Eramet - Climate Change 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Eramet, a global mining and metallurgical group, is a key player in the extraction and valorisation of metals (manganese, nickel, mineral sands) and the elaboration and processing of alloys with a high added value (high-speed steels,

high-performance steels, superalloys, aluminium and titanium alloys).

The Group supports the energy transition by developing activities with high growth potential activities, including lithium and recycling.

Eramet positions itself as the privileged partner of its customers in sectors that include carbon and stainless steel, aerospace, pigments, energy, and new battery generations.

Building on its operating excellence, the quality of its investments and the expertise of its employees, the Group leverages an industrial, managerial and societal model that is virtuous and value-accretive. As a contributive corporate citizen, Eramet strives for a sustainable and responsible industry.

Eramet employs more than 13,000 people in 20 countries, with turnover of more than €3.5 billion in 2020.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

China
France
Gabon
India
New Caledonia
Norway
Senegal
Sweden
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-MM0.7

(C-MM0.7) Which part of the metals and mining value chain does your organization operate in?

Row 1

Mining

Nickel

Other non-ferrous metal mining, please specify (Manganese, Mineral sands)

Processing metals

Nickel

Other ferrous metals, please specify (high performance steel, high purity pig iron)

Other non-ferrous metals, please specify (Manganese, Titanium dioxide, Superalloys, Titanium alloys, Aluminium alloys)

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The climate strategy is annually reviewed and managed by the CEO and the Executive Committee. In 2020, the new climate roadmap and SBT objectives have been approved Eramet's CEO.
Other, please specify (CSR and Strategy Committee)	This board-level committee is composed of 10 Directors. One of the main subjects managed in 2020 was the definition of the renewed climate roadmap and SBT objectives. It has been reviewed by the Committee and approved by Eramet's CEO and the board.
Other, please specify (Audit, Risks and Ethics Committee)	This board-level committee is composed of 6 Directors. The climate issue is integrated into Eramet's risk long-term mapping and therefore in risk management. The climate related risks have also been integrated into the risk mapping of Eramet's Divisions. In 2020 the Committee decided to conduct a study to better identify Eramet's physical climate risks and since this has been achieved the Risk division is currently working with a consulting firm to develop a mitigation plan.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Setting performance objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The climate strategy is regularly reviewed and managed by the CEO. Eramet's climate targets and trajectory defined in the framework of SBT were approved by the CEO and the Board in 2020.
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Setting performance objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The CSR and Strategy Committee gathered 3 times in 2020. It has defined the new roadmap and objectives associated. The Committee is also in charge of the follow up and the review of Eramet's KPIs. One of the main topics addressed in 2020 was the definition of Eramet's Science Based Targets. The committee met several times to review and validate the roadmap. The explanation of the roadmap and the follow-up of the action plan is reported annually in Eramet's annual report in the CSR Engagement section.
Scheduled – some meetings	Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans	<Not Applicable>	The Audit, Risks and Ethics Committee ensures that climate topics are integrated into Eramet's risk mapping and therefore in the management of risks. The Audit, Risks and Ethics Committee is composed by 6 members. The Committee gathered 9 times in 2020 to review and follow the strategy to manage and mitigate the risks. The follow-up of the action plan and the actions that have been settled are reported annually in Eramet's annual report in the Risks section.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (CSR and Strategy Committee)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other, please specify (Executive Vice-President of the Strategy, member of the Group's Executive Committee)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Director of Communication and Sustainable Development)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Eramet's climate strategy is managed and reviewed at a strategic and operational level.

- The strategy is defined by the CSR & Strategy Committee composed of 10 Directors and validated by the CEO and the Board. The follow-up of the strategy and progress toward the targets that have been defined is made quarterly by the CSR Committee. The climate topic is also raised by the CEO and the Board when needed during the year (follow-up, approval, etc.).

- Operationally, the Energy and Climate Director is in charge of the implementation of the climate strategy. He reports to the Executive Vice-President of the Strategy who is a member of the Group's Executive Committee.

The 2 Group Energy & Climate coordinators, whose main tasks are to implement the initiative to reduce the energy footprint, the methodological contribution (one of the Group's coordinators 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 & climate 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, with 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.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Approximately 10% of the Executive Vice-President Strategy, Innovation and Investor Relations bonus is linked to climate-related targets. He is a member of the Group's Executive Committee. Moreover, 20% of the Energy and Climate Director Bonus is linked to climate-related targets.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Other C-Suite Officer	Monetary reward	Emissions reduction target	Approximately 10% of the Executive Vice-President Strategy, Innovation and Investor Relations bonus is linked to climate-related targets. He is a member of the Group's Executive Committee.
Other, please specify (Energy and Climate Director)	Monetary reward	Emissions reduction target	20% of the Energy and Climate Director Bonus is linked to climate-related targets.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	Given the nature of the Group's main activities (mining and metal processing), Eramet considers horizons to be "short term" if below 2 years, "medium term" if between 2 and 8 years, and "long term" when beyond 8 years.
Medium-term	2	8	Given the nature of the Group's main activities (mining and metal processing), Eramet considers horizons to be "short term" if below 2 years, "medium term" if between 2 and 8 years, and "long term" when beyond 8 years.
Long-term	8	15	Given the nature of the Group's main activities (mining and metal processing), Eramet considers horizons to be "short term" if below 2 years, "medium term" if between 2 and 8 years, and "long term" when beyond 8 years.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

From a financial perspective, Eramet calculates a financial reporting materiality threshold. This threshold is fixed at €20m. It is based on a percentage of our revenues, our net income and our equity and calculated each year with our financial auditors. A risk is considered as such if the potential financial impact on the company can reach €20m or more.

Regarding extra-financial criteria, Eramet calculates and reviews specific indicators such as the FR2 (Frequency rate) for safety. All of our indicators are disclosed in our annual report in the declaration of extra-financial performance section.

A climate-related significant risk such as the physical impacts of climate change has been added into the group risk analysis. The main risk factors to which the Group is exposed due to its business model and the activities it performs, are identified in the Group's 2019 risk map, which was presented to the Audit, Risks and Ethics Committee in December 2019 and is available on the Group 2019 Universal Registered Document (see Eramet Group website).

Eramet has conducted in 2021 a detailed study with a third party to analyse more precisely its physical and transitional risks linked to climate change. The Group used the OCARA methodology (Operational Climate Adaptation & Resilience Assessment) developed by the consulting firm Carbone 4. OCARA aims to create the benchmark for analysing the resilience of companies to the impacts of climate change. It allows companies to question their vulnerabilities, identify points of vigilance and then implement climate resilience actions.

Regarding Transitional risks the Group considers that a bad reputational event can also have a substantial impact on our business and our license to operate. 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.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term

Description of process
A global risk mapping is performed at Eramet group level every year. Today, a dedicated Climate-related risk section has been added. Eramet reviews the transition risks for each branch and each category of product. The Group also reviews the physical risks for each plant in all the countries where Eramet has activities. Physical risks review is based on OCARA method developed by Carbone 4. This consists of characterizing sensitivity to 8 selected climatic aspects of every infrastructure and process in Eramet, included logistics to provide strategic raw material and to deliver final product to main clients. Then these sensitivities are crossed with predictable variation of selected climatic aspects by 2050 considering RCP8.5 scenario. Following this assessment, a mitigation action plan is under development for sites identified as high level of risks. Eramet also follows the emerging regulation especially when related to carbon as our activities are carbon intensive.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
A specific climate-related risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Eramet performs a yearly review on climate issues with its business managers in order to identify potential climate-related risks that arise from day-to-day activities. For instance, as Eramet deals with extreme weathers in New Caledonia, we had to understand the potential impacts of more severe or more often cyclones and what measures should be taken to adapt. We are currently working with our insurance companies to better estimate the impact of potential future extreme weathers on our activities. Our infrastructures are nevertheless hurricane proof and we modified our ore supply chain to make sure the continuity of operation of our furnaces is granted.

Value chain stage(s) covered
Direct operations

Risk management process
A specific climate-related risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
European and Norwegian plants, representing approximately 25% of the Group's scopes 1 & 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. Eramet has an internal process to closely monitor the evolution of the carbon market. The Group is preparing for the potential emergence of higher carbon tax by experimenting with an internal price for its investment projects, and for the evaluation of its strategic options, on the basis of an internal price. This price of €30 per tonne of CO2 has been raised to €50 for current investments or €100 per tonne of CO2 for long term investments to reflect the carbon tax and quotas market recent developments worldwide. The provision is applicable to the investment projects developed in all the geographic areas where Eramet is present, including those where there is no carbon quota system. The consequence of this choice is to prioritise lower-carbon emitting technological solutions and contribute to improving the awareness of climate change with all Eramet employees.
For instance Eramet has implemented the internal price of CO2 for a solar farm and a battery project (12MW) in Senegal to produce renewable electricity instead of our fuel oil fired power plant. The profitability of the project is improved due to internal carbon price. This approach has been selected even if Senegal is not part of ETS system yet.

Value chain stage(s) covered
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term

Description of process
Eramet performs a yearly review on climate issues with its business managers in order to identify potential climate opportunities that arise from day-to-day activities. This is especially the case when identifying our customers growing demand for low carbon products. Eramet needs to make sure its products may answer to this new emerging concern. Our carbon intensity target allows us to work toward product with lower carbon content.
Eramet's manganese activity through Norwegian, French and Gabonese (Complexe Métallurgique de Moanda) plants have one of the lowest emission factors in the entire manganese industry (about 1,4 tCO2/t in average for the sites of Eramet Norway, Dunkerque and Complexe Métallurgique de Moanda).

Value chain stage(s) covered
Downstream

Risk management process
A specific climate-related risk management process

Frequency of assessment
Every three years or more

Time horizon(s) covered
Medium-term
Long-term

Description of process
Scenario-based analyses is a powerful tool for managing this chapter of the strategic thinking and design. It entails a forward- looking review, projecting Eramet's current activity onto various possible worlds, in order to assess the consequences on business. This approach is efficient for building a comprehensive model of the complex changes and the interactions between them, which is helpful for defining the transformations caused by climate change.
The Group conducted this analysis first in 2018 in collaboration with a domain-specific expert consultant. The adopted approach ("by physical flows") is founded, for each scenario, on the physical reality of the activity, which the Group ensures is compatible with the maximum limit of 2°C increase in temperature. This analysis has been updated in 2020.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	In 2020, nearly half of the operational entities 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. European and Norwegian plants, representing approximately 25% of the Group's scopes 1 & 2 emissions, are subject to the European Union Emissions Trading Scheme (EU ETS). 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.
Emerging regulation	Relevant, always included	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 global market by experimenting with an internal price for its investment projects, the evaluation of its strategic options, on the basis of 50 EUR per tonne of CO2 (EUA price was very close to €30/tonne during summer 2019). This internal price of carbon has been raised at €50/tonne in 2020 to better take into account the potential financial impacts of the emerging regulation and to reorient our current investments towards low carbon projects and initiatives. This value reflects a belief that markets are moving towards a long-term price that is significantly higher than the European regional spot price as at the end of 2020. 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's employees.
Technology	Relevant, always included	Transition risk arises from a variety of technological and market responses to the challenges posed by climate change and the transition to a lower carbon economy; these are often interconnected with the policy and regulatory risks discussed separately, with more ambitious emissions reduction targets or GHG regulations likely to accelerate the adoption of lower emissions technologies. The substitution of existing technologies with lower emissions options, particularly in the electricity and transport sectors, has the potential to reduce demand for fossil fuel products. The development of low emissions technologies also presents an enormous opportunity for ERAMET. Our metal alloys, products have application in a variety of low emissions products in energy generation and transport, for example electric vehicles, energy storage, which are likely to see tremendous growth driven by technology developments. Likewise, lithium and nickel are critical raw materials for batteries, with battery producers expected to match electric vehicle growth rates. Carbon Capture and Storage (CCS) is another key technology that offers future opportunities for ERAMET as it has the potential to play a pivotal role in decarbonizing industrial processes such as Manganese and Alloys production. Technology developments also have the potential to impact our operations, with the potential requirement for increased capital expenditure or investment in research and development into low emissions technologies. The deployment of low emissions technologies at our operations also presents opportunities to reduce costs and improve productivity. For example, deploying electric vehicles at our sites has the potential to lower operating costs, as well as to reduce worker exposure to diesel particulate matter.
Legal	Relevant, always included	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. For example, to avoid communication-related litigation risks, we need to demonstrate how climate change has been taken into account and embarked in our activities.
Market	Relevant, always included	Eramet aims to take into account the impacts of climate change in its strategic roadmap. 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 CO2 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 and this assessment has been updated in 2020. These scenarios highlight, for example, the criticality of certain metals produced by the Group and their unique role for the energy transition, which helped to guide the Group's strategy, namely lithium and nickel (often associated with cobalt). The risk is to not having secured the metal sources to meet the growing demand.
Reputation	Relevant, always included	Producing critical metals needed for energy transition is a source of pride for employees, as well as a significantly positive branding for the company. Frequent publications are released on the market for such purpose. There is a risk of association of Eramet's high carbon-emission energy-intensive activities with climate change. We have performed a benchmark of the carbon content of our products to demonstrate our efforts and results on this topic.
Acute physical	Relevant, always included	We review the physical risks for each plant in all the countries where Eramet has activities. Physical risks review is based on OCARA method developed by Carbone 4. This involves characterizing sensitivity to 8 selected climatic aspects of every infrastructure and process in Eramet, included logistics to provide strategic raw material and to deliver final product to main clients. The following risks have been identified: • heatwaves; • intense rainfall; • drought; • strong winds and storms.
Chronic physical	Relevant, always included	Risks related to the physical impacts of climate change are also analysed considering continuous and progressive changes. Specifically through: • rising sea levels; • gradual increase in rainfall; • gradual decrease in rainfall; • gradual increase in temperature. Climate changes are defined taking into account a RCP8.5 high-emission trajectory and forecasted situation in 2050. Every operation site, plant or office of Eramet is screened in that process. The Group used the OCARA methodology (Operational Climate Adaptation & Resilience Assessment) developed by the consulting firm Carbone 4. OCARA aims to create the benchmark for analysing the resilience of companies to the impacts of climate change physical risks. It allows companies to question their vulnerabilities, identify points of vigilance and then implement climate resilience actions. Eramet is conscious of the particularly close horizon of these phenomena, some of which are already visible. The Group has decided to consequently adapt its risk analysis to explicitly include these direct impacts of climate modifications on its activity as from 2020.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
In 2021 we have conducted a study with the OCARA methodology to better assess the physical risks of our metals and mining sites.
We have identified the following materials impacts that some Eramet's sites could face in the coming years considering climate changes:
- Repeated occurrences of large wildfires and pandemics;
- Competition for access to water;
- Electricity blackout, interruption of communication networks;
- Limitation in ability to import or export critical goods;
- Stock losses and lasting loss of supply;
- Landslide causing inaccessibility or even partial or complete destruction of buildings;
- Decommissioning or destruction of machinery;
- Limitation of our ability for vegetation recovery.
Risks are considered higher for our plants compared to our mining operations. Northern Europe, United states and Indonesia are the regions where impacts are estimated at a highest level.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
30000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We estimate that the increased severity and frequency of cyclones may impact around 10% of our mining production in New Caledonia, which approximately equates to €30m of EBITDA as it affects the ore business in the first instance.

Cost of response to risk
13000000

Description of response and explanation of cost calculation
A process is in place to mitigate the impact of cyclones: the power of the furnaces of the pyro metallurgical plant (in Doniambo, New Caledonia) is minimised when a cyclone approaches and a section of the oil-fired power plant supplying the furnaces is isolated. To ensure the continuity of the plant, we have increased the stock of safety fuel oil (25kt) and also increased the nickel ore stockpile target (150 kt) to ensure continuity of furnace load.
The cost of response to risk corresponds to the total value of the additional fuel oil and ore stock (based on its market value):
fuel oil stock: 25kt* $300/mt 0.89 EUR/USD = €6.7m
ore stock : 150 kt* 5000 XPF/mt * 0.0083 EUR/ xpf = €6.2m,
equals a total of 13 M€

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
75% of our "High performance Alloys" division is currently dedicated to the Aerospace industry. Along with the growing concern of the world population, as well as the long-term consequences of the pandemic, the forecasted growth of the airline industry may be strongly reduced ("flygskam" or "flight shame" effect). Already before the pandemic, and according to a 2019 UBS study (Consumers' climate awareness on the rise; assessing the impact on traffic and planes demand): in 2018, 21% of users have already reduced their air travel for environmental reasons and the growth forecasted for air transport could be halved. In 2020, the turnover of the "High performance Alloys" division have decreased by 24% compared with 2019. Thus, aircraft manufacturers production rates are severely impacting our "High performance Alloys" division revenues.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
49000000

Potential financial impact figure – maximum (currency)
244000000

Explanation of financial impact figure
By estimating that the aerospace market (mostly aircraft manufacturers) would be reduce between 10% and 40%, that our "High performance Alloys" division revenues are approx. 75% dedicated to the aerospace sector and that the current turnover is around €650m m, we estimate a potential turnover loss from (10% *75% *€650m) €49m to (40% *75% * €650m) 244 €m (figures have been rounded to the closest €m).

Cost of response to risk
6000000

Description of response and explanation of cost calculation
A restructuring plan has been implemented in 2020 to face the lower market demand for this Division. In line with the Group strategy, a divestment of this Division is currently considered as well as a development of the mining and metallurgical activities not to lose a share of our turnover. At this stage the €6m corresponds to the R&D and marketing budget required to expand our market to other divisions, excluding cost of redundancy plan or any mitigation at the level of the division.

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The increasing scope and level of carbon taxation may affect the cost of our products from Norwegian and French plants subject to the ETS. In Europe, the price of CO2 allowances fluctuated in a range of €16/tCO2 to €35/tCO2. The EU ETS in 2020 revealed a level of carbon price not seen for nearly a decade. The year 2021 even started with a carbon price of over €40, with peaks above 50€. From 2019, new carbon taxes have been put in place in South Africa, where we buy manganese ore, and in Argentina, where we have a lithium mining project.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
13333333

Potential financial impact figure – maximum (currency)
20000000

Explanation of financial impact figure
The explanation is based on the projection in 2030 of CO2 emissions and free allocation of allowances for Norwegian and French plants subject to The ETS and with a CO2 price of €50/MT (internal CO2 price). The additional cost compared to today is estimated between m€13-20m. Eramet does not disclose its free allocation allowances figures.

Cost of response to risk
1000000

Description of response and explanation of cost calculation
We have a 2023 and a new 2035 CO2 emission reduction target. We also use an internal CO2 price to direct our investments towards less carbonated solutions. We are starting to integrate life cycle analyses in the upstream phase of our projects.
The above figure only represents the cost of:
- the ISO50001 2019 certification (action with short-term impact) related to our CO2 emission reduction target (through energy consumption reduction) (€150-250 K)
- and the current annual R&D budget on decarbonation topics (€750-850 K).

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
CENTENARIO PROJECT: ERAMET LITHIUM PROJECT LOCATED IN ARGENTINA

Eramet has defined part of its development strategy on the metals involved in the transition to a climate neutral economy, mainly lithium, nickel salts and cobalt salts. The development of batteries will lead to a very strong growth in demand for certain critical metals. For instance, the demand for lithium is expected to increase 3-fold by 2025, for pure nickel salts twofold and for cobalt twofold.

It is clear that securing access to critical metal resources will be a key challenge for all European players involved in the battery manufacturing supply chain. For Eramet, access to these critical natural resources is a structural competitive advantage. Eramet is the only European player to have secured significant resources of critical metals in this fast-growing market and has positioned itself as a key supplier, particularly via the Eramet deposit in Argentina. In the current context of the coronavirus pandemic, and given the many uncertainties currently weighing on the world economy and our markets, we have decided to mothball the construction of our lithium production plant in Argentina ; nevertheless, Eramet has constructed and operated a pilot plant which has been operating for the last 18 months demonstrating the relevance of the innovative process specifically developed.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
200000000

Potential financial impact figure – maximum (currency)
360000000

Explanation of financial impact figure
According to the business plan of the project, the expected turnover for lithium development is in the range of €200m to €360m additional. Additional turnover varies according to metal price deck. Target is to produce in a first stage 24 000 tonnes/year of lithium.

Cost to realize opportunity
500000000

Strategy to realize opportunity and explanation of cost calculation
The CAPEX of the project was estimated in 2019 at €500m. After obtaining the concession and mining rights in 2014, the exploitation license was granted in 2019 following the approval of the Environmental and Societal Impact Study. The extraction process developed by Eramet (specific patent) achieves a yield of 90% with a treatment time of a few days. In comparison, the conventional process, by evaporation, offers a yield of less than 50% in eighteen months. All efforts have also been made to minimise in particular the consumption of fresh water from the process, by maximizing the recycling rate of the water, which now reaches more than 60%.

Comment
In the current context of the Coronavirus pandemic and considering the many uncertainties that currently weigh on the global economy and our markets, we have decided to postpone the construction of our lithium production plant in Argentina. Since the discovery of this world-class deposit to the success of the pilot plant, our teams in Argentina and in France did remarkable work, being actively supported by authorities and local communities, and the project was fully in line with expectations. This ore deposit, which is one of the most competitive in the lithium industry with the process developed by Eramet teams, remains a high-potential asset in our portfolio. All measures will be taken, in particular towards local communities and suppliers, in order to allow a follow up and a restart in the best conditions when it will be possible. Nevertheless, Eramet has constructed and operated a pilot plant which has been operating for the last 18 months demonstrating the relevance of the innovative process specifically developed.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of recycling

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
LI-ION BATTERY RECYCLING PROJECT: RELIEVE PROJECT

Securing access to critical metal resources will be a key challenge for all European players involved in the battery manufacturing supply chain. It can be either from primary raw material or through secondary materials originating from li-ion battery recycling.

Eramet's strategy is to be able to deliver these critical materials from primary sources as well as from recycled li-ion batteries, in close loop, applying the principles of circular economy.

It is the purpose of the ReLieVe project (which stands for Recycling of Li-ion batteries for Electric Vehicles), which is a collaborative research and innovation project whose goal is to develop an innovative process for recycling lithium-ion batteries used in electric vehicles. The idea is also to produce these new batteries in Europe and to build an industrial sector integrated from end to end—from the collection and dismantlement of the batteries at the end of their useful life, to the recycling of their components, directly to the production of new electrode materials.

ReLieVe is developing a large-scale version of an innovative, "closed-loop" process for recycling lithium-ion batteries. In contrast to more conventional processes, this one will recycle metals while retaining their physical and chemical qualities, so that they may be directly re-used in the design of a new lithium-ion battery cathode.

From an environmental perspective, the challenge is two-fold: first, to develop a process that has the smallest possible environmental impact—and carbon impact, in particular—and second, to maximise the number of lithium-ion components that can be recycled.

Time horizon
Long-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
40000000

Potential financial impact figure – maximum (currency)
200000000

Explanation of financial impact figure
We are at an early stage of the project, with laboratory tests and R&D ongoing. Assessing financial impact of such activity would be done precisely in the next step of the project.

The estimate provided is thus very preliminary by nature. It takes into account:
- The long time-to-market of such project (~ 10 years) which is related to the long life-time of batteries placed on the market. Such batteries can only be recovered and recycled after their normal operational life time. Therefore the recycling market will only pick-up in 5 to 10 years' time.
- Assumptions made on metal prices for Lithium, Nickel, Cobalt, which is very difficult to firm-up for a potential start of operations in 5 to 10 years' time; (Ni at ~$7/lb and Co at ~$20/lb).
- An average plant capacity corresponding to a market share of 10% to 20% of the European li-ion battery recycling market by 2030 (the size of the plant could be between 10 kt/year and 50 kt/year).
- Assumptions made on metal recoveries, which are complicated to firm-up at this early stage of the R&D of the processes involved, typically in the range of 80% to 95% depending on metals and process choices.

Cost to realize opportunity
4700000

Strategy to realize opportunity and explanation of cost calculation
ReLieVe began in January 2020 and will conclude in December 2021. With a budget of €4.7 million, the project was spearheaded by a consortium of five partners, including three industry players that collectively cover the entire battery value chain. This makes for an efficient and integrated approach, as each company is a leader in its respective industry and ideally positioned along this value chain:
- SUEZ, for the collection and dismantlement of the batteries at the end of their useful life
- Eramet, for the development of the recycling process
- BASF, for the production of the active cathode materials
The project also enjoys the support of research teams from Chimie ParisTech and the Norwegian University of Science and Technology.
With such budget, the project will be able by end-2021 to deliver a scoping study and a preferred/optimised recycling process. The evaluation of the impact is assessed for an eventual increase of Turnover which could be estimated at this preliminary stage between 40 and 200 m€. The amount of capex and preliminary studies needed is to be determined and is not at this stage included in the calculation of the cost to realize the opportunity. The latter only refers to the ongoing “ReLieVe” R&D costs.

Comment
Further feasibility studies and construction costs would be needed after this phase to fully realise the opportunity. The level of investment required to implement such

studies and construction capex for such plant would be ranging from €50m to €100m depending on plant size, location and final process decisions. The €4,700,000 indicated above is for R&D only.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
MnO PROJECT: Production of manganese ore (MnO) addressing various markets including the battery market

Eramet has defined part of its development strategy on the metals involved in the transition to a climate neutral economy, mainly lithium, nickel salts and cobalt salts. The development of batteries will lead to robust growth in demand for certain critical metals. For instance, demand for lithium is expected to increase threefold by 2025, for pure nickel salts twofold and for cobalt twofold.

It is clear that securing access to critical metal resources will be a key challenge for all European players involved in the battery manufacturing supply chain. For Eramet, access to these natural resources is a structural competitive advantage. Eramet is the only European player to have secured significant resources of critical metals in this fast-growing market, particularly via its affiliate, COMILOG, located in Gabon, a leading player in manganese ore production and transformation.

The MnO project would use existing facilities in Gabon from COMILOG. Such plants would be adapted to be able to produce approximately ~ 20 kt MnO per year, addressing various markets including the growing battery market.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
10000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
This preliminary estimate of the financial impact is based on a preliminary review of various end-user markets accessible for this product, including the battery market. Based on an average price of approx. €500/t CIF, and a target capacity of 20 kt MnO per year, the financial impact was calculated as a preliminary estimate, consisting of the targeted turnover.

Cost to realize opportunity
2000000

Strategy to realize opportunity and explanation of cost calculation
The existing facilities in Gabon would need to be modified in order to enable new product to be packaged and export to our customers.

Comment
If an investment decision was made on this project, CAPEX for the actual construction of the project would need to be added to the $1m required for feasibility studies.

Identifier
Opp4

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Markets

Primary climate-related opportunity driver
Use of public-sector incentives

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Most of Eramet manganese plants are located in countries with very low carbon electricity mix (Norway, France, Gabon). In a world where a high carbon price would be applied in every country, Eramet's production cost would be less impacted than competitors and its products would become more competitive. This would result in a strong competitive advantage, even if no being perceived by the market yet.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
133100000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Eramet's manganese activity through Norwegian, French and Gabonese (Complexe Métallurgique de Moanda) plants have one of the lowest emission factors in the entire manganese industry (about 1,4 tCO2/t in average for the sites of Eramet Norway, Dunkerque and Complexe Métallurgique de Moanda).
A benchmark led by Alloy Consult established that, for the alloys production mix of Eramet, the average emission factor of the market would be about 4,85 tCO2/t.
If the carbon price were to be 100€/t worldwide, the competitive advantage for Eramet sites would be (4,85-1,40) * 100 = 345€/t.
If we take the 2020 production of the low-carbon footprint sites of the Fe and Si manganese of Eramet, about 600kt/year, the competitive advantage would be 600kt * 345 €/t = 207M€.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
60% of Eramet's manganese plants are located in France and Norway which have a very low carbon electricity mix. Therefore, Eramet's manganese products have already a very low carbon footprint compared to its competitors. Thus, there is no additional cost to realise this opportunity.
Eramet also set internal carbon prices (€50 for investments where the payback period of less than 5 years, and €100 for all other cases) to assess all its projects (meaning that all new projects need to take into account this carbon price for the approval process) and prevent itself from higher operating expenses (Opex) in the future. These internal carbon prices also calculate future Opex linked to a future carbon tax which Eramet will have to pay.
Moreover, Eramet is also working on analysing the physical risks due to climate change it will have to face in the future (through the OCARA methodology of Carbone 4 to assess the impact of the main climate change physical hazards and its impact on Eramet's activities), which will produce a qualitative assessment of the financial impact that climate change might have for Eramet.
Lastly, Eramet is working on projects to recycle batteries, a geothermal project in France to produce low carbon lithium (a critical mineral for the energy transition). These projects are to generate financial income in the future for Eramet.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	Yes	The low carbon transition plan is reviewed 3 times a year (roadmap + objectives) by the CSR & Strategy Committee, the CEO and the Board. This embeds an analysis by scenario, and an assessment on the future demand for critical minerals of the energy transition (manganese, nickel, cobalt, lithium etc.).

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
IEA B2DS Other, please specify (IEA 2°C scenario with CO2 capture/storage (CCS — Carbon Capture Storage))	Eramet worked on several climate-related scenarios to build its low carbon trajectory that is Science-Based Targets: - The absolute potential looked at all emissions reductions levers activated (when there is a choice, the ones that reduce more CO2e have been preferred) - The technical potential looked at what is technically feasible - The actionable potential took into account the economic constraints. This is the scenario that has been selected by Eramet to build its decarbonation roadmap. The main levers identified include: - using bio- reducers in ore process reduction: the issue of this action is the ability to access sustainably managed bio- reducers compatible with the constraints of our processes (mechanical strength, polluting elements); - replacing heavy fuel oil by gas for the production of electricity - the development of CCS in partnership with other players: the cost of these solutions is an obstacle. Therefore, the ambition is to develop a pilot and identify the least capital-intensive technologies; - the establishment of renewable electricity purchases and production coupled with the electrification of mines: at the same time as developing technical solutions, the successful implementation of this lever is based on a radical change of culture (electric mining trucks for example) which requires long-term support; - developing the pre reduction of hydrogen ore alongside bio-reducers. This roadmap will impact the company business models and will have an influence in terms of Capex and Opex. Eramet also plans to tackle the lithium market, as lithium is a critical mineral for the battery industry and its demand will grow a lot according to all decarbonisation scenarios (still in the process of being validated).

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	As an emissive industry on one hand but also a contributor to the development of low-carbon technologies on the other, Eramet's alignment with the transition to a decarbonated economy carries as many risks as opportunities for its business. Scenario-based analyses is a powerful tool for managing this chapter of the strategic reflection. It entails a forward- looking review, projecting Eramet's current activity onto various possible worlds, in order to assess the consequences on business. This approach is efficient for building a comprehensive model of the complex changes and the interactions between them, which is helpful for defining the transformations caused by climate change. The Group conducted this analysis in 2018 in collaboration with a domain-specific expert consultant. An update was made in 2020. As a result, Eramet's activity is necessary for the development of low carbon technologies and essential for developing and creating responsible metal sectors involving all critical energy transition stakeholders. Outlook for the demand for metals produced by Eramet is favourable by 2030 in the IEA's 2°C scenario. Thus, Eramet needs to access to these natural resources as it is a structural competitive advantage. Eramet is the only European player to have secured significant resources of critical metals in this fast-growing market and has positioning itself as a key supplier, particularly via: - the Eramet lithium deposit in Argentina (even in on hold in 2020) - the diversification of Weda Bay (Indonesia) towards products for EV batteries - Li-on batteries recycling R&D program
Supply chain and/or value chain	Yes	We have an internal price of carbon fixed at €100/tonne of CO2 to select our long-term investments into low carbon technologies and projects. We are currently developing several projects to drive the transition such as providing raw materials for the electric mobility. Securing access to critical metal resources will be a key challenge for all European players involved in the battery manufacturing supply chain. It can be either from primary raw material or through secondary materials originating from li-ion battery recycling. Eramet's strategy is to be able to deliver these critical materials from primary sources as well as from recycled li-ion batteries for the next decades (2030 and beyond). It is the purpose of the ReLieVe project (which stands for Recycling of Li-ion batteries for Electric Vehicles), which is a collaborative research and innovation project whose goal is to develop an innovative process for recycling lithium-ion batteries used in electric vehicles in closed loop. The idea is also to produce these new batteries in Europe and to build an industrial sector integrated from end to end —from the collection and dismantlement of the batteries at the end of their useful life, to the direct recycling of their components into the production of new electrode materials. ReLieVe is developing a large-scale version of an innovative, "closed-loop" process for recycling lithium-ion batteries. In contrast to more conventional processes, this one will recycle metals while retaining their physical and chemical qualities, so that they may be directly re-used in the design of a new lithium-ion battery cathode. From an environmental perspective, the challenge is two-fold: first, to develop a process that has the smallest possible environmental impact—and carbon impact, in particular—and second, to maximise the number of lithium-ion components that can be recycled.
Investment in R&D	Yes	We have an internal price of carbon fixed at 100€/ton of CO2 to orient our long-term investments into low carbon technologies and projects. We are currently developing several projects to drive the transition such as providing raw materials for the electric mobility. Securing access to critical metal resources will be a key challenge for all European players involved in the battery manufacturing supply chain. It can be either from primary raw material or through secondary materials originating from li-ion battery recycling. Eramet's strategy is to be able to deliver these critical materials from primary sources as well as from recycled li-ion batteries for the next decades (2030 and beyond). It is the purpose of the ReLieVe project (which stands for Recycling of Li-ion batteries for Electric Vehicles), which is a collaborative research and innovation project whose goal is to develop an innovative process for recycling lithium-ion batteries used in electric vehicles. The idea is also to produce these new batteries in Europe and to build an industrial sector integrated from end to end—from the collection and dismantlement of the batteries at the end of their useful life, to the recycling of their components, to the production of new electrode materials. ReLieVe is developing a large-scale version of an innovative, "closed-loop" process for recycling lithium-ion batteries. In contrast to more conventional processes, this one will recycle metals while retaining their physical and chemical qualities, so that they may be re-used in the design of a new lithium-ion battery cathode. From an environmental perspective, the challenge is two-fold: first, to develop a process that has the smallest possible environmental impact—and carbon impact, in particular—and second, to maximize the number of lithium-ion components that can be recycled.
Operations	Yes	As an emissive industry, Eramet's alignment with the transition to a decarbonated economy by 2050 means it has to reduce its energy consumption and carbon emissions. Eramet continues to implement its Climate Change and Energy policies, both in conducting its operations and in developing its strategy. Eramet's answer to climate change is based on the following focus points: - the reduction of CO2 emissions on the 1 & 2 scopes : in 2020, we have raised our internal price of carbon for our current operations from €30/tonne of CO2 to €50/tonne for current investments or €100/tonne for long term investments to shift our operations toward low carbon projects. The aim is to make CO2 emissions on scopes 1 & 2 costly to encourage companies and investors to develop and deploy low-carbon solutions. In 2020, 25% of the Group's emissions were affected by a carbon valuation mechanism. Moreover, Eramet has set a SBT WB2C target and has committed to reduce its Scope 1+2 by 40% in 2035 from a 2019 base year. The main emissions reduction levers are: - the use of bio-reducers in ore reduction; - replacing heavy fuel oil by gas for the production of electricity; - the development of CCS in partnership with other players; - the establishment of renewable electricity purchases and production coupled with the electrification of mines; - the development the pre reduction of hydrogen ore alongside bio-reducers; Eramet strategy is to be "part of the solution" by providing unique solutions to customers (scope 3 emissions) to reduce their GHG emissions, by offering products and solutions that mainly contribute to reducing the carbon footprint. This is reflected in one of the three pillars of the Group's strategy: "to expand the portfolio of activities towards energy transition metals". To that end and through its SBT commitment, Eramet has set qualitative targets on 67% of its suppliers in terms of CO2e emissions to make them engage by setting SBT targets. Moreover, Eramet plans to help its customers reduce their CO2e emissions by transferring its low carbon know-how regarding pyrometallurgy in exchange of royalties. Moreover, the Group Energy & Climate Policy, which incorporates the principles of the ISO 50001 standard, is deployed by the Energy & Climate Department across all sites. At the end of 2020, 100% of the mining facilities have been certified with the ISO 14001 standard.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Acquisitions and divestments Assets	Our strategic planning is reviewed every year. We analyse Eramet's different businesses with a 10-year horizon timeframe. The strategic planning is then declined in an operational plan at each business unit level with a 5-year horizon and a financial planning is elaborated following the declination of the strategic plan for each business unit. We take into account our climate scenarios for the elaboration of the business units financial planning. Our climate scenarios showed that the energy transition will require the electrification of transportation. This electrification relies heavily on batteries, that will lead to a very strong growth in demand for certain critical metals by 2025 such as lithium (x3), pure nickel (x2) or cobalt (x2). On top of maintaining its strong position in nickel mines assets, Eramet enforsees to develop its lithium mines assets to anticipate the market growth and create additional revenues until 2030 and beyond. Thus, Eramet decided to secure its access to lithium through mines near Salta in Argentina - mining licence was granted in 2019 (project mothballed in 2020 due to Covid situation) and is working on a project in Alsace, France, to recover lithium from water stable in a geothermal source before this water will be used to generate electricity or heat. In addition, our R&D led to the development of a new process for producing battery-quality lithium carbonate. The extraction process developed by Eramet achieves an 90% yield over a processing period of just a few days. By comparison, the traditional evaporation process route delivers less than 50% yield in 18 months. Moreover in January 2020, Eramet announced a partnership with BASF and SUEZ to conduct a Li-ion batteries' recycling R&D programme (ReLieVe) : a large-scale version of an innovative, "closed-loop" process for recycling lithium-ion batteries, allowing to recycle metals while retaining their physical and chemical qualities, so that they may be re-used in the design of a new lithium-ion battery cathode. Finally, late 2020 Eramet announced a specific partnership with BASF to conduct the PFS (Prefeasibility study) of its nickel-cobalt deposit in Indonesia (owned in JV) in order to produce specific nickel and cobalt salts for electric vehicles batteries. Moreover, Eramet committed to a SBT target to reduce its Scope 1+2 CO2 emissions by 40% in 2035 compared to the 2019 base year, and to influence its suppliers to reduce decrease their CO2 emissions, which will have an impact on the financial planning of Eramet (Capex, Opex, risks analysis). The impact of the SBT roadmap has been integrated in the strategic plan of the Group through a dedicated chapter on decarbonation.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Year target was set
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2019

Covered emissions in base year (metric tons CO2e)
4071804

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2035

Targeted reduction from base year (%)
40

Covered emissions in target year (metric tons CO2e) [auto-calculated]

Covered emissions in reporting year (metric tons CO2e)
3682054

% of target achieved [auto-calculated]

Target status in reporting year
New

Is this a science-based target?
Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition
Well-below 2°C aligned

Please explain (including target coverage)
Eramet has developed a Science-Based Target that has been approved by SBT and that is compliant with the WB2C scenario (reduction of absolute CO2e emissions Scope 1+2 by 40% from a 2019 base year to a 2035 target year).
The main emissions reduction levers are:
- the development of CCS in partnership with other players: this is the action with the greatest impact in terms of CO2 savings, but the cost of these solutions is an obstacle. Therefore, the ambition is to develop a pilot and identify the least capital-intensive technologies;
- using bio-reducers in ore reduction: the issue of this action is the ability to access sustainably managed bio- reducers compatible with the constraints of our processes ;
- replacing heavy fuel oil by gas for the production of electricity
- the establishment of renewable electricity purchases and production coupled with the electrification of mines: at the same time as developing technical solutions, the successful implementation of this lever is based on a radical change of culture which requires long-term support;
- developing the pre reduction of hydrogen ore alongside bio-reducers.

Moreover, three decarbonation scenarios have been built:
- absolute potential => all levers have been put at their maximum level of activation without considering any other constraints
- technical potential => all levers have been put at their maximum level of activation while taking into account what is technically feasible
- actionable potential => all levers have been put at their maximum level of activation while taking into account both technical and economic constraints. this is this later scenario that has been used to build the decarbonation roadmap

This robust roadmap to reduce the carbon footprint of Eramet's activities includes the percentage of activation of the different emissions reduction levers, a timeline (2025, 2030, 2035) and the impact and activation of the levers are at the granularity of the site to be easily actionable and precise.

The efforts to reduce the carbon footprint of Eramet will not be the same for each business unit: Eramet will mainly focus on the processes that emit the bulk of Eramet emissions (manganese alloy and nickel alloy).

This roadmap has been included in a specific chapter of the annual strategy plan of Eramet.. The SBT roadmap is therefore at the core of Eramet's strategy.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2018

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (location-based)

Intensity metric
Other, please specify (Metric tons CO2 per Metric tons of outgoing product)

Base year
2018

Intensity figure in base year (metric tons CO2e per unit of activity)
0.44

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2023

Targeted reduction from base year (%)
26

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

% change anticipated in absolute Scope 1+2 emissions
-6

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.324973

% of target achieved [auto-calculated]

Target status in reporting year
Underway

Is this a science-based target?
No, but we are reporting another target that is science-based

Target ambition
<Not Applicable>

Please explain (including target coverage)
Targeted % reduction in carbon intensity of the Group's activities: Group target for 2023 vs. 2018 = -26% tCO2/t outgoing product.
The -25,4% archived end of 2020 result from the combination of:
• The impact of energy efficiency levers and decarbonisation of the energy consumed for around 2% tCO2/t outgoing product
• The 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 for around 23% tCO2/t outgoing product

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2020

Target coverage
Other, please specify (Sites with an energy consumption > 200GWh/year)

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency	Other, please specify (Quantity of sites certified ISO 50001 (Energy Management System) with an energy consumption > 200GWh/year)

Target denominator (intensity targets only)
<Not Applicable>

Base year
2018

Figure or percentage in base year
5

Target year
2020

Figure or percentage in target year
12

Figure or percentage in reporting year
8

% of target achieved [auto-calculated]

Target status in reporting year
Achieved

Is this target part of an emissions target?
Eramet is targeting to deploy the ISO 50 001 certification over its main energy and CO2 intensive activities.

In 2020, 13 sites are consuming more than 200GWh/year and those sites represent 91% of global Eramet's energy consumption.
SLN Power plant is one of those 13 sites but we have decided not certify it since we are in the process of replacing it by a new more efficient power generation mean.
By the end of 2020, 8 sites among targeted 12 sites have been certified: 80% of the energy consumed by these targeted 12 sites is now covered by the ISO 50001 certification.

By the end of 2021, 2 additional sites from this over-200GWh-sites will be certified, covering a global consumption of 98% of this panel.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
Eramet was not able to certify 4 sites included in the target (consumption > 200GWh/year) :
• TiZir Tyssedal due to the ongoing divestment process of the site in 2020,
• Grande Côte Operations (GCO) and Complexe Métallurgique de Moanda (CMM) due the Covid-19 crisis,
• Sandouville due to some internal delays,

However, in 2020, SLN's 5 mining sites, which are outside of the scope of the initial target, obtained the certification (SLN Thio, SLN Népoui, SLN Kouaoua, SLN Poum and SLN Tiébaghi).

Target reference number
Oth 2

Year target was set
2020

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Land use change	hectares restored

Target denominator (intensity targets only)
Other, please specify (Hectares deforested)

Base year
2019

Figure or percentage in base year
1.2

Target year
2023

Figure or percentage in target year
1

Figure or percentage in reporting year
1.03

% of target achieved [auto-calculated]

Target status in reporting year
New

Is this target part of an emissions target?
No, it is not part of an emissions target

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
In 2020, Eramet took the objective to preserve water resources and to accelerate the rehabilitation of the company's mining sites by promoting biodiversity. To pursue this objective, Eramet set the target of rehabilitating more surfaces than the ones which have been stripped between 2019 and 2023.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	341000
To be implemented*	2	24871
Implementation commenced*	5	28984
Implemented*	3	25000
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Transportation	Other, please specify (Transport infrastructure)

Estimated annual CO2e savings (metric tonnes CO2e)
1200

Scope(s)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
1900000

Payback period
No payback

Estimated lifetime of the initiative
21-30 years

Comment
The idea is to offer access to onshore electric power to cargo vessels – especially to Eramet Norway's transport partners – and thus to contribute to the reduction of carbon emissions, particle emissions and noise generated by port activities.
Eramet Norway received financial support from Enova – a company owned by the Norwegian government with the purpose of contributing to reduced greenhouse gas emissions, development of energy and climate technology and a strengthened security of supply – for its onshore power projects at the Group's Norwegian plants. This project encompasses the three manganese alloy sites in Porsgrunn, Kvinesdal and Sauda, as well as TTI in Tyssedal.

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Modification of the furnace load)

Estimated annual CO2e savings (metric tonnes CO2e)
11000

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
400000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
>30 years

Comment
Eramet has modified the furnace load of its plant located in Dunkerque to reduce CO2 emissions. The saving has been calculated as follow: 11 000 tCO2 * 35 €/tCO2 = 0,4 M€

Initiative category & Initiative type

Low-carbon energy generation	Other, please specify (Absorb surplus renewable energy generation)

Estimated annual CO2e savings (metric tonnes CO2e)
12800

Scope(s)
Scope 1

Voluntary/Mandatory
Mandatory

Annual monetary savings (unit currency – as specified in C0.4)
500000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
Ongoing

Comment
We have curtailed the production of our fuel oil-fired power plant located in New Caledonia in order to absorb the surplus of renewable energy produced on the network. This surplus of energy would have been otherwise lost. In 2020, 14 GWh of renewable electricity have been consumed from the grid, in substitution of electricity produced from our fuel oil power plant.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal price on carbon	For countries where a carbon valuation mechanism (tax or carbon quota market) is in place, the value of carbon tends to increase over time. Moreover, the development of such initiatives seems to become more widespread worldwide. In order to anticipate this trend, Eramet, has set an internal price for CO2. This price is set at €50/tonne of CO2 for current investments such as the replacement of equipment with an expected life < 10 year and €100/tonne for long-term investments such as: - Capacity increase - New activities/ greenfield facilities - Technological breakthrough, with or without a significant increase in capacity (e.g. hydrogen) - Renewal of equipment with an expected life of more than 10 year. It can be revised if necessary. For example, the CO2 internal price has been used for the Weda Bay PFS project, a state-of-the-art nickel and cobalt hydrometallurgical refining complex. Such a development includes a High-Pressure Acid Leaching (HPAL) plant which would produce materials for lithium-ion batteries in electric vehicles. The hydrometallurgy has been chosen against pyrometallurgy as this emits less CO2, hence smaller Opex when taking into account the carbon tax.
Compliance with regulatory requirements/standards	ERAMET conducts internal and external benchmarks (technologies, best practices)

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Group of products

Description of product/Group of products
Recycled metals (Fe, Mo, Ni, Cr, W, V, Co, or Ti).

Are these low-carbon product(s) or do they enable avoided emissions?
Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (From a Life Cycle Analysis standpoint, recycled metals have a lower carbon impact then new metals.)

% revenue from low carbon product(s) in the reporting year
1

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
Revenues are not split into this category, the provided figure is a gross estimate.

Carbon footprint methodology is used to assess the emissions linked with the production of non-recycled metals and recycled metals.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
3886331

Comment

Scope 2 (location-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
244477

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
Bilan Carbone
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
3667375

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
Purchases of very low carbon electricity :
Around 23% of the electricity purchased in 2020 was generated with little or no use of fossil fuels (Norway, Sweden, France, Gabon)

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
308102

Scope 2, market-based (if applicable)
14680

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1026284.396

Emissions calculation methodology
Eramet has a comprehensive spend dataset with purchased goods and services, as well as capital assets spend. Each spend has been split between purchased goods and services / capital goods / energy / business travel / upstream leased assets, and allocated between each business unit (pyrometallurgy manganese, pyrometallurgy nickel, mine, High Performance Alloy) to have a better data granularity. The emissions factors come from Quantis Scope 3 evaluator, and they are mainly monetary emissions factors. There are also some physical emissions factors coming from ADEME Base Carbone and a LCA database when possible, as physical emissions factors are more precise.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as this is the internal spend dataset from Eramet, with emissions factors coming from Quantis Scope 3 evaluator., ADEME Base Carbone and a LCA database

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
243014.976

Emissions calculation methodology
Eramet has a comprehensive spend dataset with purchased goods and services, as well as capital assets spend. Each spend has been split between purchased goods and services / capital goods / energy / business travel / upstream leased assets, and allocated between each business unit (pyrometallurgy manganese, pyrometallurgy nickel, mine, DAHP) to have a better data granularity. The emissions factors come from Quantis Scope 3 evaluator, and they are monetary emissions factors.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue change to the breakdown in 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as this is the internal spend dataset from Eramet, with emissions factors coming from Quantis Scope 3 evaluator.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Metric tonnes CO2e
586410.715

Emissions calculation methodology
Several cases exist in the calculation:
- Monetary emissions factors coming from Quantis Scope 3 evaluator for some data, as Eramet only had spent data coming from the spend dataset
- For the bulk of the category 3 CO2e emissions, physical data have been used because they provide more accurate results (MWh of electricity, tonnes of coke etc.). The emissions factors come from ADEME and IEA. A calculator has been built to compute the Scope 3 of electricity, which is the CO2e emissions to generate electricity except the combustion of fossil fuels and the electricity losses in the grid. To this end, the Scope 3 emissions factors per technology have been taken, and the electricity mix generation per country, to get the Scope 3 electricity emissions factor for each country where Eramet operates.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Eramet used its own data from internal data collection IT system Enablon, and emissions factors from ADEME and IEA, as well as the calculator developed for Scope 3 electricity emissions.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
334280.377

Emissions calculation methodology
Eramet has a comprehensive spend dataset with transportation data. Each spend has been split between purchased goods and services / capital goods / energy / business travel / upstream leased assets, and allocated between each business unit (pyrometallurgy manganese, pyrometallurgy nickel, mine, DAHP) to have a better data granularity. The emissions factors come mainly from ADEME Base Carbone for the physical ones (more precise), and some others come from Quantis Scope 3 evaluator, and they are monetary emissions factors.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as this is the internal spend dataset from Eramet, with emissions factors coming from ADEME Base Carbone and Quantis Scope 3 evaluator.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
245534.609

Emissions calculation methodology
Eramet reports its tonne of waste generated during processes. The waste has been split to match with ADEME and LCA database emissions factors. When the waste will be recycled, then an emissions factor of 0 tCO2e has been allocated.

Eramet's 2020 scope 3 CO2 emissions have been calculated from 2019, we applied the revenue change to the breakdown of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as this is the internal dataset from Eramet, with emissions factors coming from ADEME Base Carbone and a LCA database.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
26048.283

Emissions calculation methodology
Eramet has a comprehensive spend dataset with business travel data. Each spend has been split between purchased goods and services / capital goods / energy / business travel / upstream leased assets, and allocated between each business unit (pyrometallurgy manganese, pyrometallurgy nickel, mine, DAHP) to have a better data granularity. The emissions factors come from Quantis Scope 3 evaluator, and they are monetary emissions factors.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the change to the breakdown of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as this is the internal spend dataset from Eramet, with emissions factors coming from Quantis Scope 3 evaluator.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
17727.213

Emissions calculation methodology
Input from Quantis evaluator directly - select "Basic Metals and Fabricated Metal" for the industry type, then select a full year and > 10k employees
Assumption to simplify the calculation: equal distribution between the four business units of Eramet.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue change of the breakdown of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as Eramet only used the Quantis Scope 3 evaluator.

Upstream leased assets

Evaluation status
Relevant, calculated

Metric tonnes CO2e
2105.584

Emissions calculation methodology
Eramet has a comprehensive spend dataset with upstream leased assets data. Each spend has been split between purchased goods and services / capital goods / energy / business travel / upstream leased assets, and allocated between each business unit (pyrometallurgy manganese, pyrometallurgy nickel, mine, DAHP) to have a better data granularity. The emissions factors come from Quantis Scope 3 evaluator, and they are monetary emissions factors.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data come from supplier, as this is the internal spend dataset from Eramet, with emissions factors coming from Quantis Scope 3 evaluator.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The category 9 of the GHG Protocol "Downstream transportation and distribution" is not relevant for Eramet, as Eramet already reported all its Scope 3 transportation emissions in category 4 "Upstream transportation and distribution". All downstream transportation emissions paid are reported in category 4, and Eramet does not have sufficient data to compute its non-paid downstream transportation emissions.

Processing of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
6222955.098

Emissions calculation methodology
The boundaries used for Eramet for processing of sold products concern only the first transformation (pyrometallurgy or hydrometallurgy). The second transformation and after it are out of scope and not considered in the GHG inventory. The rational is that the bulk of the CO2e emissions arise at the first transformation when reducing the ore. The conversion of ore into metals consits of transforming the ore oxydes into metals which intrinsically generates CO2 in this fist conversion step. Moreover, it is very difficult for Eramet to get data for the second transformation as there are many different ones, and Eramet a plenty of clients. The tonnes of ore sold by Eramet to external clients is reported internally by Eramet, and the emissions factors used come from a LCA database.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data from value chain partners as difficult to get data from customers.

Use of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Eramet not concerned as there are no direct emissions associated to the use of the sold products of Eramet

End of life treatment of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
114708.714

Emissions calculation methodology
The emissions taken into account here are the ones concerning the waste generated during the first and second transformations when Eramet does not do it itself. End-of-life treatment of sold products for the end products is out of scope of Eramet as this is too far away from Eramet's activity, and data is too difficult to collect
The volume are the ones of the product sold by Eramet to customers. The emissions factors are computed as explained below:
- for each product sold by Eramet, what are the waste (in tonnes and per type of waste) that will be generated then during the first and second transformations
- Eramet then uses the emissions factors from ADEME and the LCA database on the waste
- Eramet multiplies the two data to get the end-of-life treatment of sold products CO2e emissions.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data from value chain partners as not available, but a small calculator has been built to estimate the CO2e emissions for this category.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Eramet not concerned.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Eramet not concerned.

Investments

Evaluation status
Relevant, calculated

Metric tonnes CO2e
371327.123

Emissions calculation methodology
Eramet has a joint-venture, WeDa Bay, and owns 39% of it. The equity share approach has been chosen. Therefore, the Scope 3 of Eramet category 15 is the Scope 1+2 of this joint-venture. The Scope 1+2 of Weda Bay has been computed, and thanks to this result the Scope 3 category 15 of Eramet has been computed.

Eramet's 2020 scope 3 CO2 emissions have been calculated from the 2019, we applied the revenue variation to the repartition of the 2019 scope 3 by using the rule of three.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
No data from value chain partners in the sense that Weda Bay is part of Eramet through the joint-venture contract

Other (upstream)

Evaluation status
Please select

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (downstream)

Evaluation status
Please select

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.00545683

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
3994150

Metric denominator
unit total revenue

Metric denominator: Unit total
731654000

Scope 2 figure used
Location-based

% change from previous year
13

Direction of change
Increased

Reason for change
The CO2 emissions related to Scope 1 + 2 have decreased compared to 2019 (-1,9%) but the annual revenue of the company also decreased because of the loss of activity due to the pandemic COVID-19.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
France	178058.051
Gabon	388993.16
Norway	931849.746
New Caledonia	1862745.796
United Kingdom of Great Britain and Northern Ireland	111
Senegal	113203.421
Sweden	1097.528
United States of America	190948.838
China	114.804
India	252.598

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division
By facility
By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Mines and metals division	3526871
High performances alloys division	140198

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
AD Firminy	9576	45.392253	4.281231
AD Imphy	1219	46.935086	3.257984
AD Issoire	2856	45.563695	3.252322
AD Les Ancizes	30522	45.926026	2.839456
AD Pamiers	16112	43.116515	1.607468
AD TAF	183	48.920413	2.31151
Brown Europe	31	44.949013	1.930021
ECOTITANIUM	156	45.918376	2.848571
Interforge	11875	45.558497	3.25228
Les forges de Montplaisir	166	45.715434	4.957805
UKAD	2515	45.921132	2.839171
Erasteel Boonton	51083	40.912765	-74.396739
Erasteel Champagnole	325	46.743936	5.915298
Erasteel Commentry	12006	46.287682	2.744858
Erasteel Långshyttan	438	60.452064	16.035988
Erasteel Söderfors	660	60.383369	17.243587
Erasteel Vikmanshyttan	0	60.298212	15.82785
Erasteel Stubs Warrington	111	53.380871	-2.58575
Comilog Dunkerque	86138	51.014155	2.169046
Comilog Gabon Moanda Industrial Complex	225030	-1.502145	13.273832
Comilog Gabon Mine Moanda	33243	-1.541007	13.237167
Complexe Métallurgique de Moanda	76144	-1.504619	13.275844
Port Minéralier Owendo	34637	0.291233	9.496397
ERAMET Marietta	139866	-81.515797	-81.522334
ERAMET Norway Kvinesdal	193640	58.278851	6.894714
ERAMET Norway Porsgrunn	164930	59.127216	9.623821
ERAMET Norway Sauda	292797	59.648422	6.361911
Setrag	19940	0.32375	9.501057
Grande-Côte Opérations	113203	14.717099	-17.485214
TTI Tyssedal	280482	60.118635	6.555183
ERAMET Sandouville	4075	49.473539	0.282432
SLN Centrale Thermique Doniambo	877693	-22.252645	166.446777
SLN Doniambo	936555	-22.252645	166.446777
SLN Mines Kouaoua	7218	-21.454258	165.763886
SLN Mines Nepoui Kopéto	13771	-21.222474	165.035692
SLN Mines Poum	4073	-20.246581	164.044204
SLN Mines Thio	10116	-21.617254	166.187773
SLN Mines Tiébaghi	13320	-20.468613	164.221923
ERAMET Research	306	48.767484	2.000559
AD Irun		43.324942	-1.825489
EIML	115	19.054494	72.892264
SQUAD	253	16.113933	74.524398

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Forged and Rolled Long Products	44733.6
Closed-Die Forging	30842.5
High-Speed Steels and Recycling	64621.7
Manganese	1266364.7
Mineral Sands	393685.8
Nickel	1866820.5
R&D	305.9

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	3667375	<Not Applicable>	
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
France	35543	4120	555331	145769
Gabon	3867	1229	9478	307368
Norway	3267	7634	363053	1908532
New Caledonia	22727	1696	44586	240083
United Kingdom of Great Britain and Northern Ireland	709	0	2884	0
Senegal	455	0	681	0
Sweden	1146	0	67439	0
United States of America	236842	0	380889	0
China	2388	0	3809	688627
India	1156	0	1593	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division
By facility
By activity

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Mines and metals division	286284	14680
High performances alloys division	21726	0

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
AD Firminy	541	0
AD Imphy	574	0
AD Issoire	1379	0
AD Les Ancizes	6475	0
AD Pamiers	2045	0
AD TAF	185	0
Brown Europe	296	0
ECOTITANIUM	228	0
Interforge	800	0
Les forges de Montplaisir	47	0
UKAD	786	0
Erasteel Boonton	148	0
Erasteel Champagnole	281	0
Erasteel Commentry	2519	0
Erasteel Långshyttan	415	0
Erasteel Söderfors	665	0
Erasteel Vikmanshyttan	67	0
Erasteel Stubs Warrington	709	0
Comilog Dunkerque	16510	0
Comilog Gabon Moanda Industrial Complex	0	132
Comilog Gabon Mine Moanda	0	198
Complexe Métallurgique de Moanda	0	899
Port Minéralier Owendo	1980	0
ERAMET Marietta	236694	0
ERAMET Norway Kvinesdal	0	3001
ERAMET Norway Porsgrunn	0	2096
ERAMET Norway Sauda	0	2537
Setrag	1887	0
Grande-Côte Opérations	455	0
TTI Tyssedal	3267	0
ERAMET Sandouville	2735	4120
SLN Centrale Thermique Doniambo	0	0
SLN Doniambo	541	1696
SLN Mines Kouaoua	3538	0
SLN Mines Nepoui Kopéto	9025	0
SLN Mines Poum	44	0
SLN Mines Thio	1319	0
SLN Mines Tiébaghi	8259	0
ERAMET Research	92	0
AD Irun		
EIML	2388	0
SQUAD	1156	

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Forged and Rolled Long Products	12967	0
Closed-Die Forging	4225	0
High-Speed Steels and Recycling	4804	0
Manganese	257071	8863.6
Mineral Sands	3722.6	0
Nickel	25489.8	5816.1
R&D	92.3	0

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	308102	14680	
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	18000	Decreased	0.44	Eramet conducted several actions to reduce its CO2 emissions in 2020. These initiatives have been supported by the ISO 50 001 certification deployment. As an example, some of the actions consist in : - Increasing the production process efficiency for manganese pyrometallurgy by changing the furnace load of its plant situated in Dunkerque; - Absorbing the surplus renewable energy produced on the network and not consumed, to reduce our non-renewable energy production in Doniambo's plant located in New-Caledonia - improving our energy efficiency by investing in for example conveyor belts with energy recovery, machine replacement, plant optimisation... these initiatives are detailed in question 4.3b. On top of these initiatives, the activity of the Group has been impacted by the Covid19 crisis, which lead globally to a lower production level than 2019.
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		
Change in output	78237	Decreased	1.92	Eramet's total CO2 emissions decreased between 2019 and 2020 because of the decrease of activity (-13%) linked to the sanitary crisis COVID-19.
Change in methodology	0	No change		
Change in boundary	0	No change		
Change in physical operating conditions	0	No change		
Unidentified	0	No change		
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 15% but less than or equal to 20%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	3990182.05	3990182.05
Consumption of purchased or acquired electricity	<Not Applicable>	2455983	1429801.95	3885784.95
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	145769	0	145769
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	2601752	5419984	8021736

C-MM8.2a

(C-MM8.2a) Report your organization's energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	LHV (lower heating value)	3990182.05
Consumption of purchased or acquired electricity	<Not Applicable>	3885784.95
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	145769
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0
Total energy consumption	<Not Applicable>	8021736

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
667264.78

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.266

Unit
kg CO2e per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Diesel for vehicules

Fuels (excluding feedstocks)
Propane Liquid

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1879.7

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
1879

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.23

Unit
kg CO2 per MWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Drying

Fuels (excluding feedstocks)
Fuel Oil Number 1

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
78045.13

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
78045.13

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.266

Unit

kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Heating fuel (domestic fuel oil)

Fuels (excluding feedstocks)
Hydrogen

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
223200.66

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
223200.66

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0

Unit
kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Process : Nitruration of steels

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
225460.28

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
225460.28

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.189

Unit
kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment

Fuels (excluding feedstocks)
Fuel Oil Number 2

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
3990182.05

MWh fuel consumed for self-generation of electricity
3990182.05

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.28

Unit
kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Heavy fuel

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
528510.95

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
528510.95

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.198

Unit
kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Mainly for steel heating process and heating of buildings

Fuels (excluding feedstocks)
Anthracite Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
649362.78

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.357

Unit
kg CO2 per KWh

Emissions factor source

Base carbone ADEME (ADEME carbon framework)

Comment
Process: reductant for carbo-reduction of ores

Fuels (excluding feedstocks)
Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1205500

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
1205500

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.346

Unit
kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment

Fuels (excluding feedstocks)
Coking Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1921292

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.346

Unit
kg CO2 per MWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Process : reductant for carbo-reduction of ores

Fuels (excluding feedstocks)
Coke

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
2265991.2

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.389

Unit
kg CO2 per KWh

Emissions factor source
Base carbone ADEME (ADEME carbon framework)

Comment
Process : reductant for carbo-reduction of ores

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Other, please specify (% sites with consumption >200GWh/year certified ISO 50001)

Metric value

Metric numerator
Number of sites certified (12)

Metric denominator (intensity metric only)
Sites with energy consumption > 200GWh/y (17)

% change from previous year
55.5

Direction of change
Increased

Please explain
Eramet is targeting to deploy the ISO 50 001 certification over its main energy and CO2 intensive activities.

In 2020, 13 sites are consuming more than 200GWh/year and those sites represent 91% of global Eramet's energy consumption.
SLN Power plant is one of those 13 sites but we have decided not certify it since we are in the process of replacing it by a new more efficient power mean.
By the end of 2020, 8 sites among targeted 12 sites have been certified: 80% of the energy consumed by these top targeted 12 sites is now covered by the ISO 50001 certification.

By the end of 2021, 2 additional sites from this over-200GWh-sites will be certified, covering a global consumption of 98% of this panel.

Description
Land use

Metric value
1

Metric numerator
Hectares restored

Metric denominator (intensity metric only)
Hectares deforested

% change from previous year

Direction of change
<Not Applicable>

Please explain
In 2020 Eramet took a new objective ratio on the mine rehabilitation surfaces / stripped surfaces > 1. In other words, Eramet aims to restore all the deforested area because of its mining activities, with a ratio above one to also take into account past deforested areas.
The timeframe of this objective is over the period 2019/2023 excluding long-term infrastructures.

C-MM9.3a

(C-MM9.3a) Provide details on the commodities relevant to the mining production activities of your organization.

Output product
Other non-ferrous metal mining (Please specify) (Manganese ore and sinter production)

Capacity, metric tons
43380000

Production, metric tons
5556048

Production, copper-equivalent units (metric tons)

Scope 1 emissions
258273

Scope 2 emissions
0

Scope 2 emissions approach
Location-based

Pricing methodology for copper-equivalent figure
Copper equivalent is not relevant for manganese ore and sinter production

Comment
Manganese ore and sinter production

Output product
Other non-ferrous metal mining (Please specify) (Mineral sands)

Capacity, metric tons
774000

Production, metric tons
616064

Production, copper-equivalent units (metric tons)

Scope 1 emissions
113203.421

Scope 2 emissions
455.156

Scope 2 emissions approach
Location-based

Pricing methodology for copper-equivalent figure
Copper equivalent is not relevant for mineral sands

Comment
Mineral sands

Output product
Nickel

Capacity, metric tons
6000000

Production, metric tons
3908400

Production, copper-equivalent units (metric tons)

Scope 1 emissions
48497.782

Scope 2 emissions
22185.324

Scope 2 emissions approach
Location-based

Pricing methodology for copper-equivalent figure
Copper equivalent is not relevant for nickel

Comment
Nickel

C-MM9.3b

(C-MM9.3b) Provide details on the commodities relevant to the metals production activities of your organization.

Output product
Nickel

Capacity (metric tons)
6000000

Production (metric tons)
54894

Annual production in copper-equivalent units (thousand tons)

Scope 1 emissions (metric tons CO2e)
940629

Scope 2 emissions (metric tons CO2e)
9121

Scope 2 emissions approach
Location-based

Pricing methodology for-copper equivalent figure
Copper equivalent is not relevant for nickel

Comment
Nickel is primarily used to make many special steels in the broadest sense (stainless steels, high performance 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 valued in chemical applications.

Output product
Other non-ferrous metals (Please specify) (Mineral sands)

Capacity (metric tons)
325000

Production (metric tons)
280325

Annual production in copper-equivalent units (thousand tons)

Scope 1 emissions (metric tons CO2e)
280482

Scope 2 emissions (metric tons CO2e)
3267

Scope 2 emissions approach
Location-based

Pricing methodology for-copper equivalent figure
Copper equivalent is not relevant for pig iron and titan dioxide

Comment
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). Mineral sand deposits are thus old beaches, dunes or riverbeds. 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 altered 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 Operations – GCO). Otherwise, more conventional mining methods (excavators and dumpers or bull 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, as it the case at the TiZir Titanium and Iron (TTI) plant in Norway, before being used mainly by pigment producers.

Output product
Other non-ferrous metals (Please specify) (Steel alloys)

Capacity (metric tons)

Production (metric tons)

Annual production in copper-equivalent units (thousand tons)

Scope 1 emissions (metric tons CO2e)

Scope 2 emissions (metric tons CO2e)

Scope 2 emissions approach
Location-based

Pricing methodology for-copper equivalent figure
We do not communicate about this segment production.

Comment
We do not communicate about this segment production. The High Performance Alloys Division develops its metallurgical business upstream of strategic industries including aeronautics, space, energy and defence. It operates through two main subsidiaries: Aubert & Duval and Erasteel, two renowned experts in the design, development, transformation and manufacture of cutting-edge metallurgical solutions.
This positioning is based on:
• a unique industrial set-up in France and Europe; the capacity to secure the supply of critical materials such as special steels, superalloys and titanium to French and European industries;
• an integrated offer, from developing the materials to transforming them into finished products;
• R&D management, an essential part of meeting future challenges in materials' design and transformation, combined with historic metallurgical know-how recognised worldwide.

Output product
Other non-ferrous metals (Please specify) (Manganese ore & alloys)

Capacity (metric tons)
4800000

Production (metric tons)
701349

Annual production in copper-equivalent units (thousand tons)

Scope 1 emissions (metric tons CO2e)
953515

Scope 2 emissions (metric tons CO2e)
253204

Scope 2 emissions approach
Location-based

Pricing methodology for-copper equivalent figure
copper equivalent is not relevant for manganese alloys

Comment
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 (pure manganese) 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. It is mainly used as an alloying element to improve hardness, abrasion resistance, elasticity and surface condition for rolling. As an alloy element, it cannot be replaced by other non-ferrous metals. It is also used for deoxidation and desulphurisation during production. Other applications :
• Batteries: mainly alkaline batteries. A less significant application is in saltwater 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).

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	The ReLieVe project (which stands for Recycling of Li-ion batteries for Electric Vehicles), which is a collaborative research and innovation project whose goal is to develop an innovative process for recycling lithium-ion batteries used in electric vehicles. The idea is also to produce these new batteries in Europe and to build an industrial sector integrated from end to end—from the collection and dismantlement of the batteries at the end of their useful life, to the direct recycling of their components, to the production of new electrode materials. ReLieVe is developing a large-scale version of an innovative, "closed-loop" process for recycling lithium-ion batteries. In contrast to more conventional processes, this one will recycle metals while retaining their physical and chemical qualities, so that they may be directly re-used in the design of a new lithium-ion battery cathode. From an environmental perspective, the challenge is two-fold: first, to develop a process that has the smallest possible environmental impact—and carbon impact, in particular—and second, to maximise the number of lithium-ion components that can be recycled. Late 2020, Eramet research center has produced the first grams of a zero carbon manganese metal, as a result of a visionary R&D program. This has entailed replacing the high carbon emissive step in pyrometallurgy by innovated techniques based on green hydrogen metallurgy. This has been a world premiere in manganese industry, as per our knowledge. In Norway, Eramet development teams have finalised the preliminary studies in order to set up a pilot unit on energy recovery at the outlet of a ferromanganese furnace. The pilote is due to be constructed in 2021.

C-MM9.6a

(C-MM9.6a) Provide details of your organization's investments in low-carbon R&D for metals and mining production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Other, please specify (Process and energy recovery)	Pilot demonstration	≤20%	260000	The main project here consists of producing electricity from furnace off-gas and use sensible heat from electricity production for metallurgical purposes.
Other, please specify (Non-fossil raw materials)	Applied research and development	≤20%	50000	Several cooperation projects with research institutes to develop biomass-based reductant well suited for Mn-alloy production. Bio carbon project: on going R&D with 2 partners regarding non fossil coke supply. The ambition is to test on a furnace in 2021

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Page/ section reference
6.6 REPORT BY THE STATUTORY AUDITOR, APPOINTED AS INDEPENDENT THIRD PARTY, ON THE CONOLIDATED NON-FINANCIAL STATEMENT - page 176 - 180

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
29

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Third party verification/assurance underway

Attach the statement
Rapport Final Interforge 2020-2021.pdf

Page/ section reference

Relevant standard
European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)
28

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

Page/ section reference
6.6 REPORT BY THE STATUTORY AUDITOR, APPOINTED AS INDEPENDENT THIRD PARTY, ON THE CONOLIDATED NON-FINANCIAL STATEMENT - page 176 - 180

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
29

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year change in emissions (Scope 1 and 2)	ISAE3000	In addition to limited assurance over our GHG emissions, the third party provided limited assurance regarding our : emission intensity, emissions from use and processing of ore and products, energy use.
C4. Targets and performance	Year on year emissions intensity figure	ISAE3000	All variations have been explained and checked by a third party.
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISAE3000 EU-ETS	In addition to limited assurance over our GHG emissions, the third party provided limited assurance regarding our : emission intensity, emission from use and processing ore and products, energy use.
C8. Energy	Other, please specify (Specific cost of energies split by plant and energy)	Non-financial performance statement EU-ETS	In addition to limited assurance over our GHG emissions, the third party provided limited assurance over our Sustainability Report which included : mission intensity, emissions from use and processing of ore and product, energy use.
C9. Additional metrics	Other, please specify (Energy use)	ISAE3000 EU-ETS	In addition to limited assurance over our GHG emissions, the third party provided limited assurance regarding our : emission intensity, emission from use and processing ore and products, energy use.
Please select	Other, please specify	ISAE3000	A third party has checked the identified risk and opportunities.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
EU ETS
France carbon tax

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS
23.49

% of Scope 2 emissions covered by the ETS
1.3

Period start date
January 1 2020

Period end date
December 31 2020

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e
0

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment
We set the data at zero because we do not communicate detail about our free quotas allocations under the ETS.

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

France carbon tax

Period start date
January 1 2020

Period end date
December 31 2020

% of total Scope 1 emissions covered by tax
100

Total cost of tax paid
10000

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

We recognise both the risks and opportunities posed by carbon pricing schemes and we continue to ensure that our strategy minimises the risks and maximises opportunities. We use an internal carbon pricing system to consider the impacts of climate change in our strategy. In our operations this mandatory shadow price is equal to 50 EUR and in our long-term investment evaluation process, this shadow price is of 100 EUR.

Our operations that participate in the EU ETS are required to maintain an accurate emission and energy inventory through consistent data gathering and emissions reporting; provide timely, accurate and detailed data books for internal and external verifier review; understand the regulator's perspective and maintain awareness of future scheme requirements through government interaction and legal compliance registers; identify, evaluate and implement all suitable projects to reduce GHG emissions.

To comply with the EU-ETS system, the ERAMET group is working to reduce its emissions and its energy consumption, notably by following a plan to obtain the ISO 50001 certification for all significant energy consuming sites. At the end of 2020, 100% of the mining facilities have been certified with the ISO 50001 standard.

Eramet has set a SBT WB2C target and a detailed roadmap to reduce its Scope 1+2 by 40% in 2035 from a 2019 base year. The main emissions reduction levers are:

- the development of CCS in partnership with other players: this is the action with the greatest impact in terms of CO2 savings, but the cost of these solutions is an obstacle. Therefore, the ambition is to develop a pilot and identify the least capital-intensive technologies;

- using bio-reducers in ore reduction: the issue of this action is the ability to access sustainably managed bio- reducers compatible with the constraints of our processes (mechanical strength, polluting elements);

- replacing heavy fuel oil by gas for the production of electricity;

- the establishment of renewable electricity purchases and production coupled with the electrification of mines: at the same time as developing technical solutions, the successful implementation of this lever is based on a radical change of culture (electric mining trucks for example) which requires long-term support;

- developing the pre reduction of hydrogen ore alongside bio-reducers.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price
Stakeholder expectations
Change internal behavior
Drive energy efficiency
Identify and seize low-carbon opportunities
Supplier engagement
Other, please specify (The Group is preparing for the potential emergence of such a CO2 coordinated market.)

GHG Scope
Scope 1
Scope 2

Application
The internal price is systematically applied for the following types of projects:
- Strategy scenarios evaluation
- Projects of modification of the production capacities (furnaces, mining engines, etc.)
-Logistics projects (locomotives, trucks, etc.)
- Projects that substantially change the way energy is used (savings, change of energy source...)

Actual price(s) used (Currency /metric ton)
50

Variance of price(s) used
No variance, same price at group level

Type of internal carbon price
Shadow price

Impact & implication
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 and the evaluation of its strategic options.

Eramet has revaluated its internal carbon price in 2021, from €30 the tonne of CO2 to €50 for the current investments such as the replacement of equipment with an expected life < 10 years to better anticipate the future carbon price that could be applicable. 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 2020. This internal carbon price will therefore penalise the most carbon-intensive solutions over the least carbon-intensive ones.

Objective for implementing an internal carbon price
Stakeholder expectations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope
Scope 1
Scope 2

Application
The internal price is systematically applied for the long term investments such as:
- Capacity increase
- New activities/ greenfield facilities
- Technological breakthrough, with or without a significant increase in capacity (e.g. hydrogen)
- Renewal of equipment with an expected life of more than 10 years
- Productivity (may include sub-categories that impact on productivity such as energy or digital transformation capex)
- Strategy scenarios evaluation

Actual price(s) used (Currency /metric ton)
100

Variance of price(s) used
No variance, same price at group level

Type of internal carbon price
Shadow price

Impact & implication
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 global market by applying an internal price for its investment projects on the basis of 100 EUR per tonne of CO2.
The consequence of this choice, throughout the entire Group and independently of the regions with an established carbon market and price, is a more rapid shift towards technological solutions that emit less carbon.
For example, Eramet has implemented such internal price of CO2 for a solar farm and a battery project (12MW) in Senegal to produce renewable electricity to replace energy of our fuel oil fired power plant. The profitability of the project is improved due to internal carbon price. With this project, around 20% of the electricity consumed from the current fuel oil power plant would come from renewable solar farm. The expected impact is a reduction of around 20ktCO2/year.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Compliance & onboarding

Details of engagement
Included climate change in supplier selection / management mechanism
Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes

% of suppliers by number
2

% total procurement spend (direct and indirect)
59

% of supplier-related Scope 3 emissions as reported in C6.5
0

Rationale for the coverage of your engagement
All of Eramet's suppliers and subcontractors have been asked to participate to the assessment programme.

Impact of engagement, including measures of success
Eramet has launched a comprehensive and progressive approach to assess the CSR performance of its suppliers and subcontractors in 2017. Since the launch of the consolidated programme, more than 400 suppliers and subcontractors identified at risk, representing 59% of the Group's purchasing expenses in 2020, have been assessed via Ecovadis. In December 2020 we were at 67% of the assessed suppliers were considered to comply with the Group's requirements. The majority of non-compliant suppliers are explained by the non-responses of the latter, which automatically classifies them in the category of high-risk suppliers. For suppliers who declined the evaluation, the committees have ruled on sending other questionnaires and proposing on-site audits. The end of the business relationship, the Group's last resort, concerns two cases this year, bringing the number of suppliers concerned to 13 between 2019 and 2020. Finally, 86 suppliers are currently the subject of a corrective action plan, adapted to the characteristics and avenues for improvement of each of them. Thus, a supplier whose activity has a high potential environmental impact, will first of all be offered improvement actions, environmental practices, conversely a supplier with strong social issues will first and foremost be monitored on these aspects, before being recommended for actions relating to other themes and whose societal impact would thus be more limited. In order to develop support for suppliers, regular exchanges take place with buyers. In addition, special sessions dedicated to suppliers, sources dialogue and a better understanding of the needs and expectations of each in terms of responsibility, can be organised. This was for example done this year at Comilog (Gabon) during Suppliers Days. On-site CSR audits to gain in-depth knowledge of the situation, practices and constraints of suppliers are also planned and will be carried out as soon as the health situation permits.

Comment

Type of engagement
Compliance & onboarding

Details of engagement
Included climate change in supplier selection / management mechanism
Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes
Other, please specify (Collect climate change and carbon information at least annually from suppliers)

% of suppliers by number
1

% total procurement spend (direct and indirect)
67

% of supplier-related Scope 3 emissions as reported in C6.5
67

Rationale for the coverage of your engagement
The main suppliers of Eramet's have been asked to implement low carbon targets similar to SBT's low carbon targets.

Impact of engagement, including measures of success
Eramet committed that two third of its suppliers will have carbon reduction targets in line with the Paris Agreement by 2025. Eramet has sent a letter to its main suppliers to inform them that Eramet has committed to SBT, and to encourage them to do so. Eramet commitment cannot be limited to the Group activity alone. Eramet wish to motivate and engage the key players in its value chain in this issue. As such, Eramet has invited its key suppliers to support its cause and play a role. It will give them the opportunity to share their initiatives and targets to reduce greenhouse gas emissions.

Eramet asks its suppliers to share their initiatives and targets to reduce greenhouse gas, their current low carbon strategy of today or their plan to develop and until 2025. Eramet is creating a tracking tool to follow their performance.

Moreover, Eramet has committed to the French Climate Pledge (MEDEF initiative) : Eramet invited 10 of its main suppliers, based on their relevance and carbon footprint, to engage to decarbonise their activities and join the Climate Pledge. Through a letter sent to them, Eramet indicated that it engaged itself, and encouraged its suppliers to do the same.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement
Collaboration & innovation

Details of engagement
Other, please specify (Transfer of low-carbon pyrometallurgy patents to its customers in exchange of royalties)

% of customers by number
0

% of customer - related Scope 3 emissions as reported in C6.5
0

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
The initiative has not been launched yet.

Impact of engagement, including measures of success
Eramet has the chance to be an integrated Group, with activities both in the mining extraction and the primary transformation. Eramet is therefore able to develop low carbon technologies for the primary transformation through its R&D department. Eramet plans to transfer its low-carbon pyrometallurgy patents and know how to its customers in pyrometallurgy in a dedicated partnership. This will enable its customers to reduce their CO2e emissions, and work towards setting SBT targets. Moreover, Eramet also plans to ask its clients to do the ACT assessment (Assessing low Carbon transition, a methodology developed by ADEME and CDP) to evaluate the robustness of their low carbon strategy, and strengthen their decarbonisation.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Eramet Norway's R&D department collaborates with outstanding research organisations:

Eramet IDEAS (the group's technology centre) and externally with institutions like SINTEF and NTNU in Trondheim. In addition, Eramet Norway is actively involved in projects together with Teknova AS, Elkem Technology, NORCE and Ferrolegeringsindustriens Forskningsforening (FFF).

SINTEF is a broad and multidisciplinary research organisation with international core expertise in technology, science, medicine and social science. SINTEF conducts contract research as an R&D partner for industry and administration and is amongst the four biggest contract research organisations in Europe.

NTNU (Norwegian University of Science and Technology) is the country's largest and leading supplier of engineers, covering areas of technology that range from nanotechnology and IT, to petroleum technology and ship design.

NTNU, which has its own research environments, works together with some of the country's most important technological and industrial companies.

Teknova AS is a technology and science research institute. Its operations are aimed at contract research, technological development and innovation. The institute aims to develop knowledge and technology, and to create value for its users, society and its owners.

The Norwegian Ferroalloy Producers Research Association (FFF) was founded by the Norwegian ferroalloy industry in order to collaborate on research in ferroalloy processes and products. The aim of the FFF is to maintain the position of the Norwegian ferroalloy industry at the forefront in ferroalloy production and of electrometallurgical technology. Its largest member companies are Eramet Norway and Elkem, and together they contribute something like 80 percent of the organisation's subscription funding.

BASF and Eramet have partnered to assess the development of a nickel-cobalt refining complex to supply growing electric vehicle market. The aim is to develop mining, refining and recycling projects with a fully integrated approach throughout the Electric Vehicule value chain. Partnering with BASF is a unique opportunity in line with our strategy to provide a solid and sustainable supply for the batteries industry.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Direct engagement with policy makers
Trade associations
Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (Implement a European border carbon tax)	Support with minor exceptions	Engaging in a dialogue with several actors: 1. Trade associations, as a member of those: - At a European level: Euroalliages and Eurométaux. - At a French level: A3M and UNIDEN (Union des industries utilisatrices d'énergie). 2. French institutional actors at their demand.: with for example, the Ministry of Economy, the Direction Générale des Entreprises).	None
Adaptation or resilience	Support	A roadmap has been written and has been presented to policy makers.	None

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

A3M

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

- Maintaining an emission factor at regional level which does not create distortion of competition within the EU
- The protection of all sectors of the metallurgical industry exposed to the risk of carbon leakage
- Conditions for obtaining aid which take more account of the constraints and efforts made by businesses
- A carbon inclusion mechanism (MIC) at the EU's borders can be an effective mechanism if it works in addition to the existing protection mechanism, consisting of free allowance allocations and compensation for the indirect costs of CO2.

How have you influenced, or are you attempting to influence their position?

We have participated and conduct must of the discussions with the other members as Eramet
Chairman and CEO is chairing the French "CSF Mines and Metallurgy" founded by the French Ministry of Economy and Finance. The CSF is a multi-lateral working platform gathering industries, governmental bodies, trade associations, and unions.

Trade association

Trade association Cobalt Institute and Nickel Institute

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Cobalt and Nickel Institute support Eurometaux's position on climate change that was published in May 2018.
- Eurometaux is committed to further innovation and constant reduction of greenhouse gas emissions in our production processes.
- Eurometaux stresses the continued importance of reciprocal commitments to tackling climate change from regions beyond Europe.
- A global approach is needed to limit climate change to below 2ºC.
- Shared international commitments would ease the regulatory burden on key European industries such as metals and facilitate the EU's own transition towards a low-carbon economy.
- As metals are globally-priced commodities, European companies cannot pass any additional regulatory costs onto consumers and remain completive.
- Reciprocal climate change commitments from comparable industries are thus essential to establish a level playing field between EU and non-EU producers.

How have you influenced, or are you attempting to influence their position?

As a member of Eurometaux (but not on the board), we have contributed to the discussions.

Trade association

Euroalliages

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

- Euroalliages calls for a detailed assessment of the electro intensive industries that are constantly facing unfair trade practices and increasing carbon leakage pressure due to weaker (or inexistent) climate policies in third countries.
- Euroalliages also calls for a fair redistribution of efforts and timing for all the sectors that need to further decarbonise (i.e. agriculture, transport, etc).
- As part of key strategic values chains, Euroalliages express its concern about the on-going COVID-19 crisis and its impacts on the energy and climate policies. We therefore call for a full and robust ex-ante impact assessment that shows all the scenarios and regulation needed to support such an ambitious acceleration of the decarbonisation with particular consideration to regions, industries and communities highly challenged by the costs of climate change policies.
- Euroalliages highly recommend the European Commission to present the results of the modelling with all the different scenarios before unveiling a new legislative proposal. We believe that, if new ambitious targets are to be set, a debate with relevant stakeholders should take place before new regulation is adopted.

How have you influenced, or are you attempting to influence their position?

As a member of the board and of the Energy and climate committee, we have participated in the discussions with the other members and writing of position papers. Moreover, we have suggested names of political persons for Euroalliages to contact. Also, we have directly participated in the writing of Euroalliage roadmap on decarbonation subject, by giving examples of action that are being done in some of our industrial sites.

Trade association
UNIDEN

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The mission of UNIDEN is to coordinate and represent its Members before the Public Authorities (parliament and territorial assemblies, Government, European institutions, central and territorial administrations, public establishments.), Professional organizations, associations and any other concerned entity.

UNIDEN's position is to ensure the energy competitiveness of French industrial players and their access to a low-carbon energy.

As part of this mission, the Steering Committee oversees the governance of the association, as well as the quality and efficiency of its organization. It decides on the major orientations of UNIDEN's actions, in line with the expertise and skills resources required for their implementation.

An committee made up of a president, a vice president and a treasurer ensures, by delegation of the Steering Committee, the day-to-day management of the association and the execution of the decisions of the Steering Committee.

A general assembly meets once a year to ratify decisions concerning governance and internal organization, as well as the association's priority axes.

UNIDEN's technical commissions - electricity, oil and gas, climate and energy efficiency - form the hard core of the association's activity. They capitalize on the internal expertise and skills resources made available by UNIDEN members.

The commissions are led by presidents and vice-presidents appointed by the Steering Committee from among the members of the association. They coordinate their work within the framework of a coordination committee which meets once a month to deal with topical issues and propose actions.

In liaison with the President, the committee presidents ensure the representation of UNIDEN to bodies outside the association and to IFIEC Europe (International Federation of Industrial Energy Consumers) which brings together the European associations equivalent to UNIDEN, IFIEC Europe, with its headquarters in Brussels, is an interlocutor fully recognized by the European institutions.

How have you influenced, or are you attempting to influence their position?
As an active member, Eramet is vice-president of the Oil&Gas Commission and contributes to the work.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Eramet has engaged in activities in order to increase the political awareness of the impacts on critical metals demand changes as a consequence of climate change and economy decarbonisation. Eramet Chairman & CEO is indeed chairing the French CSF "Mines - Metallurgy" founded by the French Ministry of Economy and Finance. The CSF is a multi-lateral working platform gathering industries, governmental bodies, trade associations, and unions. One of the 3 main focus is metal demand evolution related to climate change and subsequently electric vehicles development. Workshops have been held in 2018 and first conclusions have been made available to political sphere. One of the workshops of the CSF is also directly focused on R&D actions in favour of the reduction of greenhouse gas emissions of CO2 for metallurgical sector.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Eramet is member of the steering committee of CSF and follow up the CSF projects.

Concerning the workshop of the reduction of greenhouse gas emissions, the target of the project is to:

- Demonstrate on the ArcelorMittal site of Dunkirk, on the scale of an industrial pilot, a technology of optimal capture of CO2, industrial gases, the DMXTM process.

- Study the feasibility of developing in Dunkirk, an intermediate CO2 storage hub for shipping to offshore CO2 storage areas in the North Sea

The Dunkirk area becoming an experimental territory for CO2 reduction, will benefit our own facilities located in this same area and it is consistent with our climate change strategy.

Concerning the subject of the electric vehicles' development, Eramet pilots directly a Workshop related to the development of integrated recycling network for lithium batteries. The lithium is one of the metals of energetic transition on which Eramet strategy is based.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document

Page/Section reference
p.277- 287 chapter : "fight against climate change"

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify (Decarbonisation, support customers)

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Christel Bories Chairman and CEO of Eramet	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?
Please select

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Please select

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
Please select

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
Please select

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below
I have read and accept the applicable Terms