

2018 ESSENTIALS

AN ENTIRE WORLD...




eramet

TO BE EXPLORED, BUILT AND PRESERVED

manifesto

The future is being built before our very eyes, faster than we can imagine. From the augmented human to green mobility, smart interfaces and hyperconnected cities, the digital revolution is changing how society operates, while artificial intelligence is opening up infinite horizons. At the same time, humanity is facing an unprecedented challenge in its history: to succeed in an essential energy transition. To transform, industry needs increasingly advanced raw materials. These natural resources are vital and we need to learn to use them even more responsibly.

At Eramet, we have decided to tackle these huge challenges head-on. We are developing innovative processes, working on major projects and learning to bring together industrial activity and respect for our planet. Through our civic engagement, we are contributing to the development of our employees and communities alike. With an entrepreneurial spirit, openness and pragmatism, a new momentum is transforming our Group across the world. The paramount driving force is to develop sustainable and value-adding performance. Eramet is reinventing itself and wishes to create a world that's unspoilt and benefits the community at large.



Eramet is transforming itself! The new strategic roadmap and the profound managerial transformation that has begun since I arrived will enable us to achieve our ambition, that of being the best in the activities that we have chosen."

Christel Bories, Chairman and Chief Executive Officer of Eramet

INNOVATE AND DESIGN

We are **building** the mining and metallurgical industry of tomorrow

Optimizing our industrial processes

Every day, our teams are working on innovative and value-creating solutions to design the metals for the energy transition. We are optimizing the techniques for processing ore and for preparing and converting a large number of metals, for our Group and for our industrial partners. For example, the expansion of additive manufacturing offers new outlets for powder metallurgy, particularly in the aerospace, defense and energy sectors.

Playing a key role in the energy transition

Our Group's ambition is to be a market leader in the energy transition, a strong creator of value. Lithium, cobalt and nickel salts, which are fundamental for electric mobility, are essential for lithium-ion batteries. The development of a deposit of lithium in Argentina is one of the major projects in our strategy: currently, detailed engineering studies are in the final phase. 2019 will mark a key stage in the development of the project.

Contributing to the circular economy

Controlling and reducing the environmental impact of our industrial activities is now a central aspect of our activity. Ours is a process of continuous improvement, applied to all stages of operation: when designing and starting a new activity and throughout the operation of facilities. We are transforming our industrial techniques, reducing our energy consumption and our emissions. As natural resources are not inexhaustible, our Group designs and uses techniques to reuse materials, for example our procedure for recycling catalysts and metal oxides.



Sharing an Open Innovation culture

Innovation is an essential link in the application of our long-term strategy and in short-term operational challenges. Our research and digital transformation teams are focused on the rapid development of value-creating solutions, supported by our Open Innovation approach. We have put in place numerous partnerships and collaborations with institutes, research centers and start-ups in France and in Europe.

Establishing ourselves as a European center of excellence

In 2019, our Group launched Eramet Ideas, a center dedicated to R&D and innovation. To meet the challenges of the energy transition and the digital transformation, our experts are working on improving existing industrial techniques and on the development of new technologies:

- Engineers and technicians, experts in the exploitation and enrichment of minerals, research into techniques for the preparation and transformation of metals and alloys, recycling techniques...
- Ultra-high-performance tools: electronic imaging, digital simulation and pilot installations to reproduce the Group's technologies.
- R&D teams who work in close collaboration with operational staff.



We place value creation at the core of our innovation approach, with the aim of increasing industrialization opportunities in the Group's plants and with our customers and partners. It is an essential condition for contributing to the transformation of the mining and metallurgical industry and to enable it to meet the great challenges of the century to come."

Laurent Joncourt, Chairman of Eramet Ideas, the Group's center of excellence



EXPLORE AND PRODUCE

We constantly **add value** to the resources of today and tomorrow

World-class exploitation of deposits

From engineering studies to the exploitation of ores, our Group relies on its cutting-edge expertise, from extraction to finished products. Industrial installations, materials handling, storage and processing of ores, logistics solutions for transport: our know-how is applied to various raw materials (manganese, nickel, mineral sands and soon, lithium).

Our integrated approach to quality, health, safety and environmental protection fulfills the most demanding international standards for overall sustainable performance.

Our Group holds positions of world leadership:

#1 WORLDWIDE PRODUCER

of high-content ferronickel

#2 WORLDWIDE PRODUCER

of manganese alloys

#2 WORLDWIDE PRODUCER

of high-content manganese ore

#4 WORLDWIDE PRODUCER of zircon

The development of raw materials

Our primary field of expertise concerns the main disciplines of extractive metallurgy: mineralogy, mineral processing, hydrometallurgy and pyrometallurgy. Our engineers and teams on the ground coordinate their efforts to develop innovative techniques. For example, in Gabon, for the restoration of the bed of the Moulili River, our teams have developed new mineral processing techniques to recover manganese ore by magnetic separation.



The metals of the future

Our Group is broadening its portfolio in metals used in the energy transition and mobility: lithium, nickel salts and cobalt. The most buoyant market is that of energy storage in the form of lithium-ion batteries for portable electronics (smartphones, computers, etc.), electric vehicles and the storage of electricity on transport networks.

LITHIUM: development of a deposit in Argentina with the exploitation of salars (salt deserts) using an innovative brine separation process without evaporation

SALTS OF NICKEL AND COBALT: study on the diversification of Weda Bay towards battery products for electric vehicles

BATTERY RECYCLING: launch of an R&D program for the recycling of lithium-ion batteries (lithium, nickel, cobalt)

Moving towards the connected mine

Use of digital tablets to optimize safety audits, use of drones for performing topographic surveys in inaccessible zones, installation of sensors connected to various mobile equipment: the mine of the future is already a reality. Our teams from the SLN in New Caledonia use a system connecting geology data to our laboratory: they have real-time results of analyses of geolocated samples.

Ti
774 Kt
of concentrates
of mineral sands
(Senegal)

July 2018
Eramet takes control of 100% of TiZir,
following the success of the takeover
bid for the securities of MDL,
an Australian company
that then held 50% of the capital
of the joint venture.

Ni
55.3 Kt
of ferronickel (SLN)

Mn
4.3 Mt
of manganese ore
(Comilog)

DEVELOP AND TRANSFORM

We combine know-how and advanced technologies for the industry of the future

Designing, developing and transforming the materials of tomorrow

Preparing specialized steels and very high-performance alloys and transforming metals into parts or semi-finished products essential for the most demanding industries... It is by making use of the most advanced technologies that our plants are now creating the world of tomorrow.

SPECIAL STEELS AND HIGH-PERFORMANCE ALLOYS

We design and prepare special steels, alloys and superalloys, recognized worldwide for the excellence of their technical and mechanical characteristics. Serving numerous advanced industrial applications, our materials let our customers go ever further in their search for performance.

METALLIC POWDERS

Our experts manufacture metal powder via a technique that atomizes the molten metal using jets of nitrogen. We occupy the worldwide first place in high-speed steels produced by powder metallurgy for cutting tools and cold working. We are also developing these applications for additive manufacturing.

SEMI-FINISHED PRODUCTS AND PRESS-FORGED PARTS

Forging, rolling, press-forging, drawing... By mastering all techniques in the transformation of metals, including for the most innovative materials, such as titanium, we fulfill the expectations of the most demanding industrial projects. We are the worldwide leader in high-power press-forged parts for aerospace, the European leader in forged parts for defense and nuclear and long products for the aerospace industry.

#1

worldwide player in gas-atomized high-speed steels

#2

worldwide producer of high-power press-forged parts



Supplying high-technology markets

Our Group positions itself on high-technology markets that require a high level of technical mastery and innovation:

AEROSPACE: parts vital for the manufacturers of engines, structures and landing gear for aircraft and helicopters, launchers and satellites

ENERGY: forged and press-forged parts and long products for nuclear reactors and generators; forged parts intended for oil production (risers and pumps); parts for gas and steam turbines

LAND AND SEA TRANSPORT: special steels for the shipbuilding industry and the manufacture of injection systems, valves and transmission for automobiles

HEALTH: alloys and stainless steels for the manufacture of surgical instruments, medical prosthesis and implants

TOOLING: wide range of tool steels, high-speed steels and superalloys for the production of tools intended for shaping metals, plastic and glass

Developing the digital plant

Our Group is accelerating its digital transformation by adopting an agile “quick and learn” approach. In 2018, after an appraisal of the requirements and initiatives on each site, we defined three working policies:

- Achieve savings in geology by optimizing the supply chain according to supply and demand. The operation centers control and plan the activity of the mines and plants on a digital twin which proposes investment scenarios.
- Optimize metallurgical techniques using artificial intelligence. Algorithms adjust production using the data collected, our teams validate the best solutions.
- Ensure the traceability and quality of products, from the mine or the plant to the customer, using a continuously-optimized supply chain.

Optimize or recycle the raw material

- 85 to 90% of secondary raw materials are recycled in the steelworks of the High Performance Alloys Division
- More than 90% of waste produced is recycled internally and externally
- 80% of stainless steel recycled after a service life of twenty-five years



CONTRIBUTE

We combine performance and contribution

A citizen of the world



Active in more than 20 countries, our Group aims to contribute to the world in which it works. To successfully complete the energy transition, we exploit natural resources in an ever more responsible way and we design and use industrial techniques to reuse the material. We are investing in the metals of the future that will play a central role in the production and storage of energy during the forthcoming decades.

We also wish to give meaning to our strategic and operational decisions by placing Corporate Social Responsibility (CSR) at the focus of our activities. The objective is to combine economic efficiency, social well-being and environmental protection everywhere that we operate. Employees, subcontractors, customers and local populations: all of our stakeholders must be able to count on us.



Fully aware of the challenges facing our planet, our action aims to provide a positive contribution to communities"

Virginie de Chassey, EVP of Communication and Sustainable Development

A concrete action plan

To translate our objectives into actions, we have prepared a new 2018-2023 CSR roadmap (see page *Management*). Our multi-year action plan fixes our priority commitments and the targets to be achieved:

- Commitment to people: ensuring the health and safety of our employees and our subcontractors; improve skills, promote talent and career development, be a partner that contributes to our host communities.
- Commitment to economic responsibility: become one of the leaders of the energy transition, work actively in favor of the development of the circular economy, be a reference in matters of human rights in our sphere of activity.
- Commitment to the planet: reduce our atmospheric emissions, preserve water resources and accelerate the restoration of our mining sites, promoting biodiversity.



Rehabilitation of the waste rock pile of the Thio mine (New Caledonia)

Large scale work was begun to restore the old waste rock pile of the Thio mine and fight soil erosion. To stop water infiltration, waterproofing work was done with a membrane laid over the highest part of the plateau. The slope was remodeled to reduce it and avoid slippage. Five hectares were re-seeded to revegetate the site.



Entry into production of the EcoTitanium plant (Auvergne - France)

An example of the circular economy, the EcoTitanium plant, at Saint-Georges-de-Mons (Puy-de-Dôme), is the first European plant for recycling aerospace-quality titanium alloy. The site manufactures forged and press-forged parts from titanium waste and shavings collected from the large aerospace manufacturers and their subcontractors. With its plasma furnace and its re-melting under vacuum, the plant has the only commercial technology capable of preparing high-alloy titanium alloys from waste.



Development of quinoa crops (Argentina)

Planting food crops for the populations living near our site was the challenge that was met by our teams as part of a lithium development project in Argentina. An ambitious program named Quewar was put in place, with and for the local populations, to reintroduce the ancestral crop of quinoa: training, planting quinoa, construction of a center for collecting the production and creation of a cooperative. The initiative also opens up new economic prospects in the region, with the commercialization of quinoa by the populations.

We are strengthening our CSR commitments

Because the well-being of our employees and our host communities determines our performance, because our economic model is socially responsible, because the protection of the planet is an imperative, we have chosen to adopt a process of continuous improvement to place Corporate Social Responsibility at the core of our business model.

We are convinced that commitment in matters of CSR is a performance booster and a factor in our local integration. The fruit of collaborative work carried out at all levels of the Group and in line with the sustainable development goals (SDG) of the United Nations, our 2018-2023 CSR roadmap is at the core of our strategy. Compliant with international standards, it expresses our requirement: be a contributive company.

Our action plan is built around three pillars: commitment to women and men, becoming a responsible economic player, acting positively for the planet. It defines 13 commitments broken down into multi-year targets for each business line and activity of the Group, relevant and measurable. The operational entities have the responsibility of implementing them.

The management of the performance of the Group in matters of CSR is done by the Executive Committee and by the Board of Directors of Eramet, together with two of its committees: the Strategic and CSR Committee and the Audit, Risk and Ethics Committee.



Commitment to people

INDICATORS

Ensure the health and safety of employees and subcontractors

Build skills and promote talent and career development

Strengthen employee engagement (1)

Integrate and foster the richness of diversity

Be a valued and contributing partner to our host communities

2023 TARGETS

Zero fatalities
Reduce by half the workplace accident frequency rate (FR2 < 4)

100% of employees receive one training course per year

Group employee engagement rate > 75%

30% of managers are women

100% of sites have established a mechanism for dialogue with local stakeholders

100% of sites have implemented an investment programme to contribute to local development, with a focus on initiatives in favour of young people (2)

(1) First survey on employee engagement carried out in 2018: 6,500 participants, representing 56% of the Group's workforce. 91% of the persons questioned felt very strongly involved in the achievement of the objectives of the company and 82% are motivated to go beyond what is expected of them to help the company to succeed. 77% of participants expressed their pride in working for Eramet.

(2) In 2018, nearly 12,000 young people benefited from the actions of Comilog and Setrag in Gabon: apprenticeship contracts, work experience courses, aid to schools, school transport, sports club memberships.



Commitment to economic responsibility

INDICATORS

Be an energy transition leader in the metals sector

Actively contribute to the development of the circular economy

Be a reference company in terms of respect for Human Rights in our field of activity

Be an ethical partner of choice (3)

Be a responsible company of reference in the mining and metallurgy sector

2023 TARGETS

Committed diversification of Eramet's business portfolio in relation to the supply chain for electric mobility batteries

2 Mt of low-grade incidental ores and tailings recovered over the period 2019-2023

10 Kt of waste recovered instead of being disposed of over the period 2019-2023 through innovative actions (4)

Mature level according to the UNGP Reporting Framework (Shift-Mazars)

100% of sales and purchasing teams trained on anti-corruption every year

100% of the Group's suppliers and customers evaluated are in line with Eramet's CSR/Ethics commitments

(3) In 2018, a training campaign was organized by the Group's Ethics and Compliance department in Gabon and in New Caledonia. Thus, nearly a hundred employees received training on the fight against corruption, breaches of competition law and the concept of conflict of interest.

(4) More than 90% of the waste generated by the plants in the High Performance Alloys Division is recycled, either internally or via external service providers.



Commitment to the planet

INDICATORS

Reduce our atmospheric emissions

Protect water resources and accelerate the rehabilitation of our mining sites by fostering biodiversity (5)

Reduce our energy and climate footprint

2023 TARGETS

-80% of tonnes of ducted dust emitted

Ratio of rehabilitated areas to cleared areas ≥ 1 over the period 2019-2023

-26% reduction in tonnes of CO₂ / t of outgoing product

(5) In New Caledonia, Gabon and Senegal, the Group systematically restores its mining sites, the objective being to put them back into a condition identical to their original state before their exploitation: revegetation, use of topsoil, reintroduction of rare and threatened plant species.





“We **reinvent ourselves** through profound operational transformation”

Interview with Christel Bories,
Chairman and Chief
Executive Officer
of Eramet

You drove a new strategic orientation upon your arrival in 2017. What assessment do you make of your first full year at the head of the Group?

Our Group needed a new leap forward. In 2018, we built our vision for the forthcoming years. The ambition is strong: that of being the best in the activities that we have chosen. More broadly, Eramet must establish itself as a responsible company, creating value and admired for its strategic, managerial and societal model.

Achieving these objectives requires us to modify our organizations and change the way that we work. A new Eramet began to take shape under the effect of the profound transformation that was driven at several levels: strategic, managerial and digital. Strong measures were taken to improve our performance and by strengthening our commitments as a socially-responsible and contributive company. Eramet is undergoing

an important stage of its history. It has a new energy, a new leap forward, a new momentum, as shown by our new logo.

Eramet therefore wishes to be amongst the best in each of its activities. What initiatives were taken in 2018 to realize this ambition?

2018 was a year when things began to move. We implemented numerous initiatives to improve our performance and strengthen our commitment as a responsible company. We developed new modes of operation for our mine in Gabon and reached record levels of production. In New Caledonia, the SLN is also changing models to optimize its operation – around its two business lines, mining and metallurgy – and to make the activity sustainably competitive. We also reorganized our Alloys Division, with a plan to improve competitiveness for each new entity. Likewise, projects for the growth and diversification of our portfolio made significant progress: in mineral sands, where we have taken 100% control of TiZir, and with the Lithium project in Argentina and that of extending the manganese mine in Moanda in Gabon, for which we are finalizing the research



phase. Our objective is not only to be a profitable Group, but also a committed company, which contributes to the well-being of populations and preserves the environment everywhere that it intervenes. This is what is meant by the adoption of an ambitious CSR roadmap in 2018, with quantified and precise objectives to be reached by 2023.

2019 has begun well; what are the themes on which your efforts will continue?

Our transformation is accelerating. The strategic and managerial transformation that has been underway for two years is bearing fruit and our operational performance is improving.

Likewise, the measures taken in matters of safety are giving their first results. Achieving our «zero accident» objective requires constant involvement and vigilance of everyone on the ground. A huge amount of background work has begun on this point and it is continuing. Above all, 2019 will mark the progress of our two strategic projects: the extension of the manganese mine in Gabon and the Lithium project, which is positioning Eramet on the growing sector of metals for the energy transition. These projects, which must be validated during the year, aim to make our model more sustainable, robust, profitable and growth-oriented.



Maintain the safety requirement

Our ability to perform our activities in complete safety is the primary guarantor of our operational excellence. We owe it to our employees, our subcontractors and to all of our partners. Our Group standard “Essential safety requirements” governs 14 types of “critical” activities, with clear and simple rules that must be applied without fail. At the same time, in 2018, we completed our accident-prevention strategy, stressing the analysis of risks and “Take 5”, the five minutes of reflection necessary before acting. All of these efforts have borne fruit because, in 2018, the Group recorded a 23% drop in its accidents compared to 2017.

Their talent beat stronger for Eramet

Our Group is transforming itself, and quickly. Thanks to our 12,705 employees, each day we are inventing solutions to respond to the industrial, technical and environmental challenges of our time. Our new ambitions are opening up unique prospects, with varied and innovative professions, often internationally. Focus on the Group's key professions:



GEOLOGIST

Survey the ground, find new deposits, analyze samples, prepare maps, establish drilling plans, perform modelling and make estimates of ore... Being a geologist at Eramet means participating in the vast work necessary to the exploitation of ore.

“ I am lucky enough to do a job that mixes work on the ground and thinking. I never feel as if I am falling into a routine. Exploring new terrain each day and setting up strategies for the proper conduct of activities, it's fascinating!”

Axelle, age 32, Comilog (Gabon)

PRESS OPERATOR

The veritable blacksmiths of the twenty-first century, the operators do not merely operate presses of several thousand tonnes: they take part in the continuous improvement of techniques related to the technical equipment.

“ We start with aluminum, steel or titanium to design parts for the nuclear and aerospace industries, such as landing gear, fuselages or aircraft engines. It gives me great satisfaction to transform these metals myself to create high-performance parts”

Benoît, age 39, Aubert & Duval Pamiers (France)

DATA SCIENTIST

Developing strongly at Eramet, data science offers huge prospects in a great variety of fields: recovery of metals, characterization of sub-soils, production in plants, etc.

“ I find it fascinating to be able to apply the solutions offered by data science to industrial problems. The results that we obtain are used by very different professions: geologist, mining or metallurgical engineer...”

Pierre, age 32, Eramet Ideas (France)



MAINTENANCE TECHNICIAN

Repairing machines and making them safe, preventive operations,... From the steelworks to the rolling mill as well as the electrical network, the profession of maintenance technician has evolved at the same rate as the technologies for which it oversees correct functioning.

“ I particularly appreciate spending my time learning new things, as well as the autonomy that I have. And solving a breakdown on a machine that is sometimes bigger than a house, that is very satisfying!”

Mickael, age 36, Aubert & Duval Les Ancizes (France)



R&D ENGINEER

Being an engineer at Eramet Ideas means working in collaboration with and for the sites of the Group. A key benefit is that the missions are highly varied: from studies for designing the industrial techniques of the future, to solutions to problems on the ground.

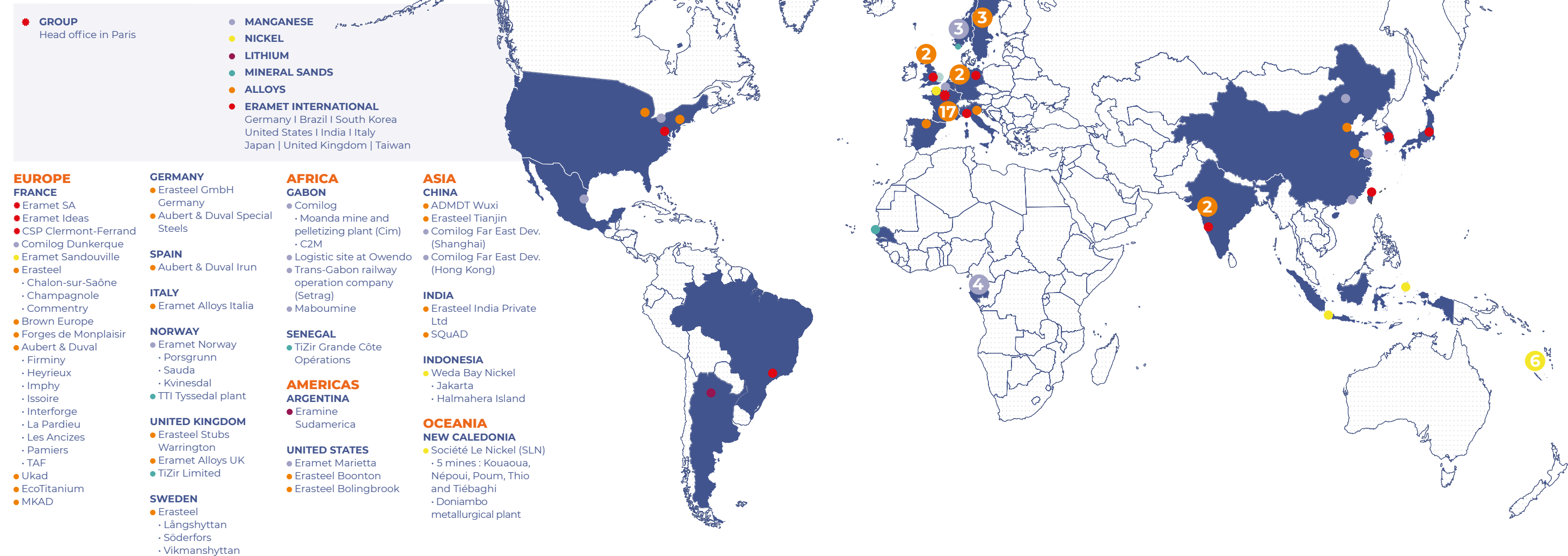
“ One of the great benefits of the profession of engineer at Eramet Ideas is successfully completing industrial R&D projects with a concrete approach. Seeing the theoretical work that we do become tangible is a great source of fulfilment.”

Noémie, age 24,
Eramet Ideas (France)



SPREAD

Our activities over 5 continents



GOVERNANCE

A renewed Executive Committee to accelerate the transformation of the Group

1 - Christel BORIES

Chairman and Chief Executive Officer

2 - Thomas DEVEDJIAN

Executive Vice-President in charge of Finances and Digital

3 - Kleber SILVA

CEO in charge of Mining and Metals Division

4 - Jérôme FABRE

CEO in charge of High Performance Alloys Division

5 - Michel CARNEC

Executive Vice-President, Human Resources, Health, Safety and Security

6 - Virginie DE CHASSEY

Executive Vice-President Communication and Sustainable Development

7 - Philippe GUNDERMANN

Executive Vice-President Strategy, Innovation and Investors Relations

8 - Jean DE L'HERMITE

Group General Counsel



Historic and stable shareholders

The registered capital of Eramet, on 31 December 2018, stood at €81,239,446. It is represented by 26,635,884 shares fully paid up of a nominal value of €3.05.

36.94%

Duval family:
Sorame + Ceir

25.57%

Agence des participations
de l'État (APE)



32.13%

Other floating

1.34%

Bureau de recherches géologiques
et minières (BRGM)

4.02%

Société territoriale
calédonienne de participation industrielle
(STCPI), entity held by the New
Caledonian provinces

Eramet today, is...

... a major player in the extraction and development of metals and in the development and transformation of high-performance alloys. World-class deposits and leadership positions in each of its business lines.

Figures 2018



€581 M
current operating
income

€843 M
(22% of revenue)
EBITDA

€53 M
net income-
Group share

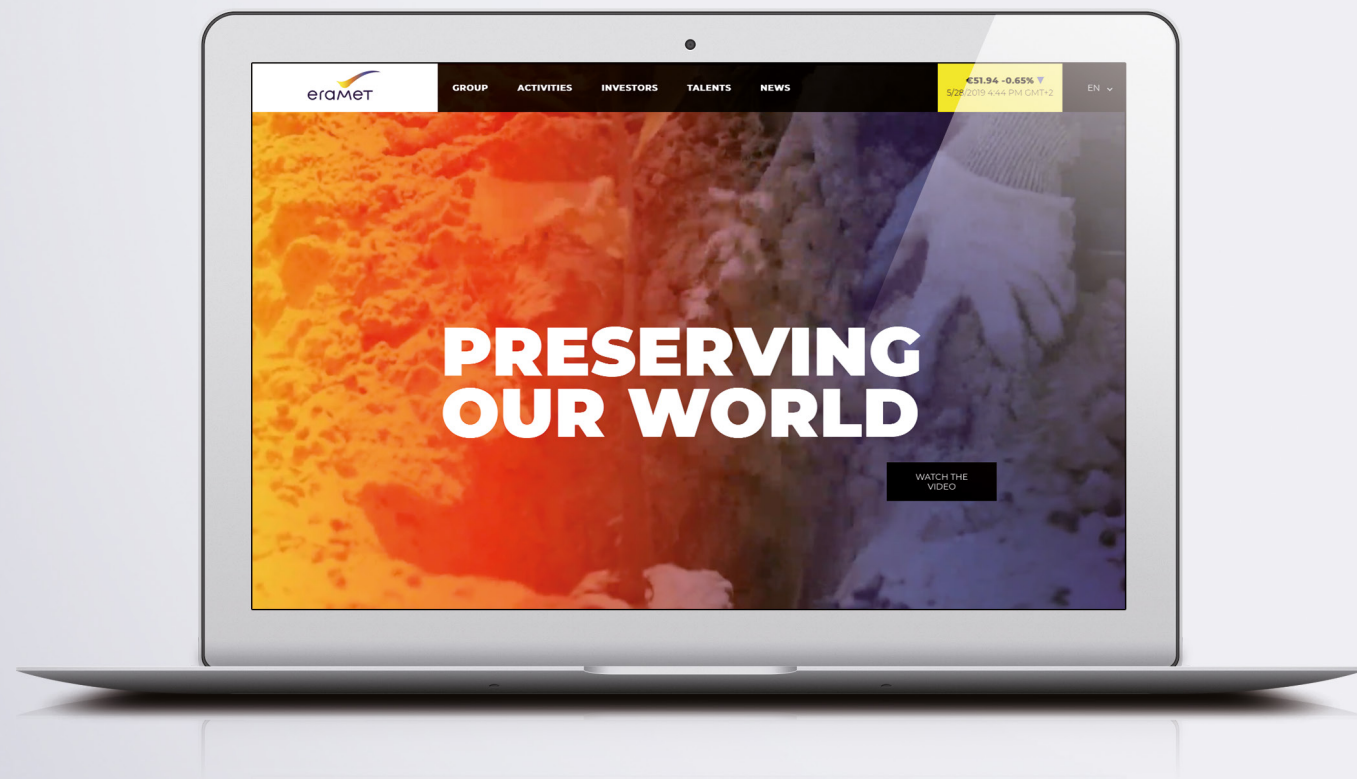
20
countries of
establishment

12,705
employees

€60 M
devoted to
innovation

€7.4 M
CSR partnership
actions

Find us
on...



Discover our new Internet site, illustrating a group that is moving

WWW.ERAMET.COM

Let's stay
connected

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ERAMET

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