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Contents

1 - Eramet presentation

2 - 2018 Financial results

3 - Operating performance

4 - Strategic vision and orientations

5 - Conclusion and outlook
Eramet at a glance
A global leader and a diversified mining and metallurgical Group

2 divisions with global leading positions

High Performance Alloys Division
27%

Erasteel
6%

Mineral Sands BU
6%

Nickel BU
19%

Mining and Metals Division
73%

Manganese BU
48%

Aubert & Duval
21%

Historic and stable shareholders

Others float
32.1%

BRGM
1%

STCPI
4.0%

25.6%

APE

36.9%

SORAME + CEIR (Duval Family)

1 BRGM (Bureau de Recherches Géologiques et Minières): the French Geological Survey Office
2 STCPI (Société Territoriale Calédonienne de Participation Industrielle): entity owned by the New Caledonian provinces
3 COI / Capital employed1 of year n-1

€3,825m sales

22% EBITDA margin

€581m current operating income (COI)

€281m of capital expenditure

38% gearing

19% ROCE

12,700 Employees in 20 countries

In 2018  In 2017
A Mining and Metals Division with world-class deposits and significant resources for several decades

### Manganese BU
- #2 global producer of high-grade manganese ore
- #2 global producer of manganese alloys
- #1 global producer of refined manganese

#### Market share

#### Industrial set-up
- A highly competitive manganese mine in Gabon: 4.3 Mt manganese ore produced
- 6 pyro metallurgical plants in Europe, USA, Gabon: 720 kt manganese alloys produced

#### 2018 Key figures
- Sales: €1,857m
- Headcount: c.3,900

### Nickel BU
- #1 high grade Ferronickel producer worldwide
- One of the high purity nickel salts producer worldwide

#### Market share

#### Industrial set-up
- 4 operated mines, 1 pyro metallurgical plant in New Caledonia: 55 kt ferronickel produced / 1.2 Mt nickel ore exported
- 1 high purity nickel refinery in France
- 1 NPI\(^1\) plant under construction in Indonesia

#### 2018 Key figures
- Sales: €738m
- Headcount: c.2,300

### Mineral Sands BU
- #4 global producer of zircon
- #5 global producer of titanium feedstock

#### Market share

#### Industrial set-up
- The world largest single dredge mineral sands operation in Senegal: 774 kt of HMC\(^2\) produced
- 1 metallurgical plant in Norway: 189 kt of titanium dioxide slag

#### 2018 Key figures
- Sales: €212m
- Headcount: c.900

---

\(^1\) Nickel Pig Iron (low-grade nickel ferroalloys) ; \(^2\) Heavy Minerals Concentrate (HM sands content)
Steel (carbon and stainless) accounting for more than 60% of Eramet’s end-markets

**Manganese BU**
- Carbon steel: 90%
- Chemistry and other application: 10%

**Nickel BU**
- Stainless steel: 69%
- Nickel base alloys: 10%
- Batteries: 6%
- Others: 15%

**Mineral Sands BU**
- Zircon: 51%
- Titanium metal: 90%
- CP Slag: 4%
- Others: 6%

---

**Resources**
- **Gabon**: 269 Mt resources
- Resources lifetime > 40 years
- Operated for 50 years

**New Caledonia**: 190 Mt resources
- Indonesia – Weda Bay Nickel: 635 Mt resources
- Resources lifetime ~ 50 years
- Operated for ~130 years (NC)

**Senegal (Zircon & Ilmenite)**: 25.7 Mt resources (HMC²)
- Resources lifetime > 30 years
- Operated since 2014

**Lithium BU** (project in Argentina): 9.9 Mt drainable resources (LCE²); development ongoing; investment decision in spring 2019

---

1. 9 Mt Nickel content (held at 43% by Eramet);
2. Heavy Minerals Concentrate (HIM sands content)
A High Performance Alloys Division with unique know-hows dedicated to high end-markets

- #2 high-power closed-die forged parts producer worldwide
- A European leader in forgings for defense and nuclear markets
- A European actor in aerospace long products
- A European leader in gas-atomized powders for additive manufacturing
- A worldwide leader of powder metallurgy high speed steel
- Workforce: c.5,100

**Aubert & Duval**

- Aerospace: 16%
- Land turbines: 7%
- Oil, Nuclear, Defence: 6%
- Others: 70%

2018 Sales: €793m

**Erasteel**

- High-speed steels, Tooling & Specialities: 94%
- Recycling: 6%

2018 Sales: €227m
Mining and Metals Division
Key Features
Manganese main growth drivers: carbon steel (90% of global production) and China

Manganese key features

1. 3 types of manganese ore
   - “Low-grade local” ore: < 30% of manganese content
   - “Medium-grade” ore: 30% but < 43%
   - “Rich” / “High-grade” ore: > 43%

2. Two manganese alloys families
   - Standard
     - High carbon ferromanganese (6 to 8% carbon)
     - Standard silicomanganese (< 1.5 to 2% carbon)
   - Refined
     - Of which medium carbon ferromanganese (< 1.5 to 2% carbon)

3. No market trade: Spot prices
   - CRU index: monthly
   - Metal Bulletin index: weekly

4. China: 52% of global carbon steel production

Manganese makes steel harder, more elastic and more wear-resistant. Widely used in the construction and automotive sectors.

Chemistry batteries, fertiliser and paint pigments and other metallurgical applications.
Manganese BU: a first class competitiveness thanks to excellent mining operation

**Manganese BU key features**

- **A manganese mine in Gabon** (Moanda), operated by Comilog
  - High-grade oxyde ore 44%

- **Two units of local transformation** in Gabon, CIM and CMM, for high grade manganese production and manganese alloys

- **5 pyrometallurgical industrial plants** in the USA and in Europe (1 in France, 3 in Norway)

- Ore transportation in Gabon operated by a 100% owned railway company

---

*CRU, Eramet analysis*
Nickel main growth drivers: stainless steel and batteries

- **Two main types of nickel ore**
  - **Sulfide-type ore** (nickel combined with several other valuable metals) as in Canada, Russia to be transformed in Nickel concentrate
  - **Laterite-type ore** as in New-Caledonia and Indonesia to be transformed into ferronickel, NPI (“Nickel Pig Iron”) or nickel metal

- **1 tonne of serie 300 (inox) contents 80 kg of nickel**

- **Nickel is traded on the LME index (pure metal)**

- **China: 53% of global stainless steel production**

Nickel key features

- **Stainless steel**
  - Mass & surface resistance to oxidation; ductility; high melting point; electrical resistance; catalytic properties
  - Widely used in transport, construction, hygiene and health

- **Nickel key features**
  - 69% of stainless steel
  - 6% of batteries
  - 15% of other applications

1 Ferronickel and NPI through pyrometallurgical process
2 Nickel Salt and nickel metal through hydrometallurgical process
Nickel BU: a key transformation underway

Nickel BU key features

- Implementation of new business model in New Caledonia:
  - 5 operated mines and one pyrometallurgical plant
  - High-grade ferronickel (23% Ni) and nickel ore exported (1.7 to 1.9 % Ni)

- Ramp-up of the nickel refinery in Sandouville, France
  - Production of nickel salts and high-purity nickel (Total capacity of 15,000 t)

- Construction of Weda Bay nickel project
  - One of the world's largest undeveloped nickel deposits
  - Project to be developed in partnership with Tsingshan, #1 global stainless steel producer
  - 13 kt off-take Eramet (start of production end 2020)
Mineral Sands growth drivers: ceramics and pigments market

Zircon key features
- Long Term pricing agreement\(^1\) (spot prices in China only)

Titanium dioxide slag key features

1. Dredge or open pit mining followed by mineral separation
2. Titanium minerals (rutile, ilmenite, leucoxene)
3. Midstream (optional): titanium slag / synthetic rutile

---

\(^1\) LT agreements between buyers and sellers, on a yearly or half-year basis mainly; not exchange traded, no published price index.
Mineral Sands BU: operations integrated from the mine in Senegal to the conversion plant in Norway

Mineral Sands BU key features

- **TiZir Senegal:**
  - Extraction of heavy mineral (mineral raw materials which contain heavy minerals concentrated).
  - Production of ilmenite (titanium-iron oxide), leucoxene, rutile and zircon

- **Ore rail transportation from the mine** to the port of Dakar operated by TiZir

- **TiZir Norway:** Transformation of ilmenite (metallurgical valorization) into titanium slag and pig iron

Main competitors

- TRONOX
- KENMARE
- BASE RESOURCES
- ILUKA
- RioTinto
High Performance Alloys Division
Key Features
A comprehensive industrial set up with unique tools

Located in:
- Europe (France, Sweden, Spain)
- Asia (India, China)
- US

Main competitors
- ARCONIC
- voestalpine
- PCC
- AVISMA
- ATI
- CARPENTER

Main customers
- ASCO
- IHI
- AIRBUS
- GE POWER
- SAFRAN
Q1 2019 & FY 2018
Key Performance Indicators
Q1 2019 sales at a high level, driven by new production records

Sales: €873m
In line with Q1 2018

- Record Q1 production thanks to new organisations implemented
  - manganese ore: 1 Mt, +14% vs. Q1 2018
  - nickel ore: 908 kth, +22%

- Significant progress in SLN’s rescue plan
  - authorisation\(^1\) to export 4 Mt of nickel ore per year
  - implementation of the “147-hour agreement”

- Favorable impact of Mineral Sands activity: sales to €59 m (+136%)

- 2019 production targets confirmed
  - 4.5 Mt of manganese ore produced
  - 1.5 Mt of nickel ore exported

\(^1\) from the New Caledonian government
Q1 2019 sales adversely impacted by decline in metals prices and delays in deliveries at Aubert & Duval

Mining and Metals Division

- **Decline** in manganese ore spot price\(^1\) (-11% vs. Q1 2018) and nickel price\(^2\) (-7%)

- **SLN** East Coast mining centers disruptions
  > Decrease in ferronickel production and sales
  > Q1 cash cost comparable with that of 2018

- **Q1 progress at Sandouville** plant to be consolidated and confirmed in the long term

High Performance Alloys Division

- **Aubert & Duval**’s sales penalised by delivery delays due to the conformity programme for quality processes (-24%)

- **Erasteel**’s sales increased due to a favourable raw material price effect (+12%)

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\(^1\) CIF China 44% manganese ore, CRU index
\(^2\) LME price (London Metal Exchange)
High current operating income (COI) in 2018

- **Sales**: €3,825m, up 5% vs 2017
- **EBITDA**: €843m
- **COI**: €581m (Current operating income), down 4% vs 2017
- **Net debt**: €717m
- **Net income – Group share**: €53m
- **Gearing**: 38%
- **ROCE**: 22%

Key divisions and contributions:
- **High Performance Alloys Division**: 27%
- **Mining and Metals Division**: 73%
- **Manganese BU**: 48%
- **Nickel BU**: 19%
- **Mineral Sands BU**: 6%

1 Net debt-to-equity ratio
2 COI divided by capital employed for previous year
High EBITDA, in line with guidance (2/2)

Favourable price environment for metals and minerals

- Average price of manganese ore\(^1\) high in 2018: +20% vs 2017
- Average nickel price on the LME rising: +26%
- Average price of zircon\(^2\) and CP quality titanium dioxide slag\(^3\): +33% and +12%

Adverse impact of input costs and currencies

- Brent, freight, coke and energy: -€72m impact on 2018 COI
- €/USD exchange rate (+5%): -€38m

---

\(^1\) CRU index (manganese ore): CIF China 44%
\(^2\) Source: FerroAlloyNet.com, Eramet analysis
\(^3\) Source: Market consulting, Eramet analysis
Divisions with contrasting performances

Mining and Metals Division

- Positive price effect: +€299m
- **Negative squeeze effect** on manganese alloys’ margins: -€133m
- **Production difficulties in Nickel BU:**
  - SLN: disrupted social and societal context
  - Sandouville: ramp-up difficulties

High Performance Alloys Division

- **Erasteel progress**
- **Unfavourable market environment** in Aerospace and Energy sectors for Aubert & Duval
- **Activity impacted at end-2018** at Aubert & Duval due to conformity programme for quality processes
Accident frequency rate down 23% both in 2018 and Q1 2019

Frequency (TF2) Eramet Group¹

All employees’ and managers’ involvement substantially increased

Continued roll-out and assessment of:
- Essential Safety Requirements
- Safety Interactions

Q1 2019 TF2²: 6.4

¹ TF2 = number of lost time and recordable injury accidents for 1 million hours worked.
² Including employee and subcontractors
2018 financial results
## Second consecutive year of value creation

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales (€m)</td>
<td>3,825</td>
<td>3,652</td>
</tr>
<tr>
<td>EBITDA (€m)</td>
<td>843</td>
<td>871</td>
</tr>
<tr>
<td>% Sales</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td>Current operating income (€m)</td>
<td>581</td>
<td>608</td>
</tr>
<tr>
<td>% Sales</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Net income – Group share (€m)</td>
<td>53</td>
<td>203</td>
</tr>
<tr>
<td>Net debt (Net cash) (€m)</td>
<td>717</td>
<td>376</td>
</tr>
<tr>
<td>Gearing (Net debt-to-equity ratio)</td>
<td>38%</td>
<td>19%</td>
</tr>
<tr>
<td>ROCE (COI / capital employed(^1) for previous year)</td>
<td>22% ✔</td>
<td>21% ✔</td>
</tr>
</tbody>
</table>

The data presented and commented on is adjusted data from Group Reporting, in which joint ventures are accounted for using proportionate consolidation. The reconciliation with the published financial statements is presented in the appendices.

\(^1\) Sum of shareholders’ equity, net debt, provisions for site rehabilitation, restructuring and other social risks, less financial fixed assets, excluding Weda Bay Nickel capital employed
Net income impacted by non-current income and expenses

<table>
<thead>
<tr>
<th>€m</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>3,825</td>
<td>3,652</td>
</tr>
<tr>
<td>Current operating income</td>
<td>581</td>
<td>608</td>
</tr>
<tr>
<td>Other operating income and expenses</td>
<td>(116)</td>
<td>(41)</td>
</tr>
<tr>
<td>o/w: Non-current provisions (A&amp;D quality review)</td>
<td>(65)</td>
<td>0</td>
</tr>
<tr>
<td>Provisions on asset impairment tests - A&amp;D</td>
<td>(200)</td>
<td>0</td>
</tr>
<tr>
<td>Reversal of asset impairment tests - GCO / EMI</td>
<td>97</td>
<td>44</td>
</tr>
<tr>
<td>Capital gain on disposal - Guilin / Weda Bay Nickel</td>
<td>158</td>
<td>0</td>
</tr>
<tr>
<td>Financial result</td>
<td>(95)</td>
<td>(117)</td>
</tr>
<tr>
<td>Share in income from associated companies</td>
<td>(3)</td>
<td>(1)</td>
</tr>
<tr>
<td>Income tax</td>
<td>(241)</td>
<td>(221)</td>
</tr>
<tr>
<td>Net income</td>
<td>126</td>
<td>228</td>
</tr>
<tr>
<td>o/w Minority interests’ share</td>
<td>73</td>
<td>25</td>
</tr>
<tr>
<td>Net income – Group share</td>
<td>53</td>
<td>203</td>
</tr>
</tbody>
</table>

Dividend to be paid to shareholders in respect of FY 2018

€0.60
Per share, maintaining a 30% pay-out ratio

Proposed at General Shareholders’ Meeting, 23 May 2019
Continued strong contribution from Manganese BU

Current Operating Income – 2018

<table>
<thead>
<tr>
<th>In €m</th>
<th>2018</th>
<th>2017</th>
<th>Change $^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining and Metals Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese BU</td>
<td>699</td>
<td>719</td>
<td>-3%</td>
</tr>
<tr>
<td>Nickel BU</td>
<td>(111)</td>
<td>(125)</td>
<td>+11%^3</td>
</tr>
<tr>
<td>Mineral Sands BU$^1$</td>
<td>35</td>
<td>19</td>
<td>+84%</td>
</tr>
<tr>
<td>High Performance Alloys Division</td>
<td>(8)</td>
<td>32</td>
<td>-125%</td>
</tr>
<tr>
<td>Group</td>
<td>581</td>
<td>608</td>
<td>-4%</td>
</tr>
</tbody>
</table>

$^1$ TiZir 50% until 30 June, 2018, 100% from 1st July, 2018
$^2$ Data rounded up to higher or lower %
$^3$ Reduction of losses
Income highly sensitive to metal prices

<table>
<thead>
<tr>
<th>SENSITIVITIES</th>
<th>CHANGE (+/-)</th>
<th>ANNUAL IMPACT ON COI (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese ore prices</td>
<td>$1/dmtu</td>
<td>~€130m*</td>
</tr>
<tr>
<td>Manganese alloys’ prices</td>
<td>$100/t</td>
<td>~€70m*</td>
</tr>
<tr>
<td>Nickel prices</td>
<td>$1/lb</td>
<td>~€100m*</td>
</tr>
<tr>
<td>Exchange rates</td>
<td>$/€0.1</td>
<td>~€105m</td>
</tr>
<tr>
<td>Oil price per barrel</td>
<td>$10/bbl</td>
<td>~€16m*</td>
</tr>
</tbody>
</table>

* For an exchange rate of $/€1.2
Stable COI at high level

Favourable price environment for metals and minerals

Negative squeeze impact on manganese alloys’ margin:
- Lag of several months between price of ore consumed (from Comilog or third parties) and alloys’ selling price

Input costs with significant impact (fuel, metallurgical reducing agents (coke) and freight)

Intrinsic performance penalised by Nickel BU and Aubert & Duval’s volume of activity

Change in current operating income (COI) (€m)

<table>
<thead>
<tr>
<th>2017 COI</th>
<th>2018 COI</th>
<th>Mn and TiZir volumes</th>
<th>High Performance Alloys’ volumes</th>
<th>Nickel performance</th>
<th>Price impact</th>
<th>Mn Alloys squeeze impact*</th>
<th>Input costs**</th>
<th>Currency</th>
<th>Scope*** and Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>608</td>
<td>581</td>
<td>22</td>
<td>-32</td>
<td>-40</td>
<td>299</td>
<td>-133</td>
<td>-92</td>
<td>-38</td>
<td>-14</td>
</tr>
</tbody>
</table>

* Including ore produced internally and purchased externally
** Excluding the cost of ore purchased externally
*** Including TiZir
Industrial CAPEX in line with set target

- Investments dedicated to safety, environment, productivity and maintenance of industrial equipment: ~ €220m current

Industrial CAPEX (€m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth</th>
<th>EHS / Renovation / Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>243</td>
<td>103</td>
</tr>
<tr>
<td>2015</td>
<td>207</td>
<td>59</td>
</tr>
<tr>
<td>2016</td>
<td>179</td>
<td>38</td>
</tr>
<tr>
<td>2017</td>
<td>183</td>
<td>47</td>
</tr>
<tr>
<td>2018</td>
<td>224</td>
<td>57</td>
</tr>
</tbody>
</table>

New rail traffic management centre in Gabon
Positive Free Cash-Flow* in 2018, excluding TiZir acquisition

FCF positive excluding TiZir acquisition, down due to tax payments

- Cash consumption of €213m mainly due to the liquidation of Comilog's and Eramet Norway’s tax debt, vs -€37m in 2017
- Increase in current working capital requirements (WCR) (+€49m), mainly due to a higher level of stock in manganese activity
- Growth in industrial CAPEX of €50m

Acquisition and full consolidation of TiZir

- €220m in acquisition costs and €153m in debt

Free cash-flow (€m)

<table>
<thead>
<tr>
<th></th>
<th>H1 2016</th>
<th>H2 2016</th>
<th>H1 2017</th>
<th>H2 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset disposals</td>
<td>142</td>
<td>170</td>
<td>269</td>
<td>120</td>
</tr>
<tr>
<td>FCF excl. disposals / acquisitions</td>
<td>84</td>
<td>26</td>
<td>16</td>
<td>42</td>
</tr>
<tr>
<td>Acquisition of assets</td>
<td>-292</td>
<td>-253</td>
<td>-373</td>
<td>-253</td>
</tr>
</tbody>
</table>

*Sum of cashflow generated by business and investments and disposals
Net debt impacted by acquiring 100% of TiZir and payment of dividends

- Gearing at 38%
- High cash generation due to operating performance: current FCF at €563m
- Dividends paid to Eramet shareholders (€61m) and minority shareholders (€59m)

Net Debt (€m)

+€162m
FCF Excluding TiZir

-376
-376

843
+€563m
Current operating FCF

-213
-231
-50
-49
-90

-373

-123

-7

-717

2017 Net Debt
2018 Net Debt

EBITDA
Current WCR change
Current CAPEX
Major Projects
Financial result
Taxes*
Other income & expenses and others WCR
TiZir acquisition
Dividends
Others

* Current taxes and changes in working capital requirements (WCR) from corporate tax debt
Continued high liquidity at €2.5bn to support the Group’s strategic projects

**Revolving credit facility** ("RCF"):  
- RCF extended in February 2018 for €981m and 5-year maturity (term in 2023)  
- February 2019: maturity extended to 2024  
- Undrawn line to date

**European Investment Bank** ("EIB") financing:  
- €120m loan granted in October 2018 with 10-year maturity  
- Intended to support R&D expenditure, modernisation and digital transformation

---

**Group financial liquidity (€m)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Available cash</th>
<th>Undrawn line: Revolving Credit Facility (&quot;RCF&quot;)</th>
<th>Undrawn line: European Investment Bank (&quot;EIB&quot;) financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>31/12/2016</td>
<td>1,698</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31/12/2017 pro forma*</td>
<td>1,825</td>
<td>981</td>
<td>981</td>
</tr>
<tr>
<td>31/12/2018</td>
<td>2,468</td>
<td></td>
<td>1,367</td>
</tr>
</tbody>
</table>

* Pro forma of the repayment of the €250m RCF drawdown on 18 January 2018 and post-extension to 2023 of the RCF signed on 13 February 2018
No major debt maturity in 2019

- Group gross debt at €2,083m at 31 December, 2018
- **Average maturity** of Group's 3.2-year debt
- Approximately 90% at a **fixed rate**

Debt maturity at 31 December, 2018 (€m)

- Commercial papers, bank and operating debts
- Eramet and TiZir bonds
- French govt. loan to SLN
A financial strategy supporting the growth of the Group

Targets given volatile and cyclical markets
- Minimum amount of available cash of €500m in closing balance sheet
- Gearing less than 100%

Compliance with these targeted thresholds at end-2018
- Available cash of €1.4bn and 38% gearing

Financing of the Group’s growth projects
- Expansion of Moanda mine (Gabon): mandate given to World Bank to syndicate financing
- Lithium project: objective to set up a new specific financing
- Subject to a decision on these investments being made in spring 2019
Operating performance
Mining and Metals Division
Manganese BU

2nd global producer of high-grade manganese ore

2nd global producer of manganese alloys

1st global producer of refined manganese
Continued growth in Q1 2019, after a new historical annual record for global steel carbon production in 2018

- **2018** Global carbon steel production up **4.4%**, driven in particular by China (+6.6%) and India (+4.9%)
- **Production at full capacity** of all global manganese ore producers. Slight surplus of manganese ore supply: stocks in Chinese ports at **3.1 Mt** at end-2018, up **1.3 Mt** over the year
- **Q1 2019** carbon steel production up **3.3%** (to **445 Mt**), mainly driven by China (+8.4%). Demand for manganese ore still strong. Stocks in Chinese ports at a stable level

Source: Worldsteel Association / Eramet
Manganese ore prices at a high level, erosion of alloys’ prices in 2018, stable in Q1 2019

- Average manganese ore prices at a high level, **USD 7.16 /dmtu** in 2018 (+20%)
- Decline in manganese alloys’ prices in Europe (-12% for refined ferromanganese), resulting in a significant margin squeeze
- **Q1 2019** average manganese ore prices: **USD 6.59/dmtu** (-11% vs. Q1 2018; -8% vs. Q4)

Monthly change in manganese ore and medium-carbon ferromanganese prices (refined)

![Graph showing monthly change in manganese ore and medium-carbon ferromanganese prices (refined). The graph includes price points for USD 7.16/dmtu in 2018 and USD 6.59/dmtu in Q1 2019.](image)
Record manganese ore production at Comilog both in 2018 and Q1 2019: target of 4.5 Mt in 2019

- Ore volumes transported at 4 Mt, penalised by logistical incidents: limited increase in external sales (+2% to 3.4 Mt)
- Steady growth in manganese alloys' production to 720 kt in 2018; record sales of refined ferromanganese alloys (+6% to 313 kt)
- Q1 2019 manganese ore production increased by 14% to 1 Mt. Record manganese alloys production at 191 kt (+7%)

![Manganese ore production and agglomerates](chart.png)

![Manganese alloys' production](chart2.png)

---

Investor Presentation - 14-15/05/2019
Nickel BU

1st global producer of high-grade ferronickel

One of the global producers of high-purity nickel salts
Slight slow down in global stainless steel production in Q1 2019, after another year of growth in 2018

- Global stainless steel production up 4.8% in 2018: up significantly in H1 (+9.7%) and stable H2 (+0.4%)
- Increase in global primary nickel production (+5.3%), driven by NPI in Indonesia (+77 kt vs 2017)
- NPI now accounting for 33% of global primary nickel production
- Q1 2019 stainless steel production slightly down by -0.3% (+1.9% in China)

Global stainless steel production

Global primary nickel production (excluding recycling)

* Class I: product with nickel content of 99% or more

Source: ISSF and Eramet
Nickel prices remained low despite a supply / demand balance again in deficit in 2018

- **Supply/demand balance still in deficit** (estimated at -100 kt).
- Continuous and significant decline in nickel metal stocks at LME and SHFE (-46% to 222 kt at 31 December, 2018).
- Annual average of LME prices: USD 5.95/lb in 2018 (+26%)
- **Contrasting price trends in 2018**: H1 sharply up, H2 marked by lower demand and economic uncertainty against a background of international tensions
- Q1 2019 average LME price: USD 5.62/lb (-7% vs. Q1 2018; +8% vs. Q4)
SLN rescue plan: first successful milestone with green light received for 4 MT export in April 2019

- New business model for SLN (mining and metallurgy)
  - 4 Mt of ore exported by 2021
  - Ore to supply Doniambo

- Productivity gains in mines and plants
- Fixed costs reduction
  - Plant reorganisation
  - 147 hrs agreement worked in mines

- Reduction in energy price

Export production
USD -0.60 /lb

Operating performance
USD -0.45 /lb

Energy price
USD -0.25 /lb

Cash-cost
USD -1.30 /lb

2018

Majority agreement signed with the unions on 24/04/2019 regarding the transition from 5 to 4 shifts
2 147 hours working hours agreement by SLN end-November, creating conditions for 7/7 days and 21/24 hours operations
New SLN business model, rebalancing on two activities: mining and metallurgy

New business model, central to SLN rescue plan
- Decrease in cash-cost in line with the increase in sales owing to volumes of exported ore. Target: 4 Mt in 2021
- Authorisation of new export quotas granted by the New Caledonian authorities in April 2019

Record in nickel ore exports in 2018, target of 1.5 Mt in 2019
- Q1 2019 ore exports up 63% to 235 kth, in line with the target

Nickel ore exports

<table>
<thead>
<tr>
<th>Year</th>
<th>In kTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>897</td>
</tr>
<tr>
<td>2017</td>
<td>910</td>
</tr>
<tr>
<td>2018</td>
<td>1,234</td>
</tr>
<tr>
<td>2019 target</td>
<td>1,500</td>
</tr>
<tr>
<td>2021 target</td>
<td>4,000</td>
</tr>
</tbody>
</table>
2018 and Q1 2019 SLN production

**Ferronickel production in New Caledonia down 4% in 2018**
- Weather conditions particularly unfavourable in H1
- Highly disrupted social and societal context in H2

**Ferronickel sales volumes stable at ~55 kt in 2018**
- Q1 2019 ferronickel production down 14% to **12.2 kt**, adversely impacted by disruptions in East Coast mining centers (Kouaoua in 2018 and Thio since the start of the year)

**Ferronickel production**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ferronickel Production (kt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>51.1</td>
</tr>
<tr>
<td>2017</td>
<td>56.8</td>
</tr>
<tr>
<td>2018</td>
<td>54.3</td>
</tr>
</tbody>
</table>
SLN cash-cost penalised in 2018 by a difficult economic, social and societal environment

Cash-cost at real economic conditions at USD 5.8/lb on average in 2018:
USD 6.0/lb in H1 and USD 5.7/lb in H2

- Increase in the euro/dollar exchange rate (+5%) and the fuel price (in line with Brent price, + 31%)
- Difficulties in mining operations particularly due to disrupted social and societal context in New Caledonia

Q1 2019 cash cost at USD 5.9/lb

SLN’s cash-cost (USD/lb)

<table>
<thead>
<tr>
<th>2017 cash-cost</th>
<th>Kouaoua impact</th>
<th>Industrial productivity</th>
<th>Fuel impact</th>
<th>€/$ exchange rate impact</th>
<th>2018 cash-cost</th>
<th>Capex and financial expenses*</th>
<th>2018 break-even cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>5.8</td>
<td>0.7</td>
<td>6.5</td>
</tr>
</tbody>
</table>

* 2018 capex related to 2018 tonnage; financial costs booked in SLN’s company financial statements
Sandouville plant: a slow ramp-up with progresses in Q1 2019 to be consolidated and confirmed in the long term

High-purity nickel production up to 3.7 kt vs 2.4 kt in 2017
- Removal of technical bottlenecks after annual shutdown in July for major maintenance work
- Increase in operating rate from 20% to 60% at year-end

Operating performance below expectations
- Insufficient operating rate to reach breakeven in terms of cash
- Negative COI of €57m, weighing on the Group's results

Significant improvement of operating rate targeted
- Specialised task force assigned as of January 2019 starting to show results in Q1
- 80% operating rate target to achieve breakeven
Mineral Sands BU

5th global producer of titanium feedstock

4th global producer of zircon
Titanium and zircon product markets favourable

**Growth of Ceramics and Chemicals markets**
( ~50% and 20% respectively of zircon's end-products)
- Growth in global demand for zircon: +1.9%, particularly in Europe
- Tight supply/demand balance for premium zircon
- Q1 2019 demand for Zircon moderate

**Growth of Pigment market** (90% of titanium-based end-products*)
- Growth in global demand for titanium dioxide slag: +4.6%
- Supply / demand deficit for high-grade products
- Q1 2019 demand for TiO$_2$ strong

---

**Global demand for zircon**
- 2016: 1,165 kt, 52% Ceramics, 16% Refractories, 12% Smelting furnace, 19% Other products
- 2017: 1,195 kt, 52% Ceramics, 15% Refractories, 12% Smelting furnace, 20% Other products
- 2018e: 1,218 kt, 51% Ceramics, 15% Refractories, 12% Smelting furnace, 20% Other products

**Global demand for titanium dioxide slag**
- 2016: 6,911 kt, 91% Titanium metal, 6% Others, 6% TiO$_2$ pigment
- 2017: 7,362 kt, 90% Titanium metal, 6% Others, 6% TiO$_2$ pigment
- 2018e: 7,703 kt, 90% Titanium metal, 6% Others, 6% TiO$_2$ pigment

---

* Titanium dioxide slag, ilmenite, leucoxene and rutile
** By end-use
Highly favourable price environment for zircon and CP grade titanium dioxide slag

- Average price of zircon at **USD 1,466/t** in 2018 (+33% vs 2017) and at **USD 1,585/t** in Q1 2019 (+21% vs. Q1 2018)
- Average price of CP grade titanium dioxide slag (“CP slag”) at **USD 687/t** in 2018 (+12%) and at **USD 790/t** in Q1 2019 (+19%)

Source CP slag: Market consulting, Eramet analysis
Source Zircon: FerroAlloyNet.com, Eramet analysis
Production record for heavy minerals concentrate in Senegal in 2018

- Heavy minerals concentrate production (titanium ore and zircon): +7% to 774 kt
- Zircon sales: +7% to 65 kt
- Ilmenite external sales: +6% to 236 kt
- Q1 2019 HMC production down 10% to 171 kt as mining operation in Senegal are taking place in a lower mineral sands content area this year, according to the mining plan.

HMC production* (GCO, Senegal)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production in kt</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>614</td>
</tr>
<tr>
<td>2017</td>
<td>725</td>
</tr>
<tr>
<td>2018</td>
<td>774</td>
</tr>
</tbody>
</table>

*HMC: Heavy Minerals Concentrate; 100% volumes
Titanium dioxide slag production in Norway up in 2018 and Q1 2019

- Titanium dioxide slag production: +4% to 189 kt despite a technical incident in Norway
- Sales volumes: +26% to 201 kt, given a low level of sales in 2017 following plant restocking after furnace shutdown in 2016
- Q1 2019 Titanium dioxide slag at 53 kt (+56%). Q1 2018 impacted by a technical incident

Titanium dioxide production* (TTI, Norway)

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume (kt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>105</td>
</tr>
<tr>
<td>2017</td>
<td>181</td>
</tr>
<tr>
<td>2018</td>
<td>189</td>
</tr>
</tbody>
</table>

*100% volumes
High Performance Alloys Division

2nd global producer of high-power closed-die forged parts

One of the global leaders in gas atomised powder metallurgy

One of the leading producers of high-performance special steels
In an unfavourable market environment since 2018, Q1 2019 sales penalised by delivery delays at A&D

- **Aerospace (55% total sales)**
  - Downward adjustment of rates or postponement in ramp-up of wide bodies programmes (A330, A350, A380, A400M) and accelerated decline in A320 CEO

- **Land-based turbines (5%)**
  - Low order book for major energy players
  - Leading position in high-power super alloy turbine discs

- **High-speed steels (21%)**
  - Sales growth, driven by raw materials’ prices

---

**Q1 2019** High Performance Alloys Division sales down 17% to €217m mainly due to the delivery delays at Aubert & Duval owing to the conformity programme for quality processes
High Performance Alloys division COI reported a loss, with contrasting business trends

Underperformance from Aubert & Duval

- **Impact of the decline in activity** with less absorption of fixed costs (-€45m):
  > - €13m due to year-end scrap and delivery delays after conformity review of quality processes

- **Negative FX effect** owing to change in euro-dollar exchange rate (-€13m)

- Impact of **slowdown in shipping** expected in H1 2019 results after quality processes’ conformity review and shutdown until end-January of the 40 kt press in Pamiers

Erasteel progress

- COI back to positive, driven by raw materials’ prices

**High Performance Alloys division COI**

<table>
<thead>
<tr>
<th>Year</th>
<th>COI</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>27</td>
<td>+5</td>
</tr>
<tr>
<td>2017</td>
<td>32</td>
<td>-40</td>
</tr>
<tr>
<td>2018</td>
<td>-8</td>
<td></td>
</tr>
</tbody>
</table>

**COI by entity**

<table>
<thead>
<tr>
<th>Year</th>
<th>Aubert &amp; Duval</th>
<th>Erasteel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>48</td>
<td>-21</td>
</tr>
<tr>
<td>2017</td>
<td>38</td>
<td>-6</td>
</tr>
<tr>
<td>2018</td>
<td>-12</td>
<td>+10</td>
</tr>
</tbody>
</table>
Quality processes review in close collaboration with related Aubert & Duval customers

- Non-conformances identified in quality management system within the High Performance Alloys division, as part of an internal quality processes review
- Implementation of additional verification procedures in close collaboration with related customers
- **No impact on the safety of products in use** to date, based on additional expertises performed for nearly six months working with customers
- Implementation of a corrective action plan in line with the highest international standards, expected over several months
- Non-current provision of €65m: estimate to date of the cost of this in-depth review, including expertise costs and impact of potential scrap
Strategic review: improve Aubert & Duval and Erasteel results in a more agile scope

Focus on 6 major strategic segments

Aerospace  Land turbines  Defence  Nuclear  Powder metallurgy  Additive manufacturing

Focus on 6 major strategic segments

1. CLOSED-DIE FORGINGS BU
2. FORGED AND ROLLED PRODUCTS BU
3. HIGH-SPEED STEEL & RECYCLING BU

Win market share, particularly in single-aisle programmes aerospace parts

Project of an industrial and commercial organisation around 3 Business Units

Design of a plan to reorganise plants and support functions

Roll-out of operating excellence / targeted productivity Capex
Strategic vision and orientations
Vision

Our ambition

- Develop a selective portfolio of value-accretive mining and metallurgical activities,
- Be among the best in each of our businesses, in terms of performance, profitability and innovation,
- Be admired for our strategic model, our management system and our societal commitment.

OUR STRATEGIC VISION IN 5 YEARS

Sustainable value creator

Business partner of choice

Committed & contributive corporate citizen

Home for best talents

Entrepreneur

Strategic Transformation

Managerial Transformation

Digital Transformation
Definition of strategic investment criteria early 2018

- Growing
- In which Eramet has potential to be leader…
- … generating synergies with our current markets

- Competitively positioned
- Significant size and life
- CSR compliant

- Management of operations and favouring control of assets
- Technical, commercial, HR synergies

**MARKETS**

**ASSETS**

**OPERATIONS**

---

**VALUE OVER VOLUME CAPITAL DISCIPLINE**

- Diversified portfolio
- Expansion of opportunities
- Improved profitability

---

**LONG-TERM VALUE CREATION OVER THE CYCLES**
Group strategic transformation: major breakthroughs in 2018

1. Fix / Reposition our least performing assets
   - SLN
   - A&D long products
   - Erasteel
   - Sandouville

2. Growing in our attractive businesses
   - Manganese ore
   - Mineral sands
   - Nickel Pig Iron (NPI)

3. Expand our portfolio in metals for the energy transition
   - Lithium
   - Nickel and cobalt salts
   - Li-ion batteries' recycling

- Rescue plan
- GROWING in our attractive businesses
- EXPAND our portfolio in metals for the energy transition

- Study of Weda Bay diversification towards products for EV batteries
- Deposit development in Argentina
- Growth in manganese ore volumes in Gabon
- Successful takeover bid for MDL
- Plant construction in Weda Bay (Indonesia)
- R&D programme
Production growth strategy for manganese ore in Moanda: 7 Mt by end-2023

Continued operations at the Bangombé plateau
- End-2018 launch of **dry processing** of part of the ore
- Flexibility in mining operations:
  > Short-term increase of production volumes

Development of the Okouma Plateau
- Continued detailed feasibility study in 2018
- Investment decision in **spring 2019**
- Final investment estimated at c. €600m over 5 financial years

Increase Transgabonese railway transport capacity
- Objective to **double capacity** by 2023
- Approximately €100m of capex since the beginning of the programme in 2016

Production target raised to 7 Mt at end-2023, up 50% vs 2018
Energy transition diversification: lithium Project

Development of our lithium deposit in Argentina

- Detailed engineering studies currently in final phase
- Ongoing administrative approval process in Argentina
- Production capacity: **24 kt lithium**\(^*\) per year, revised upwards in 2018
- Investment of c. **€500m** over 3 financial years
- Investment decision in **spring 2019**
- Production to start **end-2021**

\(^*\) Lithium calculated in LCE (Lithium Carbonate Equivalent)
Group managerial transformation: acceleration to achieve strategic ambitions

New ways of organising

- Divisions’ reorganisation
- Comilog reorganisation
- Plant reorganisation / 147 hrs in mine at SLN
- Set-up of Eramet Ideas
- Finance department reorganisation
- ...

New ways of managing

- 45% of key positions renewed
- Strengthened project skills (lithium, Comilog)
- Strengthened mining skills
- Performance management
- Operating excellence
- Renewal of High Performance Alloys division plant directors
- Strengthened corporate functions
- ...

New ways of working

- New governance and rituals
- TiZir consolidation (speed, skills)
- Synergies between teams
- 1st Group engagement survey
- Visual management
- Faster execution and decision making
- ...

Investor Presentation - 14-15/05/2019
Group digital transformation: a cross-business leverage for growth and performance

Vision based on 3 pillars:
- **Connecting geology to the economy**: ensuring digital continuity in our ores’ supply chain in real time
- **Optimising** our processes through Artificial Intelligence
- **Ensuring our products’ traceability and quality**, from their elaboration to our clients

A transformation strategy for our operations
- **Towards connected and smart mines**: operations centres to optimise our supply chain, collaborative digital platforms, topographic drones, …
- **Towards 4.0 plants**: predictive maintenance, energy efficiency, robotisation, digital twins, …
- **Collaborations and partnerships** with the digital ecosystem, new working methods focused on innovation

“**Test&learn**”* approach launched
- Over 60 POCs** in progress on Big Data, connected sensors, automation,…
- ~20 POCs being implemented

Targeted investment
~ 10 %
of current CAPEX
Eramet, a “committed & contributive corporate citizen”: CSR roadmap for 2018-2023

Committed to women and men

1. Ensure the Health and Safety of our subcontractors
2. Enhance skills, promote talent and career development
3. Strengthen the commitment of our employees
4. Integrate and promote the richness of diversity
5. Be a respected and contributive partner for our host communities

A responsible economic player

6. Be a leader in metals for the energy transition
7. Actively contribute to the development of the circular economy
8. Set the standard in human rights in our field of activity
9. Be an ethical business partner of choice
10. Be the go-to responsible business in mining and metallurgy

Committed to our planet

11. Reduce our air emissions
12. Accelerate the rehabilitation of our mining sites promoting biodiversity
13. Reduce our energy and climate footprint

Specific commitments regarding CSR targets released in Q2 2019
Conclusion and outlook
Moving towards accelerating the Group's transformation

2019: crucial year to improve our least performing assets

- Implementation of SLN rescue plan
- Improvement in results of Sandouville plant
- Building the foundations for an improved future performance in the High Performance Alloys division

2019: a key milestone for the Group's growth

- Organic growth in manganese ore
- Decision to be made regarding two major investment projects
  - Extension of the Moanda deposit in Gabon: +50% to 7 Mt of ore produced by end-2023
  - Lithium production in Argentina

Intrinsic growth and productivity gains expected in 2019 should offset the current deterioration in market conditions compared to 2018, resulting in a forecast EBITDA close to that of FY 2018, assuming March 2019 market conditions.

Developing a global player that is sustainably effective and admired, a reference in responsible extraction and metallurgy, and in the energy transition.
Appendices
Key partnerships with host countries and territories

Eramet associates the **main countries and territories** where it operates:

- **New-Caledonia**
  - STCPI holds 34% of SLN’s share capital.
  - STCPI holds around 4% of Eramet’s share capital

- **Gabon**
  - Around 29% of Comilog’s share capital is owned by the Gabonese Republic

- **Senegal**
  - 10% of Grande Côte Opérations’s share capital is owned by the Republic of Senegal

Long-term relationship reinforced by the **significant contribution** to the local economies:

- #2 private employer in Gabon and main private employer in New Caledonia
- **Sensitive & responsible** for social and environmental related matters

---

1 STCPI (Société Territoriale Calédonienne de Participation Industrielle): entity owned by the New Caledonian provinces
2 1 share
3 TiZir’s operations in Senegal
A long term player

- Incorporation of Le Nickel (operation of nickel mines in New Caledonia)
- Le Nickel becomes SLN, with Elf Aquitaine (French State) holding 50% of the company
- Increase of the French State shareholding in SLN to 70%
- Set up of Eramet-SLN (Sandouville + SLN)
- Inauguration of EcoTitanium
- Set-up of Eramine Sudamerica (lithium project)
- Transfer of the participation of 26% from the French State to FSI Equation (renamed APE)
- Set-up of MKAD closed-die forged parts for aerospace industry (2015)
- Inauguration of Moanda Metallurgical Complex (2014)
- Acquisition of Weda Bay Nickel (nickel project) in Indonesia
- Acquisition of Erachem and Bear Metallurgical Corporation
- Diversification into manganese alloys and titanium dioxide through the acquisition of Tinfos
- Diversification into ilmenite and zircon production through the set-up of TiZir in Senegal
- Acquisition of Erasteel (diversification into the production of high speed steel)
- Diversification into forged and closed-die parts, following contribution by the Duval family and Aubert & Duval (now High Performance Alloys division) to Eramet
- Diversification into manganese, with the acquisition of 61% of COMILOG in Gabon
- 100% of TiZir owned by Eramet (OPA on MDL)
- Partnership Weda Bay Nickel
- A long term player
Steels represent more than 60% of Eramet sales
A global geographic footprint
Carbon steel growth drivers in China

- Property, infrastructure and machinery end-markets account for a large share of total steel demand, consuming first and foremost long steels.
- Long steels are highly intensive in manganese supportive for manganese alloys and manganese ore consumption.

<table>
<thead>
<tr>
<th>Steel type (% of total*)</th>
<th>End-market (% of total*)</th>
<th>Leading indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Steels (38%)</td>
<td>Infrastructure (31%)</td>
<td>Infrastructure investment, local bond issuance</td>
</tr>
<tr>
<td></td>
<td>Property (35%)</td>
<td>New starts, Area under construction, Property sold</td>
</tr>
<tr>
<td></td>
<td>Machinery (18%)</td>
<td>Machinery Equipment revenue</td>
</tr>
<tr>
<td></td>
<td>Shipbuilding (2%)</td>
<td>New orders</td>
</tr>
<tr>
<td></td>
<td>Automaking (9%)</td>
<td>Auto production &amp; sales</td>
</tr>
<tr>
<td></td>
<td>Others** (5%)</td>
<td></td>
</tr>
</tbody>
</table>

*2015-2018 yearly average
**Appliances (white goods), packaging
Q1 2019 Group sales by activity

<table>
<thead>
<tr>
<th>(Millions of euros)</th>
<th>Q1 2019</th>
<th>Q1 2018</th>
<th>Change (€m)</th>
<th>Change^3 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINING AND METALS DIVISION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese BU</td>
<td>434</td>
<td>405</td>
<td>+29</td>
<td>+7%</td>
</tr>
<tr>
<td>Nickel BU</td>
<td>164</td>
<td>177</td>
<td>-13</td>
<td>-7%</td>
</tr>
<tr>
<td>Mineral Sands BU^2</td>
<td>59</td>
<td>25</td>
<td>+34</td>
<td>+136%</td>
</tr>
<tr>
<td>HIGH-PERFORMANCE ALLOYS DIVISION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;D and Erasteel</td>
<td>217</td>
<td>263</td>
<td>-46</td>
<td>-17%</td>
</tr>
<tr>
<td>Holding company &amp; eliminations</td>
<td>(1)</td>
<td>0</td>
<td>-1</td>
<td>-</td>
</tr>
<tr>
<td>GROUP</td>
<td>873</td>
<td>870</td>
<td>+3</td>
<td>+0.3%</td>
</tr>
</tbody>
</table>

1 Until 2018, data adjusted from Group reporting in which joint ventures are accounted for using proportionate consolidation. A reconciliation with the published sales is presented in Appendix 1. Data rounded up to the nearest million.
2 Full consolidation of Mineral Sands activity, fully consolidated in the Group’s accounts as of 1st July 2018 versus 50% previously.
3 Data rounded up to higher or lower %.
Q1 2019 Group production and shipment

<table>
<thead>
<tr>
<th>In thousands of tonnes</th>
<th>Q1 2019</th>
<th>Q4 2018</th>
<th>Q3 2018</th>
<th>Q2 2018</th>
<th>Q1 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MANGANESE BU</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese ore and sinter production</td>
<td>1,005</td>
<td>1,123</td>
<td>1,212</td>
<td>1,110</td>
<td>885</td>
</tr>
<tr>
<td>Manganese ore and sinter transportation(^1)</td>
<td>996</td>
<td>1,104</td>
<td>1,002</td>
<td>1,064</td>
<td>785</td>
</tr>
<tr>
<td>Manganese ore external sales</td>
<td>776</td>
<td>1,047</td>
<td>814</td>
<td>823</td>
<td>684</td>
</tr>
<tr>
<td>Manganese alloys production</td>
<td>191</td>
<td>181</td>
<td>182</td>
<td>178</td>
<td>179</td>
</tr>
<tr>
<td>Manganese alloys’ sales</td>
<td>175</td>
<td>187</td>
<td>175</td>
<td>173</td>
<td>168</td>
</tr>
<tr>
<td><strong>NICKEL BU</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel production(^2)</td>
<td>14</td>
<td>16</td>
<td>14</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Nickel sales(^3)</td>
<td>14</td>
<td>17</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Nickel ore sales</td>
<td>235</td>
<td>368</td>
<td>411</td>
<td>312</td>
<td>144</td>
</tr>
<tr>
<td>Nickel ore sales (in thousands of humid tonnes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MINERAL SANDS BU</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy mineral concentrate production (100%)</td>
<td>171</td>
<td>200</td>
<td>200</td>
<td>185</td>
<td>189</td>
</tr>
<tr>
<td>Zircon sales (100%)</td>
<td>13</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Titanium dioxide sales (100%)</td>
<td>39</td>
<td>58</td>
<td>63</td>
<td>44</td>
<td>37</td>
</tr>
</tbody>
</table>

\(^1\) Product and transported  
\(^2\) Ferronickel and high-purity nickel  
\(^3\) Finished products
## Manganese BU – Key figures

<table>
<thead>
<tr>
<th>In €m</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,857</td>
<td>1,819</td>
</tr>
<tr>
<td>EBITDA</td>
<td>784</td>
<td>828</td>
</tr>
<tr>
<td>COI</td>
<td>699</td>
<td>719</td>
</tr>
<tr>
<td>Capex</td>
<td>140</td>
<td>84</td>
</tr>
</tbody>
</table>
Nickel BU – Key figures

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>738</td>
<td>644</td>
</tr>
<tr>
<td>EBITDA</td>
<td>(18)</td>
<td>(44)</td>
</tr>
<tr>
<td>COI</td>
<td>(111)</td>
<td>(125)</td>
</tr>
<tr>
<td>Capex</td>
<td>57</td>
<td>80</td>
</tr>
</tbody>
</table>
## Mineral sands BU – Key figures

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>212</td>
<td>100</td>
</tr>
<tr>
<td><strong>EBITDA</strong></td>
<td>62</td>
<td>34</td>
</tr>
<tr>
<td><strong>COI</strong></td>
<td>35</td>
<td>19</td>
</tr>
<tr>
<td><strong>Capex</strong></td>
<td>12</td>
<td>5</td>
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</tbody>
</table>
### A&D and Erasteel

<table>
<thead>
<tr>
<th>In €m</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,020</td>
<td>1,087</td>
</tr>
<tr>
<td>EBITDA</td>
<td>46</td>
<td>84</td>
</tr>
<tr>
<td>COI</td>
<td>(8)</td>
<td>32</td>
</tr>
<tr>
<td>Capex</td>
<td>63</td>
<td>59</td>
</tr>
</tbody>
</table>
CRU price trends in manganese alloys (refined and standard) in Europe

CRU price trends for manganese alloys in Europe between January 2014 and January 2019

€/t

0 500 1,000 1,500 2,000

Jan-14  Jan-15  Jan-16  Jan-17  Jan-18  Jan-19

Medium-carbon ferromanganese  High-carbon ferromanganese  Sillicomanganese

Source: CRU spot Prices Western Europe
Reconciliation Group reporting and published accounts

<table>
<thead>
<tr>
<th>€m</th>
<th>Full Year 2018 Published¹</th>
<th>Joint-venture contribution</th>
<th>Full year 2018 Reporting²</th>
<th>Full Year 2017 Published¹</th>
<th>Joint-venture contribution</th>
<th>Full year 2017 Reporting²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>3,725</td>
<td>100</td>
<td>3,825</td>
<td>3,528</td>
<td>124</td>
<td>3,652</td>
</tr>
<tr>
<td>EBITDA</td>
<td>828</td>
<td>16</td>
<td>843</td>
<td>845</td>
<td>26</td>
<td>871</td>
</tr>
<tr>
<td>Current operating income</td>
<td>574</td>
<td>7</td>
<td>581</td>
<td>598</td>
<td>10</td>
<td>608</td>
</tr>
<tr>
<td>Operating income</td>
<td>398</td>
<td>68</td>
<td>465</td>
<td>513</td>
<td>54</td>
<td>567</td>
</tr>
<tr>
<td>Net income for the period - Group share</td>
<td>53</td>
<td>(0)</td>
<td>53</td>
<td>203</td>
<td>-</td>
<td>203</td>
</tr>
<tr>
<td>Net cash generated by operating activities</td>
<td>437</td>
<td>12</td>
<td>449</td>
<td>687</td>
<td>-</td>
<td>687</td>
</tr>
<tr>
<td>Industrial investments</td>
<td>278</td>
<td>3</td>
<td>281</td>
<td>224</td>
<td>6</td>
<td>230</td>
</tr>
<tr>
<td>(Net financial debt)</td>
<td>(717)</td>
<td>0</td>
<td>(717)</td>
<td>(237)</td>
<td>(139)</td>
<td>(376)</td>
</tr>
<tr>
<td>Shareholders’ equity</td>
<td>1,909</td>
<td>(1)</td>
<td>1,908</td>
<td>1,989</td>
<td>(9)</td>
<td>1,980</td>
</tr>
<tr>
<td>Shareholders’ equity - Group share</td>
<td>1,606</td>
<td>(1)</td>
<td>1,605</td>
<td>1,694</td>
<td>-</td>
<td>1,694</td>
</tr>
</tbody>
</table>

¹ Financial statements prepared under applicable IFRS, in which joint ventures are accounted for using equity method.
² Group reporting, in which joint ventures are accounted for using proportionate consolidation.
## Group income statement

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>3,825</td>
<td>3,652</td>
</tr>
<tr>
<td><strong>EBITDA</strong></td>
<td>843</td>
<td>871</td>
</tr>
<tr>
<td>% Sales</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Current operating income</strong></td>
<td>581</td>
<td>608</td>
</tr>
<tr>
<td>% Sales</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Other operating income and expense</strong></td>
<td>(116)</td>
<td>(41)</td>
</tr>
<tr>
<td><strong>Operating income</strong></td>
<td>465</td>
<td>567</td>
</tr>
<tr>
<td>Financial result</td>
<td>(95)</td>
<td>(117)</td>
</tr>
<tr>
<td><strong>Pre-tax income</strong></td>
<td>370</td>
<td>450</td>
</tr>
<tr>
<td>Share of income of equity affiliates</td>
<td>(3)</td>
<td>(1)</td>
</tr>
<tr>
<td>Income tax</td>
<td>(241)</td>
<td>(221)</td>
</tr>
<tr>
<td><strong>Net income</strong></td>
<td>126</td>
<td>228</td>
</tr>
<tr>
<td>Minority interests</td>
<td>73</td>
<td>25</td>
</tr>
<tr>
<td><strong>Net income – Group share</strong></td>
<td>53</td>
<td>203</td>
</tr>
</tbody>
</table>
Cash-flow table

<table>
<thead>
<tr>
<th>€m</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBITDA</td>
<td>843</td>
<td>871</td>
</tr>
<tr>
<td>Cash impact on items under EBITDA</td>
<td>(345)</td>
<td>(387)</td>
</tr>
<tr>
<td><strong>Cash from operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash from operating activities</td>
<td>498</td>
<td>484</td>
</tr>
<tr>
<td>Change in WCR</td>
<td>(49)</td>
<td>203</td>
</tr>
<tr>
<td><strong>Net cash generated by operating activities (1)</strong></td>
<td>449</td>
<td>687</td>
</tr>
<tr>
<td><strong>Investment activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPEX</td>
<td>(281)</td>
<td>(230)</td>
</tr>
<tr>
<td>Other investment flows</td>
<td>(379)</td>
<td>19</td>
</tr>
<tr>
<td><strong>Net cash from investment activities (2)</strong></td>
<td>(660)</td>
<td>(211)</td>
</tr>
<tr>
<td><strong>Free Cash Flow (1) + (2)</strong>*</td>
<td>(211)</td>
<td>476</td>
</tr>
<tr>
<td>Cash from equity operations</td>
<td>(123)</td>
<td>(12)</td>
</tr>
<tr>
<td>Impact of changes in exchange rates and in accounting methods</td>
<td>(7)</td>
<td>(4)</td>
</tr>
<tr>
<td><strong>(Increase) / Reduction in net debt</strong></td>
<td>(341)</td>
<td>460</td>
</tr>
<tr>
<td>(Net debt) at start of period</td>
<td>(376)</td>
<td>(836)</td>
</tr>
<tr>
<td>(Net debt) at close of period</td>
<td>(717)</td>
<td>(376)</td>
</tr>
</tbody>
</table>

*Free-cash flow of FY 2018 was impacted by €373m by the acquisition of Mineral Deposit Limited, i.e. €220m due to the acquisition of the Mineral Deposit Limited shares, and €153m due to the full consolidation of TiZir’s debt.
Group Balance Sheet at 31 December, 2018

- **Fixed assets**: 3,269
- **WCR**: 2,710
- **Equity**: 616
- **Minority interests**: 559
- **Provisions and net deferred tax**: 3,030
- **Financial instruments**: 2017
- **Net debt**: 3,646
- **Equity-Group share**: 1,694
- **Minority interests**: 10
- **Provisions and net deferred tax**: 286

**Investor Presentation**

- **Date**: 14-15/05/2019
# Bond maturities

<table>
<thead>
<tr>
<th>€m</th>
<th>Currency</th>
<th>Initial amount</th>
<th>Amount at 31/12/18 (in m)</th>
<th>Maturity date</th>
<th>Interest rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 bond issue</td>
<td>€</td>
<td>525</td>
<td>460</td>
<td>2020</td>
<td>4.5%</td>
</tr>
<tr>
<td>2016 ODIRNAN bond issue</td>
<td>€</td>
<td>100</td>
<td>97</td>
<td>perpetual</td>
<td>4%</td>
</tr>
<tr>
<td>TiZir bond renewal - July 2017</td>
<td>USD</td>
<td>300</td>
<td>300</td>
<td>July 2022</td>
<td>9.50%</td>
</tr>
<tr>
<td>September 2017 bond issue</td>
<td>€</td>
<td>500</td>
<td>500</td>
<td>February 2024</td>
<td>4.20%</td>
</tr>
</tbody>
</table>
Shareholding on 31 December 2018

Number of shares issued: 26,635,884

- SORAME + CEIR (Duval Family): 36.94%
- APE: 25.57%
- STCPI*: 32.13%
- BRGM**: 1.34%
- Other float: 4.02%

* STCPI (Société Territoriale Calédonienne de Participation Industrielle): entity owned by the New Caledonian provinces
** BRGM (Bureau de Recherches Géologiques et Minières): the French Geological Survey Office
CONTACTS

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