



Eramet Group Presentation

MAY 2022

Our purpose, our reason for acting



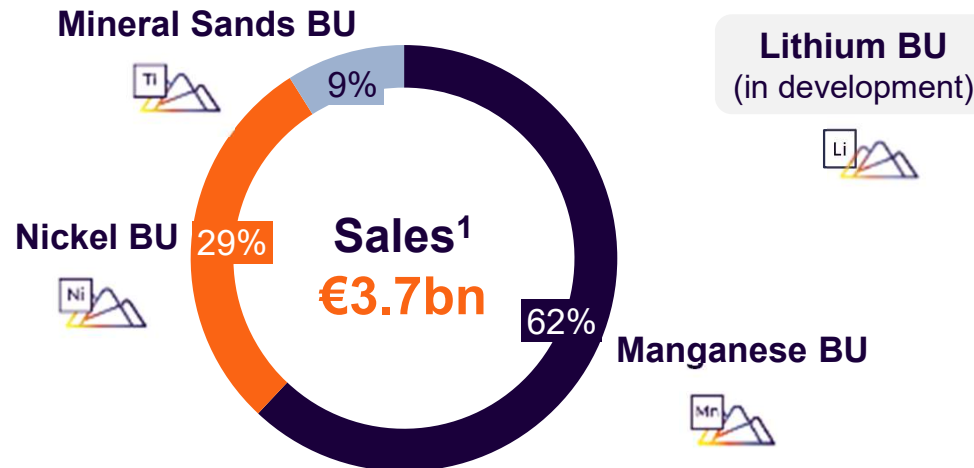
Our purpose sets a course. Conveying both our DNA and our collective ambition, it fuels our vision and the daily actions of all employees and stakeholders.

An aerial photograph of a large-scale mining or construction site. The terrain is heavily eroded, showing deep channels and ridges of earth. A large truck is visible on a dirt road in the upper right. Several colorful lines (yellow, red, blue) are drawn across the image, likely indicating specific areas of interest or boundaries. The overall scene is one of intense industrial activity in a rugged, natural environment.

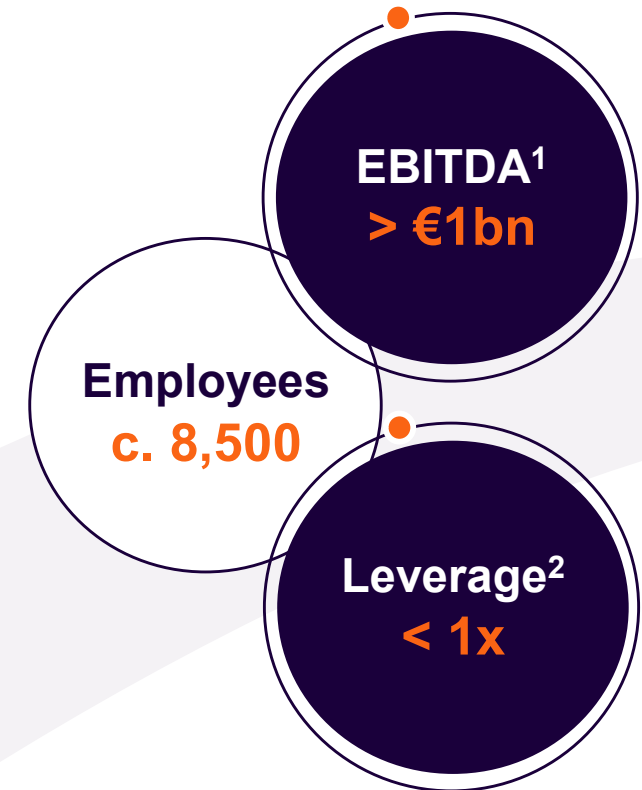
Eramet at a glance

A global pure player in Mining & Metals

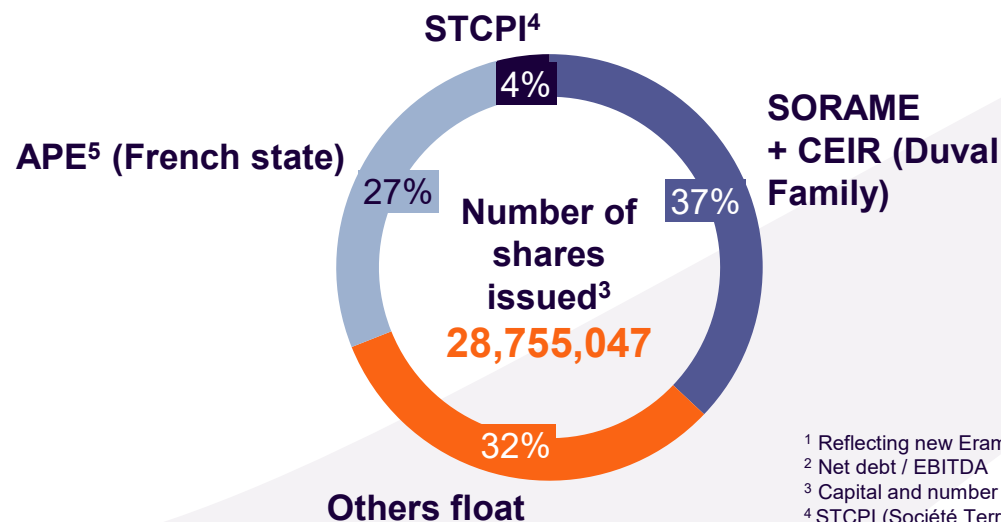
Refocused on 4 M&M activities



Strong financials results in 2021



Long term and stable shareholders



¹ Reflecting new Eramet scope, excl. discontinued operations in accordance with IFRS5

² Net debt / EBITDA

³ Capital and number of shares' increase due to the Odirman conversion

⁴ STCPI (Société Territoriale Calédonienne de Participation Industrielle): entity owned by the New Caledonian provinces

⁵ APE (Agence des Participations de l'Etat)

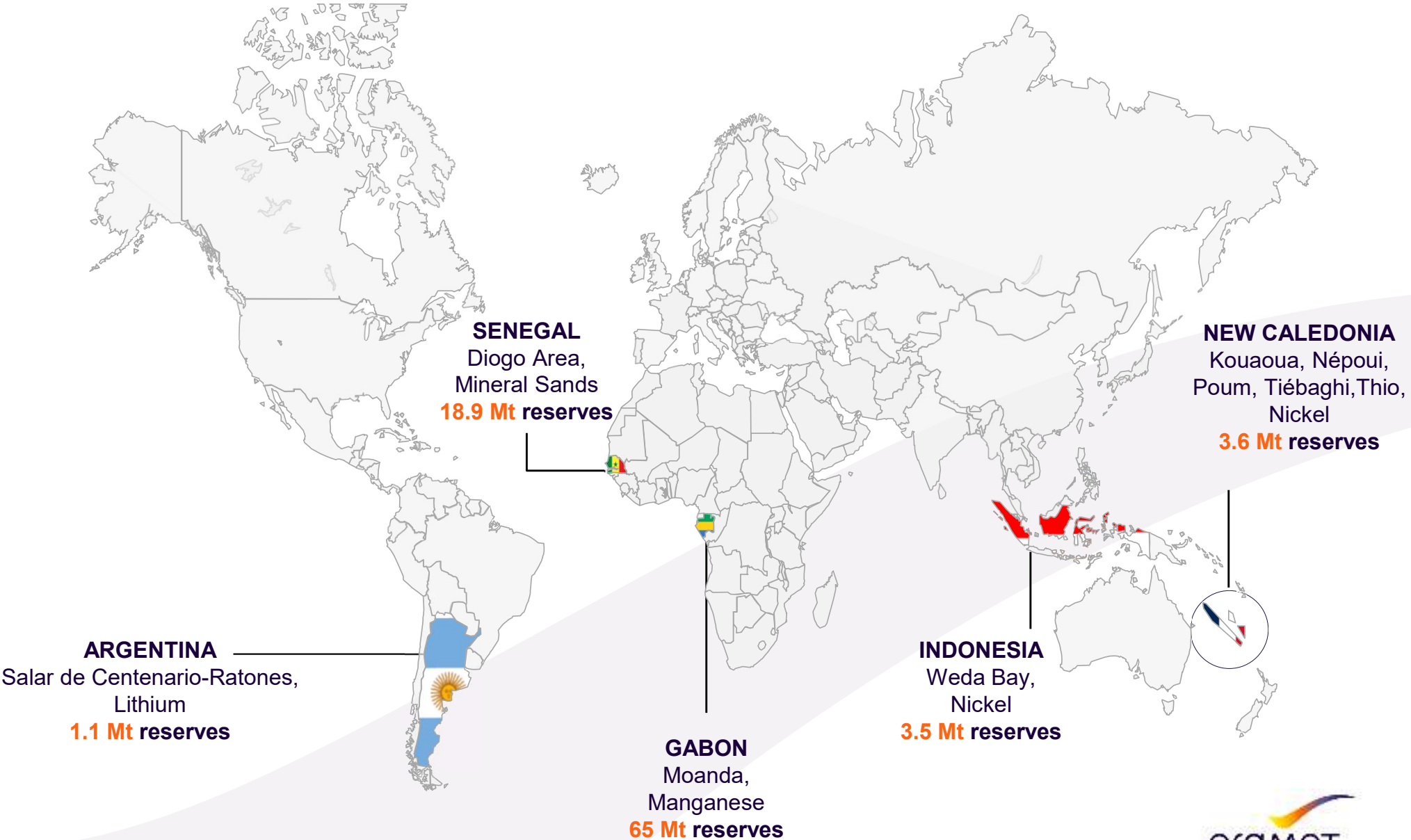
Operations in manganese, nickel, mineral sands Development in lithium, nickel & cobalt, EV batteries recycling



¹ Reflecting new Eramet scope, excl. discontinued operations in accordance with IFRS 5: Sandouville (divested in Feb. 2022), Aubert & Duval (MOU signed in Feb.2022, closing expected at year-end) and Erasteel (divestment process ongoing)



Long life world class deposits positioned on the first quartile of the mining industry cost curve



A committed, contributive and recognised corporate citizen

1

Societal engagement embedded in the strategic vision



- **Our Purpose drives our ways of working**
- **A 2018-2023 CSR roadmap** to structure and set the pace for our action plans
- Aligned with **the United Nations' Sustainable Development Goals**

2

Contributing to communities' lives



- **License to operate:** Partnering with the countries and territories where we operate is in our DNA
- Beyond mining operation, we **contribute to the local development and take care of the environment**

3

Reducing energy/climate footprint



- **Validation** of the Group's CO₂ emissions reduction target **“well below 2°C” by the SBTi¹:**
 - **2035: -40%** Reduction target in absolute CO₂ emissions (vs 2019)
 - **2050: Contributing to carbon neutrality** (scopes 1 and 2)

ESG performance recognised by leading agencies

2021 CDP Climate change

- **Score B** (B in 2020)
- Among **leading companies** in the sector



2021 Vigeo

- **Score 66/100: Advanced level** (vs 66/100 in 2019)
- Sector rank: **3/44**



2021 Sustainalytics

- **Risk rating score improvement 26.2** (vs 38.8 in 2020)



2020 ISS ESG

- Overall score **B-**, prime status
- **First decile** of the M&M panel



Responsible Mining performance monitoring

- Ongoing CSR performance self-assessments of 1st sites, according to **IRMA** standard



A future leading player in the new age of metals...

Pure player in Mining and Metals contributing to a sustainable future

Grow in metals supporting global economic development



Resilient markets

MANGANESE ORE & ALLOYS



NICKEL



MINERAL SANDS



Demonstrated leadership and continuous value-accretive organic growth



Develop critical metals for energy transition

Fast-growing markets



LITHIUM



NICKEL/COBALT SALTS



BATTERY RECYCLING



Huge potential to benefit from energy transition

Most of mines and plants are positioned on the first quartile of the industry cash cost curves

ATTRACTIVE and SUSTAINABLE POSITIONING

CASH-GENERATING BUSINESS

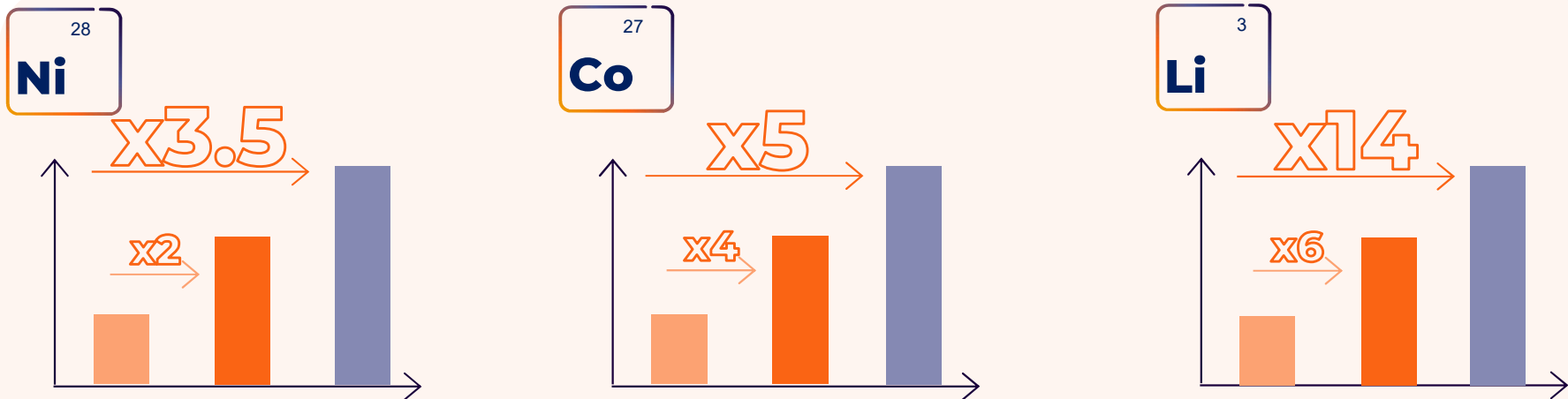
A portfolio contributing to the battle for climate change

Greener product offering

- World class assets, providing the highest metal contents at lower carbon contents
- CO2 reduction targets SBTi certified



Perfectly positioned to benefit from booming metal requirement for energy transition



Global demand in 2020 vs. 2030 vs. 2040 (in k-tonnes¹)

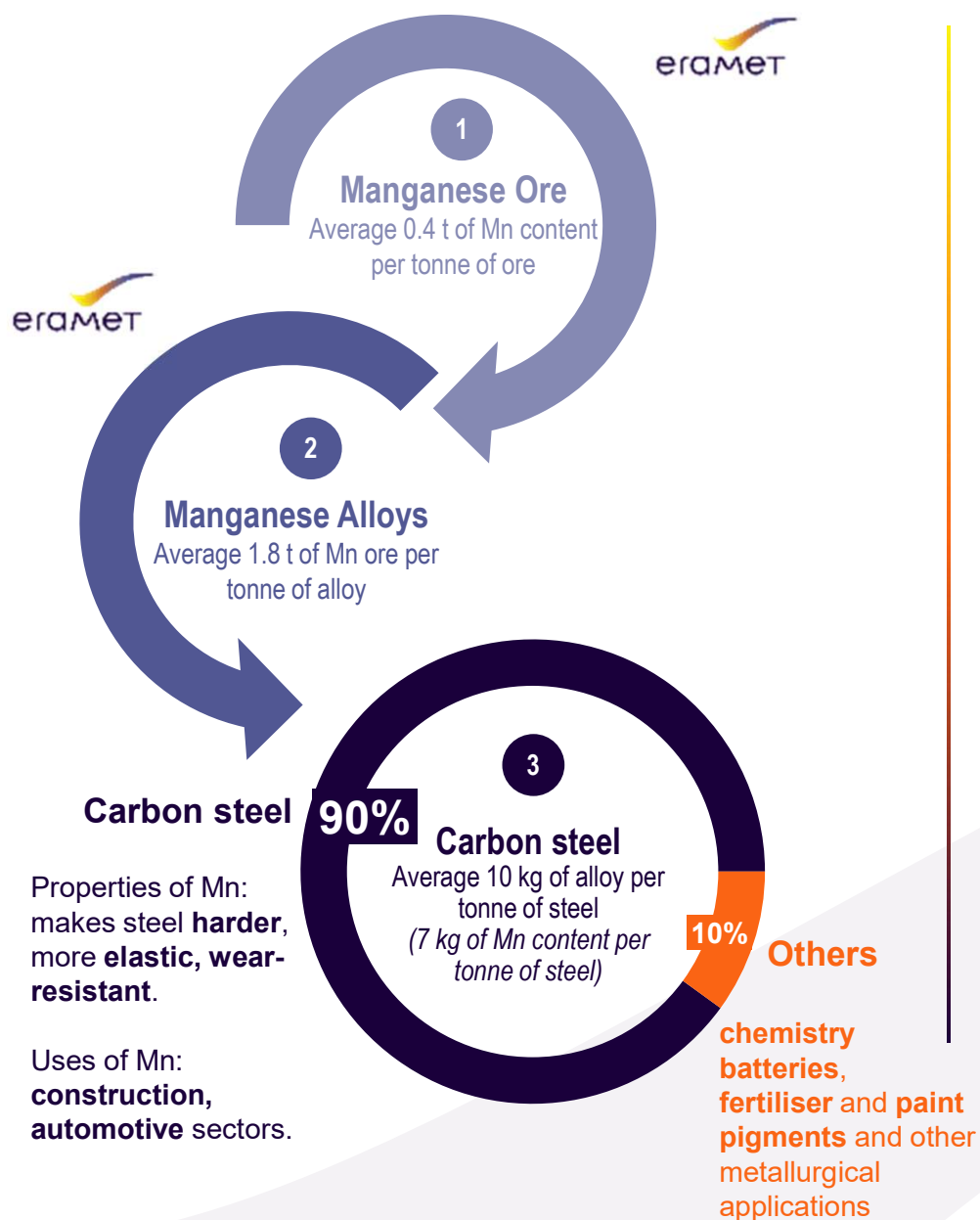
Source: Eramet analysis



**Grow in metals supporting
global economic development**



Manganese main growth drivers: carbon steel (90% of global production) and China



Manganese ore

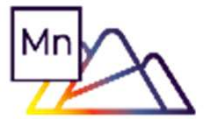
- “Low-grade local” ore < 30% Mn content
- “Medium-grade” ore > 30% but < 43%
- “Rich”/“High-grade” ore > 43%

Manganese alloys

- **Standard**
 - > High-Carbon FeMn (6 to 8% carbon)
 - > Standard SiMn (< 2 to 3.5% carbon)
- **Refined**
 - > o/w Medium Carbon FeMn (< 1.5 to 2% carbon)

Key Features

- **No futures market: OTC negotiation**
 - > CRU index: bi-weekly
 - > Fastmarkets Metal Bulletin index: weekly
- **South Africa: 40%** of seaborne production in 2021
- **China: 53%** of Global carbon steel production in 2021; **c.60%** of Global Mn alloys production in 2021



Manganese BU key features (1/2)

Reserves

- Reserves' lifetime > **20 years** in Gabon
- Operated for 50 years

2021 production

Mn ore

7 Mt

Mn alloys

c.750 kt

Industrial set-up

- Gabon:** Moanda, world's leading high-grade (44%) manganese ore mine
 - > Operated by Comilog,
 - > Highly competitive cash cost
 - > Ore transportation to Libreville port (600 km of track), operated by Setrag, a 51% subsidiary of Comilog
- Europe (Norway, France), USA, Gabon:** 6 pyro-metallurgical plants to transform the ore into alloys
 - > Lowest carbon footprint

Manganese BU key features (2/2)

Market Share

- ▶ **1st global producer** of high-grade Mn ore
- ▶ **1st global producer** of refined Mn alloys
- ▶ Main market for Mn Alloys: **Europe and North America**

Key Players

Mn ore	Mn alloys
   Jupiter Mines Limited	 Ferroglobe Privat  

Key Consumers

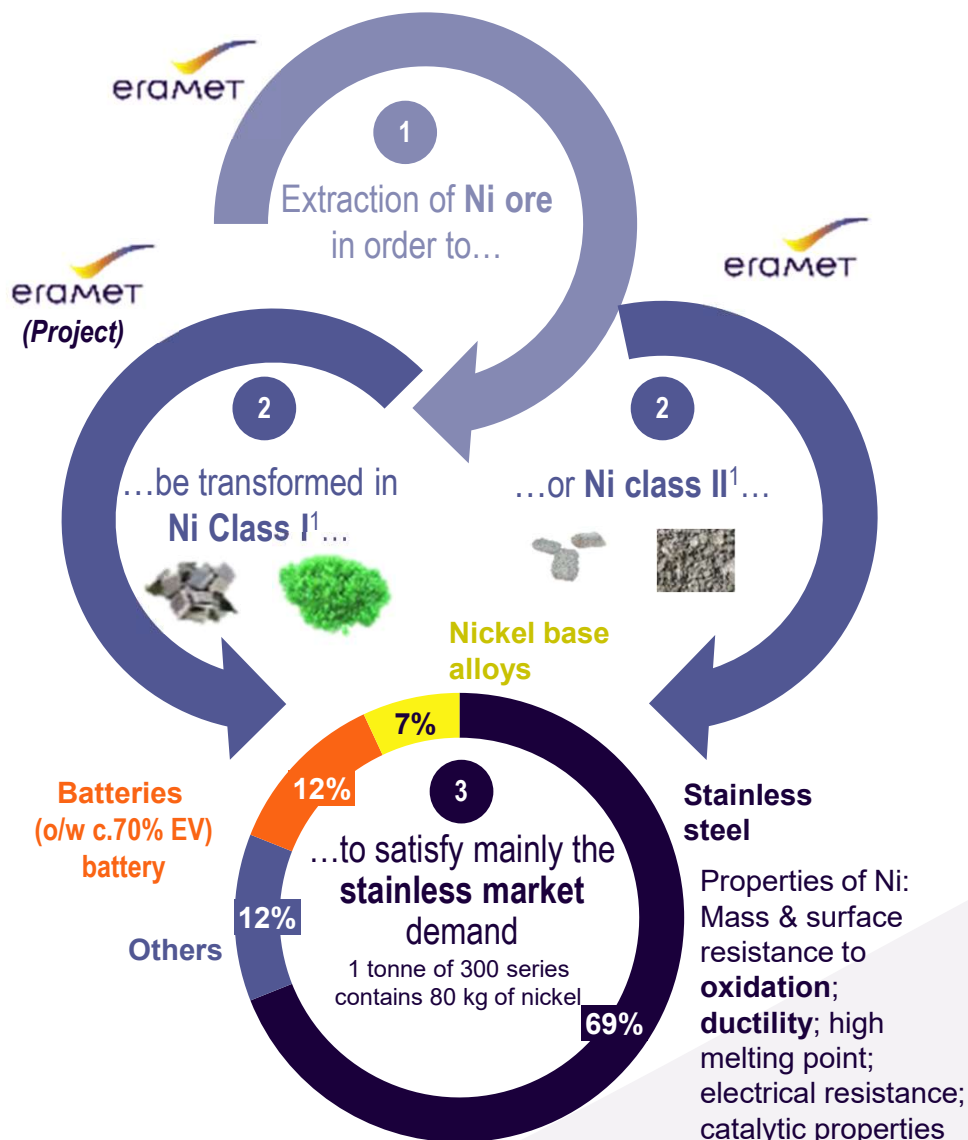









Nickel main growth drivers: stainless steel and batteries



Nickel ore

- **Sulfide-type ore** (Canada, Russia), **26%** of global production
 - > Nickel combined with several other valuable metals
 - > to be transformed in nickel concentrate
- **Laterite-type ore** (New Caledonia, Indonesia), **74%**
 - > Nickel to be transformed into ferronickel, NPI (“Nickel Pig Iron”) or nickel metal

Primary Nickel production²

- **Class I Product:** Nickel salt and Nickel metal through hydrometallurgical process
- **Class II Product:** Ferronickel (15-50% Ni) and NPI (<15% Ni) through pyrometallurgical process

Key Features

- Nickel is **traded on the LME and SHFE** index (pure metal, Class I)
- **China: 57 %** of global stainless-steel production in 2021
- **Global nickel demand: x3.5³** by 2040 vs. 2020, mainly driven by battery metals growth

¹ Class I: product with nickel content of 99% or more; Class II: product with nickel content of less than 99%

² Excluding Recycling

³ Source: Market studies, Eramet





Nickel BU key features (1/2)

Reserves



- Reserves' lifetime **> 25 years** for both New Caledonia and Indonesia
- Operated for ~130 years in New Caledonia and since 2019 in Indonesia

Industrial set-up



- Indonesia (PT Weda Bay):** world class deposit, largest nickel mine, 1 ferroalloys¹ plant (NPI)
 - > First-tier mine
- New Caledonia (SLN):** 5 highly competitive mines and 1 pyro metallurgical plant
 - > High-grade ferronickel (23% Ni) and nickel ore exported (1.7 to 1.9 % Ni)

2021 production

Weda Bay

14 Mwmt
nickel ore ²

C.39 kt-Ni
nickel ferroalloys²

SLN

5.4 Mwmt
nickel ore
o/w **C.3 Mwmt** exported

C.39 kt-Ni
ferronickel

¹ Eramet holds a 43% stake in Strand Minerals Pte. Ltd, (the holding company which owns 90% of PT Weda Bay Nickel), in partnership with Tsingshan, the leading global producer of stainless steel

² On a 100% production basis

Nickel BU key features (2/2)

Market Share



- 4th high grade ferronickel producer worldwide
- 1st source of high grade seaborne ore (exports from New-Caledonia)

Key Players



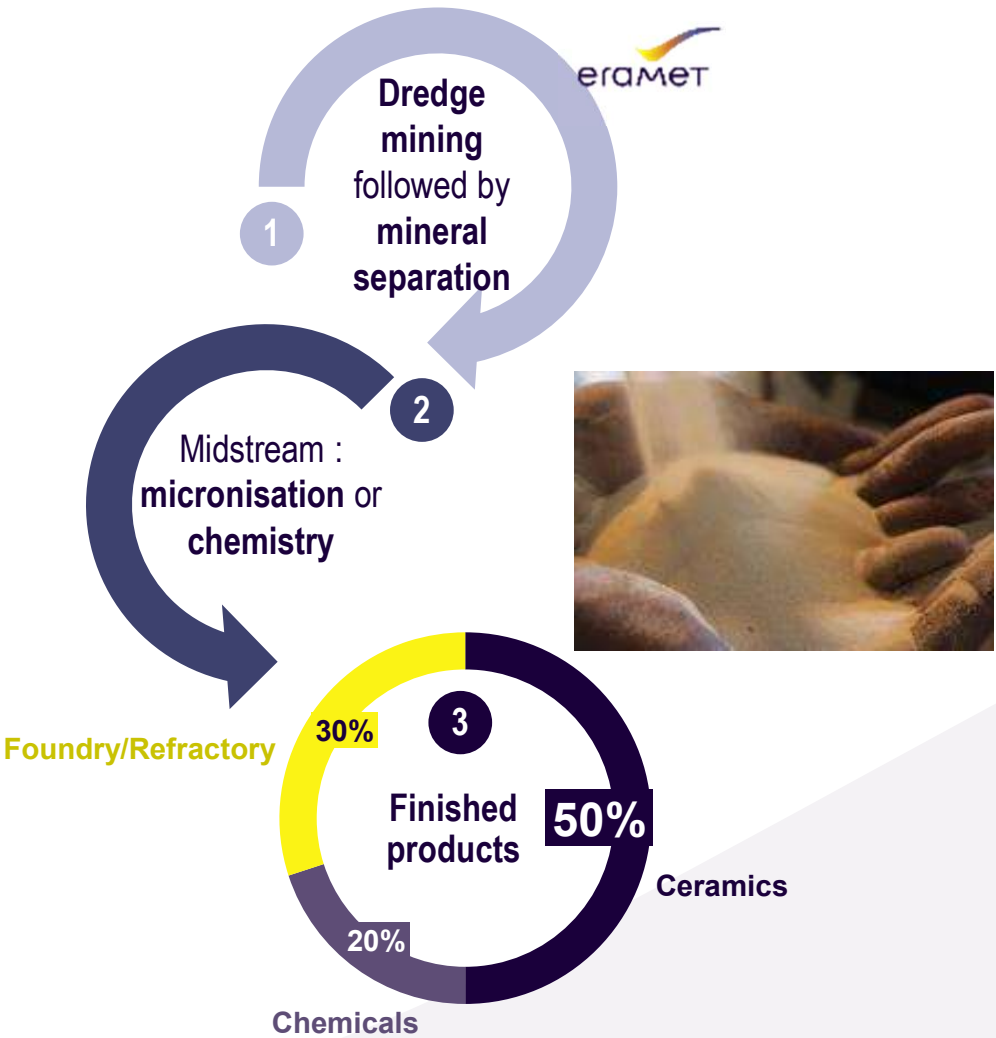
Key Consumers



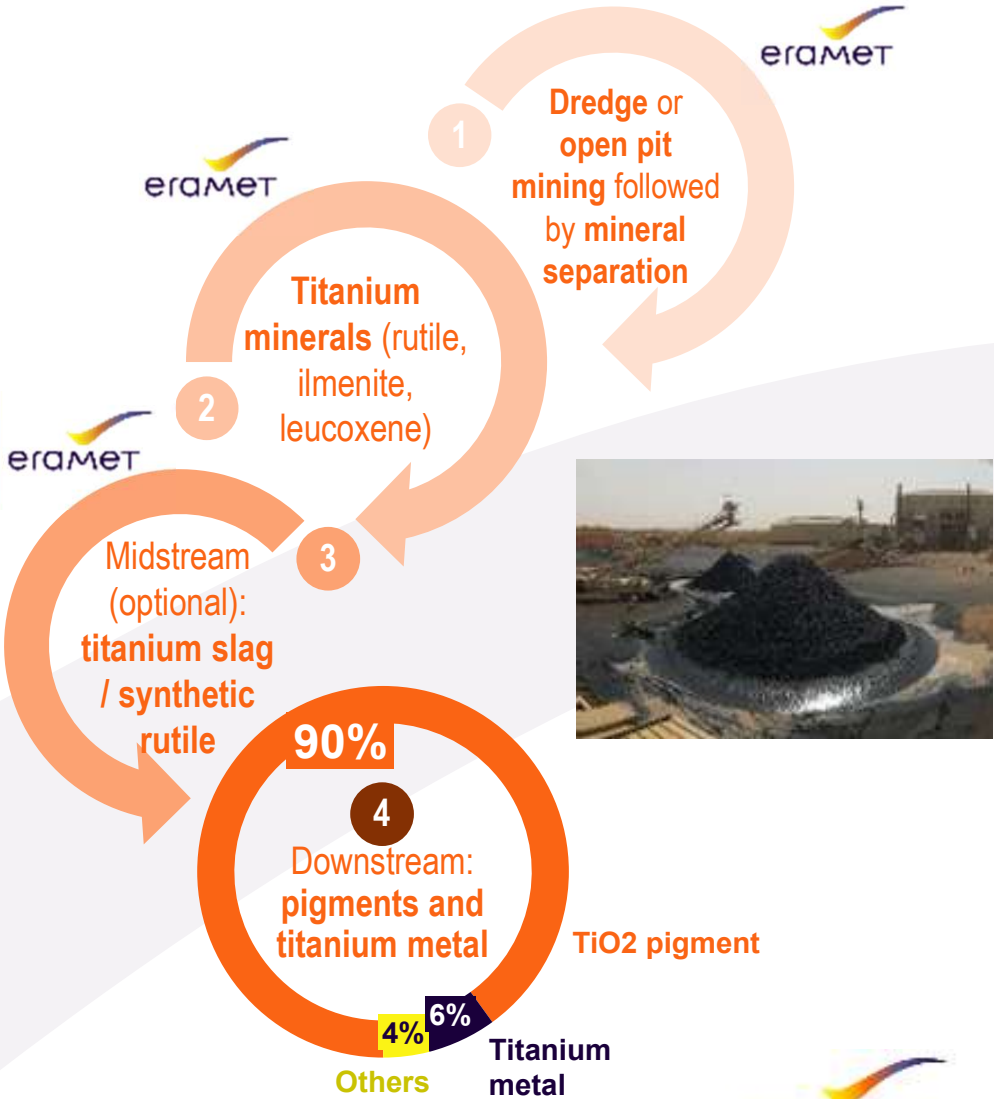


Mineral Sands main growth drivers: ceramics and pigments market

Zircon key features



Titanium dioxide key features





Mineral Sands BU key features (1/2)

Reserves

- Reserves' lifetime **> 20 years** in Senegal (Zircon & Titanium ore¹)
- Operated since 2014

Industrial set-up

- Senegal (GCO):** world's largest single dredge mineral sands operation
 - Ore rail transportation from mine to Dakar port operated by GCO
- Norway (TTI):** 1 metallurgical plant
 - Transformation of ilmenite (metallurgical valorization) into titanium slag and pig iron
- Cameroon:** launch of pre-feasibility study for Akonolinga project (rutiliferous block) in 2022

2021 production

HMC ²	Zircon	TiO ₂ Slag
804 Kt	64 Kt	209 Kt



Mineral Sands BU key features (2/2)

Market Share



- 4th global producer of zircon
- 4th global producer of titanium feedstock

Key Players

TRONOX

KENMARE

BASE RESOURCES

RioTinto

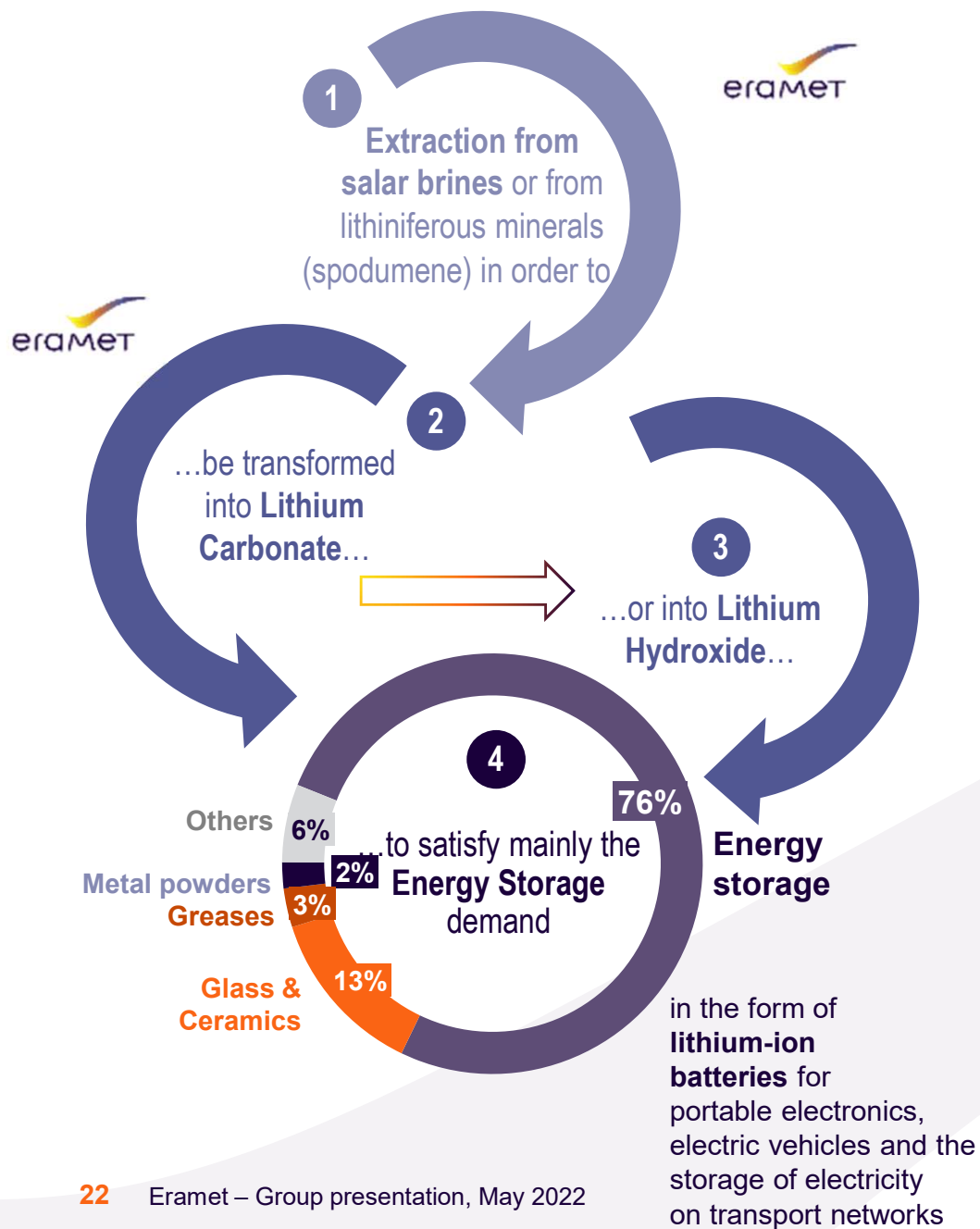
ILUKA





Develop metals for energy transition

Lithium main growth drivers: energy storage, including Li-on EV battery



Key Features

- ▶ **Energy storage market:**
 - > Mainly driven by environmental regulations, EV sales and mobility development
- ▶ **Li-ion batteries' cathodes:**
 - > Composition includes lithium carbonate or lithium hydroxide
- ▶ **Global lithium demand for battery metals**
 - > **x14¹** by 2040 vs. 2020



Lithium BU (in development) key features (1/2)

Reserves

- Reserves' lifetime > **40 years** in Argentina (LCE¹)

Market Share

- Lithium expected market share post full ramp-up¹: **c. 2.5%**

Industrial set-up

- Argentina:** majority share of **50.1%** for Eramet,
 - > Pilot plant operating in real conditions since December 2019
 - > First large-scale and sustainable lithium industrial complex leveraging on its own process in Europe (in development)

Clear path to start up

Q1 2022
Start of plant construction

Q1 2024
Commissioning

H2 2025
*Full ramp-up at **24ktpa***

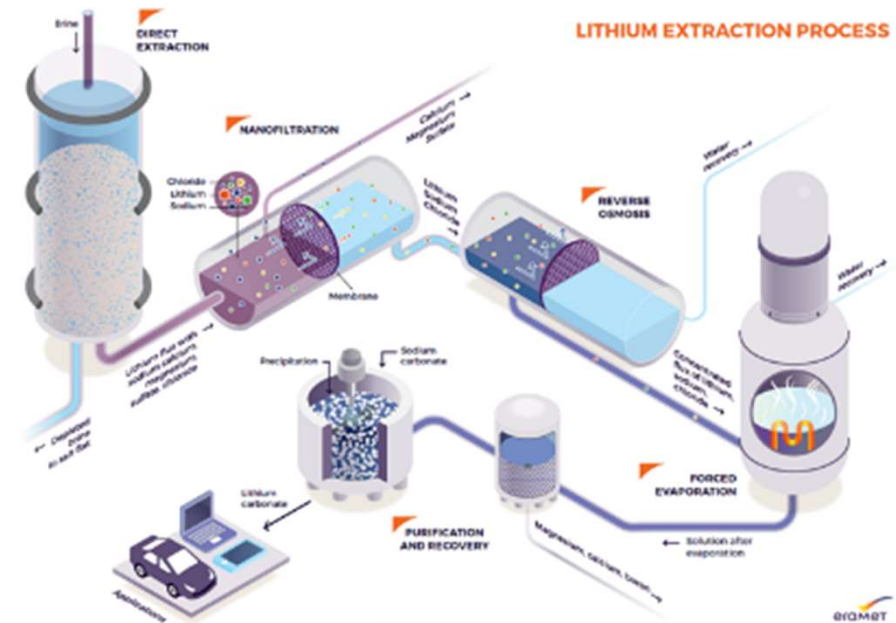
Potential for further development



Lithium BU (in development) key features (2/2)

Direct Lithium Extraction (DLE) process

- Use of an active solid to extract and concentrate the lithium: **competitive process developed by Eramet**
- ~90%** lithium recovery yield
 - > **much higher** than traditional evaporation process
- 1 week** lead time
 - > vs. 18 months on evaporation process
- Optimized** management of the deposit's hydric balance
- A **pilot plant** is in operation on site since Dec. 2019 and has demonstrated, in real conditions, the performance of Eramet's process



Battery-grade Ni/Co project co-developed with BASF in Indonesia: study phase to be completed in 2022



- Production of nickel-cobalt for the manufacturing for **Li-ion batteries**
- Partnership with **BASF** since 2020:
 - > Evaluation of hydro-metallurgical plant development, incl. a high-pressure acid leaching (“**HPAL**”) unit
 - > Ore from **Weda Bay deposit**
- **Highest CSR standards:**
 - > Implementation of the most stringent local regulations as well as **Eramet’s environmental & social standards and policies**
 - > No deep-sea tailings disposal

**Mid-2020
decade**

Expected installations
start-up



Entering pre-industrialization studies for the battery recycling project



Major progress in the Li-ion battery recycling project

- **An innovative closed-loop process** fully piloted in 2020-2021 within Eramet Research & Innovation Center
- **Developing our partnership with SUEZ** to produce “black mass” (a metal concentrate of nickel, cobalt, manganese, lithium and graphite) from end-of-life lithium-ion battery recycling
 - > 2022-2024: initiating the pre-industrial phase, based on maturity achieved over several years of R&D
 - > **2024**: estimated target date for the **start of blackmass production in France**
- **Start of industrialization studies** for blackmass and other scrap refining in France
 - > **Stand-alone 100% Eramet** for battery grade metals production from blackmass
 - > **2022-2024**: construction and operation of a pre-industrial demo-plant at Eramet Research & Innovation center in Trappes
 - > **2025-2026**: estimated target date for **start of refining operation in France**

STRATEGIC METAL RECYCLING: a virtuous circular economy approach, key for European sovereignty and responsible supply



R&D Innovation

Eramet Ideas*: a European center of excellence in mining, extractive metallurgy and circular economy

Open innovation approach

- Leadership / partnership in European projects
- Innovation Council of worldwide academic experts
- Open innovation challenge

High-level R&D infrastructure in Trappes, near Paris

- 60+ years of experience
- Lab & Pilot facilities in geometallurgy, hydrometallurgy & pyrometallurgy
- High performance observation tools

Strategic projects

- Lithium Battery Recycling:** development of an innovative process for recycling lithium-ion batteries used in electric vehicles
- Ni-Co:** production of nickel and cobalt sulfate for the Lithium battery market
- FerroAlloys:** invent the technology leading to zero carbon dioxide emission.

150

experts, engineers and technicians

1st

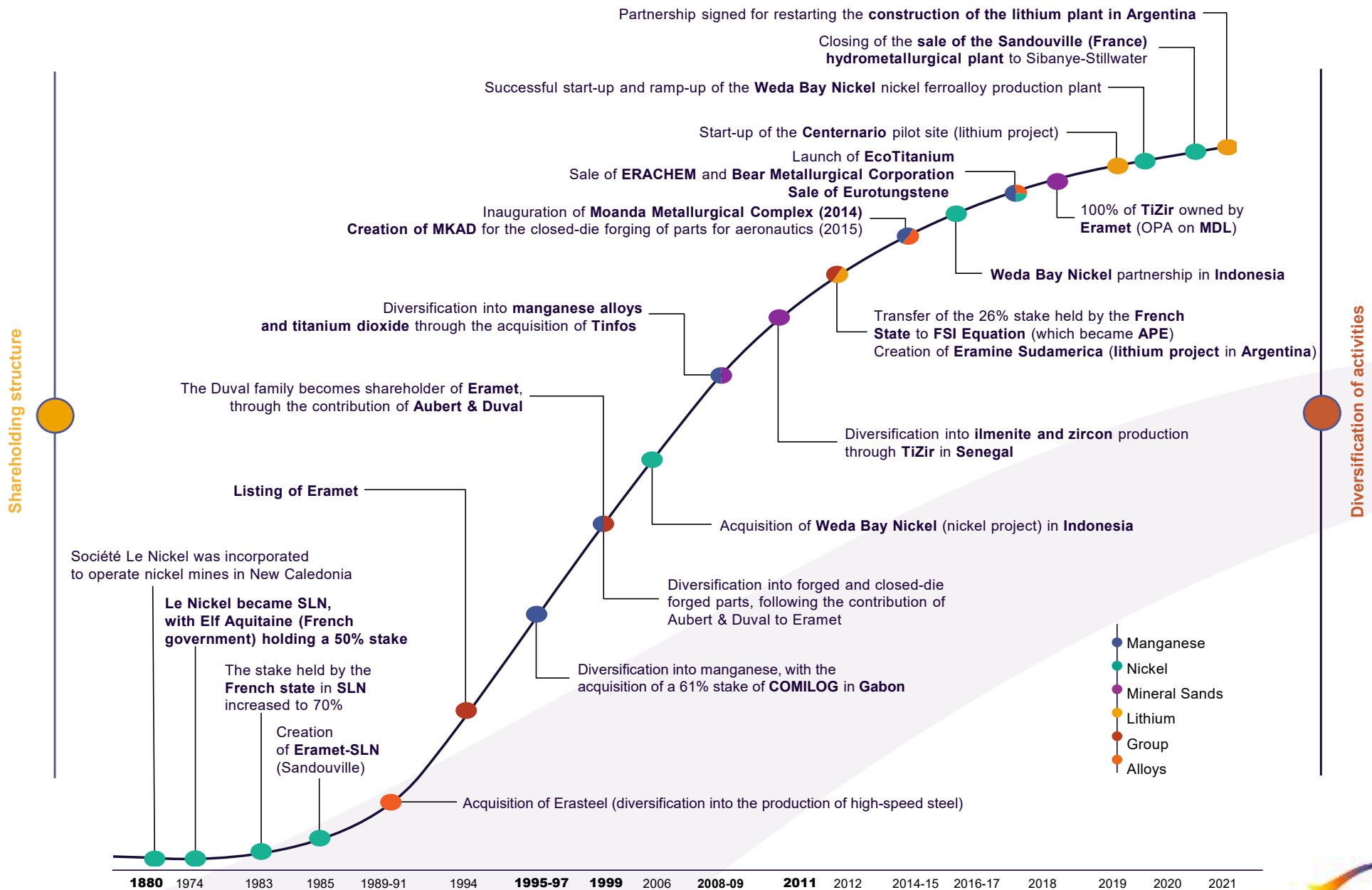
microscope in Europe equipped with QEMSCAN mineralogy software

Our Partners

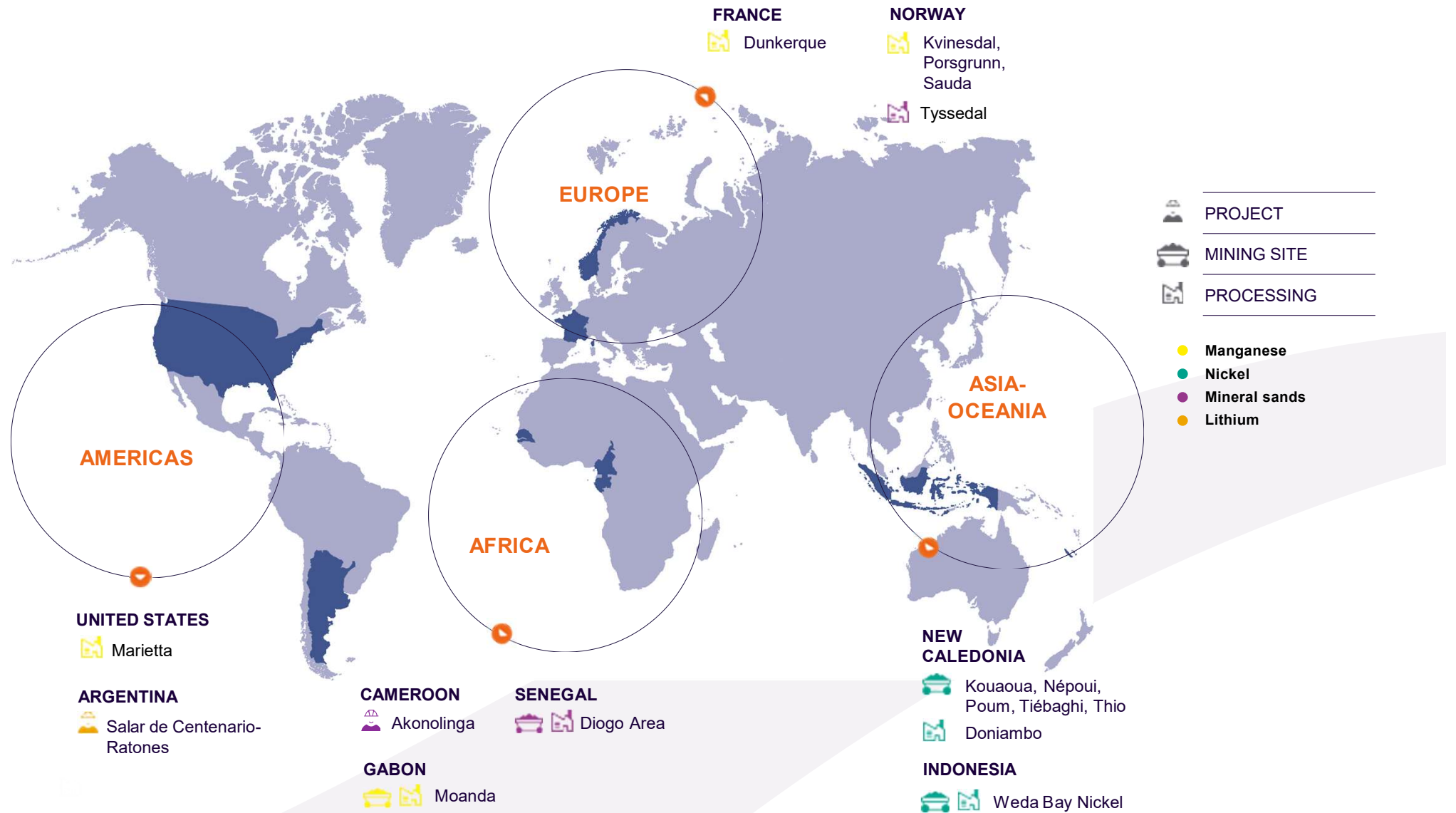


Appendices

A longtime player

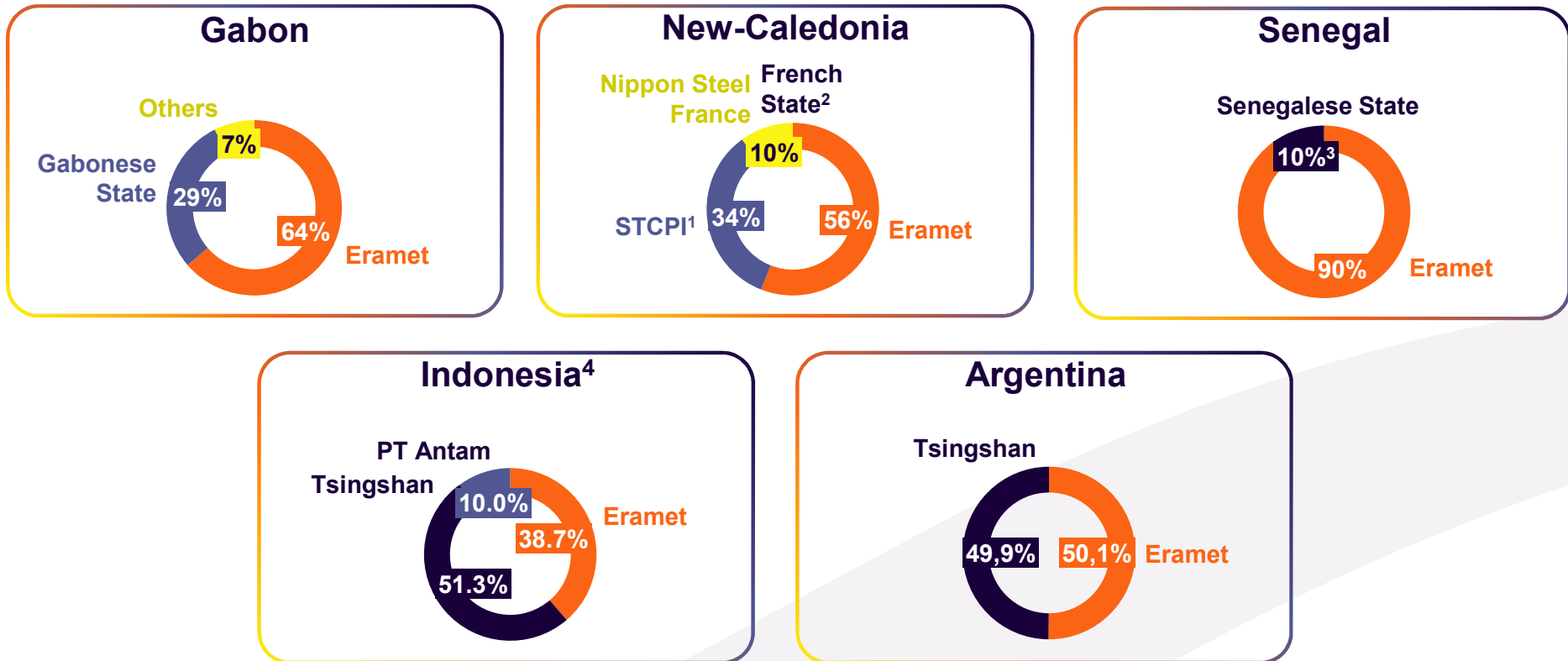


A global geographic footprint



Key partnerships with host countries and territories

Eramet associates the main countries and territories where it operates



Significant contribution to the local economies

➤ **#2** private employer in Gabon and main private employer in New Caledonia

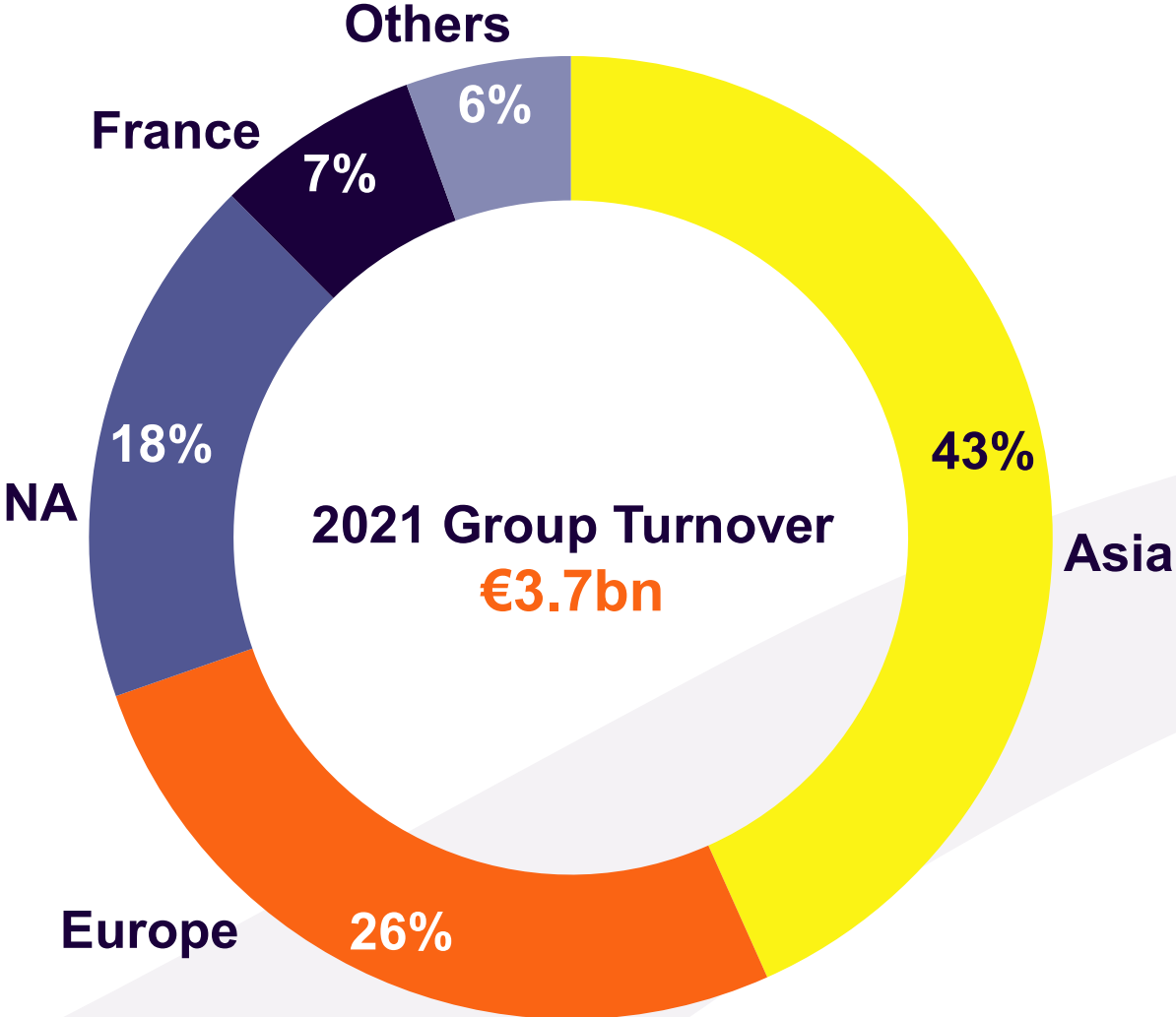
¹ STCPI (Société Territoriale Calédonienne de Participation Industrielle): entity owned by the New Caledonian provinces, holds around 4% of Eramet's share capital

² 1 share

³ TiZir's operations in Senegal

⁴ Eramet holds a 43% stake in in Strand Minerals Pte. Ltd, holding company which owns 90% of PT WB Nickel

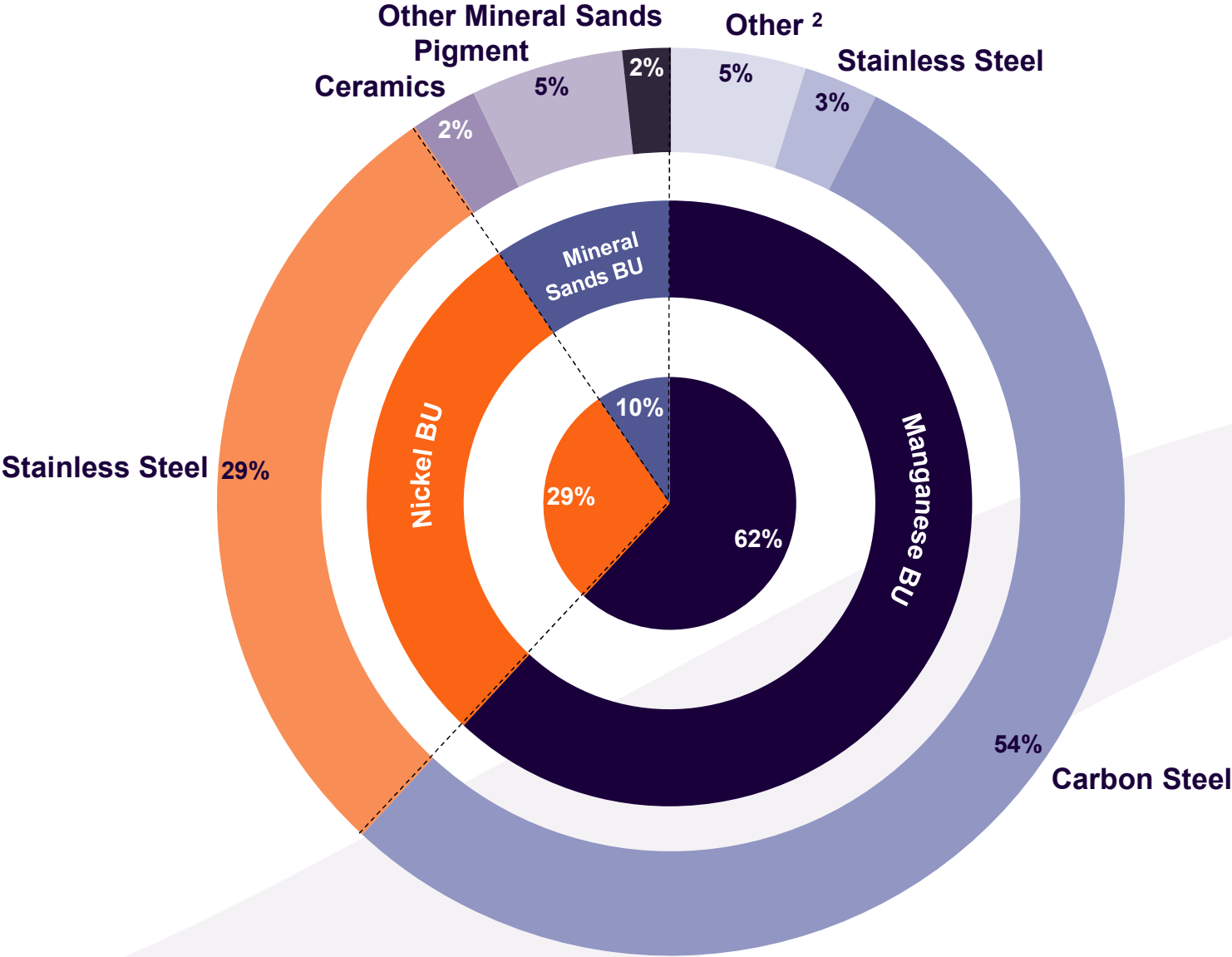
2021 Group turnover¹ by sales destination



¹ Application of IFRS 5 i.e. excl. Discontinued operations at 31 December 2021 (Aubert & Duval, Erasteel, Sandouville)



2021 Group turnover¹ by end market



¹ Application of IFRS 5 i.e. excl. Discontinued operations at 31 December 2021 (Aubert & Duval, Erasteel, Sandouville)
² Chemicals, foundry and third party transportation



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