk mapping and assessment of subsidiaries

As part of its risk identification and control process, the Group compiles every three years and annually updates its major risk map, the implementation of which is managed by the Risk Management Department. The risk map is presented to the Executive Committee and to the Audit, Risks and Ethics Committee of the Group's Board of Directors. The map identifies major strategic, operational, financial and compliance risks. It is complemented by more detailed risk mappings focusing on specific cross-functional themes, such as human rights, the environment and health and safety of people.

1. Risk mapping

a. Risks of violations of human rights and fundamental freedoms

In 2017, the Group formalised its mapping of the risks of violations of human rights and fundamental freedoms, with the support of external expertise.

A risk universe was established by matching the impacts of the Group's activities with the list of rights contained in the UN Universal Declaration of Human Rights of 1948, the two UN International Covenants of 1966 (International Covenant on Civil and Political Rights; International Covenant on Economic, Social and Cultural Rights), as well as the European Convention on Human Rights of 1950. Sector benchmarks on the identification and management of risks of human rights abuses were also taken into account. The criteria for assessing these risks, in terms of severity of harm and probability of occurrence, were also defined. They involve an assessment of the severity of the impact, not directly for the Group, but for the potentially affected third party(ies) (employees, local residents or other people).

The assessment of the level of severity and probability of occurrence of these risks was carried out by a representative panel of the different corporate functions and Group entities across all geographical areas.

The risk universe of human rights violations defined during this exercise for the Eramet Group can be broken down into the following three broad categories, and the main risks were assessed for each of them:

- risks for Group employees, mainly those related to health and safety at work, and to a lesser extent those related to discrimination and harassment. The risks to the health and safety of employees are described in more detail in the following section (II.1.b);
- risks to communities bordering the Group's sites, whether related to potential environmental impacts, or resulting from other activities (acquisition of land or, to a lesser extent, safety measures implemented for the protection of certain installations);
- the risks generated by contributors to the Group's supply chain, such as, for example, non-compliance with the fundamental conventions of the International Labour Organisation. These risks are addressed in the section of the Vigilance Plan that focuses on the supply chain (Section V).

The risk mapping will be updated regularly, based in particular on continuous assessments of the situation of the Group's sites and entities with regard to these risks.

b. Risks of harm to the health and safety of people

This section focuses on the risks of harm to the health and safety of employees. Risks to the health and safety of other people, such as residents close to the sites, are discussed in the sections on human rights and environmental risks and the associated control measures.

Risks of undermining the safety of employees

The prevention of risks of work-related accidents is based primarily on the analysis of risks in the workplace, conducted within the plants. This highly operational analysis makes it possible to secure a specific operation by identifying all the risks to which the operators are exposed and the means of control implemented to manage them. These local analyses are compiled in the risk register of each site (known as the "single risk assessment document" for French sites). These risks are assessed according to a scale based on the frequency x gravity pair, taking into account the protection measures in place. This methodology makes it possible to identify the most critical risks and thus feed into the site's Safety Improvement Plan. Risk registers make it possible to group the risks by standard activities specific to each site. For example, they include mechanical handling, machine driving, walking, etc.

At Group level, the risk analysis is based on this segmentation by type of activity. Risk assessment is based on actual accident statistics taken from the reporting of accidents over a period of several years, according to the frequencies actually observed and the average potential severity estimated on a case by case basis.

The Group's risk analysis of workplace accidents allowed the risks identified to be grouped into three distinct categories:

- **technological risks** associated with processes and installations present the most serious potential hazards. An explosion, a toxic gas leak, or equipment failure can impact several people in a single incident. The frequency of occurrence of these events is the lowest in our history;
- **critical activities** are dangerous tasks that are carried out on a daily basis as part of the operation of our facilities. They include machine work, work at height, vehicle traffic, working in confined spaces and working with liquid metal. Failure to control these risks can lead to serious accidents. In 60% of cases, the consequence of lack of control of these critical activities is work stoppage and, in a little over 10% of cases, serious injury;
- finally, the Group's operations involve many routine activities, such as walking, lifting and moving objects and using hand tools. About two-thirds of the Group's accidents involve these activities, but the severity of the accidents associated with them is statistically less serious than for critical activities. For these routine activities, the accident rate that triggers a work stoppage is only 40%, while the rate of serious accidents is less than 1%. Eramet Groups these activities which are difficult to categorise under the heading **"non-standardised activities".**

Risks of undermining the health of employees

Based on the analysis of risks in the workplace recorded in the risk registers of each site, occupational health professionals identify the risks that may have a lasting or deferred impact on the health of employees. These risks may relate to physical health (noise, vibrations, awkward postures, repetitive movements, night or alternating work, electromagnetic fields, extreme temperatures, exposure to dangerous chemical agents, including asbestos) or psychological health (workload, organisation of work, autonomy).

Deferred risks are risks of occupational diseases, which are reported separately based on reports sent to the employer or which result in investigations by internal or regulatory prevention services. In France, a Table of Occupational Diseases is regularly updated and specific regulations are implemented in the other countries where the Group operates.

These risk maps and analyses of the risks to the health and safety of employees are regularly updated.

c. Risks of damage to the environment

As part of its environmental protection commitments and objectives, the Group maps the environmental damage risks for each of its sites. Environmental impact and risk assessment studies are carried out as part of the sites' exploration licences, ISO 14001 management systems and the Group's HSE audits. They are supplemented by industrial risk assessments carried out with insurers.

In 2017, the assessments resulting from these various activities were aggregated and harmonised in order to formalise a Group-wide risk map of damage to the environment. This mapping of environmental risks will be updated on a regular basis.

The main risks and challenges for the Group's sites are related to the following potential impacts:

- water consumption/pressure on water resources (for industrial and mining sites);
- emissions into water (for industrial sites);
- atmospheric emissions (for industrial sites);
- energy consumption and greenhouse gas emissions (for industrial sites);
- production of hazardous waste (for industrial sites);
- risks of historical soil pollution (for industrial sites);
- impact on biodiversity (for mining sites);
- erosion (for mining sites);
- production of waste rock and tailings (for mining sites).

The details of the nature of the risks associated with these impacts are described along with the corresponding control measures in Section III.2 of this plan.

Furthermore, industrial risks (the occurrence of an industrial accident) can also lead to environmental damage. The main industrial risks to which the Group's sites may be exposed are fire, explosion (including, for certain sites, related to the risk of contact between water and molten metal), machine breakdown on critical equipment, and natural events (floods, storms/cyclones, etc.).

2. Procedures for the regular risk assessment of subsidiaries

In terms of environmental and health/safety risks, the risk situation of the subsidiaries is regularly assessed through two main mechanisms: internal environmental and safety information systems, and the HSE (Health, Safety and Environment) audit system.

A dedicated environmental information system (Era-Green) has been fully deployed in all industrial and mining sites, allowing for the collection and consolidation of environmental performance indicators. These indicators are mostly derived from the sampling and analysis plans developed by the sites as part of their operating permits. Information and reporting systems dedicated to the management of human resources and Health/Safety, including the reporting of accidents resulting in work stoppage, are also deployed at all sites.

The Group also relies on a demanding internal audit system for the performance of its entities in the areas of Environment, Health, Safety and Energy. The common audit guidelines are structured as three pillars: human involvement, operational control and prevention. They fully take into account the requirements of ISO 14001, OHSAS 18001 and ISO 50001. Mixed teams of the Group's internal auditors (corporate departments, Division coordination, and site representatives) trained according to an internal guidelines system, conduct these audits which last several days and make it possible to situate in detail the performance of the sites. This involvement strengthens the cross-functional level of expertise of HSE managers and promotes experience sharing between operational teams.

Corrective action plans are defined at the end of each audit, and for all risks considered significant, a quarterly report on the implementation of corrective actions is consolidated at Group level.

In particular, with regard to the risk assessment of subsidiaries in terms of industrial risk, the control system is based primarily on the programme of biennial insurance engineering visits (insurance prevention audits) to its industrial sites in close collaboration with insurers, brokers and the Group Insurance Department. Any significant risk detected during these audits results in a corrective action plan by the site concerned.

In terms of risks of human rights violations, the risk situation of sites will be assessed each year in light of the risks identified by the risk mapping exercise performed in 2017. This assessment must be based on data from the annual site CSR reports, covering specific Human Resources management indicators, and indicators related to the management of potential impacts on communities bordering our sites. This assessment will also take into account data from the monitoring of the social and environmental management of Group projects, carried out as part of the provision of project support.

III. Risk management

1. Risk management policies and organisation

a. Policies and commitments

The management of risks related to human rights, health, safety and the environment is first and foremost the focus of a clear commitment by the Group in all of these areas. Eramet has adopted an Ethics Charter and a Sustainable Development Policy, both of which set the standard for its social responsibility. These two fundamental documents have been translated into the languages of the countries where the Group operates and are implemented across all Divisions and sites.

- **The Group's Ethics Charter** sets out the Group's commitments and the rules and principles of action and behaviour of employees in many areas, including respect for human rights (with reference to the UN Universal Declaration of Human Rights and all the fundamental conventions of the International Labour Organisation), the protection of the health and safety of persons, and the respect for and protection of the environment.
- The Eramet Group's **Sustainable Development Policy** sets out a number of these commitments. It is structured around four priorities:
  - *the protection and development of the Group's employees*, with commitments relating in particular to employee health and safety and social dialogue;
  - *the management of risks and impacts on health and the environment*, with commitments relating to the control of the impacts of industrial processes at the Group's sites, the reduction of energy consumption, the fight against climate change, better use of natural resources, and the development of recycling;
  - *the use of sustainable development opportunities for the benefit of customers*, with commitments related to the integration of sustainable development in the Company's business innovation and diversification policy, product responsibility (development of their environmental benefits and risk reduction) and a responsible purchasing approach;
  - *and finally, maintaining a relationship of trust with stakeholders*, by meeting their expectations through dialogue and cooperation actions, by contributing to the development of the areas where we operate, and by sharing the Group's non-financial performance in a transparent manner.

These thematic commitments are set out in more specific policies, such as the **Safety Charter**, the **Health Policy**, the **Environment Charter**, the **Biodiversity Policy**, the **Energy Policy** and the **Climate Change Policy.** The complete texts of these charters and policies are available on the Eramet Group's website.

b. Organisation

The Group's commitment translates into involvement at the highest level of the Company. The Communication and Sustainable Development Director and the Human Resources, Health, Safety and Security Director, both members of the Group's Executive Committee propose, support and monitor the multi-year objectives and associated action plans. They report to the Executive Committee.

The effective integration of CSR topics into the Group's activities is also closely monitored by Eramet's Board of Directors, in particular through two of its Committees, the Strategy and CSR Committee, and the Audit, Risks and Ethics Committee.

The Communication and Sustainable Development Department (DC2D) has an Environment, Industrial Risks and Product Department (DERIP) and a Public Affairs Department (DAP), while the Human Resources Department (DRH) includes a Social Relations Department, a Safety and Prevention Department, a Security Department and a Medical Advisor, responsible for promoting the Group's Health Policy. The Group Ethics Officer and the Divisions' Purchasing Departments complete this system.

These corporate functions are organised and structured around practices and processes aimed at continuously strengthening their commitment and efficiency, highlighting a strong culture of risk identification and control.

The objectives and action plans are available in all of the Divisions and operational entities of the Group. Their effective execution and the good coordination between the Corporate functions and the Divisions have been strengthened by the establishment of working groups and cross-functional committees focusing on various themes (biodiversity, mining environment, responsible purchasing).

Furthermore, the Group pays particular attention to the integration of social, environmental, health and safety, cultural and societal criteria at the earliest stages of their projects. Sustainable development experts and specialists are integrated into the industrial, technical, legal and financial teams, and participate in the various steering committees, from pre-project phases to feasibility studies and pre-construction. Likewise, they participate in acquisition audits in the case of merger or acquisition projects, as well as in due diligence related to the transfer of assets.

2. Risk management actions

a. Management of risks of human rights violations

Human rights in the workplace

Health and safety is an integral part of fundamental human rights, and as such has been integrated into the Group's risk mapping exercise on human rights violations. Due to the nature of their industrial and mining activities and their countries of operation, the Group's sites may incur risks related to the health and safety of employees, the management of which is one of the Group's priorities. These measures are described in Section III.2.b of this plan.

In order to strengthen the control of local workplace discrimination and harassment risks identified during the Group mapping exercise, an e-learning course is gradually being rolled out to all Group employees to raise awareness about the Ethics Charter, including a section dedicated to these issues. More generally, information is sent to all employees, through infographics displayed at all the Group's sites concerning the organisation of ethical compliance and in particular the existence of the professional whistleblowing system, presented in Section VI of this plan. In addition, as part of a trade union agreement related to the prevention of psychosocial risks, monitoring units have been set up at the various sites in mainland France to anticipate risk situations and give warning if an employee with psychological difficulty is identified. Training on the prevention of psychosocial risks has also been deployed for all Group managers. Actions to reinforce these mechanisms are planned, with the appointment of a Group Diversity Officer, whose role is to promote and coordinate all actions in favour of diversity and the fight against discrimination.

Measures to manage risks to the rights of workers in the supply chain, which were also identified during the mapping exercise, are presented in Section V of this plan.

Rights of communities bordering Group sites

Most of the Eramet Group's sites have a permanent presence in the areas in which they operate, which with they develop highly interdependent relationships. The local integration of sites, particularly with regard to neighbouring communities, is therefore a key element in the sustainability of the Group's activities. As a result, the Group has built long-term relationships of trust with neighbouring communities, and works to prevent any risk of violation of their fundamental rights.

The prevention of such risks is primarily achieved through the implementation of dialogue mechanisms with the relevant stakeholders or their representatives. Information and consultation activities with local residents are set up according to the level of impact and risk of each site. The scope of these actions is most often adequately defined by national or local regulations. In France, for example, because of their Seveso "High Threshold" status or their ICPE (Installation Classified for the Protection of the Environment) status, several sites participate in "Site Monitoring Commissions", composed of representatives of the State, local authorities, local residents, farmers and employees. As part of authorisation processes and studies of societal and environmental impacts, the projects establish mechanisms for consulting with local residents and other stakeholders in order to take into account their expectations in controlling these impacts at all stages of the project. In consultation with the Communication and Sustainable Development Department, some sites may go beyond the regulatory requirements for dialogue with local residents. In particular, the sites exercise greater vigilance with regard to the indigenous or vulnerable populations that may reside in the surrounding area.. In addition, and depending on their potential impacts, some sites also set up dedicated systems to receive and respond to concerns, questions or complaints from local populations, as presented in Section VI of this plan.

As part of a process of continuous improvement, actions to reinforce these dialogue mechanisms with the affected people are included in a multi-year action plan drawn up by the Group.

More targeted control measures are also put in place to manage specific risks related to the acquisition of land, environmental impacts and systems to ensure the safety of certain facilities.

The activities of certain Group sites require the acquisition of land from communities that reside or carry out economic activities (agricultural or commercial) in the area. These operations may present risks of human rights violations (property rights or the right to an adequate standard of living of these communities). In terms of preventing these violations, the Group refers to the principles set out in the Performance Standards of the International Finance Corporation (World Bank Group) relating to these relocation activities, with particular focus on the implementation of resettlement action plans.

Some sites also present environmental impact risks that may affect local residents. These may be pollution risks or risks of reducing communities' access to the natural resources they use. All of these risks are subject to the control measures set out in Section III. 2. c. of this plan, relating to the management of risks of damage to the environment. Depending on the nature of these impacts or risks, local residents may be involved in the definition or execution of these control measures. In particular, local communities are associated with baseline characterisation studies that include their knowledge of biodiversity, its uses and ecosystem services.

In addition, some of the countries or regions in which the Eramet Group operates may experience unstable political, security or climate situations (terrorism, information theft, crime, earthquakes, cyclones, etc.). In this context, the Group Security Department implements measures to ensure the protection of employees (whether travelling for business reasons, or foreign or local residents), intellectual property and Eramet facilities. Eramet is aware that these measures must be established in respect of the rights of communities bordering the Group sites, therefore it has established a Group Security Policy that respects international law, French law and the laws of the countries in which the Group operates. As part of this policy, in accordance with the principles of the Eramet Group Ethics Charter, the prevention of safety risks first requires dialogue and a relationship of mutual respect with local communities. Similarly, training and rules governing the use of force and the equipment of the security personnel are decided, designed and controlled by a Site Security Officer, who acts within the framework defined by the Group Security Director.

b. Management of risks of harm to the health and safety of people

Actions to prevent risks to the health and safety of employees are coordinated by the Safety and Prevention Director and the Group Medical Advisor, who report directly to the Director of Human Resources, Health, Safety and Security. Together, they establish and propose to the Executive Committee the Group's health and safety policies and guidelines. Once validated, these guidelines are defined in the Divisions by the Division Managers, assisted by Health and Safety coordinators, and then by the Site Managers, who are themselves assisted by a site Health and Safety coordinator.

Prevention of damage to health and accidents is at the heart of the system, and concerns Eramet employees and temporary workers and subcontractors who work on the sites. It is based on the analysis of risks in the workplace, which determines the actions and preventive measures to be implemented.

Management of risks related to employee safety

In relation to Safety, actions at Group level are coordinated within the framework of the "Group Safety Committee" which includes the Human Resources, Health, Safety and Security Director, the Division Directors, the Safety and Prevention Director, and the Health and Safety coordinators of the Divisions.

Prevention tools are adjusted to the three major risk groups identified:

- the prevention of technological risks is based on the implementation of barriers (technical, organisational and human) as a result of hazard studies. Prevention depends greatly on the technical expertise of the teams that has been acquired over years of operations and their ability to identify and respond to weak signals;
- the risks associated with critical activities are too important to leave the choice of method of operation to the stakeholders; these activities are also strongly governed by rules. Eramet has compiled a set of minimum essential rules — "Essential Safety Requirements" — that are required by all sites, in compliance with local legal requirements. Limited in number, they are communicated as part of a Group communication campaign. They are auditable and audited as part of corporate audits;
- finally, non-standardised activities cannot reasonably be governed by simple rules. For the work situations concerned, Eramet develops the situational intelligence of its teams so that the stakeholders learn to make safety-related decisions. Team awareness, feedback, and especially interactions with the chain of command in the field are all systematically used to guide decisions towards safer behaviour.

Management of risks related to employee health

In terms of prevention of health risks, the Group's strategy is based on the Group's Health policy, which covers four main areas, broken down into specific priority actions. The strategic areas are:

- reducing and managing the effects and impacts of the Group's activities on the health of employees and local residents;
- continued employment for all employees during their professional career, including when affected by poor health;
- participation in general public health and chronic disease prevention campaigns;
- the prevention of risks to psychological health and the implementation of actions for the Quality of Working Life.

For the management of risks related to products, a centralised structure, the Group Products Committee defines the rules and standards for the management of chemical products and provides support and services to the Divisions and sites in order to help them comply with the many regulations. The action of this structure has three main objectives:

- improve the technical and scientific knowledge of Group products;
- provide support and information to internal and external clients;
- harmonise the chemical risk management methods on the sites.

Harmonising the chemical risk management on the sites is a major challenge. Eramet Group production sites are found on five continents, and they must, therefore, follow and respect various regulations concerning hygiene and controls of chemical exposures in the workplace. In this area of regulation, there may be significant differences from country to country for the same substance. Harmonisation and communication between sites on these subjects is therefore important for exchanging, explaining and implementing practices and references, ensuring a corresponding protection that is higher than the regulations in force in the relevant country. In concrete terms, a steering committee brings together the Group Prevention and Safety Department, the Group Medical Advisor, the Group Environment, Industrial Risks and Products Department and the Hygiene, Health and Safety Coordinators of the Divisions. It defines and monitors the priority actions for the year. One of these actions is the production and circulation of practical toxicological sheets that identify the references and good practices, accompanied by a methodological guide for the measurement of exposure. A consolidated chemical risk assessment method is also available and is being deployed across the sites.

In particular, the asbestos-related risk for the Group is divided into environmental asbestos at nickel mines and also the management of asbestos products at industrial sites.

In New Caledonia, specific operating procedures exist to control veins of asbestos-containing ores in the event that the mining activity uncovers them. The operators are trained in the precautions to be taken, and special medical monitoring has been set up, in consultation with the authorities, social partners, and other mining operators.

No industrial site of the Group has ever produced or processed asbestos, nor marketed composite materials made up entirely or partially of asbestos. This material has never been used as a raw material by Eramet but rather only as a component of certain materials of thermal protection equipment. In accordance with applicable regulations, particularly in France, the Group has carried out asbestos technical diagnostics (DTA) on its industrial sites, by authorized firms, the conclusions and recommendations of which are then translated into detailed action plans.

c. Management of risks of damage to the environment

To manage its environmental risks, the Group relies on a network of internal experts and on a structured organisation: The Environment, Industrial Risks and Products Department defines the Group's benchmarks, coordinates the general dynamics of continuous improvement, implements the control mechanisms of the internal standards and provides expert technical support to the sites and projects. The monitoring and anticipation of regulatory changes are performed jointly with the Public Affairs Department. In addition, more than 80 people make up the network of HSE functions at the sites with a reporting line to their senior management for the vast majority of them. Training and awareness activities on the essentials of environmental responsibility management are also developed at the sites, within the Divisions and at Corporate level.

The management of environmental risks begins with the implementation of environmental management systems. This is why the Group pursues the objective of ISO 14001 certification for all its sites, except those that have no significant impact on the environment. The latter category includes sites with purely administrative activities, such as offices, distribution centres or sites in project or closure phase.

In terms of controlling risks specific to mining sites, teams dedicated to taking into account environmental requirements in mining are present on the sites and in the subsidiaries concerned, and implement formalised tools for the environmental management of mines. All mining subsidiaries have formalised a Mining Environment plan of action and the progress of these action plans is reviewed regularly with the Group Environment, Industrial Risks and Products Department. In addition, a community of experts on the mining environment has been set up and meets regularly. Its role is to formalize good practices guidelines applicable throughout the Group and to encourage the exchange of expertise between sites. Finally, Environmental Management Systems compatible with the requirements of ISO 14001 have been deployed by the mining subsidiaries.

The more targeted measures and actions to control each of the environmental risks are described below.

Water consumption/pressure on water resources (industrial and mining sites)

Mining, metallurgy and hydrometallurgy activities consume water in several ways: for the cooling of furnaces and other metallurgical plants, for the washing of ores, raw materials and by-products, and finally for hydrometallurgical processes (solubilisation and reactive environments).

None of the Group's industrial sites is located in a country confronted with "water stress" according to the definition adopted by the UN, that is to say, whose water resource per inhabitant, for all uses combined, is generally less than 1,700 m^3 per person per year. Although this water resource is often substantial or abundant on its sites, the Group attaches real importance to its preservation. Multiple actions are taken to use only the required amount.

Whenever technically possible, the sites encourage internal recycling of the water consumed. The cooling of furnaces and other metallurgical facilities, as well as other high-consumption uses, are mainly done in a closed circuit. The water consumption is then essentially supplemented in order to compensate for evaporation or losses in the system. Where possible, the sites also source water from a nearby industrial site.

With regard to mining sites, the issue of water consumption mainly concerns the Grande Côte Opérations (GCO) site in Senegal. The subject of water management is sensitive there, as the operation of the mine uses two aquifers, one of which is very important for the people and the country in general. Given this situation, every precaution is taken to ensure that the impact of the mine is as low as possible. GCO has an expert team in hydrogeology, and the water management system was designed and authorised by the competent department of the Senegalese government to avoid additional pressure on the surface water table used to supply agricultural crops for local residents. All mining installations are controlled to ensure minimal variations in the level of this water table.

Emissions into water (industrial sites)

Hydrometallurgical sites are the sites that present relatively the most significant risks of water pollution, due to the use of chemicals and an aqueous process. Eramet is committed to reducing its aqueous emissions, and all industrial water is managed in accordance with applicable regulations.

In addition to preventive systems, such as basins and double-walled storage tanks, curative mechanisms, such as effluent treatment plants using physico-chemical processes or hydrocarbon separators (separation by decantation) are used to allow discharges that are in accordance with the statutory limit values.

The Group's sites also closely monitor the quality of groundwater and the impact of the activity on soils and subsoils. Several hundred piezometers are distributed throughout the Group's various sites, both within and outside of the Company, to support the initial phases of any new project (characterisation of the initial state) and also to monitor any impacts on ground and surface water.

Atmospheric emissions (industrial sites)

Pyrometallurgical activities with their fusion plants and heat treatment furnaces contribute the most to channelled air emissions, including power plants. The CO_2 emissions are discussed below.

Air emissions are a function of the nature of raw materials and ores used, the transfer and loading technologies in place, the installed capacity of the equipment and especially the level of activity of the sites.

In pyrometallurgy, channelled emissions are generated in the handling of materials, furnaces, grinding and milling operations, as well as operations involving molten liquid metal and slag. In hydrometallurgy, channelled dust emissions most often occur during the handling, grinding, drying or transfer of materials.

The effluent purification systems generally used in the Group's factories are electrostatic precipitators, baghouses and washing towers. Specific treatment systems for certain pollutants can also be used, such as activated carbon filters. The different items of equipment are installed according to the characteristics of the industrial processes, the targeted purification performances and regulatory constraints.

Energy consumption and greenhouse gas emissions (industrial sites)

Sites that have metallurgical furnaces and/or electricity generation facilities are the sites that represent the bulk of energy consumption and greenhouse gas emissions. Thus, around four-fifths of the energy requirements are consumed by 14 Group pyrometallurgical plants.

Through its Climate Change policy, the Group is committed to reducing its greenhouse gas emissions, in particular by reinforcing its approach to improving energy efficiency, by promoting and developing the recycling of raw materials in a circular economy approach, and prioritising low-carbon energy sources and processes under economically acceptable conditions.

The Group Energy Policy, which incorporates the principles of the ISO 50001 standard, is deployed by the Group Energy Centre across all sites, where ISO 50001 certification is being progressively extended. The Group Coordinator, an ISO 50001 auditor certified by AFNOR, leads the process, providing the sites with expertise in several business areas and ensuring regulatory and technological monitoring. The site energy contacts, representatives of site management in relation to the ISO 50001 standard, locally implement the continuous improvement process in relation to energy. Finally, the site management is committed to an energy management system based on the principles of the ISO 50001 standard and to allocating resources that are adapted to the challenges of each site. Division management is called upon to support site management.

As part of the energy efficiency initiative, energy performance indicators are set up at the sites and are integrated into the management of industrial performance. The values and developments of these indicators are analysed in relation to each local process. Because of the variety of jobs and processes, consolidation of these indicators at the Group level would have no purpose. Consequently, and for reasons of confidentiality and protection of our processes, the Group decided not to communicate more precisely on these indicators.

Production of hazardous waste (industrial sites)

The activities that generate hazardous waste are mainly derived from the pyrometallurgical processes of the Group's mining Divisions. The High Performance Alloys division sites that are significant in terms of their size also generate significant quantities of hazardous waste.

These activities produce dust recovered by filtration systems, sludge and sodium-calcium slag which, depending on their intrinsic properties and the location of the operation, can be considered hazardous waste. The hazardous waste is treated through specific, authorised channels. Controls are put in place to ensure the proper management of this waste throughout the process (transport of waste, delivery to approved centre and final treatment).

Impact on biodiversity (mining sites)

In terms of controlling biodiversity risks, Eramet has formalised its commitments through a dedicated policy, which is structured around three main areas:

1. better awareness and understanding of biodiversity and its features;
2. acting to preserve biodiversity;
3. raising awareness, exchanging and sharing.

These principles are to be adapted at sites in a manner proportionate to local issues.

In New Caledonia, Société Le Nickel (SLN) operates nickel deposits on various sites in the heart of a region renowned for its rich biodiversity and the high rate of endemism among its flora and fauna species. It has developed reliable and environmentally friendly rehabilitation methods including revegetation by hydraulic seeding and plantations. The naturally low fertility of the soils, rich in metals and poor in organic elements, as well as the extreme rainfall conditions, make it difficult to see the results of this work in the short term because of the very slow growth.

SLN has implemented a global biodiversity management plan derived from a Biodiversity Strategy that incorporates international preservation standards in this area. Through this strategy, SLN implements its global biodiversity management plan.

In this context, SLN is working on the reintroduction of rare and threatened plant species through inventories of mining centres, as well as phenological monitoring to better control the reproduction of these species. SLN also monitors the wildlife (reptiles, birds, bats), the marine environment and the water quality of its mining creeks on all of its active sites.

In Gabon, the mining procedure includes a remodelling step and the progressive upgrading of the topsoil. The gradual reshaping of historically disturbed surfaces has also been completed.

In Senegal, the exploitation of mineral sands involves the clearing of vegetation as a floating dredge moves along the deposit. Biodiversity is of medium sensitivity in the areas currently being exploited. The issues are mainly related to the rehabilitation and revegetation of large areas when the exploited sites are made available. Revegetation (sowing/planting of local species) occurs after the reshaping of slag heaps to maximally reflect the original landscape (dunes). An additional irrigation system is also in place to allow the continuity of revegetation operations during the nine months of the dry season.

Erosion and water runoff (mining sites)

At mining sites in New Caledonia, and to a lesser extent in Gabon, the major issue of water management is to prevent the entry of suspended solids (SS) into the receiving environment through run-off caused by erosion due to surface stripping.

To avoid this, the sites are equipped with sedimentation ponds that trap suspended matter to prevent their transport into the natural environment. Upstream from these works, many precautions are taken to minimise erosion: roofing of sites to prevent water entry, minimisation of open areas, conservation of natural embankments at the edges of stripping sites, organisation of run-offs to reduce speed, implementation of hydraulic locks, etc. These measures are documented in the Water Management Plan.

In Gabon, the subject of erosion is less significant given the topography of the plateau deposit and the draining characteristics of the upper geological layers of the plateau. This topic still attracts attention due to the ongoing extension of the deposit into the sloping part. A specific water management plan associated with the extension of the deposit has been developed. As part of this plan, a specific environmental monitoring system is in place, which confirms the effectiveness of the measures taken and makes it possible to verify that the very limited and localised phenomenon of acid mine drainage does not have a significant impact on the natural environment.

In Senegal, protecting the dunes reconstituted after dredging against wind and water erosion is an issue. This risk of erosion is controlled by means of regeneration of the reconstituted dunes, as the revegetation stabilises the sands.

Production of waste rock and tailings

Given the considerable volume of tailings being handled at SLN operations, the storage of tailings in appropriate structures and their revegetation is a vital environmental task in order to minimise erosion and the impacts on the ecosystem and landscape.

SLN has implemented effective techniques that have been validated by the authorities, one of which is to create tailings stockpiles. The stability of these structures is guaranteed in the long term, even during exceptionally heavy rains. These tailings stockpiles are subject to continuous monitoring and regular audits by an external third party. Moreover, in order to minimise land clearing and promote site rehabilitation, SLN privileges flat-top piles in old mining pits, when the environmental conditions are favourable.

In Gabon, the problem is less sensitive since, on the one hand, the volumes of tailings being handled are much less, and on the other hand because the technique of exploitation by the successive opening/closing of extraction compartments allows the majority of tailings to be placed directly into the compartments after extraction.

The Senegal mine is not at all affected by this problem, since the sand dune is reconstituted after passing the dredge and extracting the recoverable part.

Mine tailings, which are produced in ore concentration plants at the mines in Gabon and in New Caledonia, are chemically stable and therefore are not hazardous waste within the definition of the regulations. In New Caledonia, all processing residues from enrichment plants are also commercially exploited as by-products of the mine. In Gabon, mine tailings are stored in eight basins, consisting of closed dykes. The residues of the metallurgical enrichment plant are stored in a retaining dyke. These structures are continuously monitored for their stability.

The GCO plant in Senegal produces a very small amount of residues. The residual products have characteristics which allow their return to the natural environment when the dune is reconstituted.

Risks of historical soil pollution (industrial sites)

The Group exercises the utmost vigilance against potential impacts on soils and subsoils resulting from its past, current or future activities, both in the area of its industrial and mining activities.

Over several years, the Group has developed expertise to support the cessation of activity of certain industrial sites. This expertise concerns the investigation, identification, monitoring and management of potentially impacted sites through various projects, such as the rehabilitation of industrial sites and the end-of-life of landfills or old mines. This expertise is also consulted in the context of internal audits or in advance of acquisitions and disposals. It is important to mention the implementation of a policy of systematic characterisation of soil conditions before any new project, in accordance with the Group's Sustainable Development policy.

IV. Systems to monitor the measures implemented and assess their effectiveness

Several of the Group's systems make it possible to monitor the implementation of the measures presented in this plan and to evaluate their effectiveness.

The Group's HSE and CSR reporting system, described in Section II.2 of this plan, measures the resources deployed and their results on each site. The data is collected and controlled by the Communication and Sustainable Development Department and the Human Resources Department. In the case of risk management related to the use of products across several Group departments, the Group Product Committee (described in Section III.2.b) is the body responsible for monitoring the implementation of actions.

The HSE audit system, also described in Section II.2 of this plan, is a monitoring tool for each of the Group's sites, resulting in the development of recommendations. The implementation of the recommendations resulting from audits and defined as high priority is monitored on a quarterly basis by the Environment, Risk and Products Department. To supplement this HSE audit system, the Group plans to integrate human rights-related elements and develop a multi-year programme of dedicated audits, prioritising the most sensitive sites identified as part of the human rights risk mapping exercise. For this type of risk, as well as for those related to suppliers and subcontractors, the multi-year programme also provides for the intervention and recommendations of the Group Risk Management Department and the Internal Audit Department.

In the specific case of Group projects, the implementation of environmental and societal impact management action plans is monitored on a continuous basis as part of project support provided by the Environment, Industrial Risks and Products Department.

Finally, all the reinforcement measures described in this Vigilance Plan are included in multi-year action plans validated by the Group's Executive Committee, and their implementation is subject to a mid-year review. The Group's Board of Directors, through the Strategy and CSR Committee and the Audit, Risk and Ethics Committee, also monitors the implementation of these measures on an annual basis.

In accordance with the requirements of French law, the report on the effective implementation of the Vigilance Plan will be published annually in the Group's Management Report.

V. Identification and management of risks related to suppliers and subcontractors

The Eramet Group's activities involve the significant use of external purchasing and, to a lesser extent, outsourcing. The entire Eramet Group spends about 60% of its turnover on the purchase of goods and services. As a result, the Group pays particular attention to CSR issues related to its upstream value chain.

1. Risk mapping and supplier and subcontractor assessment procedures

Risk mapping

As part of its responsible purchasing approach, in 2017, the Group conducted a risk mapping exercise to identify the risks generated by the activities of its suppliers and subcontractors in relation to human rights and fundamental freedoms, health and safety of people, and the environment ("CSR risks").

In order to develop this risk map, an approach based on the business categories of the various suppliers and subcontractors was chosen. The ISIC (International Standard Industrial Classification of All Economic Activities) nomenclature developed by the UN was used. This nomenclature contains several hundred categories. The Group's suppliers fall into 66 of them, each of which was assessed according to two criteria: the CSR risk of the category and the importance of the category for the Eramet Group.

For the assessment of the CSR risk of the business categories, Eramet availed of the expertise of an external company, proposing a CSR risk rating for each business sector. This rating is the result of data analysis and sectoral studies on the impacts and practices specific to each business category. These risks are analysed in the four areas: working conditions and respect for human rights, the environment, ethics and fair practices, and issues related to the supply chain of the sector itself.

The assessment of the importance of the purchase categories for Eramet is based on several Group-specific criteria. These criteria include the purchase volume, the number of potential suppliers or subcontractors in the purchase category, or the impact of the purchased product on the quality of the products marketed by the Group.

The combination of these two assessments made it possible to position the 66 categories into four risk areas, and in particular to identify seven purchase categories that are both important for the Group and pose CSR risks:

- Manufacture of non-metallic mineral products;
- Manufacture of coke and refined petroleum products;
- Metallurgy and processing of basic precious and non-ferrous metals;
- Recovery of materials (waste treatment consisting of secondary raw materials, recovery by sorting material from non-toxic waste);
- Wholesale trade of solid, liquid and gaseous fuels and related products;
- Wholesale trade of metals and ores;
- Mining of coal and lignite.

This mapping exercise, whose methodology will evolve as part of a continuous improvement approach, will be renewed every year.

Procedure for assessing the situation of suppliers and subcontractors with regard to CSR risks

The Eramet Group also has a procedure defining the methods for assessing suppliers according to the risk level of the business category to which they belong.

Eramet has chosen to focus its assessment efforts on the Group's 180 or so suppliers in the seven highest-risk business categories. These assessments will be gradually extended to suppliers belonging to lower-risk but potentially sensitive categories as part of a multi-year action plan. In the event that a new supplier or subcontractor belonging to one of these categories applies to be listed with Eramet, the same rules apply.

For all suppliers in these seven categories and for which purchases exceed a certain amount, the assessment is in the form of a questionnaire whose answers are analysed by an external third party. This questionnaire, adapted according to the sector of activity and the size of the Company, covers the four areas: working conditions and respect for human rights, the environment, ethics and fair practices, and the supply chain of the sector. The companies questioned are required to provide documents to support their declarations (certifications for example). For the other suppliers in these seven high-risk categories, the CSR assessment is being progressively incorporated into the global supplier assessment standards (quality, financial rating, HSE management, etc.) already used by the Group's entities.

In parallel with this process involving all Group purchases, specific assessments are made for tungsten purchases. Some of the Group's activities require the use of tungsten in metallic form, in limited quantities, in their manufacturing processes. This metal comes from ores that can be called "conflict" ores if their exploitation is used to finance armed groups and fuel civil wars in some parts of the world. Eramet is therefore very attentive to the conditions of supply of these materials and in particular to compliance with the specific provisions of the "US Dodd Frank Act", as well as the guidelines set by the OECD for multinational companies.

The Eramet buyers in charge of these supplies thus systematically require their suppliers to provide information concerning the origin of the ores used for the manufacture of tungsten metal sold to Eramet. They are also asked what due diligence measures they have put in place to verify this origin. To this end, the Group's buyers use the "Conflict Minerals Reporting Template" (CMRT), supplied and updated regularly by the Responsible Minerals Initiative (RMI), previously known as the Conflict Free Smelter Initiative.

2. Risk management

Risk management policy and organisation

Eramet has adopted a Responsible Purchasing Charter, which formalises the Group's desire to strengthen the integration of sustainable development issues related to procurement, and promotes a dynamic of continuous improvement. Eramet's expectations with regard to its suppliers, subcontractors and service providers primarily target three main areas: Human Rights and working conditions, environment and products, and good business practices. The Charter is also available on the Eramet website.

In order to oversee the Group's responsible purchasing approach, Eramet has established a Responsible Purchasing Committee, bringing together the Division's Purchasing Managers and representatives of the Communication and Sustainable Development Department and the Group Legal Department. This Committee is an integral part of the Group's ethics compliance organisation, led by the Ethics Officer.

Risk management actions

Compliance with the principles set out in the Eramet Group's Responsible Purchasing Charter forms part of Eramet's contractual requirements for all its suppliers and subcontractors. The charter specifies that audits may be carried out by Eramet at suppliers' premises to verify compliance with the principles stated therein.

All subcontractors operating on Eramet's sites must also comply with the rules in force at these sites in relation to environmental, health and safety risk management.

Moreover, at the end of CSR assessments, more targeted risk management actions must be implemented for suppliers whose rating is below a certain threshold. The Group first of all engages in discussions with the supplier with a view to defining corrective measures to be implemented by the supplier according to a defined schedule. In case of refusal or the impossibility of the supplier to implement corrective actions, Eramet reserves the right to terminate the contractual relationship, this case being also provided for in the Responsible Purchasing Charter.

3. System to monitor the measures implemented and assess their effectiveness

For actions related to responsible purchasing, the monitoring of the implementation of measures and the assessment of their effectiveness is carried out both on the supplier side (risk management measures) and internally (implementation of the approach).

In the first place, compliance by suppliers with the requirements of the Responsible Purchasing Charter or the corrective measures requested as a result of CSR assessments is monitored by means of supplier audits. The procedure and the audit reference framework for suppliers and subcontractors of the Alloys division include components relating to environmental management, and employee health and safety. These audits are carried out with a sample of suppliers in accordance with an annual audit plan. In order to supplement this existing system, supplier audit procedures and an audit reference framework must also be developed for the sites of the Nickel and Manganese divisions, by integrating feedback from the audits conducted by the Alloys division sites.

Internally, performance indicators relating to the updating of risk maps, the roll-out of assessments, and audits of suppliers are monitored by the Responsible Purchasing Committee. Some of these indicators are associated with objectives that are part of the Group's multi-year CSR plan, the implementation of which is the subject of a mid-year report to the Group's Executive Committee and the Strategy and CSR Committee of the Board of Directors.

VI. Whistleblowing and reporting mechanism

The Ethics Charter and the Group's ethics programme have formulated a set of rules and principles for actions and behaviours that apply to everyone and include a professional whistleblowing system. This system allows each employee to notify the Group Ethics Officer or the Ethics Compliance Officer (ECO) of his/her entity of any events that may violate the principles and commitments of the Ethics Charter and the laws or rules relating to ethics. In particular, the Group encourages employees to disclose acts of discrimination and harassment at work, any conduct contrary to the Group's policies and standards in relation to health, hygiene, safety at work and the protection of the environment, and any violation or risk of violation of human rights of Group employees or external persons affected by the Company's business activity.

The whistleblowing procedures are made available to employees in the Ethics Charter available on the Group's intranet and are displayed on the premises of each entity. These alerts can be submitted anonymously.

The alert is managed according to a procedure that can be viewed on the Group intranet. This procedure guarantees that the employee initiating the alert has complete confidentiality, and insofar as the employee acts selflessly and in good faith, it also guarantees that no action can be taken against him or her as a result of the use of this mechanism.

In addition to the Group's whistleblowing mechanism, and depending on their potential impacts on the environment and local residents, some sites have also set up dedicated systems to receive and respond to concerns, questions or complaints from local residents. These site-level mechanisms ensure the local management of complaints, whose receipt, processing and resolution procedures are adapted to the cultural context of the entity and the nature of the impacts that may affect local residents. To complement existing systems and harmonise practices across the Group, the Group Standard for Responsible Project Management, currently under development, includes criteria for setting up these local complaint management mechanisms.

VII. Report on the effective implementation of the Vigilance Plan

The purpose of this publication is to comply with the obligations of Law No. 2017-399 of 27 March 2017 on the duty of vigilance of parent companies and contracting companies relating to the publication of the report on the effective implementation of the plan published in 2017 and reproduced above.

The risk assessment work used by Eramet to formalize its Non-Financial Performance Statement has provided the Group with a very precise view of the challenges it faces. The material risks for which the Group must annually present risk control policies and measures and their results include violations relating to the environment, human health and safety, human rights and fundamental freedoms, for the Group and its supply chain (see 6.1.2 CSR risk assessment).

The table below presents for each category of risks expected in the vigilance plan and the risks identified, the elements of the Non-Financial Performance Statement, published in the management report, making it possible to report on risk control actions and their results, supplementing or amending the information presented in the compliance plan above.

CROSS-REFERENCE TABLE VIGILANCE PLAN – NON-FINANCIAL PERFORMANCE STATEMENT

ITEMS VIGILANCE PLAN	RISKS IDENTIFIED	INTEGRATION WITH THE NON-FINANCIAL PERFORMANCE STATEMENT
Environment	Water consumption (industrial and mining sites)	6.2.4.3 Optimisation of water consumption 6.2.6.3 Water management
Environment	Emissions into water (industrial sites)	6.2.3.2 Aqueous waste 6.2.6.3 Water management
Environment	Atmospheric emissions (industrial sites)	6.2.3.1 Airborne emissions
Environment	Energy consumption/ greenhouse gas emissions (industrial sites)	6.2.5 Fight against climate change
Environment	Production of hazardous waste (industrial sites)	6.2.4.1 Optimisation of the consumption of primary raw materials 6.2.4.2 Waste prevention and recovery
Environment	Risks of historical soil pollution (industrial sites)	6.2.3.3 Rehabilitation/restoration of sites
Environment	Production of waste rock and tailings (mining sites)	6.2.6.2 Responsible resource recovery 6.2.6.4 Tailings and mine waste management
Environment	Impact on biodiversity (mining sites)	6.2.7 Preservation of biodiversity
Environment	Erosion (mining sites)	6.2.6.3 Water management 6.2.6.4 Tailings and mine waste management 6.2.6.5 Rehabilitation of mining sites
Health and Safety	Safety	6.3.2.1 Employee safety 6.3.2.1.1 Main safety issues and risks 6.3.2.1.2 Safety Governance 6.3.2.1.3 Risk prevention strategy 6.3.2.1.4 Safety Performance
Health and Safety	Health	6.3.2.2 Employee health 6.3.2.2.1 Main health issues and risks 6.3.2.2.2 Health Governance 6.3.2.2.3 Risk prevention strategy 6.3.2.2.4 Health Performance
Human rights and fundamental freedoms	Human rights in the workplace: Discrimination and harassment	6.3.2.4.4 Equal opportunities – measures to foster non-discrimination and diversity
Human rights and fundamental freedoms	Rights of communities bordering Group sites	6.3.3.1 Management of impacts on local communities 6.3.3.1.1 Organisation 6.3.3.1.2 Forms of dialogue with local communities 6.3.3.1.4 Management of specific risks
Risks for suppliers and subcontractors	Non-compliance with ILO conventions in the supply chain	6.4.2 Responsible value chain
Whistleblowing and reporting mechanism	N/A	6.4.1.4 Performance 6.3.3.1.2 Forms of dialogue with local communities

Glossary

Financial glossary

Consolidated performance indicators

The consolidated performance indicators used for the financial reporting of the Group's results and economic performance and presented in this document are restated data taken from the Group's reporting and monitored by the Executive Committee. In accordance with the accounting principles adopted for the Group's reporting, the operating performance of the joint ventures are accounted for under proportionate consolidation: the TiZir subgroup (Mineral Sands BU, Mining and Metals division) until 30 June 2018 and UKAD (High Performance Alloys division).

A reconciliation of Group turnover with the published data is presented in Chapter 3.

Turnover at constant scope and exchange rates

Turnover at constant scope and exchange rates corresponds to turnover adjusted for the impact of the changes in scope and the fluctuations in the exchange rate from one year to the next.

The scope effect is calculated as follows: for companies acquired during the financial year, by eliminating sales for the current period and for companies acquired during the previous period, by integrating, in the previous period, the full-year turnover; for the companies sold, by eliminating the turnover over the period considered and over the previous comparable period.

The exchange rate effect is calculated by applying the exchange rates of the previous year to the turnover for the year under review.

SLN's cash-cost

SLN's cash-cost is defined as all production and structural costs (R&D including exploration geology, administrative expenses, logistical and commercial expenses), net of by-products credits and local services, which cover all the stages of industrial development of the finished product until delivery to the end customer and which impact the EBITDA in the Company's financial statements, as divided by tons produced.

SLN's break-even cost

The break-even cost of SLN is defined as the cash cost of SLN as defined above, plus investments (projected investments for the current year compared to the projected tonnage for the current year) and financial expenses (recorded in SLN's corporate financial statements).

Financial Glossary consolidated financial statements

See Chapter 3.

Technical Glossary

The processes

Hot Isostatic Pressing (HIP)

A process for compacting stainless alloys, previously reduced to powder form, in an iron alloy capsule made to the shape of the desired part. Hot compression takes place in a closed chamber under a pressure of 1,000 bar and at a temperature of 1,000°C, without reaching the melting point of the alloy. This results in a finer grain than that which would be obtained by forging. The alloys used are extremely pure, which guarantees optimum resistance to corrosion and oxidation. In addition, Hot Isostatic Pressing (HIP) can provide mechanical properties without privileging a sense of orientation (isotropic properties) and thus allows complex shapes to be obtained and thickness to be optimised from the design. Another advantage of the HIP process is the possibility of producing bimetallic parts in two different grades without discontinuity or welding.

Ore enrichment

Based on sorting by particle size and density, this innovative technology used by Le Nickel-SLN increases ore grade in order to exploit a larger portion of the deposit and thus increase the life of the reserves.

Drawing

Drawing is a cold deformation process in which a rolled blank is passed through a die with a smaller cross-section and a shape appropriate to the profile and dimension to be obtained. This transformation takes advantage of the plasticity of steel and makes it possible to obtain rounds, hexagons, squares and flat products, as well as more complex shaped profiles.

Forging

Plastic deformation of the metal between two flat tools. Forging makes it possible to obtain parts with simple geometry.

HIP

See Hot Isostatic Pressing.

Hydrometallurgy

Reduction of metal oxides and metal oxide separation by chemical means (etching for solution, solvent extraction, electrolysis).

Rolling

Reduction in the thickness of an ingot, bar, sheet metal, etc., by passing it between the rotating rolls of a rolling mill.

Acid leaching

Exploitation of oxidised nickel ores (laterites) by acid solution.

Die-forging

Complex forming of a metal blank between two engraved tools, in a single stroke and at a slow speed.

Alloy metallurgy

- **Air metallurgy:** carried out in an arc furnace, the smelting is followed by a metallurgical treatment to add alloy metals, remove impurities and obtain the desired chemical analysis.
- **Vacuum metallurgy:** used for alloys with higher stresses (nitrogen content, oxygen reactive alloy elements, etc.), this melting process is carried out in VIM (Vacuum Induction Melting) type vacuum induction furnaces.
- **Remelting:** essential for certain critical parts intended for the aeronautics and energy sectors, this process makes it possible to better control segregation and inclusion morphology and to lower the gas content for a significant increase in properties and mechanical reliability.
- **Powder metallurgy:** The manufacture of high-grade alloys by pulverising a jet of liquid metal and then compacting the resulting powder under very high pressure and at high temperature.

PM HSS

A process for the manufacture of High Speed Steel (HSS), combining powder metallurgy with hot isostatic pressing, forging and drawing processes. It consists of placing the high speed steel powder produced by gas atomisation in a vacuum processed and welded capsule, then compacting by hot isostatic pressing, and transforming by forging, hot or cold rolling and drawing, in order to obtain bars, rings, blades and sheets.

Press

Industrial tool used for die-forging (definition above). Its power is measured in thousands of tons.

Pyrometallurgy

Reduction of metal oxides and metal-oxide separation by melting (blast furnace or electric furnace).

Products

High-speed steels

Highly wear-resistant steels, very hard under hot and cold conditions, mainly used in the manufacture of cutting tools (drills, taps, countersinks, saws, etc.) for metalworking.

Alloys

Metallic materials composed of different metals with particular properties for specific uses, such as resistance to wear or corrosion, mechanical resistance at high temperatures, etc.

Ferroalloys

Alloys containing iron and at least one other metal added to the liquid metal during the steel making process to adjust its composition according to the desired properties.

Manganese

Consumed as an alloy (ferromanganese, silicomanganese), this metal is used in the composition of steel in a proportion of 6% to 7% to improve its hardness, abrasion resistance, elasticity and surface condition during rolling. It is also used for deoxidation and desulphurisation during production. Other applications: chemistry, batteries, electronic circuits, fertilizers, hardener for aluminium, etc.

Nickel

An essential alloying element, this metal gives steels many properties that vary according to the grades: resistance to atmospheric corrosion in combination with chromium (stainless steel), high temperature resistance, ductility, mechanical strength, electrical resistivity, magnetic properties, etc. Nickel is infinitely recyclable.

Grades

Different qualities of steels obtained by varying the alloys of the metals used in their composition in order to obtain specific properties. Each grade is adapted to specific needs.

Long products

Semi-finished products of high-grade alloys intended for processing.

Superalloys

Alloys of several metals where nickel is generally predominant (nickel-based superalloys), with high mechanical strength at high temperature and corrosion resistance properties. Superalloys are used for the manufacture of parts for the aeronautics and space industry, energy production, the chemical industry and environmental protection.

Risk Management Glossary

Risk

"A risk is the threat that an event, action or lack of action could significantly affect:

- our ability to achieve our objectives and accomplish our missions;
- our ability to identify development opportunities in all areas related to our business;
- the main assets constituting the fundamentals of our business (tangible and intangible, financial, human, image, etc.);
- a critical process for the development of our activity;
- the Eramet Group's ability to respect its values, ethics and applicable laws and regulations."

Criticality (of a risk)

The criticality of a risk is the assessment of the level of severity of a risk weighted against the estimated probability of its occurrence. This criticality can be high, medium or low.

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