# REGISTRATION DOCUMENT

2015



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# 2015

The French language version of this Document de Référence (Registration Document) was filed with the Autorité des Marchés Financiers (AMF) on 7 April 2016, pursuant to article 212-13 of the AMF General Regulations. It may be used in support of a financial transaction if supplemented by a prospectus which will have received the visa of the AMF. This document has been drawn up by the issuer and is binding for its signatories.

The French language version of this Document de Référence cancels and replaces the French language version of the Document de Référence filed under number D. 16-0301 on 7 April 2016 and posted on 8 April 2016 which contained an erroneous figure on page 302 (first paragraph of the fourth resolution): retained earnings after allocation of the losses for the past financial year amount to €493,894,189.97 instead of €1,156,925,370.65. Except for this change, no other change was made to the French language version of the Document de Reference.

This document, prepared on the basis of the 2015 financial statements, includes all material information subsequent to the approval of the financial statements, as available at the date of its filing.



### Chapter 1

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### 1.1 GROUP

The ERAMET group is a French mining and metallurgical group with leading global positions in each of its businesses. The Group, which employed almost 14,000 people in 2015 in some 20 countries, generated sales of €3.1 billion during the year.

The ERAMET group holds leading global positions in each of its businesses:

- The ERAMET Nickel Division owns nickel mines in New Caledonia and processes virtually all the ore itself. The Group is the world's eighth largest nickel producer, the largest ferronickel producer, one of the only three global producers of high-grade nickel, and global leader in nickel chloride.
- The ERAMET Alloys Division is the world's second largest producer of closed die-forged parts for aeronautics and energy generation.
   It designs and develops a range of parts and products: high-performance steels, superalloys (nickel-based), aluminium and titanium, a metal showing rapid development.
   It is also the world leader in gas-atomised powder metallurgy.
- The ERAMET Manganese Division is the world's second largest producer of highgrade manganese ore at its mine in Moanda (Gabon), the world's second largest producer of manganese alloys, the largest producer of ultra-high value-added alloys, "refined" alloys and the world's leading producer of manganese chemical derivatives.
- The Group has also rolled out a new area of business in titanium dioxide and zircon.

TiZir, in a 50/50 joint venture with the Australian company Mineral Deposits Limited. The Division's primary site is Grande Côte mine in Senegal (mineral sands), where operations began in the first half of 2014. Transformation (enrichment of titanium ore) is then performed by pyrometallurgy at TiZir Titanium & Iron in Norway.

# 1.1.1 COMMODITIES ARE ESSENTIAL COMPONENTS OF TODAY'S WORLD AND ALSO TOMORROW'S

Consumption of commodities is driven by growing urbanisation (manganese, titanium dioxide, zircon), rising average living standards (stainless steel, nickel alloys, cobalt), energy production and transmission (superalloys, high-performance alloys), and new technologies linked to connectivity (lithium, for example).

After solid growth in past decades, in 2015 the commodity market plunged to its lowest levels in 15 years. This was due to a slowdown in industrial production in China and the persistence of sluggish world growth. China, which grew steadily since the noughties, became the world's largest consumer of metals, feeding demand for more than half of worldwide volumes of nickel and manganese.

A new supply/demand model is emerging, especially in China, where consumption has now reached the post-urbanisation phase, with substantial overcapacity with respect to demand.

## 1.1.2 SPECIFIC POSITIONING OF THE ERAMET GROUP

Beyond the current crisis in the metal market, largely caused by developments of the Chinese economy, the ERAMET group has substantial competitive edge:

- world-class deposits;
- leading positions in each area of our business, from mining to metallurgy;
- specific know-how, often produced by our own R&D, with solid social and environmental criteria.

## 1.1.3 THE ERAMET GROUP STRATEGY TO ADDRESS THE CRISIS

Given the current panorama of markets and the worldwide economic situation, the Group strategy focuses primarily on generating cash as follows:

- Firstly, focusing on its core businesses, moving ahead with the development and restructuring required for its major activities.
- Secondly, gaining competitive edge to boost its positions. This will be brought about by plans to cut costs and boost both ongoing and planned productivity.
- In the longer run, the ERAMET group will focus on targeted projects selected on the criterion of value creation, especially those arising from the Group's internal R&D.

The aim of this strategy is to improve the ERAMET group's risk profile in the long term and strengthen its resilience in times of crisis.

£1.6

BILLION
FINANCIAL LIQUIDITY
AT 31 DECEMBER 2015.

### **KEY BUSINESS FIGURES (1)**

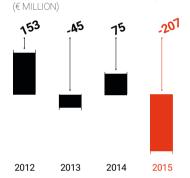
SALES (€ MILLION)

3,447
3,162
3,144
3,109

2012
2012
2013
2014
2015

Sales were stable against 2014 at €3,109 million.

### **CURRENT OPERATING PROFIT/LOSS**



Current operating profit/loss hard hit by worldwide metals crisis.

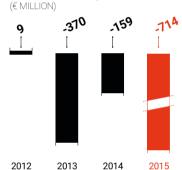
### AN ANNUAL IMPACT OF APPROXIMATELY

€180

### MILLION

IN CUMULATIVE SAVINGS IN 2014 AND 2015.

### **NET PROFIT/LOSS, GROUP SHARE**

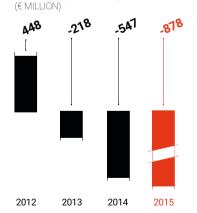


Group portion of net profit/loss down in 2015, hit by exceptional depreciation.

### **INDUSTRIAL CAPEX**

Industrial capex limited to €267 million, down by 23% against 2014.

### **NET CASH (NET DEBT)**



Net debt was €878 million at 31 December 2015.

### Breakdown of current operating profit by business segments

(€ MILLION)

ΤΟΤΔΙ	(207)	75
Holding	(31)	(33)
Manganese	58	137
Alloys	27	23
Nickel	(261)	(52)
	2015	2014

### Breakdown of industrial investment by business segments

(€ MILLION)

TOTAL	267	346
Holding	3	2
Manganese	164	199
Alloys	44	48
Nickel	56	97
	2015	2014

(1) The consolidated data presented for the Group and the Divisions in this Registration Document, with the exception of Chapter 6, are adjusted data from Group reporting, which consolidates joint ventures on a proportional basis. See reconciliation with the IFRS consolidated financial statements in Section 1.2.2.

### 1.2.2 SUMMARY OF CONSOLIDATED FINANCIAL STATEMENTS

(€ MILLION)	2015	2014
Sales	3,109	3,144
Current operating profit/loss	(207)	75
Operating profit/loss	(813)	(54)
Net profit/loss	(912)	(171)
Profit/loss, Group share	(714)	(159)
Net cash generated by operating activities	(7)	43
Capital employed (1)	3,060	3,462
Industrial capital expenditure	267	346

(1) Excluding the impact of the Weda Bay project for 2014 and 2015.

### 1.2.2.1 GENERAL COMMENTS

2015 earnings were hit hard by the world economic crisis and a major downturn in the mining and metallurgy sector, with prices at their lowest in 15 years—both nickel and manganese were affected simultaneously. Sales, however, remained steady at €3,109 million. The current operating loss was -€207 million, and the Group portion of net losses -€714 million, following consideration of €668 million in depreciation of fixed assets and tax assets.

The 2014-2017 plan to cut costs and boost productivity was strictly implemented. The target had already been met at the midpoint, with savings of approximately €180 million at year-end 2015, out of a total of €360 million targeted by the end of the plan <sup>(1)</sup>. A specific plan was rolled out for SLN, to boost the scheme over the first six months of 2016 and substantially reduce cash costs.

The rigorous cash preservation measures were followed, with suspension of major projects and restriction of investment to security and strict maintenance. Industrial investment stood at €267 million, down by 23% against 2014, and by 55% against 2013. Net debt was €878 million at 31 December 2015, and the Group's financial liquidity was €1.6 billion.

### 1.2.2.2 INCOME STATEMENT

#### SALES

In a context of a downturn in metal markets, the duration and extent of which are quite exceptional, ERAMET group sales remained steady at €3,109 million (down by 1% against 2014). Sales by ERAMET Manganese were steady against the previous year, sales by ERAMET Nickel were down due to lower nickel prices, and sales by ERAMET Alloys rose by 6% compared to 2014 thanks to a sound performance in the aeronautical sector by Aubert & Duval.

### **CURRENT OPERATING PROFIT/LOSS**

The Group's current operating profit, however, experienced a sharp drop with respect to 2014 to -€207 million, badly hit by SLN current operating profit (-€261 million), which could not be offset by good performances by ERAMET Alloys and ERAMET Manganese.

This was chiefly due to lower prices for commodities, especially the price of nickel on the LME and of manganese ore, partially offset by an increase in productivity and lower costs and better results by Aubert & Duval.

Growth in the aeronautical sector is still well on target, and the earnings of Aubert & Duval in ERAMET Alloys rose in 2015.

### **OPERATING PROFIT/LOSS**

The operating loss of -€813 million showed a marked deterioration following the loss of -€54 million in 2014. Other operating income and expenses (excluding impairment of assets) rose from €102 million in 2014 to €132 million in 2015, including in particular survey costs on major projects.

Operating results in 2015 were pulled down €474 million by asset impairment, mainly by ERAMET Nickel and alloy business at ERAMET Manganese, due to record low metal prices.

### **NET PROFIT/LOSS**

The net loss in 2015 was -€912 million compared to -€171 million in 2014, due to:

- a net financial loss of -€90 million, compared to -€68 million in 2014, composed of:
- the -€68 million net borrowing cost, the result of an average net cash investment for the period of €730 million at an interest rate of around 1.35% and average gross debt of €1,594 million at an interest rate of 4.72%,
- other finance income and expenses, leading to net expenses of -€22 million;
- tax expense of -€8 million, compared to a theoretical tax income of €311 million (net loss before tax -904 x 34.43%); this difference was mainly due to the impact of asset impairment of -€105 million and unrecognised or limited deferred tax assets at certain loss-making companies within the scope of consolidation in the amount of -€292 million, including -€194 million in New Caledonia, partially offset by deferred tax liabilities of €63 million.

### NET PROFIT (LOSS), GROUP SHARE

Group share of the loss was -€714 million compared to -€159 million in 2014, net of €198 million attributed to non-controlling interests from net results in 2015.

### 1.2.2.3 FINANCING (1)

The Group's net borrowings <sup>(2)</sup> stood at €878 million at 31 December 2015, as against €547 million at 31 December 2014. This change was the result of the following:

- -€7 million in net cash flows from operating activities (+€43 million in 2014):
- -€160 million in cash generated from operations compared to +€125 million in 2014, due to a large drop in earnings in 2015 against 2014,

- +€153 million WCR from business, with a large drop in stocks and receivables;
- -€283 million in net cash flows from investing activities, primarily -€267 million in capital expenditure, down by 23% against 2014 and by 55% against 2013;
- an impact of -€41 million from currency fluctuations.

### 1.2.2.4 ECONOMIC BALANCE SHEET (3)

The Group's economic balance sheet total at 31 December 2015 stood at €3,704 million, compared to €4,255 million at 31 December 2014.

The €551 million decrease was chiefly due to:

 a €404 million decrease in non-current assets, mainly due to asset impairment of €474 million in 2015, and a decrease in simplified WCR of €173 million from business, with a large drop in stocks and receivables—respectively -€84 million and -€94 million;

 a decrease in shareholders' equity (-€975 million), mostly due to net losses in 2015, a €331 million increase in net debt (see the section on Financing) and a provisions increase of €80 million.

The ratio of net debt to equity ("gearing") was 49% at 31 December 2015.

Contingent liabilities in connection with legal disputes are explained in Note 12 to the consolidated financial statements.

Policy and objectives for management of financial risks, including the Group's hedging policy and the exposure to price, credit, liquidity and cash-flow risks are set out in Note 7 to the consolidated financial statements, Financial instruments and risk management.

### Reconciliation of Group reporting and published financial statements

		JOINT VENTURES			JOINT VENTURES	
	FY 2015	CONTRIBUTION	FY 2015	FY 2014	CONTRIBUTION	FY 2014
(€ MILLION)	PUBLISHED (1)		REPORTING (2)	PUBLISHED (1)		REPORTING (2)
Sales	3,015	94	3,109	3,075	69	3,144
EBITDA	92	-	92	363	-	363
Current operating profit (loss)	(191)	(16)	(207)	86	(11)	75
Operating profit (loss)	(744)	(69)	(813)	(15)	(39)	(54)
Consolidated net profit, Group share	(714)	-	(714)	(159)	-	(159)
Net cash generated by operating activities	(13)	6	(7)	50	(7)	43
Industrial capital expenditure	242	25	267	305	41	346
(Net financial debt)	(716)	(162)	(878)	(411)	(136)	(547)
Shareholders' equity	1,788	(9)	1,779	2,756	(2)	2,754
Equity, attributable to Group	1,466	-	1,466	2,322	-	2,322

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

<sup>(1)</sup> Table of debt flows (Note 3 to the consolidated financial statements).

<sup>(2)</sup> Net borrowings are comprised of short and long-term borrowings less cash and cash equivalents and current financial assets.

<sup>(3)</sup> Economic balance sheet (Note 3 to the consolidated financial statements).

### 1.2.3 CAPITAL EXPENDITURE

### 1.2.3.1 GOALS

The ultimate aim is to improve competitiveness and boost the business of the three Divisions (Nickel, Manganese and Alloys). The capital expenditure policy is based on product differentiation with a focus on markets with structural medium and long-term growth. In view of economic conditions which prevailed in 2015 on Group's markets, investment approvals have been limited notably on security and strict maintenance projects.

### 1.2.3.2 MAIN CAPITAL EXPENDITURE

### TOTAL AMOUNT OF CAPITAL EXPENDITURE

Capital expenditure recognised at Group level totalled €641 million in 2012, €587 million in 2013, €346 million in 2014 and €267 million in 2015.

Each major project may be financed in a different way (own resources, bank borrowings and finance leases). Further information is provided in Note 9 to the consolidated financial statements. Current capital expenditure is generally funded by own resources.

### BREAKDOWN OF CAPITAL EXPENDITURE BY DIVISIONS AND TYPES OF MAJOR PROJECTS

### **ERAMET Nickel**

(€ MILLION)	2012	2013	2014	2015
Industrial capital expenditure	146	172	97	56

### Improving production equipment

The ERAMET Nickel investment budget for 2015 was reduced again after a substantial reduction in 2014. Strict criteria were used to appraise projects to be undertaken in order to ensure they met the priority needs of safety and environmental protection, improved productivity, or were used to replace obsolete equipment. As part of this systematic search for performance, in a context of a limitation on the sums available to invest, the largest investment projects were given priority.

- For Le Nickel-SLN, completion of construction of the new coal workshop and new drying facilities alone accounted for over 10% of the total amount for SLN. The facility finally commenced operations at the end of the first half of the year 2015. At SLN, 10% of expenditure was accounted for by investment to improve HSE facilities, 30% by strategic investment on mines and plant, and 60% by ordinary investment in mines and plant.

 At Sandouville and Eurotungstène, investment was strictly limited to minimum maintenance of production tools and guaranteeing safety and environmental protection as priority areas.

### Power station for Le Nickel-SLN

Financing a new electric power plant at Doniambo is not feasible by ERAMET given the current situation in the nickel market and SLN's financial performance. ERAMET decided to suspend this project, as well as all its major projects, pursue contact with the New Caledonian authorities and maintain the technology watch until such time as markets improved.

### Weda Bay project

Due to the sluggish market conditions at present, most projects for nickel-processing plants in Indonesia have either been put on hold or are advancing at a much slower pace. This is the case for the Weda Bay project, in accordance with the announcement eighteen months ago that the project was to be suspended.

### **ERAMET Manganese**

(€ MILLION)	2012	2013	2014	2015
Industrial capital expenditure	399	346	199	164

Against a backdrop of a much more sluggish market, in 2015 ERAMET Manganese adapted its investment by focusing on strategic items, safety and the environment, and on maintaining industrial equipment.

### Consolidation of production capacity at COMILOG

In 2015 ERAMET Manganese wound up its investment in consolidation of COMILOG's

production capacity at 4 million tonnes per year, with additions to railway equipment:

- 30 ore wagons; and
- six main-line locomotives.

### Renovation of the SETRAG railway line

The investment package required to make trains safer on the Transgabon rail network was continued in 2015, and will be stepped up in the years ahead on a multi-year refurbishment plan of the railway line.

Rail conditions in the most critical areas of the network significantly improved in 2015 thanks to renewal of ballast and better drainage on the rail platform. This considerably improved the ride times of both passenger and ore trains, and also significantly reduced the frequency of incidents.

Six shunt locomotives were added to the fleet at year-end to assist with train consists, and therefore reduce train cycle times.

SETRAG also continued to make improvements to its employees' living arrangements some were redeployed at certain points on the railway line to produce a better response in terms of track maintenance operations. In addition to these projects, funds were provided to improve safety, reduce environmental impact and boost the productivity of manufacturing facilities.

A number of packages were earmarked in connection with the environmental footprint of the manganese ferroalloy production plants (fume capture and filtration systems, ultimate waste storage systems).

ERAMET Manganese also continued and completed deployment of a common steering facility for its European alloy plants, introducing the SAP system in Norway after its implementation in Dunkirk in 2014.

The furnace at TiZir Titanium and Iron was fully revamped in 2015 to reduce its environmental footprint, boost performances and manufacture a product with greater added value (slag to manufacture pigment using a chloride process).

Finally, work continued as planned to build a Mines and Metallurgy School in Moanda in partnership with the Gabonese government.

## 1.2.4 RECENT DEVELOPMENTS AND OUTLOOK

## 1.2.4.1 INFORMATION UP TO THE BOARD MEETING ON 17 FEBRUARY 2016

### MAJOR EVENTS AFTER THE REPORTING DATE

Early January 2016 ERAMET drew down €980 million on the Multicurrency Revolving Credit Facility Agreement (RCF).

To the Company's knowledge, there were no other events after the reporting date.

### 1.2.4.2 OUTLOOK FOR 2016

ERAMET will address these difficult circumstances by stepping up and extending measures to cut costs and boost our performances.

In a difficult market environment and against a backdrop of worldwide increases in stocks, in the first quarter of 2016 the ERAMET group decided to shut down mining production in Moanda for four weeks and significantly reduce the production of manganese alloys.

The limitation on investment in security and strict maintenance will continue into 2016. This was made possible in the wake of a heavy outlay to modernise the production tool at the start of the current decade.

An asset disposal programme is also conducted.

### **ERAMET Alloys**

(€ MILLION)	2012	2013	2014	2015
Industrial capital expenditure	84	64	48	44

In 2015 ERAMET Alloys maintained investment at the same level as 2014. This involved expenditure on safety/maintenance/modernisation of its existing facilities. It mainly concerned heat treatment facilities to speed

up processes for aeronautical titanium parts, adaptation of the Erasteel steel works in Commentry, and the information system, including the new wages application at Aubert & Duval.

### 1.3 HISTORY AND DEVELOPMENT OF THE COMPANY

### 1880

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

### 1974

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

### 1983

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

### 1985

Société Métallurgique Le Nickel-SLN, owner of the mining assets in New Caledonia, became a wholly-owned subsidiary of a new parent company known as ERAMET-SLN, in which the shareholders continued to be ERAP (70%), Imétal (15%) and Elf Aquitaine (15%). From 1989 onwards, in order to smooth out the effects of nickel cycles, the Company adopted a strategy of diversifying in complementary business activities.

### 1989-1991

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

### 1991

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

### 1992

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

### 1994

Acquisition of a 51% stake in Eurotungstène, a cobalt and tungsten powder producer.

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

### 1994

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

### 1995-1996

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

#### 1997

ERAMET acquired an additional 15% in COMILOG from Gengabon (Gencor Group).

### 1998

Agreement to swap Poum / Koniambo mining rights in New Caledonia.

### 1999

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

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

### 2000

Acquisition of the Mexican company Sulfamex, producing manganese-based agrochemicals. Opening of the Moanda industrial complex in Gabon.

### 2002

Acquisition of the Guilin manganese alloy plant (China).

### 2003

Acquisition of a 100% stake in the Trappes research centre (France) and 100% of the shares of Eurotungstène.

### 2005

Acquisition of 100% of the shares of Bear Metallurgical (a subsidiary of Gulf Chemical and Metallurgical Corp.) in the United States. SETRAG was granted a 30-year concession to operate the Transgabon railway. Incorporation of Maboumine, a subsidiary of COMILOG in Gabon, whose business purpose is mining exploration at the deposit of Mabounié (niobium, rare earths, uranium, phosphates).

### 2006

Acquisition of Weda Bay Nickel in Indonesia.

### 2007

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

### 2008

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

### 2009

Sale of 33.4% of Strand Minerals (Weda Bay project holding company) to Mitsubishi Corporation.

ERAMET increased its stake in Eralloys (formerly Tinfos, Norway) to 100% after buying up the non-controlling interests. Sale of Nizi, an international trading business acquired in 2008 with Tinfos.

Acquisition of Valdi (France), engaged in the recycling of non-ferrous metals.

#### 2010

Agreement with the Gabonese Republic for a phased increase (up to 2015) of its stake in the capital of COMILOG.

### 2011

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

### 2012

Acquisition by Fonds Stratégique d'Investissement (which became Bpifrance) of the ERAMET shares previously held by Areva.

### 2013

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

### 2014

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

### 2015

- Launch of EcoTitanium, Europe's leading producer of aeronautical-quality titanium producer using recycled materials. It has three shareholders: UKAD (43.5%), the French government as part of the Future Investments Programme operated by the ADEME Agency (41.3%), and Caisse Régionale de Crédit Agricole Centre France (15.2%), through its holding subsidiary CACF Développement.
- Creation of MKAD, a new plant machining large titanium parts, a joint venture between Aubert & Duval and Mecachrome. The aim is to use the plant to transform the titanium produced by EcoTitanium.



### Chapter 2

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Engineering (100%)

ERAMET International (100%)

ERAMET Research (100%) **ERAMET** GROUP

### **ERAMET Alloys**

- High-performance special steels and superalloys, high-speed steels
- · Closed-die forged parts and forging
  - A&D (France 100%)
    - **ĠUKAD** (France 50%)
  - Erasteel (France 100%)
    - Erasteel HEIML (China 49%)

### **ERAMET Manganese**

- Manganese: High-grade ore, alloys and chemical derivatives
  - Catalyst recycling
- Ferrovanadium and ferromolybdenum
  - Titanium dioxide and high-purity smelting business
    - Zircon and ilmenite
  - Comilog (Gabon) (63.71%) •
  - Setrag (Gabon) (99.96%)

  - Comilog Dunkirk (France) (99,99%)
  - Erachem (Belgium-USA-Mexico) (100%)
  - Gulf (USA) (100%)
- (80%) Comilog Asia Ltd (China) (20%)
  - ERAMET Norway (100%)
  - ERAMET Marietta (USA) (100%)
  - TIZIR (Norway, Senegal) (50%)

### **ERAMET Nickel**

- Ferronickel, high-purity nickel
- · Nickel and cobalt chlorides
  - Nickel carbonate
- Cobalt and tungsten powders
- Société Le Nickel-SLN (56%)
- Production unit at Sandouville-Le Havre (100%)
- Eurotungstène (100%)
- Strand Minerals Pte. Ltd. (66.6%)
  - ♦ PT Weda Bay Nickel\* (90%)

16

### 2.2 ERAMET

### 2.2.1 NICKEL MARKET

### 2.2.1.1 USES OF NICKEL

Nickel is chiefly used to make numerous special steels in the broadest sense (stainless steel, alloy steels, and hence superalloys) which together account for some 85% of its usages. Its rich and multifarious properties also make it useful in smaller volumes, for example in electroplating (electrodeposition in a thin layer on plumber's fittings or in automotive applications) or in rechargeable batteries. It also possesses catalytic properties. Nickel's symbol in the periodic table is Ni. Worldwide primary nickel consumption in 2015, estimated at some 1.9 million tonnes, broken down as follows:

- Stainless steel:	67%.
- Nickel alloys:	11%.
- Electroplating:	8%.
- Casting and alloy steels:	7%.
- Other uses (including catalysis	

Sources: Estimates by ERAMET.

and rechargeable batteries):

### STAINLESS STEEL

The stainless steel sector is by far the world's largest consumer of nickel. Combining nickel with chromium makes it corrosion-resistant and more ductile, and much easier to shape. The following are the main uses of stainless steel:

 Food safety and hygiene: household equipment (sinks, cutlery, cooking pots etc.), household appliances (washing machines, microwaves etc.) and also the food industry, in vats and piping for milk and wine production, pharmaceutical preparations or surgical equipment.

- Basic industries for corrosion resistance: chemicals, petrochemicals, paper, energy production etc.
- Building and construction industry (aesthetics, durability, low maintenance cost):
   lifts, stair-rails, urban furniture, building accessories.
- Transport (limitation of corrosion, low maintenance cost): trains, ships, tanker trucks, aerospace, automotive catalytic exhausts.

### **NICKEL ALLOYS**

Aerospace superalloys have a nickel content of more than 45%. It is combined with other metals such as cobalt and chromium. These superalloys can sustain good mechanical performance despite the increasingly high operating temperatures of jet engines.

Nickel/iron alloys are used in the production and transportation of industrial gases and liquid natural gas. The very low temperatures used in these processes make the use of certain nickel/iron alloys essential.

Other corrosion-resistant nickel alloys are used in chemical industries and in environmental protection facilities (smoke and gas processing, wastewater treatment etc.).

### **NICKEL RECYCLING**

7%.

Nickel can be recycled indefinitely and its high economic value makes it worthwhile to collect and recycle. The structure of the nickel recycling industry has been firmly established for many years. Nickel is most commonly recycled in the production of stainless steel.

### 2.2.1.2 NICKEL SUPPLY

### **NICKEL ORES**

There are two main kinds of nickel ore: sulphide ores and oxide ores—the latter has two categories, depending on the chemical composition.

### Sulphide ores

Sulphide ore mines are mostly underground. Geographically they are located to the North (Canada, Siberia) and also the South (South Africa, Australia). In these ores, nickel is found with several other metals such as copper, cobalt, gold, silver and often platinoids. A beneficiation process can be used to concentrate the ore, using the different densities of the sulphides of upgraded metals and of oxide-based ores. The concentrate is processed by pyrometallurgy in furnaces to create an intermediate product, a mixture of metal-enriched sulphides known as matte. Mattes are then refined to separate the different metals and obtain metallic nickel and extremely pure metal salts.

### Oxide ores: laterites and garnierites or saprolites

Nickel oxide ore deposits are mined in open-pit. These deposits, where nickel is concentrated by weathering due to climate and the nature of the terrain, are situated in tropical climatic zones (New Caledonia, Indonesia, the Philippines or Cuba).

There are two kinds of ore: laterites and garnierites or saprolites. Garnierites or saprolites lie beneath laterites, but are the richest nickel ores. They have higher nickel grades of around 1.3-2.5%. For a long time, only garnierites were processed.

The garnierite ore is treated by pyrometallurgy in electric furnaces, which usually gives a finished product, ferronickel, used directly to make stainless steel or, less frequently, an intermediate product, matte, which is refined to make metallic nickel.

The nickel content of laterites is low usually around 1-1.4%. The growing scarcity of sulphide ores and high-grade garnierites or saprolites has stimulated an interest in processing laterites since the early 1990s. They are upgraded using hydrometallurgical plants at which the ores are dissolved in sulphuric acid, whereupon the nickel and cobalt are extracted and separated. One process to upgrade laterites is smelting in small furnaces to produce nickel pig iron (NPI). Laterites are the main source of nickel in the long term. The ERAMET group has developed a special patented hydrometallurgical process for developing a mix of low-grade garnierites or saprolites and laterites. This process operates at a lower pressure and temperature compared to existing projects processing laterites alone. This process, and the possibility of producing an ore mix, constitutes genuine competitive edge with respect to current procedures that only process laterites in autoclave mode at high temperatures and pressures.

### 2.2.2. COMPETITION

### 2.2.2.1. RECENT TRENDS IN NICKEL PRICES

Nickel is quoted on the LME, the London Metal Exchange. A characteristic of this market is the possibility, though without the obligation, of delivering or taking delivery of the physical metal covered by matured future contracts.

Premiums or discounts are applied to this base price according to the products' quality or grade, processing stage, location and the physical market equilibrium at the time.

Recent years have featured strong growth in world demand for nickel, including demand in the developed countries. In view of the complexity and capital-intensiveness of investment in the nickel industry, this steep growth in requirements caused nickel prices to peak prominently in 2006/2007.

In reaction, the Chinese metallurgy industry successfully adapted old steel-industry sites and subsequently developed specific production resources for melting imported nickel ores and satisfying a growing proportion of Chinese stainless steel producers' requirements, also heavily expanding.

Production by these new players in the nickel sector is below industry-standard grade and quality, and is generally referred to as "nickel pig iron".

China has few nickel deposits and is therefore massively dependent on oxide ore imports from two countries, Indonesia and the Philippines, where it has stimulated very rapid development of mining production.

Between 2011 and 2014, nickel pig iron (NPI) took approximately half the Chinese market, equivalent to approximately a quarter of the world market. It should be noted that this rapid growth entailed severe environmental impacts, both in China (particularly emissions etc.) and at mining sites, in excess of industry standards.

However, this development far outgrew demand, and the world market saw a rapid rise in stocks throughout the industry chain, causing nickel prices to slump below production cost for a large proportion of world producers in 2013.

Following an embargo by the Indonesian government on exports of nickel ore in January 2014, and despite the absence of any serious threat to supplies of ore at the beginning of 2014, prices rose in the wake of the embargo. The conflict between the Ukraine and Russia—which produces 12% of the world's nickel—drove prices up further in March 2014. Finally, another interruption of production at the hydrometallurgy plant in Goro (Vale) in New Caledonia in May 2014 brought prices to a record level of US\$21,200/t on 13 May 2014. This occurred even though Goro's impact on world production is quite limited.

Simultaneously, with the continued rise in nickel stocks on the LME, prices began to fall in the latter half of 2014. This expansion of LME stocks was accompanied by a rationalisation of Chinese stocks. An almost equivalent quantity of metal was destocked in China in 2014 following the Qindao port scandal, which caused a massive withdrawal from stock of metallic nickel often used as security for loans. The surplus metal stocks in China appeared to have been exhausted by early 2015. In addition, the considerable ore stocks accumulated in China before the Indonesian export ban also decreased throughout 2014.

LME metal stocks continued to increase in 2015. In this context, nickel prices on the LME fell throughout 2015 to a record low since the onset of financial crisis at the end of 2008. Economic developments in China are bringing pressure to bear on nickel prices, which registered one of the heaviest decreases in the metal sector. At these prices, industry analysts claim more than 70% of nickel manufacturers are producing at a loss. Metal stocks at the end of 2015 had certainly decreased, but are now at a record high of almost 500,000 tonnes, the combined figures of the LME and the SHFE (Shanghai Futures Exchange) created in 2015.



### 2.2.2.2 THE MAIN NICKEL-PRODUCING COUNTRIES

WORLD	2 602	2 188	2 011	2 015
Others	161	241	220	262
Cuba	56	50	46	52
South Africa	51	55	50	50
Colombia	84	76	70	68
China	107	100	92	91
Brazil	108	102	94	87
Indonesia	834	177	170	119
New Caledonia	164	178	163	172
Canada	223	235	214	215
Australia	234	245	226	197
Russia	264	264	242	242
Philippines	316	464	424	461
Mining production (THOUSANDS OF TONNES OF NICKEL CONTENT)	2013	2014	2014-1-11	2015-1-11

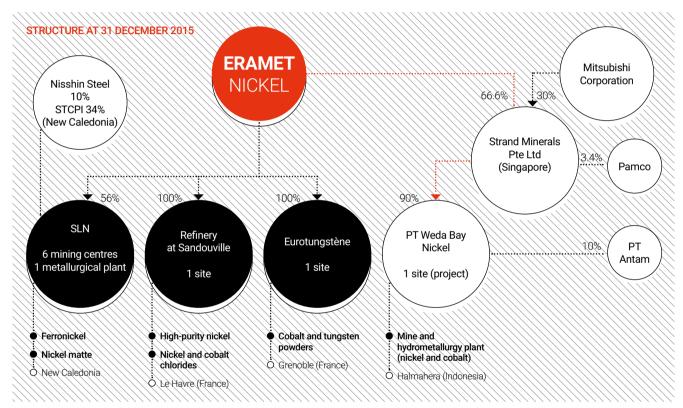
Source: International Nickel Study Group, INSG.

Source: International Nickel Study Group, INSG.				
WORLD TOTAL	1,954.4	1,988.4	1,820.4	1,791.7
Others	213.4	238.1	219.2	258.4
United Kingdom	42.4	39.1	35.6	35.2
Colombia	49.3	41.2	38.0	33.7
Finland	44.3	42.6	38.4	36.6
New Caledonia	48.4	62.0	56.0	70.1
Brazil	57.5	79.6	73.9	64.9
Norway	91.0	90.5	82.8	83.2
Australia	141.5	137.8	125.7	121.1
Canada	153.1	150.0	136.6	146.7
Japan	178.0	177.6	161.7	175.4
Russia	242.0	239.4	219.2	203.9
China	693.5	690.5	633.4	562.4
Metallurgy production Finished products (THOUSANDS OF TONNES OF NICKEL CONTENT)	2013	2014	2014-1-11	2015-1-11

ERAMET Nickel pursues a strategy of developing ores locally and positioning itself in high value-added products, with reliance on the

ERAMET group's internal R&D. ERAMET Nickel is now composed of four main companies:

- At its Doniambo plant, Société Le Nickel-SLN in New Caledonia, a 56% subsidiary and the main mining and metallurgy business division, produces ferronickel (80 to 90% of volumes) and nickel matte, an intermediate product supplied to the Sandouville refinery.
- The Le Havre Sandouville nickel refinery, specialising in high value-added products, supplied with nickel matte by SLN.
- Eurotungstène at Grenoble, where a large proportion of the cobalt extracted from New Caledonian ores at Sandouville is processed to make metal powders.
- The Weda Bay project in Indonesia, based on a world-class deposit.



### 2.2.3.1. SOCIÉTÉ LE NICKEL

ERAMET has a strong longstanding presence in New Caledonia (since 1880) through Société Le Nickel (SLN), a subsidiary in which it holds 56% of the shares. The other shareholders are as follows:

 34% is held by STCPI, a structure representing the interests of the three New Caledonian Provinces. 10% is held by Nisshin Steel, a major customer producing stainless steel in Japan.

ERAMET operates high-quality mines from the standpoint of both grade and reserves. As in the mining industry as a whole, their mining conditions have evolved in recent years due to larger volumes of waste rock, impacting production costs. However, the Group's research centre has enabled the Group to adapt its metallurgical process to these changes while continuing to enhance the operating efficiency

of its mines and to invest in scaled-up mining equipment.

All ERAMET's metallurgical production uses ore from its own mines. The Doniambo plant in New Caledonia mainly produces ferronickel, with some 10 to 15% of production volumes in the form of nickel matte, processed to produce pure products at the Sandouville refinery near Le Havre.

ERAMET sells all Le Nickel SLN products, including the recent addition of low-grade nickel ores. ERAMET also provides technical support for Le Nickel-SLN in several areas, particularly purchasing management, research, engineering, legal and financial needs.

Le Nickel-SLN sells all its metallurgical production from Doniambo to ERAMET.

- The sale price of the ferronickel sold to ERAMET depends on the average price at which ERAMET sells to its customers, minus marketing costs and a sales margin for ERAMET.
- A special contract covers the sale price of matte to the Sandouville plant, with the aim of mutually securing this arrangement over the long term.

The SLN governance system closely involves New Caledonia as a stakeholder.

### **NICKEL MINES**

The ERAMET Nickel mines located in New Caledonia benefit from:

- sizeable tonnages of saprolite resources for pyrometallurgy;
- high nickel contents of some 2.45-2.5%, with cut-off grades of 1.7 to 2.0% Ni;
- sizeable reserves, affording prospects over several decades (see the section addressing Resources and reserves).

Le Nickel-SLN's garnierite or saprolite oxide ore deposits are mined in open-pit. They are generally located at altitudes of 500-1,000 metres. Le Nickel-SLN has extensive experience in mining deposits in New Caledonia. Deposits are identified by geological, geochemical and geophysical surveys, and their geological structures are modelled. Extraction is based on

mine geology and is carried out using hydraulic shovels. The ore is transported by trucks with payloads of 50 to 100 tonnes, depending on the model.

ERAMET's in-house mining techniques have gained international acclaim in terms of environmental protection: storage of tailings in stabilised heaps, control of water run-off and revegetation etc.

### NÉPOUI AND TIÉBAGHI BENEFICIATION PLANTS

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

### **ORE TRANSPORTATION**

The mine's output is mostly sent to the Doniambo plant. The first stage of ore transportation is from the mine to the coast either by truck, or at Kouaoua by an 11 kilometre conveyor, or at Népoui or Tiébaghi in the form of slurry. At the port, the ore is stored and standardised before it is loaded onto ships for transfer to the Doniambo plant.

### DONIAMBO METALLURGY PLANT

Around 80-85% of output at the Doniambo plant is ferronickel, which may be sold directly, and nickel matte, which is used in its entirety by the Sandouville plant. The ore mined is standardised and then dried. It is then calcined

in five rotary furnaces. The ore is then melted in three Demag electric furnaces. The product is transformed into sellable ferronickel (SLN 25) by ladle refining followed by shotblasting, or into nickel matte by adding sulphur and refining in a Bessemer converter.

The Doniambo plant is one of the world's two largest ferronickel production units. Its proximity to the port at Nouméa affords direct access for cargo ships and ore carriers.

The production equipment at Doniambo has undergone a major modernisation programme. Four of the five rotary furnaces and two of the three electric furnaces have been replaced in recent years. Ore-drying installations have also been revamped. Sizeable investment has also been earmarked to protect the environment.

### 2.2.3.2. SANDOUVILLE REFINERY

The Le Havre-Sandouville refinery uses a high-performance hydrometallurgical process specially developed by ERAMET research teams. The 70% nickel matte used is entirely sourced from Le Nickel-SLN's metallurgical plant in Doniambo, New Caledonia.

The matte is crushed and then dissolved by an iron chloride solution. Several successive extraction stages in mixer-settlers separate out iron and cobalt as their chlorides. The remaining impurities are then removed. The pure nickel chloride solution remaining is mostly processed by electrolysis in several stages. The very pure nickel cathode obtained is cut up and stored in drums. The refinery produces makes high-purity nickel (over 99.97% nickel content) in metal format (sheet nickel), and also nickel chloride, nickel carbonate, cobalt chloride and iron chloride.

### 2.2.3.3. THE ERAMET SALES NETWORK

The Group operates long-term partnerships with its customers. It has its own worldwide sales network, ERAMET International. The Group provides significant technical and sales support to help its customers derive maximum benefit from its products in their own manufacturing processes.

The Group's entire ferronickel production ("SLN 25") is sold to stainless steel producers, for which the Group supplies both nickel (20 to 25% of the gross weight) and iron of excellent quality. The Group usually operates under medium/long-term contracts that provide for volume commitments in accordance with price reviews negotiated periodically. These contracts guarantee ERAMET relatively regular shipments.

- Metallic nickel or HP nickel is produced in the form of high-purity nickel cathodes that meet the most stringent constraints and are mainly sold to nickel alloy manufacturers (superalloys for aerospace and nuclear power applications etc.) and to nickel electroplating workshops.
- Nickel chloride ("SELNIC"), of which ERAMET
  is the world's leading producer, is used in
  electroplating and in the chemicals industry
  (catalysts). Some of the nickel chloride is
  transformed into anhydrous nickel chloride
  to be used in the electronics industry.
- Nickel carbonate ("Nickel ONE") is mainly used in the refining sector to make catalysts, and in the ceramics industry as a pigment.
- Cobalt chloride is used in the tyre industry and in the chemicals industry (catalysts) and by ERAMET's Eurotungstène subsidiary.

### 2.2.3.4. EUROTUNGSTÈNE

Eurotungstène, located in Grenoble, specialises in the production of extra-fine cobalt powders, and also tungsten powders and alloy powders. These powders are used, among other applications, to make hardened carbides for metal machining and for diamond-tipped tools used to cut stone and building materials.

### 2.2.3.5. WEDA BAY NICKEL (INDONESIAN PROJECT)

Since 2006 ERAMET has been examining development of the Weda Bay project at Halmahera in Indonesia, with its partners Mitsubishi Corporation, Pamco and Antam. This project is based around:

- one of the largest world-class nickel deposits;
- a ground-breaking hydrometallurgy process developed and owned by ERAMET.

The decision to suspend the Weda Bay project was maintained due to sluggish nickel market conditions in 2015. The ERAMET group remains in permanent contact with partner Mitsubishi and the Indonesian authorities to work on the approach that will create most value

### 2.2.4 MAJOR EVENTS

Through SLN in New Caledonia, ERAMET Nickel is the world's eighth largest nickel producer, with output in recent years in the 50,000 to 55,000 tonnes range.

ERAMET Nickel produced 53,369 tonnes in 2015 to maintain its status as the world's leading manufacturer of ferronickel for the stainless steel market.

The Company was hit hard by production seasonality due to violent cyclones at the end of the first quarter of 2015. It had regained normal performance levels by the latter half of 2015, though this was insufficient to offset the bad start to the year.

### Metallurgical production (ferronickel and matte) at the Doniambo plant

(IN TONNES OF NICKEL CONTENT)

2008	51,131
2009	52,131
2010	53,719
2011	54,360
2012	56,447
2013	53,015
2014	55,012
2015	53,369

The Sandouville plant was kept at a technical minimum in 2015, and work focused on products with higher margins.

### 2.2.5 SPECIFIC ACTIVITIES

### INDUSTRIAL ORGANISATION OF ERAMET NICKEL

The ERAMET group is currently examining the reorganisation of production by the Division:

- SLN is to specialise in refined ferronickel.
- The Sandouville output will come from a different source of matte.

### ELECTRICITY GENERATING STATION FOR LE NICKEL

Financing a new electric power plant at Doniambo is not feasible by ERAMET given the current situation in the nickel market and SLN's financial performance.

ERAMET decided to suspend this project, as well as all its major projects, pursue contact with the New Caledonian authorities and maintain the technology watch until such time as markets improved.

### 2.2.6. ERAMET NICKEL IN 2015: KEY FIGURES

(€ MILLION)	2015	2014
Sales	686	781
Current operating profit/ loss	(261)	(52)
Net cash generated by operating activities	(60)	(18)
Capital employed	382	899
Industrial capex (1)	652	967

(1) Excluding Weda Bay for 2014 and 2015.

### **2.2.6.1 COMMENTS**

ERAMET Nickel: sales down by 12% in 2015 against 2014, to €686 million. Current operating profit well into negative territory at -€261 million, pointing to the present slump on the nickel market.

World production of stainless steel, the main outlet for the nickel market, remained steady in 2015 with respect to 2014, breaking the

trend observed between 2010 and 2014, when annual growth was between 6% and 9%.

The economic slowdown in China and continued high output by nickel producers helped increase stocks. They hit an all-time high at year-end 2015, with more than 480,000 tonnes of metal on the LME (London Metal Exchange) and the SHFE (Shanghai Futures Exchange).

LME nickel prices continued to fall throughout the year to their lowest ever level in 12 years, one of the largest drops in the metal sector (down by 42% between December 2014 and December 2015).

At these prices, industry analysts claim more than 70% of nickel manufacturers are producing at a loss.

In this context, nickel metallurgy production in Doniambo (New Caledonia) totalled 53,369 tonnes of nickel, down by 1,643 tonnes with respect to 2014. Current operating profit earned by ERAMET Nickel was hit hard, and came out at -€261 million.

Cost-cutting and better operational performance by ERAMET Nickel accounted for a cumulative €64 million in 2014 and 2015, bringing the SLN cash cost to approximately USD6/lb (in the economic conditions of Q4 in 2015).

Moreover, ERAMET Nickel plans to extend the plan to cut costs and boost SLN productivity in H1 2016, with a view to making major inroads into lowering cash cost.

The decrease in capital employed was mainly caused by the impairment of Weda Bay assets.

### 2.2.6.2 RETURN ON CAPITAL EMPLOYED BY ERAMET NICKEL

ROCE: Current operating profit (loss) / Capital employed at 31 December in year N-1 (equity, plus net financial borrowing, plus provisions for site rehabilitation, restructuring and other labour risks, less non-current financial assets, excluding the Weda Bay capital employed).

### Nickel ROCE (before tax)

%	2011	2012	2013	2014	2015
Nickel	23.8	(5.1)	(28.5)	(6.3)	(27.0)

### 2.3 ERAMET

### **KEY FACTS**

Key facts concerning ERAMET Alloys are as follows:

- global leadership in a number of respects: the world's second largest producer of closed die-forged parts for aerospace (Aubert & Duval), the leading producer of gas-atomised metal powders, a major player in titanium for aerospace and a leader in uprange high-speed steels;
- a strategy based on technological expertise and niche markets;

- four strategic investments started in 2011/2012: a new titanium-bar press (UKAD, a 50/50 joint venture), a new powder atomising tower (Erasteel), a new VIM furnace for vacuum alloy production and an aluminium press (Aubert & Duval);
- new partnerships in China and India.

# 2.3.1 CORE BUSINESSES OF ERAMET ALLOYS: A TOP-OF-THE-RANGE METALLURGY OPERATOR UPSTREAM OF STRATEGIC INDUSTRIES, PARTICULARLY AEROSPACE

ERAMET Alloys carries on its activities through two main subsidiaries: Aubert & Duval and

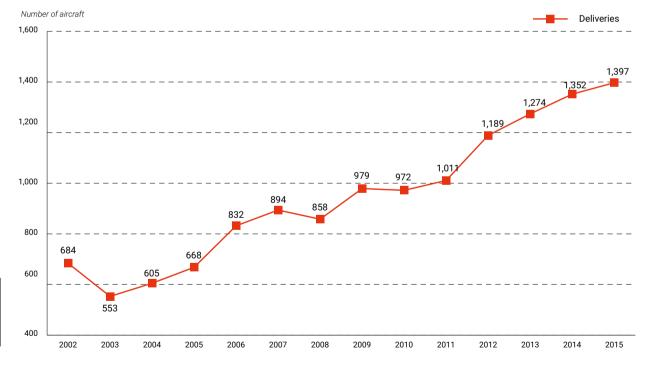
Erasteel, both with uprange positioning in hight-range alloys and metallurgical expertise.

Aubert & Duval is one of the world's leading suppliers of high-performance metallurgical alloys, of critical importance to strategic industries.

Aubert & Duval's prime expertise is in aerospace above all, but also in the defence industries, energy production (particularly nuclear and gas turbines). It is well known for its high quality and its ability to provide metallurgical solutions to meet the most intricate challenges.

Aerospace, Aubert & Duval's main industrial sector, is experiencing sound growth over the long term, averaging a 5% annual rise in aircraft deliveries, outpacing cyclical variations in this sector.

### Continuation of growth in the aeronautical sector: trends in the number of aircraft delivered by Boeing and Airbus



Source: Airbus/Boeing.

Aubert & Duval is also very much to the fore in the new wide-body jet aircraft models (A350, A380, B787 etc.). It is a global frontrunner in uprange metallurgy.

Aubert & Duval is both a high-performance steel and alloy producer (upstream) and a high-power closed die-forger (downstream, inherently in contact with industrial operators), and also engages in bespoke production runs using specific toolings.

- Producer of parts using high-power closed die-forging for aerospace and energy (ranking first to third worldwide according to materials). This process involves hot-shaping metal parts with a press or a ram, using specific toolings. Aubert & Duval manufactures items in four key materials: high-performance steel, nickel-based superalloys,

aluminium and titanium. High power means over 30.000 tonnes and up to 80.000 tonnes (see below).

- A producer of high-performance special steels and nickel alloys, Aubert & Duval is at the top of the "steel pyramid" (see below), and is also strengthening its positions in titanium at several levels in the value chain to benefit from the strong development in this metal in aerospace applications, particularly on account of its compatibility with composite materials. The Company also produces limited quantities of tool steel for specific niche applications. These are shaped by forging or rolling.

Erasteel is the historic leader in high-speed steels, and continues to lead the uprange segment of these steels, which are used for

### high-performance machining, drilling and cutting tools etc.

These steels are very hard, have a high alloy metal content, and are used to make high-performance tools to operate at very high speeds upstream of industries with critical requirements such as car production.

Erasteel leads the world market in powder metalluray, a process used to produce high-alloy steels while preserving high-grade metallurgical properties. Starting from this well-established skill, Erasteel has embarked upon development in related high-growth areas, involving other products manufactured using powder metallurgy.

### 2.3.2 THE UPRANGE **POSITIONING OF ERAMET ALLOYS**

The materials and products manufactured by ERAMET Alloys sell for far higher prices than carbon steel or even stainless steel supplied unprocessed. Market volumes are also far smaller.

**TOOL STEELS (AROUND 1.9 MILLION** 

see the following (non-exhaustively):

### TONNES)

Tool steels are alloy steels with approximately 5-15% of alloy content. These are chiefly nickel, chromium, molybdenum, vanadium, tungsten and cobalt.

Working towards the top of the pyramid, we

Tool steels are used to make tools for shaping metals, plastics and glass (for stamping, extrusion, injection, moulding etc.) upstream of the automotive industry, household appliances, electronics etc.

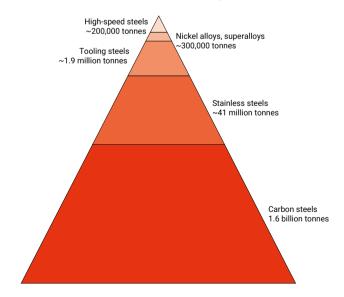
### ALLOYS WITH HIGHLY ADVANCED CHARACTERISTICS AND NICKEL ALLOYS (SOME 300,000 TONNES)

There are several types of nickel alloy that can be grouped together according to the specific property required:

- Alloys exhibiting high mechanical strength at high temperatures (superalloys).

Superalloys contain 40-75% nickel. This is alloyed with chromium (15-30%) and, depending on the required grade, cobalt, molybdenum, titanium, aluminium or niobium. Their main outlet is aerospace (engines)

### World production of the main families of steels and alloys in 2015



Estimates by ERAMET.

and the gas turbine sector. The third focus of development is the automotive sector.

Demand for superalloys is mainly driven by aerospace, where annual medium/longterm growth is generally estimated at 5%. This line of business, however, is strongly cyclical in nature. The new-engine business is also complemented by the maintenance of existing engines.

- Alloys for electronics industries and electrical resistors.
- Alloys for transporting liquid natural gas.
- Corrosion-resistant alloys (chemicals industry, food industry, offshore platforms, nuclear power and environment).

### HIGH-SPEED STEELS (SOME 245,000 TONNES)

High-speed steels have a high carbon content and also contain tungsten, molybdenum, vanadium, chromium and sometimes cobalt. They contain no nickel. After heat treatment, high-speed steels are extremely heat-resistant. Long products account for most of the total market and are used to make bits, taps, cutters, trimming cutters and reamers etc. Flat products are used to make saw blades, cutting disks and industrial cutters.

These markets require distribution channels to respond to customer-specific requests.

Western consumption of high-speed steels has been affected by competition from tungsten carbide. Moreover, a large share of low-end tools and similarly positioned high-speed steels has been captured by China. Competitors producing high volumes of low-cost high-speed steels of lower quality than Western producers have developed in China to meet this demand.

Accordingly, the Western high-speed steel market has increasingly refocused on more sophisticated tools using powder metallurgy or specific products (bimetallic, for localised use of high-speed steels on blades etc.).

However, in China, demand for tools containing better-quality high-speed steels is growing fast as a result of the rapid economic and industrial development of that country, which has risen to world leadership in the number of car registrations.

Total world production of high-speed steel is approximately 200,000 tonnes.

# 2.3.3 SPECIAL PRODUCTION PROCESSES FOR STEELS WITH HIGHLY ADVANCED CHARACTERISTICS AND SUPERALLOYS

ERAMET Alloys has in-house processes for its steels to guarantee the highest levels of process control and performance.

### 2.3.3.1 PRODUCTION OF STEELS WITH HIGHLY ADVANCED CHARACTERISTICS AND SUPERALLOYS (UPSTREAM)

The production of steels with highly advanced characteristics and superalloys involves the production of an alloy with a perfectly controlled composition by melting recycled alloy scrap and primary metals in an electric furnace.

Several types of process are used, depending on the product:

- Air metallurgy, using an electrical-arc furnace, followed by a metallurgical processing phase (adding alloy metals) to achieve the required chemical analysis and purity.
- Vacuum metallurgy, used to make alloys that withstand higher stresses (and contain nitrogen- and oxygen-reactive alloying compounds). The process is carried out in Vacuum Induction Melting (VIM) furnaces.
- Remelting is required for some critical parts used in the aerospace, power generation and tooling sectors.

Remelting takes place in slag (ESR furnace— Electro Slag Remelting) or in a vacuum (VAR furnace—Vacuum Arc Remelting). For some types of alloy used in aerospace, the two processes are carried out one after the other.

### POWDER METALLURGY

This process, which follows melting in a furnace, consists of spraying a jet of liquid metal in the form of fine droplets that cool to form a powder. This is then turned into a perfectly dense material by hot isostatic compacting. This process is suited to highly alloyed grades with advanced properties. It is also used in loose powder form for applications such as surfacing, MIM (Metal Injection Moulding) and additive manufacturing (3D printing).

### 2.3.3.2 ALLOY SHAPING (DOWNSTREAM)

After an alloy has been manufactured, various techniques are used to shape the material mechanically, usually using heat processes,

- to optimise the material's mechanical characteristics.
- The die-forging process—see above.
- The forging process involves shaping bars or simply-shaped blanks. This operation is conducted using heat and a press, a forging
- machine or even a ram, with a series of pressing runs between tools.
- The rolling process consists of running the material between cylinders to shape it into sheets, bars (typically 20-200 mm in diameter) or wire (5-20 mm in diameter).

### 2.3.4 THE COMPETITORS OF ERAMET ALLOYS

The table below shows the main producers in the areas of business operated by ERAMET Alloys, demonstrating the special skills of the Division, which works in all segments with high added value.

works in all segments with high add	ed value.									
	METALS PRODUCED		PROD	PRODUCTION METHOD		HIGH-POWER CLOSED DIE-FORGING				
COMPANIES	HIGH- SPEED STEELS	HIGH- PERFOR- MANCE SPECIAL STEELS	SUPERAL- LOYS	AIR	VACUUM	POWDER	HIGH- PERFOR- MANCE SPECIAL STEELS	SUPERAL- LOYS	ALUMINIUM	TITANI- UM
Alcoa (USA & Russia) + Firth Rixson (USA & UK)										
ATI-Ladish (USA)	•									
Böhler + Buderus (Austria / Germany) VoestAlpine						•				
BGH (Germany)										
Carpenter—Latrobe (USA)										
Cogne (Italy)										
Ellwood (USA)										
ERAMET Alloys										
Erzong (China)										
Gloria (Taiwan)										
HeYe (China)										
Hitachi Metals (Japan)										
J.Forge (Japan)										
Midhani (India)										
Nachi Fujikoshi (Japan)										
Otto Fuchs (F.R. Germany) / Weber (USA)										
PCC (Wyman Gordon & SMC) and TIMET										,
Pratt & Whitney (USA Israel)										
Shultz (USA)										
Shanghai Baosteel (China)										
Schmolz & Bickenbach (Germany USA)										
Tata Steel (India & UK)										
Tiangong (China)										
Universal Stainless										
Valbruna (Italy)										
VSMPO (Russia)										

The special skills of ERAMET Alloys are as follows:

- die-forging know-how across four large families: aluminium, titanium, high-performance steels and superalloys;
- upstream integration (production) in steels and superalloys.

The following are some of the trends observed in the profession:

- "three-dimensional" consolidation, vertically (from alloy melting to closed die-forging and even recycling) and horizontal (closed die-forging, foundry work etc.) and also multi-materials (titanium) in the United States;

- the emergence of new competitors intent on penetrating their domestic markets and reducing their dependence: Japan, China and also India;
- the increasing importance of titanium to new and future aircraft models, leading to industrial capital expenditure and strategic moves.

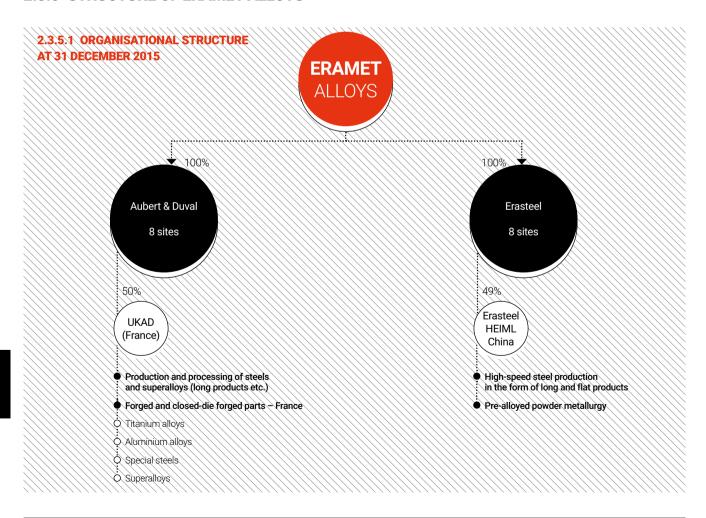
ERAMET Alloys has struck a number of strategic partnerships over the last five years:

- UKAD in titanium forging, based on the upstream activity of UKTMP (Kazakhstan);
- SQUAD in India in aerospace closed die-forging;

- Creation of MKAD, a joint venture between Aubert & Duval and Mecachrome to supply machined titanium parts;
- Ecotitanium with the ADEME Agency and Crédit Agricole France, producing aerospace quality titanium bars from titanium offcuts.

ERAMET Alloys has conducted several solo developments of new materials, upstream (vacuum furnace for superalloys and other nickel-based alloys), powder alloy production (Sweden), forging and die-forging (aluminium-lithium etc.).

### 2.3.5 STRUCTURE OF ERAMET ALLOYS



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### 2.3.5.2 ERAMET ALLOYS PRODUCTION

### **ERASTEEL**

### **Erasteel production**

- This specialisation gives Erasteel a great deal of control over the quality of its production and enables it to optimise its processes.
- Erasteel is one of the few producers with a presence in all global markets.
- Erasteel is the world leader in gas-atomised metal-alloy powders, and recently doubled its capacity when a new atomising tower in Sweden was commissioned in 2011.

### Erasteel's industrial organisation

The Erasteel group's industrial activity is now organised around eight production sites in France, Sweden, the United Kingdom, the US, China and Spain.

### **AUBERT & DUVAL**

Aubert & Duval has consistently pursued a strategy of focusing on speciality products that are technically advanced and intended for customers seeking high repeatability and reliability as touchstones of product quality. In line with this strategy of high value-added specialities, Aubert & Duval has a comprehensive set of industrial assets that enable it to meet stringent and highly diverse requirements.

### Aubert & Duval closed die-forging business

Aubert & Duval is the world's second largest closed die-forger and specialises in large parts and high-power closed die-forging in excess of 12,000 tonnes.

Aubert & Duval is one of the few producers that uses closed die-forging processes for all four types of material: steels, superalloys, aluminium and titanium. Steels and some of the superalloys are produced internally at Aubert & Duval. Aluminium alloys and titanium are bought from third-party suppliers.

Closed die-forging is carried out at the Issoire (aluminium) and Pamiers sites (steel, titanium and superalloys).

### The closed die-forging sector

The sector has the following equipment:

- die-forging presses from 4.5 kt to 65 kt;
- rams from 1 to 16 tonnes:
- various systems for finishing (grinding), heat treatment, non-destructive testing and machining (lathes, milling machines).

### The Interforge press

The activity of Interforge, located in Issoire, has been carried on since the mid-1970s in a 65,000-tonne press that is the most powerful in the western world. The Company carries out subcontracted closed die-forging solely for its shareholders and in proportion to their shareholding (Aubert & Duval 94%, and SNECMA 6%).

The press is a key strategic advantage, as it positions the Aubert & Duval group favourably in comparison to global and particularly US competition.

- Its capacity enables it to make parts that would be difficult to produce on competitors' presses, which are limited to 40,000/50,000 tonnes. Few Western producers apart from Aubert & Duval have presses with capacities over 30,000 tonnes.
- Two 75,000-tonne presses in Russia (aluminium producer Rusal and titanium producer VSMPO AVISMA).

### The Airforge press

The Airforge plant at Pamiers, built around a fully integrated 40,000 tonne press, is particularly suited to the closed die-forging of aircraft engine parts, including large-format parts.

### Closed die-forging markets

In the large-format part market (closed die-forging power of over 12,000 tonnes), the main outlets are:

- the aeronautics industry: this market is divided into two segments, engine parts (customers such as General Electric, SNECMA, Pratt & Whitney, Rolls Royce etc.), airframes, landing gear and equipment parts (Airbus, Boeing, Dassault Aviation, Messier-Bugatti-Dowty etc.);
- the gas turbine industry: turbine manufacturing customers such as General Electric (Power Systems), Siemens and Alstom.

### Positioning in closed die-forging based on R&D

Aubert & Duval uses CAD and simulation software in combination to optimise the characteristics and costs of parts in direct coordination with the customer. This also considerably shortens research, development and production cycles.

In recent years, Aubert & Duval has strengthened its strategic position in the closed die-forging segment through:

- an innovative product R&D policy: new steel and superalloy grades, expertise in large parts to cater for growing equipment size (wide-body jets, high-power gas turbines, etc.);
- an innovative research and development policy for processes: closed die-forging to near-final dimensions designed to optimise material use, and high-speed machining;
- optimisation of industrial performance, in terms of production costs, product quality and service reliability (specialisation of production plants, launch of Lean Manufacturing).

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Aubert & Duval is also developing its positioning along the value chain by capitalising on its upstream integration capacity (material production and closed die-forging) and growing downstream in machining functions.

### Aubert & Duval's other business sectors

Industrial assets for these other sectors include:

- arc furnaces of up to 60 tonnes, combined with ladle metallurgy tools (ladle, AOD or VOD furnaces);
- VIM furnaces of up to 20 tonnes for vacuum alloy production;
- powder metallurgy production units;
- vacuum or slag remelting furnaces with capacity up to 30 tonnes;
- rolling mills to make long products with diameters of 5.5 mm-200 mm;
- forging presses and machines with forces of up to 4,500 tonnes;
- machining facilities (for milling, turning, reaming or drilling);
- heat treatment equipment, accommodating parts of up to 50 tonnes or 20 metres in lenath:
- non-destructive testing equipment (sweating, ultrasound, X-ray, magnetic particle inspection etc.).

All these tools have computerised management and supervision systems and are certified to meet the requirements of hi-tech markets (aerospace, energy, weaponry, automotive, medical etc.).

### Long products

These are products with advanced characteristics, generally in bar format, for transformation or machining. Aubert & Duval focuses on critical applications in the aerospace, medical and automotive sectors (engine valves etc.).

The number of customers is limited. Sales are characterised by ongoing contracts and a high number of marketed grades, often in small quantities.

### **Tooling sector**

This sector's products are large forged blocks, which may be pre-machined, and long products, usually with large sections. Target markets are the usual outlets for tool steels, namely hot-working, cold-working and plastic-injection moulds. The market is both fragmented (a large number of customers) and regional. As a result, distribution plays an important role. Aubert & Duval is specifically positioned up-range, providing a high technical consultancy content.

### Individual forged parts and specialities sector

This area combines various related activities calling for highly specific expertise:

- Individual forged parts, made in short runs for the defence, oil drilling and shipbuilding markets.
- Remelting alloys.
- Powder metallurgy: semi-finished products for turbine disk closed die-forging and surfacing powders.

### 2.3.5.3 MARKETING POLICY **AND PRODUCTS**

### **ERASTEEL'S MARKETING POLICY AND PRODUCTS**

Erasteel works in close long-term partnership with its customers. It has its own sales subsidiaries in the main Western countries consuming high-speed steels. In certain countries, Erasteel is supported by the ERAMET International sales network.

In other countries, sales are made by local agents. To support this sales network, market managers are responsible for the whole range of products within their respective remits.

Erasteel boasts a highly comprehensive range of products to respond to the needs of its markets.

### AUBERT & DUVAL'S MARKETING POLICY: CLOSE RELATIONS WITH MAJOR BUYERS

Multi-year contracts (typically 3-10 years) with major aerospace buyers usually specify the share of procurement contracts awarded to Aubert & Duval. Shipments therefore move in step with aircraft production rates and, consequently, are dependent on the state of the aerospace market. Changes in raw material purchasing prices (cobalt, nickel, chromium, molybdenum, scrap iron etc.) are passed on in selling prices.

Special-order single-part tooling (as is the case for closed die-forging) is usually financed by customers. This situation is a barrier to entry for new competitors once the initial contract has been awarded.

A high degree of integration with the major buyers' research departments from part design onwards is a key requirement in this business segment: Aubert & Duval's technical/ sales engineers work closely alongside these research departments

### 2.3.6 ERAMET ALLOYS IN 2015

(€ MILLION)	2015	2014
Sales	991	938
Current operating profit/ loss	27	23
Net cash generated by operating activities	27	18
Capital employed	800	789
Industrial capital expenditure	44	48

### **2.3.6.1 COMMENTS**

ERAMET Alloys: sales up by 6% in 2015, to €991 million. Current operating profit rose to €27 million, including €50 million by Aubert & Duval to confirm growth, and -€23 million by ERASTEEL, drastically affected by the high-speed steel market. ERAMET Alloys still holds a good position in the aeronautical sector.

The aeronautical sector is showing regular growth and accounts for almost 60% of sales by ERAMET Alloys on programmes by aircraft manufacturers requiring high added-value parts for structures and engines. Aubert & Duval's high quality and services won a specific award at the Le Bourget Trade Fair.

In 2015 ERAMET Alloys entered a new phase in the structuring of its business targeting aeronautical titanium markets:

- An industrial order for UKAD, a joint venture between Aubert & Duval and UKTMP, to forge aeronautical titanium bars.
- Continuation of construction of EcoTitanium, Europe's leading producer of aeronautical-quality titanium producer using recycled materials, in partnership with France's ADEME agency and Crédit Agricole.
- Creation of MKAD, a joint venture between Aubert & Duval and Mecachrome to supply machined titanium parts.

ERAMET Alloys also continued to expand its powder metallurgy business:

- Deliveries stepped up on the Rafale programme.
- Positioning in the emerging 3D printing sector.

Developments in the Division's other markets were less favourable, with smaller volumes of high-speed steel pulling down Erasteel's results.

Cost-cutting and better operational performance by ERAMET Alloys accounted for a cumulative €57 million in 2014 and 2015.

### 2.3.6.2 ERAMET ALLOYS' RETURN ON CAPITAL EMPLOYED

ROCE: Current operating profit (loss) / Capital employed at 31 December of year y-1 (Consolidated equity capital plus net financial debt, plus provisions for site rehabilitation, restructuring and other labour risks, less non-current financial assets).

### Alloys ROCE (before tax)

%	2011	2012	2013	2014	2015
Alloys	2.5	(0.7)	(0.5)	3.0	3.4

### 2.4 ERAMET MANGANESE

### 2.4.1 THE MANGANESE MARKET

### 2.4.1.1 MANGANESE DEMAND

### MAIN APPLICATIONS

#### Steel

Over 90% of manganese worldwide is used in steel production. All steelmakers use manganese in their production processes; on average, 6-7 kg per tonne of steel. Manganese is mainly used in steel as an alloy (ferromanganese or silicomanganese) with an average content of 70% of manganese: 1.8 tonne of ore with an approximate manganese content of 40% is needed to produce one tonne of alloy.

Manganese is used mostly in manganese alloys, and represents a very small portion of the cost of steelmaking. Manganese is mainly used as an alloy to improve hardness, abrasion resistance, elasticity and surface condition for rolling. It is also used for deoxidation / desulphurisation in the manufacturing process.

### Other applications

- Batteries: mainly alkaline disposable batteries. A smaller percentage continues to be used in saline disposable batteries, which are less efficient. Manganese derivatives are also used in rechargeable lithium batteries.
- Ferrites: used in electronic circuits.
- Agriculture: fertiliser and animal feed.
- Various chemical uses: pigments, fine chemicals.
- Other uses in metallurgy: mainly as a hardening agent for aluminium (beverage cans).

### CARBON STEEL, THE MAIN MARKET

Manganese demand is primarily influenced by trends in global carbon steel production. The Chinese economic boom due to the country's rapid urbanisation and its growing infrastructure requirements made a significant contribution to the increase in carbon steel production and demand for manganese over the last decade.

The iron and steel industry, however, is now experiencing overproduction which is giving cause for concern, while world steel production fell by almost 3% in 2015. The rapid increase of Chinese production capacity has exceeded industry's downstream needs. Additionally, inventories in the main areas of steel consumption (a surplus of unoccupied accommodation, accounting for more than 40% of China's domestic steel production) and a slowdown in economic growth have had an adverse effect on China's domestic steel consumption. In a bid to offset the volumes lost on their internal market, Chinese steelmakers sold part of their surplus capacity to other countries, to the extent that Chinese steel exports broke further records in 2015: net exports of finished steel products (almost 90 million tonnes) notched up a year-on-year increase of more than 30% against 2014. As a comparison, this exceeds production by the US, one of the world's largest steel producers.

Outside China, rising Chinese exports have hit local producers hard, securing lower prices and profits, and increasing under-use of their production capacity. Worldwide production capacity, in fact, was 71% over the first nine months of the year, compared to 74% during the same period in 2014. Moreover, despite dynamic consumption in North America, production of raw steel fell by more than 8% in 2015. Economic and geopolitical crisis in Latin America, Russia and the Ukraine also has an adverse effect on steel consumption in these countries. In this context, increasing numbers of steel manufacturers are announcing large capacity downscaling.

Despite downward growth revisions, however, the medium/long-term prospects are still looking quite positive. World demand for steel will probably continue to be pulled up by development in emerging markets, especially India.

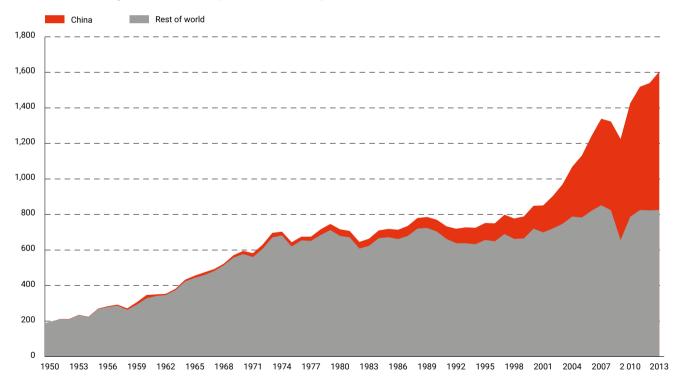
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### Distribution of raw steel production worldwide

	VOLUMES (	IN MILLIONS OF T	ONNES)	% ANNUAL GROWTH			
WORLD PRODUCTION OF RAW STEEL	2013	2014	2015	2013	2014	2015	
European Union	166.3	169.3	166.2	-1.4%	1.8%	-1.8%	
Other Europe (incl. Turkey)	36.5	36.2	34.0	-8.7%	-0.8%	-6.0%	
CIS	108.1	105.9	101.3	-2.6%	-2.0%	-4.3%	
North America	118.9	121.2	110.7	-2.2%	1.9%	-8.6%	
South America	45.8	45.0	43.9	-1.2%	-1.7%	-2.5%	
Africa	15.7	14.2	14.0	2.3%	-9.2%	-1.8%	
Middle East	26.0	28.0	27.4	5.4%	7.8%	-2.4%	
China	815.4	822.8	803.8	11.5%	0.9%	-2.3%	
India	81.3	87.3	89.8	5.2%	7.4%	2.9%	
Other Asia & Oceania	204.5	217.3	209.0	-8.5%	6.3%	-3.8%	
65 countries	1,618.5	1,647.2	1,600.1	3.8%	1.8%	-2.9%	

Source: World Steel Association.

### Distribution of raw steel production worldwide (IN MILLIONS OF TONNES)



Source: World Steel Association, ERAMET.

### 2.4.1.2 MANGANESE SUPPLY

### MANGANESE ORE

The supply of manganese ore is made up of numerous types of ore, of varying quality. As with iron ore, a distinction is made between high-grade ore with 30-48% manganese content, for which shipment is affordable, and low-grade ore consumed locally. Although both types of ore are used in combination by alloy producers, the usage value of the high-grade ore is very much higher than lower-grade ores.

Estimated ore production worldwide in 2015 was put at 15.3 million tonnes of manganese content.

### Manganese ore production

(IN MILLIONS OF TONNES CONTENT)

16.3		
0.7	0.6	0.4
0.4	0.3	0.2
0.4	0.4	0.3
0.5	0.4	0.4
0.4	0.4	0.5
0.8	0.8	0.6
1.0	1.0	1.1
1.6	1.5	1.7
2.9	2.8	2.3
3.2	3.2	3.0
4.5	5.4	4.9
2013	2014	2015
	4.5 3.2 2.9 1.6 1.0 0.8 0.4 0.5 0.4 0.7	4.5 5.4 3.2 3.2 2.9 2.8 1.6 1.5 1.0 1.0 0.8 0.8 0.4 0.4 0.5 0.4 0.4 0.4 0.4 0.3 0.7 0.6

Source: producer reports, ERAMET estimates.

### MANGANESE ALLOYS

Manganese alloys are produced by reducing manganese ores at temperatures of approximately 1,600°C. This process is carried out by adding coke to one of two types of furnace:

- electric furnaces: apart from China, virtually all manganese alloys are produced using this process;
- blast furnaces: manufacturers using this process are mainly based in China, due to

the local availability of coke. Outside China, blast furnaces are exclusively located in Japan and Eastern Europe.

There are four manganese alloy families:

- high carbon ferromanganese (HC FeMn) containing 65-79% manganese and 6-8% carbon. HC FeMn can be produced by two types of process, electric furnaces or blast furnaces:
- silicomanganese (SiMn), containing 60-77% of manganese. It can only be produced by electric furnaces, using ore with the possible addition of FeMn slag;
- refined ferromanganese (MCFeMn and LCFeMn): this product has a higher added value, with less carbon. It is mainly produced by transferring molten HC FeMn alloy to an oxygen converter, which lowers the carbon content to the desired level. A distinction should be made between medium-carbon ferromanganese (1.5% carbon: MCFeMn) and low-carbon ferromanganese (0.5% carbon: LCFeMn). This is chiefly used to make flat steel products and special steels.
- low-carbon silicomanganese (LCSiMn) is mostly used to produce stainless steels, one of the ERAMET group's main markets.

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

### Manganese alloy production

(IN MILLIONS OF TONNES CONTENT)

	2013	2014	2015
China	12.1	11.1	9.1
India	2.2	2.2	1.8
Ukraine	0.6	1.0	0.8
South Korea	0.7	0.8	0.7
South Africa	0.8	0.9	0.6
Norway	0.6	0.6	0.6
Japan	0.5	0.5	0.5
Russia	0.3	0.4	0.4
Australia	0.3	0.3	0.3
Spain	0.3	0.3	0.2
Mexico	0.2	0.2	0.2
Georgia	0.2	0.2	0.2
France	0.2	0.2	0.2
United States	0.2	0.2	0.2
Kazakhstan	0.2	0.2	0.2
Brazil	0.2	0.2	0.1
Other	0.4	0.4	0.4
World	19.9	19.5	16.6

### Breakdown of worldwide manganese alloy production

	2013	2014	2015
Silicomanganese	68%	65%	63%
High-carbon ferromanganese	23%	26%	27%
Refined ferromanganese	9%	9%	10%

Source: International Manganese Institute and ERAMET estimates.

Among the standard alloys, silicomanganese has grown the fastest. The availability of low-grade ore resources in China (and also India and the Ukraine) makes it easier to use for producing silicomanganese. However, the low-grade ore must be mixed with imported high-grade ore, with a constant need to strike a balance between price and performance.

The Chinese market features a large number of alloy producers that are dependent on imported high-grade ore, accounting for more than 60% of ore imports worldwide. China lost ground as an international alloy player after it

introduced export taxes in 2008, while India is now a large commodity exporter (SiMn and HCFeMn).

### METALLIC MANGANESE

Metallic manganese is produced in a hydrometallurgy process using electrolysis. Electrolytic manganese metal or EMM is an extremely pure product with a high manganese content (over 99%), generally produced in flakes. As the hydrometallurgy process is best suited to processing low-grade ores, most EMM is produced in China, which is the main metal exporter operating an extremely fragmented industry. The only other countries producing metallic manganese are South Africa and Gabon, where ERAMET COMILOG Manganèse is now upgrading the Moanda Metallurgy Complex (C2M).

Manganese is mainly used in the carbon steel and stainless steel markets and aluminium production. World manganese production ranges between 1.1 and 1.5 million tonnes annually, depending on the year.

### 2.4.1.3 RECENT MARKET AND PRICE TRENDS

### FORMATION AND MONITORING OF MANGANESE ORE PRICES

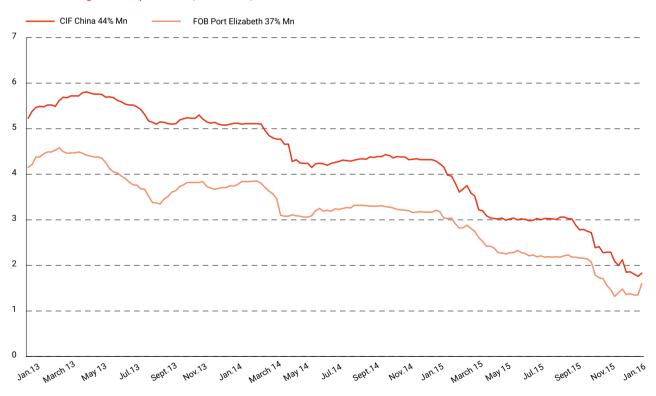
The selling price of manganese ore is negotiated directly between buyers and sellers. Prices are typically quoted in USD/DMTU (dry metric tonne unit). One DMTU corresponds to 10 kg of manganese content. The price of a DMTU is higher for high-grade ores, and depends on the granularity and the presence or absence of impurities.

Whereas previously the high-grade ore price was set for one year, the validity term of contract prices has shortened since 2009, increasing the volatility of manganese ore prices. This trend further accelerated in 2010, with prices moving from quarterly to monthly quotations.

The main indicators watched by the market are the weekly price indexes published by the Metal Bulletin:

- the CIF China price for imported 44% manganese ore. This index includes a fairly volatile and large component (around 30%): the cost of sea freight, which is specific to each market;
- the FOB Port Elizabeth price for 37% manganese from South Africa, now the world's largest ore producer.

### Metal Bulletin manganese ore price index (IN USD/DMTU)



### FORMATION AND MONITORING OF MANGANESE ALLOY PRICES

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

The manganese alloy market is above all global and highly competitive. However, alloy flows between the main zones are relatively limited owing to shipment costs. However, prices can sometimes vary between geographic areas

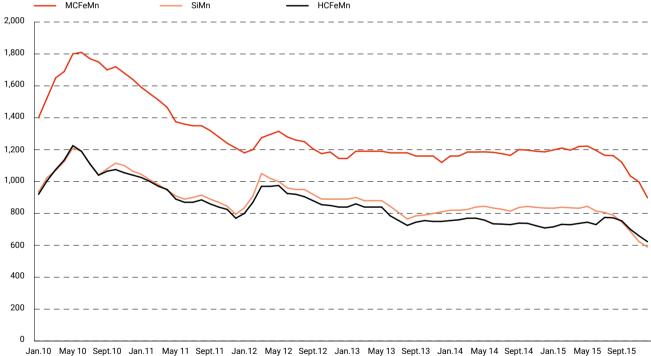
(Europe, North America and Asia) because of movements in exchange rates, or lags between economic cycles.

There are also certain structural differences among the various alloy groups because of their relative values in use. In particular, refined alloys have higher selling prices than standard alloys.

Outside Europe, manganese alloy prices are mostly denominated in US dollars (USD). In Europe, they are mainly negotiated in euros (EUR). Prices are determined per gross tonne of alloy. However, product quality, particularly manganese content, is taken into account when negotiating the price.

There are several specialised publications for the metals market that track manganese price trends through monthly spot price surveys. The graph below is based on data published in the CRU (London).

### CRU index of manganese alloy prices in Europe (IN €/T)



Generally speaking, alloy price fluctuations follow the fluctuations in ore prices. However, the scope for preserving margins largely depends on regional balances between supply and demand for each type of alloy.

### RECENT MARKET AND PRICE TRENDS

The slowdown in world steel production in 2015 brought much pressure to bear on the manganese market.

The increasing supply of manganese from South Africa since 2010 for new projects has had a considerable impact on market

equilibrium. Larger volumes of South African exports, assisted by the depreciation of the rand and low freight costs, have emerged along with lower demand for ore in China, the main export destination. Lower production and a sharp inventory run-down of manganese alloys have had an adverse effect on demand, and CIF China 44% manganese ore prices

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(source CRU) fell by 49% between December 2014 and December 2015. Prices for metallic manganese fell by around 20% during the year.

Alloy prices outside China experienced a significant drop in the latter part of the year. This downward trend reflects not only lower ore prices, but also lower demand outside China, where manufacturers are experiencing overcapacity and competition from Chinese exports. Furthermore, devaluation of the rupee and the rouble in India and Russia, both large commodity producers, has also exacerbated the pressure on manganese alloy prices.

## 2.4.2 ERAMET MANGANESE OVERVIEW

#### **2.4.2.1 KEY FACTS**

MANGANESE ORE AND ALLOYS (78% OF ERAMET MANGANESE'S SALES IN 2015): A WORLD LEADER IN THE MANGANESE ORE MARKET ACROSS THE ENTIRE VALUE CHAIN

The main area of business is the Manganese Division which encompasses the mining of the ore in Gabon by COMILOG, transport by rail (including the other transportation activities relating to the Transgabon railway concession), and loading at the port; this Division's activities also include ore processing, in the form of manganese alloys for the steel industry, or chemical derivatives targeting different customers in the chemicals industry. ERAMET Manganese is a leading player in the manganese industry in terms of mining and also transformation of ore: through its majority holding in COMILOG along with the Gabon government and through several industrial sites close to consumption zones, it is:

- the world's second largest producer of highgrade manganese ore;
- the world's second largest producer of manganese alloys;
- the largest producer of refined alloys;
- the leading global producer of manganese chemical derivatives.

## CHEMICALS: 12% OF ERAMET MANGANESE'S SALES IN 2015

The chemicals industry also makes use of manganese. ERAMET Manganese manufactures chemical derivatives. These are used in a number of sectors:

- the energy sector, in the production of alkaline batteries and larger batteries;
- in agriculture, to manufacture fertiliser and animal feed;
- in the electronics industry, for hi-tech components;
- the fine chemicals industry, for metal surfacing treatments and pigments.

ERAMET is developing new chemical manganese products, including extra-pure manganese sulphate at the Tertre plant in Belgium, used in the production of **lithium batteries**.

## RECYCLING: 5% OF ERAMET MANGANESE'S SALES IN 2015

This became part of the Group's activities when COMILOG was acquired. The latter still owns the subsidiary operating in this area (GCMC or "Gulf"). Its main activity is oil catalyst recycling in the United States.

Apart from their services to the environment, these activities include extraction for recycling and development of various alloy metals, mainly alloys based on molybdenum and vanadium, and also those based on nickel, cobalt etc. The technologies used (pyrometallurgy and hydrometallurgy) constitute the core of the ERAMET group's leading skills.

## ZIRCON / TITANIUM DIOXIDE: 5% OF SALES IN 2015 (ACCRUING TO ERAMET'S 50% HOLDING IN TIZIR)

With the commissioning of the Grande Côte project in Senegal in the first half of 2014, the ERAMET group's long-term objective, when the project has consolidated, is to become one of the world's leading players in zircon and titanium. This activity should make an increasingly significant contribution to Group earnings.

Since the acquisition of the Norwegian group TINFOS in 2008, the Group has pyrometallurgy industrial equipment for processing titanium ore, to deliver a product with an enriched titanium dioxide content to producers of white pigments.

In 2011 ERAMET formed a new 50/50 partnership bringing together this front-running downstream asset and an upstream ore source about to be developed: the Grande Côte mining project in Senegal, hitherto run by the Australian group Mineral Deposits Limited. Grande Côte began production in 2014.

#### MABOUMINE PROJECT: NIOBIUM / RARE-EARTH METALS PROJECT IN GABON

For the last seven years ERAMET has allocated major resources to a major mining project in Gabon, at Mabounié in the Moyen-Ogooué province, through Maboumine, a subsidiary of COMILOG (76%). The project focuses on mining niobium, uranium and rare-earth metals at the Mabounié site using an innovative hydrometallurgical process, as the complexity of the ore does not lend itself to direct pyrometallurgy, and not all of the valuable components can be recovered. The Group has carried out some major research work at its labs and at pilot facilities to develop the process, leading to the registration of five patents.

In addition to R&D activity, a framework survey was carried out in 2014 and 2015 to draw up a provisional business plan with rather unfavourable prospects, in due consideration of profitability and uncertainty on the markets for the products concerned, especially rare-earth metals.

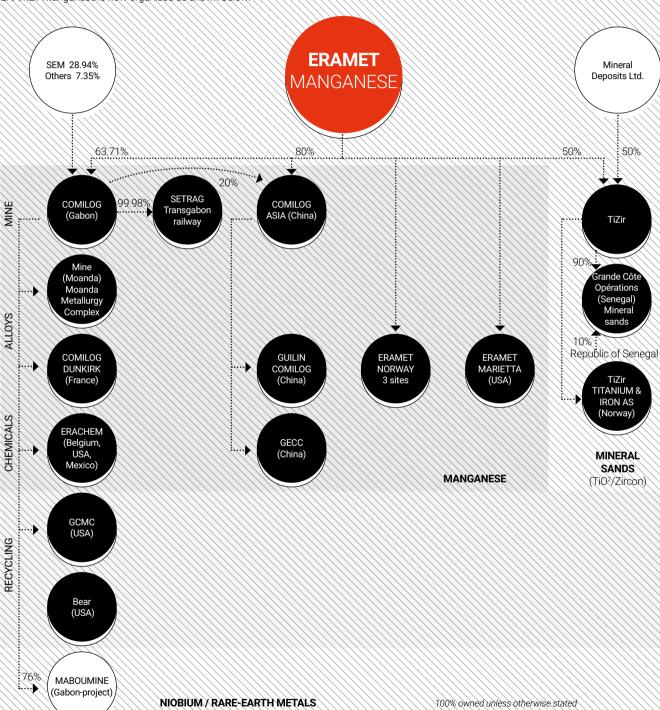
A benchmark with comparable projects shows that the deposit has a good positioning, but some major technical risks still persist, calling for continuation of R&D work to develop an economically viable project.

Discussions are now ongoing with all stake-holders concerning the future of the project.

#### 2.4.2.2 STRUCTURE

#### ORGANISATION AT 31 DECEMBER 2015

ERAMET Manganese is now organised as shown below:



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COMILOG is a company operating under Gabonese law, and ERAMET owns 63.71% of the shares. Its business activities include:

- Operation of the Moanda manganese mine and sintering plant (Gabon).
- Operation of SETRAG (Transgabon railway).
- Production of manganese alloys in Dunkirk (France).
- Production of manganese-based chemical derivatives by ERACHEM (Belgium, China, Mexico, US).
- Recycling of metals in oil catalysts (GCMC, US).
- Production of ferrovanadium and ferromolybdenum by Bear Metallurgical (US).
- The Maboumine project (niobium, rare-earth metals) in Gabon.
- COMILOG Asia includes Chinese manganese chemical activities and alloys production.

With regard to alloys, in 2013 the Group concentrated all its Chinese production of manganese alloys at the new Guilin site, replacing two older and less efficient sites that did not produce refined alloys and were closed in 2011 and 2012.

COMILOG Asia also includes under manganese chemical derivatives the electrolytic manganese dioxide plant at Chongzuo for disposable batteries.

- ERAMET Norway has three alloy plants at Porsgrunn, Sauda and Kvinesdal (Norway).
- ERAMET Marietta (US) produces manganese alloys.
- TiZir is the joint venture 50%-owned with the Australian group, Mineral Deposits Limited, focusing on mineral sands, and production

of titanium dioxide and zircon. TiZir groups together the mining operation at Grande Côte in Senegal, which increased its production of mineral sands (zircon and titanium ore) in 2015, and the titanium ore pyrometallurgy beneficiation plant at Tyssedal (Norway).

## 2.4.2.3 ERAMET MANGANESE'S ACTIVITIES

## MANGANESE MINING AND PROCESSING BUSINESS (MANGANESE ALLOYS AND CHEMICALS)

#### The Moanda mine and sintering plant

The Moanda mine operates one of the world's richest manganese ore deposits. The ore's manganese content averages around 46%. Ore reserves are discussed in Section 2.8.

The mine is open-cast. The ore is covered by a 4-5 metre layer of overburden. The run-of-mine ore is extracted using mechanical excavators and loaded onto 100-tonne trucks. The ore is processed at the Moanda ore washing plant. The upgrade ore is transferred to Moanda railway station by conveyor.

The Moanda industrial complex upgrades the fine by-products from the ore washing plant, along with manganese-bearing sediment extracted from the Moulili river bed. The fines are beneficiated using dense-medium and high-intensity magnetic separation techniques, designed to increase their manganese content, in approximate terms, from 35% to 50%. Part of the concentrates produced by this process is sold directly, while the remainder is mixed with coke and sintered in a furnace at 1,300 degrees Celsius to obtain a product containing approximately 56% manganese. This is transferred by conveyor to Moanda railway station, where it is loaded onto wagons. The sintering plant has an annual production capacity of 600,000 tonnes.

The Transgabon railway runs from Franceville to Libreville over a distance of more than 600 kilometres. In addition to COMILOG's manganese ore, it carries timber and miscellaneous goods and also transports passengers. COMILOG has its own locomotives and wagons, and also operates these.

Starting in November 2005, COMILOG was granted a 30-year concession to operate the Transgabon railway. This enables it to secure its logistics and ship ever-increasing amounts of ore.

COMILOG, via its subsidiary, Port Minéralier d'Owendo, holds the concession to operate its ore terminal, the Port of Owendo, with the capacity to store approximately one and a half months' production. The port can dock 60,000-tonne ships and load them in three days.

#### Manganese alloy production

The Group is the world's second largest producer of manganese alloys and the leading global manufacturer of refined alloys, products with a higher added value. The Group currently has six manganese alloy plants in all three of the main consuming regions, which allows it to offer better customer service and further protects it from foreign exchange and market fluctuations.

The Group produces a very wide range of alloys: high-carbon ferromanganese, silicomanganese, medium/low-carbon ferromanganese and low-carbon silicomanganese. ERAMET Manganese is gradually increasing the proportion of refined alloys in its production. In 2014 the Moanda Metallurgical Complex in Gabon (CMM) completed this industrial scheme, adding metallic manganese to the product range.

	703	694	750	730	784	779	617
Refined alloys	422	389	366	350	358	327	174
Standard silicomanganese	219	237	267	236	199	196	197
High-carbon ferromanganese	62	68	118	144	227	256	246
(THOUSANDS OF TONNES)	2015	2014	2013	2012	2011	2010	2009

#### Manganese alloy production sites

SITES	COUNTRY	PRODUCTION CAPACITY	FURNACE TYPE	PRODUCTS
Dunkirk	France	70 kt	Electric furnace	SiMn
Sauda	Norway	210 kt	Electric furnace	HC, MC, LC FeMn, SiMn
Porsgrünn	Norway	165 kt	Electric furnace	HC, MC, LC FeMn, SiMn, LC SiMn
Kvinesdal	Norway	165 kt	Electric furnace	SiMn, LC SiMn
Marietta	United States	120 kt	Electric furnace	HC, MC, LC FeMn, SiMn
Guilin	China	165 kt	Electric furnace	HC FeMn, SiMn
Moanda	Gabon	65 kt	Electric furnace	SiMn
Moanda	Gabon	20 kt	Hydro + electrolysis	Manganese metal

In Europe, three alloy plants are located in Norway. The fourth plant is at Dunkirk in France.

In China, the industrial facilities were rationalised and repositioned to cope with a market surplus of standard alloys. The two plants at Guilin (the old plant) and Guangxi were closed, and a new plant was commissioned at Guilin in July 2012, using electric furnaces, and will have a range of products including refined alloys.

In the US, ERAMET Marietta is the larger of the two local manganese alloy producers.

#### **ERAMET MANGANESE MARKETING POLICY**

With its industrial network and wide product range, ERAMET Manganese can provide a comprehensive product offer and a flexible response to its customers' different manganese needs.

The Group takes a partnership approach to working with its customers and provides significant technical and sales support to

help them extract maximum benefit from its products in their own production processes. Marketing policy is managed by ERAMET COMILOG Manganese, using the ERAMET group worldwide marketing network, ERAMET

International, which sells most of the Manganese Division's products. In countries where ERAMET International does not operate, the Group is represented by agents.

#### MANGANESE CHEMICALS BUSINESS

The Group is the global leader in manganese chemical derivatives. The manganese chemicals business in ERACHEM COMILOG comprises five industrial sites:

LOCATION	PRODUCTS
Tertre (Belgium)	Manganese salts and oxides
Baltimore (USA)	Manganese salts and oxides
New Johnsonville (United States)	EMD (electrolytic manganese dioxide)
Tampico (Mexico)	Manganese oxide and sulphate
Chongzuo (Guangxi Province-China)	EMD (electrolytic manganese dioxide)

The main markets targeted by manganese chemical derivatives are:

- Portable energy (rechargeable and disposable batteries).
- Ferrites (electronics industry).
- Agriculture (fertiliser and animal feed).
- Fine chemicals.

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#### RECYCLING BUSINESS

This is currently carried on at the following sites:

Tertre (Belgium)	Copper solutions recycling
Freeport (United States)	Recycling of oil catalysts and recovery of metal content (vanadium, molybdenum, nickel, cobalt etc.)
Butler (United States)	Ferromolybdenum and ferrovanadium production

Recycling business in the United States was hit hard by falling metal prices.

## 2.4.2.4 TIZIR 50% ERAMET: A MAJOR PLAYER IN EMERGING MARKETS FOR TITANIUM DIOXIDE AND ZIRCON

TiZir was created in 2011 by ERAMET and Australian company Mineral Deposits Limited. Half of its shares are held by ERAMET, and it has two sites:

- Grande Côte is a mineral sands deposit located in Senegal.
- The Tyssedal plant in Norway produces titanium dioxide slurry for use in the pigments industry, and also carries out high-purity smelting using ilmenite ore sourced from several suppliers.

SITES	COUNTRY	PRODUCTS
Grande Côte	Senegal	Mineral sands: titanium dioxide (ilmenite, rutile, leucoxene) and zircon
Tyssedal	Norway	Titanium dioxide slurry (pigments industry) and high-purity smelting for foundries

#### TiZir production

		2015	2014
Mine			
Sand extracted	(kt)	34,760	14,102
Mineral sand concentrate	(kt)	632.9	184.0
Finished products			
Titanium dioxide slurry	(kt)	106.8	183.7
Ilmenite	(kt)	427.7	100.6
Zircon	(kt)	45.2	9.0
High-purity smelting	(kt)	59.2	103.0
Rutile and leucoxene	(kt)	5.3	0.7

The combination of these two assets constitutes a vertically integrated entity, and a major player in the mineral sands market: from this year onwards, the Tyssedal plant will enjoy the security afforded by a new source of high-quality ilmenite—a titanium ore—supplied from the Grande Côte site, which will benefit from guaranteed long-term sales of a major proportion of its production.

## MINERAL SANDS, THE SOURCE FOR ZIRCON AND TITANIUM DIOXIDE

Mineral sands are mineral raw materials in which the minerals have become highly concentrated over time in alluvial areas (river plans, sea coasts or lake shores) or windswept areas (dunes). Mineral sand deposits were thus formerly beaches, dunes or river beds. The main products from these sands are titanium dioxide—chiefly in the form of ilmen-

ite (FeTiO<sub>3</sub>), and also as rutile (TiO<sub>2</sub>), and to a lesser extent as leucoxene and zircon (ZrSiO<sub>4</sub>).

The content of these ores in the sand is often around a few per cent. Accordingly, they must be concentrated by an initial stage of gravimetric separation, followed by magnetic and electrostatic separation. Zirconium and titanium ores are separated at the mine and are routed along separate logistical paths.

The main mineral sand deposits exploited as of the end of 2015 are located in Australia, South Africa and China, which between them account for almost 50% of the titanium ore supply and over two thirds of the supply of zircon.

#### THE TITANIUM DIOXIDE MARKET: HIGH GROWTH POTENTIAL DRIVEN BY EMERGING MARKETS

While metallic titanium is well known for its aerospace uses, as is the case at ERAMET Alloys, 90% of titanium units is used by the white pigments industry in the form of titanium dioxide.

#### Uses of ${\rm TiO_2}$ -based white pigment

- Paint	56%
- Plastic	25%
– Paper	9%
- Other	10%

The TiO<sub>2</sub>-base pigment has two exceptional properties—it is extremely opaque, pure white, and is non-toxic. It is used for paints, plastics, textiles and even paper.

This market is growing at a rate of some 4% per year worldwide.

## PIGMENT PRODUCERS NEED A RAW MATERIAL RICH IN ${\rm TIO}_2$

This may be rutile, with over 95% of  ${\rm TiO_2}$  content; synthetic rutile is produced from high-grade ilmenite.  ${\rm TiO_2}$  slag is obtained by melting/reducing ilmenite at the TTI plant. This may constitute a valuable by-product used by

foundries and in applications such as wind turbine hubs.

The following are the leading  ${\rm TiO_2}$ -base ilmenite producers:

- Rio Tinto;
- Iluka:
- Tronox:
- Kenmare:
- Kronos:
- TiZir:
- and Chinese, Indian and Ukrainian manufacturers.

#### MARKET AND PRICE TRENDS

After a long phase of stability, demand began to rise in 2008 and from 2011 onwards prices began soaring on the titanium dioxide market throughout the value chain, with spot prices as much as trebling during the 2012 peak.

Good product profitability and positive growth forecasts in China led to investment and a considerable overcapacity. Prices then fell along with most other commodities.

#### THE ZIRCON MARKET

Zircon is particularly used in ceramics as an opacifier, imparting brilliance and smoothness to ceramic items. Ceramic tiles or washbasins contain zircon: zircon sand is finely ground, and then added directly to the ceramic preparation.

This mineral also has very important refractory properties, making it useful in certain industrial segments as a component of moulding materials in high-precision foundry work. The chemical derivatives of zircon are used in a multitude of applications such as abrasives, wear-resistant materials or some catalysts. Lastly, metallic zirconium is used among

others in the nuclear industry, constituting the protective sheath of fuel rods (highly heat-resistant and permeable to neutrons).

As with titanium dioxide, zircon prices were very high at the beginning of the decade, with tension on the physical market. This market tension was accentuated by stockpiling throughout the industrial chain.

In 2013, the trend reversed. The market featured a phase of de-stocking and sizeable price falls over most of the year, while some consumers made technical adjustments to their consumption patterns in order to optimise their use of zircon.

The price of zircon remained quite steady in 2015, although overcapacities and stocks persist.

## THE TYSSEDAL PLANT (TIZIR TITANIUM & IRON)

This plant in Tyssedal (Norway) produces titanium dioxide slag mainly for the pigments industry, with an annual capacity of 230 kt (1), and high-purity pig iron with an annual capacity of 100 kt (1), sold to foundries for various applications, particularly the production of wind turbine parts. The site also has unrivalled access to hydroelectric power at its location near large waterfalls. The particularly complex technology involved in processing ilmenite, the flexibility of the TTI process and its unique access to a competitive energy source make the TTI plant a key asset in the titanium industry. The furnace was completely overhauled in 2015, with a 3-month shutdown to fit equipment to boost its environmental characteristics and performance.

#### **GRANDE CÔTE OPERATIONS**

The Grande Côte mineral sands project is located along the Senegalese coast. It starts some 50 km north of Dakar and extends northwards for over 100 km.

Construction work began in the second quarter of 2011. Industrial production commenced in April 2014, and was upgraded throughout 2015.

The facilities include a dredger and a floating concentration unit to recover the sand and separate the main heavy minerals; a heavy mineral separating plant was also built, along with an electricity power plant. Logistics are a crucial factor for the success of this mining project, and accordingly a railway line, port and storage infrastructures at Dakar were also built

## 2.4.3 ERAMET MANGANESE IN 2015

(€ MILLION)	2015	2014
Sales	1,430	1,429
Current operating profit/loss	58	137
Net cash generated by operating activities	106	140
Capital employed	1,587	1,676
Industrial capital expenditure	164	199

#### **2.4.3.1 COMMENTS**

#### **ERAMET MANGANESE**

Sales steady at €1,430 million and current operating profit a positive €58 million, despite much lower prices for manganese ore (-49% in December 2015 compared to December 2014). The Moanda deposit is one of the world's most competitive.

Gross world production of carbon steel, the main outlet for manganese, fell by around 3% against 2014, for the first time in a long period. Construction, which accounts for more than 40% of carbon steel consumption in China, stagnated in 2015, with very high levels of empty housing stocks at the end of the year.

Chinese producers offset falling domestic demand with an increase of more than 25% in exports, bringing much pressure to bear on foreign steel manufacturers. Production fell by approximately 1% in Europe, by 8% in North America, and between 3% and 5% in Russia, the Middle East, Africa and Latin America. There was a general drop in prices for steel.

In this context, manganese ore prices CIF China (Source: CRU) plunged in 2015, by 49% between December 2014 and December 2015. The fall was chiefly caused by new production outlets in South Africa, spurred on by a considerable depreciation of local currency. Manganese alloy prices have shown the same downward trend since the summer of 2015.

ERAMET Manganese held out well against the lower prices thanks to its competitive position in terms of manganese ore and alloys. In

Gabon, ore production by ERAMET Manganese notched up a new record of 3.9 million tonnes transported in 2015. This was thanks to simultaneous progress by the mine and by the Transgabon railway (SETRAG) between Moanda and the port of Owendo.

Cost-cutting and better operational performance by ERAMET Manganese accounted for a cumulative €54 million in 2014 and 2015.

SETRAG is also set to undertake a major seven-year modernisation programme to increase transport capacity and improve rail reliability.

The last three months have witnessed shutdowns or prolonged maintenance downtime by manganese producers, in the mining or alloys sectors. Facing difficult market conditions and increases in world stocks, ERAMET Manganese decided to shut down mining production at Moanda for four weeks in Q1 2016 in order to reduce its stocks. By the beginning of 2016 the pace of the Division's global production of manganese alloys had slackened considerably in comparison to 2015. The manganese alloy production plant in Guilin (China) has been non-operational since mid-November 2015.

TiZir continued to step up production in 2015 with almost 633,000 tonnes of mineral sands manufactured (ilmenite, zircon, rutile and leucoxene) at GCO (Grande Côte Operations) in Senegal. The pace of industrial operations at year-end was in keeping with expectations.

In Norway, investment to modernise and increase the production capacity of the Tyssedal plant (TiZir Titanium and Iron) was deployed during the last quarter of the year, enabling production to resume at the beginning of January 2016. This operation constitutes the strategy of integrating the two mineral sand manufacturing plants in Senegal and production of titanium slurry in Norway from ilmenite.

## 2.4.3.2 ERAMET MANGANESE RETURN ON CAPITAL EMPLOYED

ROCE: Current operating profit (loss)/Capital employed at 31 December of year y-1 (Consolidated equity capital plus financial debt, plus provisions for provisions for site rehabilitation, restructuring and other labour risks, less non-current financial assets. excluding investment in the Moanda metallurgy complex).

#### Manganese ROCE (before tax)

%	2011	2012	2013	2014	2015
Manganese	36.3	20.6	15.6	9.7	3.5

# 2.5 **ORGANISATION** OF ERAMET / ERAMET HOLDING

ERAMET S.A. is the consolidating parent company, grouping together operationally two main functions:

- A pure holding company, ERAMET Holding, bringing together the various support departments such as General Management, Administration & Finance, Human Resources, Communications and Sustainable Development, Legal Affairs, Purchasing and Information Systems.
- A section of ERAMET Nickel (General Management, and the Sales and Marketing Departments).

The costs of the holding departments are rebilled to the three Divisions under management fee contracts. The other operating costs of ERAMET Nickel are directly allocated to the Nickel Division.

ERAMET also has direct subsidiaries, acting on behalf of the various entities or of the parent company. The main subsidiaries are:

- ERAMET Research: ERAMET's research centre, responsible for research and development.
- ERAMET Engineering: a project and technology company.
- ERAMET International: a company that pools the ERAMET sales network for certain activities of the three divisions. ERAMET International has subsidiaries and branches across the globe. ERAMET International is generally paid for its work under agency agreements.

- ERAMET Services: a shared services centre to manage certain human resources, IT an accounting services.
- Metal Securities: the Group's treasury management company which pools the surplus cash and short-term funding requirements of the entire Group.
- Metal Currencies: the Group's foreign exchange management company, which carries out the foreign exchange hedging for the entire Group.
- ERAS: a reinsurance company.

At consolidated level, the Holding Division thus encompasses the holding role for ERAMET S.A. and its consolidated subsidiaries (Metal Securities, Metal Currencies and ERAS).

# 2.6 PLANTS AND EQUIPMENT

As a rule, the Group owns its production plants and their equipment. Some large items of equipment are financed under finance leases (IV30 and the 40,000-tonne press in ERAMET Alloys, the Tiébaghi washing unit and the mining equipment in ERAMET Nickel) and are restated in the consolidated financial statements.

Property, plant and equipment are broken down by divisions, as shown below. Almost 80% of the value of these non-current assets belongs to some ten industrial sites:

TOTAL	6,202		2,494	
Holding Division (France)	32		8	
Alloys Division	1,312	21.2%	477	19.1%
Other	167		61	2.4%
Erasteel Kloster AB (Sweden)	137	2.2%	12	0.5%
Erasteel SAS (France)	135	2.2%	12	0.5%
Aubert & Duval (France)	873	14.1%	392	15.7%
Manganese Division	2,946	47.5%	1,374	55.1%
Other	220		83	
Guilin COMILOG Ferro Alloys Ltd (China)	112	1.8%	20	0.3%
ERACHEM COMILOG Inc. (United States)	150	2.4%	50	2.0%
ERACHEM COMILOG SPRL (Belgium)	129	2.1%	12	0.5%
ERAMET Marietta Inc. (United States)	178	2.9%	18	0.7%
GCMC (United States)	203	3.3%	0	0.0%
SETRAG (Gabon)	258	4.2%	175	7.0%
Grande Côte Opérations S.A. (Sénégal) (1)	350	5.6%	314	12.6%
ERAMET Norway A/S (Norway)	345	5.6%	125	5.0%
COMILOG S.A. (Gabon)	1,001	16.1%	577	23.1%
Nickel Division	1,912	30.8%	635	25.5%
Other	149		26	
Société Le Nickel-SLN (New Caledonia)	1,763	28.4%	609	24.4%
(€ MILLION)	GROSS VALUE	%	NET VALUE	%

<sup>(1)</sup> ERAMET share 50%.

## 2.7 RESEARCH

AND DEVELOPMENT / RESERVES AND RESOURCES

#### 2.7.1 RESEARCH AND DEVELOPMENT: R&D OPERATING THROUGHOUT THE METALS VALUE CHAIN, FROM MINE TO PRODUCTS

#### 2.7.1.1 R&D ACTIVITIES

The ERAMET group conducts its R&D activities throughout the metals value chain from mine to products, including recycling. This value chain covers exploration, mining, extractive metallurgy, process metallurgy (primary processing, remelting processes, powder metallurgy), transformation metallurgy with open die-forging and closed die-forging. Metal recycling is factored into all stages of this value chain. This positioning constitutes a strategic opportunity for the ERAMET group to acquire a global insight into each of the value creation stages for products and processes.

More specifically, ERAMET is actively engaged in R&D, developing a number of metals in the periodic table, or their mineral derivatives, of which the following metals in the order of their atomic numbers: aluminium, titanium, vanadium, manganese, iron, cobalt, nickel, copper, zirconium, molybdenum, tungsten and rhenium. To further its projects, the Group also conducts research into a wide range of other metals such as the following in the

order of their atomic numbers: lithium, zinc, germanium, yttrium, lead, niobium, indium, the lanthanides including rare-earth metals such as lanthanum, cerium, praseodymium, neodymium, samarium, europium, dysprosium and uranium.

ERAMET also conducts numerous R&D projects in the fields of superalloys, high-performance steels, aluminium alloys and titanium alloys, and also powder metallurgy.

These multi-metal and multi-alloy skills, also covering the whole value chain, contribute to a unique positioning for ERAMET R&D.

#### 2.7.1.2 AREAS OF EXPERTISE

The ERAMET group's prime field of expertise is focused upstream around the main disciplines of **extractive metallurgy** such as mineralogy, ore beneficiation, hydrometallurgy and pyrometallurgy.

The ERAMET group's second major field of expertise is **process metallurgy**, covering innovation in all alloy grades together with all processes involved in this metallurgical area. Within this field, increasing emphasis is given to powder metallurgy, in which new developments include aerospace, particularly with the rapid expansion of additive manufacturing.

The ERAMET group's third field of expertise is alloy fabrication by **closed-die forging** to produce parts with dimensions close to the finished products, particularly for the aerospace, nuclear and defence markets.

The fourth and last of the ERAMET group's fields of expertise is manganese chemistry, with associated recycling activities.

Digital modelling, applied to areas such as thermodynamics, fluid mechanics, dynamic reactor simulation, chemical engineering and physical metallurgy, provides an indispensable adjunct to process and product development and optimisation.

#### 2.7.1.3 GROUP R&D ORGANISATION

The Group's R&D organisation is divided operationally into each of the centres of expertise.

For extractive metallurgy, ERAMET Research, a dedicated research centre (a wholly-owned subsidiary of ERAMET since 2003) based in Trappes, employs some 100 persons, including 80 researchers, engineers and technicians. This centre's activity on the Group's own account earned €14 million in 2015. It has ultra-powerful observation tools such as France's first microscope enhanced with the QEMSCAN mineralogical analysis software, together with state-of-the-art laboratory equipment and pilot facilities, some of which are semi-industrial scale (rotary furnaces, high and low impedance electric furnaces of approximately 1 MW), capable of sustaining several weeks' continuous use.

Société Le Nickel-SLN's Technical Studies and Investigations Department (DETI) in New Caledonia is also very active in this field, and has around thirty employees.

For process metallurgy (air and vacuum processing, remelting) a major centre of expertise is located at Les Ancizes (Puy-de-Dôme) and a R&D team in closed die-forging is based in Pamiers (Ariège), with a total of some thirty people employed in this field.

In powder metallurgy, there are two different processes, each organised differently:

- Atomising, which employs 10 people at Söderfors in Sweden. This activity is carried on by what is known as "PEARL" (Powder Expertise Analysis and Research Laboratory).
- Hydrogen reduction, carried on by the 13-strong Eurotungstène team at Grenoble.

Lastly, in manganese chemistry and recycling, nine employees are engaged in R&D activities, mainly in Baltimore (USA), Tertre (Belgium) and Chongzuo (China).

In all, the ERAMET group has some 200 full-time employees working on R&D, not including the industrialisation teams and the process monitoring carried on at all the industrial sites. Within the strategic Divisions, these teams coordinate the tests and the essential industrialisation phases of the Group's research projects. An approximate total of 1% of the industrial divisions' sales revenue is devoted to R&D, accounting for some €30 million in 2015.

In 2010, in order to enhance the efficiency and effectiveness of its R&D activities, ERAMET brought the Research, Innovation and Engineering Division under a single management authority. This combined entity was brought under the Strategy Department in 2014.

## 2.7.1.4 MAIN R&D ACHIEVEMENTS IN 2015

ERAMET targets its research & development efforts to meet the needs of its industrial clients, improve its competitiveness, offer new services and create new development opportunities. The environment is a constant focus during the development of new processes, with the aim of reducing the environmental footprint.

For ERAMET's mining, metallurgical and chemical businesses, effective research is a critical advantage. Designed to meet or even work ahead of customers' expectations, the research and development programmes enable the Group to strengthen its positions, in even the most competitive markets.

These programmes are implemented within the Divisions or at the ERAMET Research centre. To ensure that their results are wholly relevant, the ERAMET Research teams work closely alongside ERAMET Engineering and those responsible for development at the various units, who in turn are in direct contact with the operational teams. This makes for considerable efficiency gains, from determining programmes to introducing innovations, whether involving products, the processes themselves or productivity.

The main research themes for 2015 are set out below.

#### FRAMET NICKEL

R&D activities at ERAMET Nickel focused on three areas in 2015.

The first area focused on improving technical and economic performances at its plant in New Caledonia, helping it to adapt its pyrometallurgy process in relation to current and future chemical developments in nickel ores. New tools were developed to improve control of the process. Industrial tests were carried out on calcination of ores, to improve the stability of operations in electric furnaces. A pilot project is underway to examine the changes to be made to the nickel ore smelting/reduction process.

The second area of research concentrates on improving environmental performance, by working to upgrade the ferronickel refining process that produces inert slag, and examining possible processes for internal and external upgrading of by-products at the Doniambo plant in New Caledonia.

The third area focuses on diversification of the nickel matte feed at the Sandouville high-purity nickel production facility. This project considered other raw materials to be refined, first as a pilot and then on an industrial scale, maintaining the purity of the nickel cathodes produced and of nickel salts for high added-value markets.

All these projects were carried out thanks to close cooperation by ERAMET Research, the Technical Studies and Investigations Department, the Sandouville plant and ERAMET Nickel's industrial department.

#### **ERAMET MANGANESE**

The main task of ERAMET Research was to put the C2M Moanda Metallurgy Complex into operation in Gabon. Technical support was provided for the metallic manganese process and production teams, particularly in terms of analysing the causes of the traditional problems involved in starting up this type of facility, and solving them.

It was also necessary to optimise or develop the facility's steering document, train staff and table proposals. Assistance for operational teams will continue in 2016 until the plant is operating at a nominal level.

With regard to manganese alloys, ERAMET Research concentrated on improving plant performance, particularly with projects aimed at reducing process-inherent metal losses, increasing refining capacity, lowering production costs and improving furnace stability. Work on manganese metallurgy was conducted in close coordination with the ERAMET Norway R&D team based at Trondheim.

A significant volume of R&D work focused on improving pyrochlore processing for the Mabounié deposit in Gabon, to develop niobium and rare-earth metals. In 2015 two priorities were issued for this task—beneficiation of ore using ore dressing processes, and simplification of the hydrometallurgical process. A new process was developed at the lab on a pilot basis to produce concentrates of niobium and rare-earth metals in fewer phases. A continuous pilot phase obtained the data required for technical and economic sizing and quantification of both scenarios.

#### **ERAMET ALLOYS**

R&D activities are carried out in close coordination with the Division's business units, covering production, manufacturing metallurgy (forging, including closed die-forging), and powder metallurgy.

The main studies, usually in partnership with customers, covered the following themes:

- Development of new superalloys (with higher temperature resistance, particularly for aircraft engines or land-based turbines: performance of the new AD730 superalloy, metallurgy of the 718, 718+ and R65 alloys, titanium metallurgy, and metallurgy of 706 alloys for land-based turbines).
- Reduction of the "buy to fly" ratio, with the aim of improving competitive positions.
- Continuation of the optimisation of new alloy grades for turbine shafts, such as the ML340, which received the Safran group's 2014 Grand Prix for innovation.
- Continuation of the optimisation and development of new titanium alloy parts in the structural field, particularly for aircraft manufacturers' new programmes.
- New R&D powder metallurgy programmes, especially in the new additive manufacturing sector.
- Optimisation of industrial process performance.

ERAMET Research helped improve the characterisation of freedom from inclusions, and also helped enhance the thermodynamic databases as part of a European consortium.

#### **GROUP PROJECTS**

For Group projects, the main activities focused on developing the process for direct extraction of lithium from Argentinian salt flats. In 2015 work focused on industrialisation of synthesis of the active material for selective recovery of lithium from other components of brines. The material's properties were tested and validated on a continuous basis at a pilot facility on real Argentinian brines.

#### **RECYCLING**

Lastly, R&D has a key role to play in recycling strategy. In 2015, ERAMET Research conducted several research and technical support activities in this area for the ERAMET subsidiaries, featuring the following:

 Determination of new recycling facilities for the BMC Bear Metallurgical plant, and research into optimisation of metal yields: a number of schemes have been already been drawn up to boost synergies with other Group companies. The metal yields survey also enabled progress to be made on the recovery yield plan for usable portions of Mo and V.

The challenges facing the Recycling segment include increasing yields of materials recovered and lowering energy consumption by the processes involved. In 2015, efforts also addressed performance of refractory bricks and cooling systems, optimisation of furnace energy balances and the quality of product output.

## 2.7.1.5 COOPERATIVE VENTURES AND PARTNERSHIPS

The ERAMET group's R&D is enriched by continuous contact with the academic world and by partnerships with research institutes and industrial firms.

In France, in the field of extractive metallurgy, ERAMET has standing partnerships with the Paris advanced learning institutes Chimie ParisTech, Mines ParisTech and École Centrale in Paris, and the Nancy-based Advanced National Geology School and the Mining Institute. For many years, BRGM (Bureau de Recherches Géologiques et Minières, a French stateowned company) has conducted numerous for ERAMET in a wide variety of areas (geology, resource audits, research projects).

To devise the process for developing pyrochlores in the Mabounié deposit, ERAMET works in partnership with AREVA (France), GTK (Geologian Tutkimuskeskus, Finland), Hazen Research (United States), SGS Lakefield (Canada), and the French Universities of Lorraine and Burgundy.

ERAMET also has a partnership with IFP Energies Nouvelles to develop innovative lithium extraction processes.

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

In France, in the field of alloys, the Group maintains close partnership relations with academic research centres contributing specific skills in metallic materials (design, structure, thermo-mechanical processing,

manufacture, shaping) in association with the following major engineering institutes: Mines Paris Tech, École Centrale Paris, the advanced mining institutes at Nancy, Saint-Étienne and Albi, IFMA (Clermont-Ferrand) and ENSMA (Poitiers). These partnerships mainly take the form of doctoral thesis activities promoting the development and sharing of innovative techniques and skills in metallurgy, mechanics and process modelling. For the development of new alloys and of the products made from them, ERAMET is also involved in projects initiated in Competitiveness Clusters (ViaMéca, Aerospace Valley, Pôle Nucléaire de Bourgogne, Saint-Exupéry) and partners the M2P technological research institute based at Metz, Besançon and Troyes.

Another landmark in this field was the 2014 inauguration of Metafensch, the metallurgy research centre at Florange, to enable the consortium of industrial partners to move forward in powder metallurgy and the recycling of titanium alloys. ERAMET is an active member of the scheme, especially concerning titanium powders.

Outside France, in the alloys field, Aubert & Duval continued its partnership with the University of Strathclyde in Scotland, with an active and continuous presence at the University's research and development centre on the forming and forging of parts for the aerospace industry (the AFRC). Partnership efforts are continuing with the University of Cambridge for developing new steels. Research programmes also continued with CEIT (Centre d'Études et d'Investigations Techniques), a semi-public technological research institution in the Spanish Basque region, specialising in powder metallurgy and materials.

Since for some years the European Union has placed considerable emphasis on innovation and raw materials, ERAMET is now a member of several consortiums being formed at European level under the EIPRM programme

(European Innovation Partnership for Raw Materials) by the DG Enterprise, now known as DG Growth. ERAMET entered these cooperative projects as part of European consortium, either as coordinator or partner, in areas as varied as the optimisation of mining surveys with online mineralogical analysis, refractory metals, upgrading of by-products or optimisation of nickel. ERAMET teamed up with more than 100 industrial partners, academics and research centres in Europe as a core member of the Raw Materials "KIC", an innovative scheme to boost links between research and teaching within an industrial framework, to encourage innovation, skills and employment in the area of commodities.

Cooperative projects are also ongoing on a national scale, with validation of schemes such as heat treatment modelling, control of residual constraints in aluminium parts, and aluminium-lithium closed die-forging.

ERAMET Engineering, a wholly-owned subsidiary, is regularly involved in the phases of industrial transposition of processes developed by ERAMET Research, by conducting engineering scoping studies, preliminary feasibility studies (PFS), detailed studies (BFS) or by conducting pilot runs for new investments.

#### 2.7.1.6 CONCLUSION

The ERAMET group's R&D operates throughout the metals value chain, from mining to products. R&D organisation and governance focus on value creation for the Group. The Group's R&D is therefore an essential link in the chain of deployment of its strategy in the long term, and in meeting operational challenges in the shorter term.

## 2.7.2 MINERAL RESOURCES AND RESERVES

#### 2.7.2.1. **OVERVIEW**

#### **DEFINITIONS**

#### **Definitions of mineral resources**

A **Mineral Resource** is a concentration or occurrence of commercially valuable material in or on the Earth's crust in such grade and quantity as to give reasonable likelihood that mining will be economically viable. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into "Inferred", "Indicated" and "Measured" categories.

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

An Indicated Mineral Resource is the portion of a Mineral Resource the tonnage, density, shape, physical characteristics, grade and mineral content of which can be estimated with a reasonable level of confidence. The estimate is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity, but are spaced closely enough for continuity to be assumed.

A Measured Mineral Resource is the portion of a Mineral Resource the tonnage, density, shape, physical characteristics, grade and mineral content of which can be estimated with a high level of confidence. The estimate is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological continuity and/or grade.

#### Definition of drainable resources

A **Drainable Resource** is defined by the availability of a given envelope of confidence of brines with a certain lithium content in a medium with sufficient effective porosity to enable extraction. A cut-off grade may be assigned. In our case, estimates of drainable resources are made in a concentration envelope exceeding 200mg/L Li. The level of classification is based on drilling patterns that can assess the lateral and vertical continuity of the lithology, brine concentrations in lithium and hydraulic parameters.

An Inferred Drainable Resource is the portion of a Drainable Resource for which only geophysical measurements and some drills are available. Hydraulic continuity is not verified. The estimate of lithium content is based on limited information, or information the quality or reliability of which is uncertain.

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

A **Measured Drainable Resource** is the portion of a Drainable Resource the quality of sampling, hydraulic parameters and contents

of which may be estimated with a high level of confidence, and meet the quality criteria (QA/QC). The number of lithium measurements in excess of the cut-off grade in a specific lithological horizon must be more than 3.

The brine's lithium content and the aquifer's hydrodynamic parameters are determined by pumping tests in the volume considered, including at least one long-duration test (t>30 days). The reliability and consistence of the results of grades and hydrodynamic parameters are analysed using the conceptual model of brine distribution and a numeric model.

#### Definition of extractable resources

An **Extractable Resource** is defined as an available volume of brine with a certain lithium content that may be extracted by one or more pumping shafts over a given period to meet economic feasibility. The reliability and consistence of the hydrodynamic parameters are analysed and simulated using the conceptual model of brine distribution and a numeric model.

An **Inferred Extractable Resource** is a modelled volume of brine with a lithium content exceeding the cut-off grade extracted by a pumping system from zones where inferred drainable resources have been defined. A preliminary estimate using a numeric model of volumes and grades of brines and an insufficient level of confidence in the geological and hydrological data cannot convert these resources into reserves. These resources are excluded from feasibility surveys.

An Indicated Extractable Resource is a modelised volume of brine with a lithium content exceeding the cut-off grade extracted that can be extracted by a pumping system or systems over a given period from zones where inferred drainable resources have been defined. Variations in the estimates of geological and hydrological parameters may affect the economic feasibility of the pumping field. The volumes and lithium contents of brines extracted have an accuracy of +/-25%.

A Measured Extractable Resource is a modelised volume of brine with a lithium content exceeding the cut-off grade that can be extracted by a pumping system or systems over a given period from zones where inferred drainable resources have been defined. The geological and hydrological parameters are estimated with a sufficient level of confidence such that any variations will not affect the economic feasibility of the pumping field, or will affect it only slightly. The volumes and lithium contents of brines extracted have an accuracy of +/-15%.

#### **Definitions of reserves**

An Ore Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. Reserves are estimated on the basis of a preliminary or actual feasibility study (a mining project in the broader sense), which takes account of any technical factors (shape of mine, dilution and losses depending on the mining method, industrial plant yields), economic, marketing, legal, environmental, social, employment and governmental factors in existence or foreseeable at the time of the estimate. The preliminary or actual feasibility study demonstrates at the time of reporting that extraction is viable. Ore reserves are sub-divided in order of increasing confidence into "probable" ore reserves and "proven" ore reserves.

A **Probable Reserve** is the economically mineable portion of an "indicated" mineral resource, and in some circumstances, a "measured" reserve, whereas a **Proven Reserve** is the economically mineable portion of a "measured" mineral resource.

#### **Exploration results**

**Exploration Results** correspond to the same commercially valuable materials as are assessed for resources and reserves. The prospecting carried out suggests that an ore zone may be found, but available reconnaissance information is not sufficient to estimate a mineral resource.

#### **LOCATION**

Through its subsidiaries, Le Nickel-SLN in New Caledonia and COMILOG S.A. in Gabon, the Group operates nickel and manganese deposits respectively. In addition, with development of the Weda Bay Nickel project in Indonesia, ERAMET has plans to double its nickel production in the long term.

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

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

In Gabon, La Minière de la Mabounié (Maboumine) carried out exploratory work for an hydrometallurgical processing project for niobium, rare earths, tantal and uranium. In view of the current market outlook for raw materials, focus should be placed in 2016, in a joint initiative between the Republic of Gabon and ERAMET, on looking for a partner with an ore enriching technology enabling to reach average returns.

As the market is so depressed at present, most projects for nickel-processing plants in Indonesia have either been put on hold or are advancing at a much slower pace. ERAMET is no exception, and eighteen months ago it was announced that the Weda Bay Nickel project

had been suspended. However, ERAMET remain in permanent contact with its partner Mitsubishi and the Indonesian authorities to work on the approach that will best ensure value creation.

In Senegal, the Grande Côte Opérations company (GCO), the result of the joint venture mentioned in Section 3.2 addressing partnerships, operates a heavy-mineral sand deposit. The Grande Côte deposit, a few dozen kilometres north of Dakar, is a coastal-dune heavy-mineral placer containing large quantities of titanium-bearing minerals (ilmenite, rutile) and zircons. These deposits can be mined by dredging. After a favourable feasibility study, construction of the Grande Côte mine began in the third quarter of 2011 and production started in 2014.

In Argentina, Eramine Sud America, a wholly-owned subsidiary of Eramine SAS (wholly owned in turn by ERAMET S.A.), carried out exploratory work on several salt flats before focussing on the Centenario-Ratonès flat northwest of Salta in the Andes cordillera. Exploratory work showed that resources were available in the lithium found in natural brines.

#### **LEGAL CLAIMS**

Mining-claim instruments assure the Group's long-term rights over the reserves and resources. These rights mainly consist of perpetual concessions foreshortened to the expiry date of 31 December 2048 (Article 7 of the New-Caledonian "Loi de Pays" Act of 16 April 2009) and of rights conceded for a period of 75 years renewable in successive 25-year periods in New Caledonia, a 75-year concession in Gabon expiring on 31 December 2032 renewable for successive 10-year terms, and a Contract of Work for a renewable 30-year period in Indonesia.

The mineral deposits at the Grande Côte project in Senegal are located in a mining

concession assigned to GCO since 2008, and originally granted to MDL by the Senegalese government in November 2007 for a renewable 25-year term.

Maboumine has a mining exploration permit, renewed on 14 November 2014 for a three year period, in which mineral deposits are located.

Eramine S.A. had 55 consolidated mining claims on the Centenario-Ratonès salt flat at year-end 2015, issued on a perpetual basis (subject to presentation of mandatory impact surveys and payment of annual mining fees).

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

#### **ESTIMATES**

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

In the case of TiZir and Eramine S.A., they were drawn up by qualified persons outside the Group.

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

#### **Basis of estimates**

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

#### Estimate methodology

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

The published figures are internally validated by a board of referees and by "Competent Persons" as defined by the JORC code.

The resource and reserve estimates for the mineral sands project were made by Competent Persons at AMC Consultant, a company unrelated to MDL and ERAMET.

Estimates of lithium project drainable and extractable resources are drawn up by an independent firm, Montgomery and Associated, acting as "Qualified Persons" in the area of lithium-bearing deposits extracted from brine. An audit of resources was also drawn up in February 2015 by Mr. King, an independent specialist consultant.

For Pt Weda Bay Nickel (laterites and saprolites), Le Nickel-SLN (saprolites for the Doniambo plant) and COMILOG S.A. (manganese ore), external audits conducted in 2009, 2013 and 2014 respectively have certified that the resources and reserves thereto have been evaluated in a satisfactory manner and in compliance with the JORC code recommandations.

#### Mineral resources

Resources are calculated with the same cutoff grades as reserves (except where expressly specified otherwise), but with not guarantee that these recoverable resources will be wholly converted into reserves following additional technical-economic and marketing studies. A drilling and/or intercept is considered positive if:

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

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

#### Drainable resources

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

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

#### Recoverable mineral resources

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

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

Recoverable resources are included in mineral resources.

#### **Exploration results**

Exploration results follow the same estimation process as resources.

#### Reserves

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

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

Reserves are included in mineral resources.

#### Presentation of estimates

Mineral resource estimates and those for recoverable resources and reserves are given for the mining deposit as a whole. Results may also be compared to production levels, thus providing an indication of the remaining mine life.

## 2.7.2.2. COMILOG S.A. RESERVES AND RESOURCES

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

#### MINERAL RESOURCES

The table below shows the figures for COMILOG S.A.'s mineral resources, updated to 1 January 2016. The figures are in millions of Dry Metric Tonne Units ("millions of DMTU Mn", where 1 DMTU = 10 kg of manganese).

#### Mineral resources in manganese rock ore and fines at 1 January 2016

	[ N	IEASURED	)	[ IN	DICATED		ll l	NFERRED	)		TOTAL	
DOMAIN	KT	% MN	DMTU.106	KT	% MN	DMTU.106	KT	% MN	DMTU.106	KT	% MN	DMTU.106
Rock ore > 5 mm												
Bangombé	21,796	45.2	985	39,424	45.5	1,795	1,261	45.3	57	62,480	45.4	2,837
Okouma	28,900	48.3	1,390	52,400	46.3	2,430				81,300	47.0	3,820
Bafoula							23,000	34.0	780	23,000	34.0	780
Massengo							12,000	40.0	480	12,000	40.0	480
Total	50,696	46.8	2,375	91,824	46.0	4,225	36,261	36.3	1,317	178,780	44.3	7,917
Fines 1-5 mm												
Bangombé	8,352	41.0	342	15,611	42.0	656	430	41.4	25	24,394	41.6	1,016
Okouma	9,300	45.3	420	17,400	43.5	760				26,700	44.1	1,180
Moulili	2,689	44.8	120	2,594	41.2	107	490	34.2	17	5,772	42.3	244
Bafoula							15,000	32.4	490	15,000	32.4	490
Massengo							7,900	38.1	300	7,900	38.1	300
Total	20,341	43.4	882	35,605	42.8	1,523	23,820	34.9	832	79,766	40.5	3,230
GRAND TOTAL	71,037	45.9	3,257	127,429	45.1	5,748	60,081	35.8	2,149	258,546	43.1	11,147

#### Bangombé deposit

For the Bangombé deposit, currently operated, declared resources at 1 January 2016 correspond to the findings of the estimate at 1 January 2015, less the resources mined in 2015.

Resources are calculated in two granulometric fractions—"Rock" ore (+5 mm, 9%  $\rm H_2O$ ) and "Fines" (1-5 mm, 12%  $\rm H_2O$ ). The mineral resources consist of ores with a manganese content in the "Rock" fraction greater than or equal to 30%.

#### Okouma, Bafoula and Massengo deposits

For the unexploited deposits of Okouma, Bafoula and Massengo, declared mineral resources at 1 January 2016 are identical to those published at 1 January 2015, according to the same criteria of granulometry (+5 mm, 1-5 mm fractions), humidity (9%, 12%) and selection (30% Mn) as for the Bangombé ores.

#### Moulili deposit

The Moulili river bed was filled with a manganese ore deposit of which only the fine 1-10 mm fraction has been evaluated to date. Working from upstream to downstream, the deposit was divided into sections, MT1 to MT4, two of which, MT1 and MT3, are being exploited.

At 1 January 2016, the update of mineral resources in sections MT1, MT2 and MT3 takes account of the update of topographical surveys of the areas exploited by the end of December 2015 (MT1 and MT3). No cut-off grade is applied. Mineral resources are classified according to the extent of knowledge of the different sections.

Inferred mineral resources declared at 1 January 2016 are in the MT4 section, for which drills were carried out and interpreted in 2014 and 2015.

#### Yéyé deposit

Reconnaissance work carried out on Yéyé indicates the existence of potential ore deposits. However, the quantity and quality of available information is currently insufficient to estimate inferred mineral resources.

#### RECOVERABLE RESOURCES AND RESERVES

The table below sets out the figures for recoverable resources and reserves on the Bangombé and Okouma plateaux at 01/01/2016, broken down among four deposits. The production figures indicated in the table correspond to ore shipments made in 2015, including production of sinter and beneficiated fines.

#### Manganese ore recoverable resources and reserves at 1 January 2016 (MILLIONS OF DMTU)

	[ N	MEASURED			INDICATED TOTAL					
DOMAIN	KT	% MN	DMTU.106	KT	% MN	DMTU.106	KT	% MN	DMTU.10 <sup>6</sup>	
Rock ore > 5 mm										
Bangombé	15,950	45.7	729	24,909	46.4	1,155	40,859	46.1	1,884	
Okouma				57,500	47.2	2,710	57,500	47.2	2,710	
Total	15,950	45.7	729	82,409	46.9	3,865	98,359	46.7	4,594	
Fines 1-5 mm										
Bangombé	8,352	41.0	342	15,611	42.0	656	23,963	41.6	998	
Okouma				27,300	44.2	1,200	27,300	44.2	1,200	
Moulili	2,555	46.6	119	2,097	42.3	89	4,651	44.6	208	
Total	10,907	42.3	461	45,008	43.2	1,945	55,914	43.0	2,406	
GRAND TOTAL	26,857	44.3	1,190	127,417	45.6	5,810	154,273	45.4	7,000	

#### Mineral resources in manganese rock ore and fines at 1 January 2016

		PROVEN		ſ	PROBABLE		TOTAL		
DOMAIN	KT	% MN	DMTU.10 <sup>6</sup>	KT	% MN	DMTU.10 <sup>6</sup>	KT	% MN	DMTU.10 <sup>6</sup>
Rock ore > 5 mm									
Bangombé	12,491	44.9	561	10,119	46.6	472	22,610	45.7	1,033
Total	12,491	44.9	561	10,119	46.6	472	22,610	45.7	1,033
Fines 1-5 mm									
Bangombé	4,957	41.0	203	5,139	43.2	222	10,096	42.1	425
Moulili	2,555	46.6	119	1,681	43.1	72	4,235	45.2	191
Total	7,512	42.9	322	6,820	43.2	294	14,331	43.0	616
GRAND TOTAL	20,003	44.1	883	16,939	45.2	766	36,941	44.7	1,649

#### Bangombé deposit

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

- Geological uncertainties, therefore excluding inferred mineral resources.
- The presence of durable infrastructures judged not to be moveable, of which mapping was completed in 2015.
- Commercial specifications with a cut-off grade of 37% Mn on the rock-ore fraction.
- Mining and technical factors arising from reconciliations, carried out / estimated.

The definition of recoverable resources factors in criteria established for the given geological domain that are subject to change

in light of further information and studies. For the ore masses of the Plateau and the inner edges, these criteria relate to a minimum ore thickness of 2 m and the mining methods associated with at least an outline diagram. For outer edges, recoverable resources correspond to the ore included in a mining plan with an excavation diagram.

Recoverable resources for which the mining project is complete, and which are included in a long-term planning sequence, are converted into reserves. The recommendations of the auditor (Melabar GeoConsulting 2014) led to exclusion of the reserve inner edges and the classification of part of the outer edges as probable reserves at 1 January 2015. These modifications were still current at 1 January 2016.

#### Okouma deposit

The ore at the Okouma deposit was estimated and classified as indicated recoverable resources using the same procedure as for the Bangombé plateau ore, regarding the plateau as a single geological domain. In view of the uncertainties regarding the mining recovery and dressing factors, the indicated recoverable resources have not yet been converted into reserves to date.

#### Moulili deposit

The MT1 section has been exploited since 2010. The estimates of recoverable resources and reserves are reupdated annually on the basis of the year-end topographical survey.

The MT3 section has been exploited since 2013. The production sheets between 2013 and 2015 provide information on the exploitability of the section, enabling a portion of the recoverable resources to be converted into reserves.

Surveys of the MT2 and MT4 sections between 2013 and 2015 were unable to estimate any recoverable resources or reserves in these areas.

#### Bafoula and Massengo deposits

In view of uncertainties regarding ore recovery and dressing factors that may apply to inferred mineral resources, no recoverable resources have been calculated for the Bafoula and Massengo ore masses.

## 2.7.2.3. LE NICKEL-SLN'S RESERVES AND RESOURCES

## SAPROLITE RESERVES AND RESOURCES FOR PYROMETALLURGY

An external audit was carried out in 2013 by Sigma Blue Pty Ltd, which certified that the estimates for resources and reserves of nickel-bearing saprolitic ores intended to supply the Société Le Nickel pyrometallurgy plant at Doniambo were free of material error and were evaluated acceptably and, in compliance with the recommendations of the JORC code.

#### MINERAL RESOURCES

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

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

#### Developments in mineral resources between 2014 and 2015

		2015		2014			
MINERAL RESOURCES	MT	% NI	KTNI	MT	% NI	KTNI	
Measured	28.2	2.41	681	30.0	2.42	727	
Indicated	79.0	2.41	1,903	80.1	2.41	1,930	
Inferred	72.6	2.43	1,768	72.9	2.43	1,771	
TOTAL	179.9	2.42	4,352	183.0	2.42	4,428	

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

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

The figures were established with cut-off grades applied to the weathered fraction which range from 1.8 to 2.4% of nickel depending on the type of processing, whether mineralurgical or conventional, which is applied to the run-ofmine ore.

Reduction of mineral resources is linked to mining production in 2015, and geological models will be updated in the course of 2016.

#### **EXPLORATION RESULTS**

The exploration results also correspond to the weathered saprolite phase. At 1 January 2016 they were assessed as 676 ktNi, the equivalent of the figures for the preceding year. Prospecting carried out in 2015 mainly targeted locations situated in Mont Do, Monéo, Me Adeo, Thio, Port Bouquet and the area around Kouaoua. Work will continue in the years to come to advance these targets to inferred/indicated mineral resource status.

#### RECOVERABLE RESOURCES AND RESERVES

The table below sets out the figures for saprolite recoverable resources and reserves for the Doniambo pyrometallurgy plant surveyed in 2015 and published at 1 January 2016, with the figures published at 1 January 2015 in italics. These figures stem from the abovementioned mineral resources and factor in the following:

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

Ore tonnages are given in millions of dry tonnes, and metal tonnages in thousands of tonnes of nickel content in the ore.

Recoverable resources and reserves of ore intended for mineralurgical processing are estimated as "washery concentrate" arising from processing all the ore from Népoui-Kopéto, and 1.8-2.8% Ni range for Tiébaghi).

#### Developments in recoverable resources and reserves between end of 2014 and end of 2015

		2015		2014		
RECOVERABLE RESOURCES	MT	% NI	KTNI	MT	% NI	KTNI
Measured	18.3	2.60	475	19.5	2.60	507
Indicated	52.8	2.53	1,338	53.5	2.53	1,355
Inferred	48.6	2.51	1,220	48.7	2.51	1,223
TOTAL	119.7	2.53	3,033	121.8	2.53	3,085
		2015			2014	
RESERVES	MT	% NI	KTNI	MT	% NI	KTNI
Proven	13.0	2.67	346	14.1	2.68	378
Probable	24.3	2.60	631	24.9	2.60	648
TOTAL	37.3	2.62	977	39.0	2.63	1,026

Measured and indicated recoverable resources are estimated at 1,813 ktNi, with their proportion in inventoried total remaining stable from the 2014 figures.

Inferred recoverable resources estimated at 1,220 ktNi which are equivalent to 2014 levels.

SLN's mining production in 2015 amounted to 53.3 ktNi (thousands of tonnes of nickel, corresponding to the tonnages of nickel contained in the ore carried to the various shore sites (wharf or mechanical loading)).

Reserves are estimated at 977 ktNi at year-end 2015, as against the 1,026 ktNi published at year-end 2014. This decrease was mainly due to production in 2015. The proportion of proven reserves fell slightly from 37% of total reserves in 2014 to 35% of total reserves in 2015, as models were not reupdated.

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

## MINERAL RESOURCES FOR HYDROMETALLURGY

For the whole of the mineral deposits of Société Le Nickel-SLN and at a cut-off grade

of 1.0% Ni, inferred and measured mineral resources in laterites are currently estimated at 6,000 ktNi.

Outside the centres with mineralurgical processing facilities, exploration results on low-grade saprolite zones, which are currently uneconomical for pyrometallurgy processing, point on a preliminary basis to 2,000 kt in nickel content which may be recoverable using the hydrometallurgical process developed by ERAMET, or exported under contracts signed or in the process of being signed with ferronickel producers.

Mineral resources for hydrometallurgy have not been audited to date. They are, however, estimated using the methodology defined for estimating resources intended for the Doniambo plant.

## 2.7.2.4. RESERVES AND RESOURCES OF PT WEDA BAY NICKEL

#### MINERAL RESOURCES

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

or enrichment factors. Mineral resources are calculated at the 1% Ni cut-off grade, and are broken down by prospect, distinguishing between lateritic and saprolitic products.

Average dry densities for laterites and saprolites were established on the basis of measurements performed in 1999-2001 and 2008-2012.

Given the small proportion of sound dividing rock, the saprolite tonnages and nickel content provided are representative of the saprolitic column as a whole.

Global resources are calculated by 3-D block modelling performed by the Weda Bay Nickel geology team. Measured and indicated resources are estimated by ordinary kriging, while inferred resources are estimated either by inverse square distance or by ordinary kriging when kriging is permitted by variogram quality.

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

The figures set out below are from local estimates for the saprolites classed as measured or indicated resources converted into reserves, and of global estimates for the other masses in the saprolites and the laterite horizon.

The measured mineral resources are unchanged with respect to the figures as of 1 January 2015. Further drills were carried out in 2015 on the Casuarina mineral mass, forming part of Coastal Deposits. The resources, initially classified as inferred resources, were reassessed and classified as indicated resources.

#### Changes in limonite and saprolite mineral resources from end of 2014 to end of 2015

LIMONITE		2015		2014			
MINERAL RESOURCES	MT	% NI	KTNI	MT	% NI	KTNI	
Measured	36.0	1.26	455	36.0	1.26	455	
Indicated	68.0	1.22	829	66.4	1.22	809	
Inferred	44.9	1.21	543	46.1	1.21	556	
Total	148.9	1.23	1,827	148.5	1.23	1,820	
SAPROLITE	# 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	2015		# 1	2014		
MINERAL RESOURCES	MT	% NI	KTNI	MT	% NI	KTNI	
Measured	98.8	1.72	1,694	98.8	1.72	1,694	
Indicated	169.8	1.54	2,613	166.0	1.54	2,547	
Inferred	215.2	1.49	3,206	219.8	1.49	3,284	
Total	483.8	1.55	7,513	484.6	1.55	7,525	
TOTAL	632.7	1.48	9,340	633.1	1.48	9,345	

**RESERVES** 

The figures below relate to the saprolite and limonite reserves intended for hydrometallurgical processing. These data are unchanged from those published on 1 January 2015, and correspond to the conversion of resources that are in the masses covered by a mining

project, with the application of mining factors based on the following criteria:

 - 1% Ni Cut-off grade for the Coastal Deposits ores, earthy limonites and saprolites in the Bukit Limber masses and limonites in the Tofu Blowen and Kao Rahai masses: - 1.4% Ni cut-off grade in the rocky saprolites at Bukit Limber and all the saprolites at Tofu Blowen and Kao Rahai West. The measured resources of these products established at a 1% Ni cut-off grade were converted into proven reserves following non-linear geo-statistical studies measuring the impact on those products of selectivity at 1.4% Ni.

The experience garnered from a mining test carried out in 2007 determined the choice of mining and technical factors, and the geotechnical and environmental constraints used. Access issues and management of water draining from the mine led to areas of the ore masses with a natural incline greater than 30°, and to limiting the average pit slope to 35°. The same reasons determined the use of minimum ore thickness as a selection criterion for mineable zones, according to the climatic, geomorphological or environmental conditions specific to each ore mass.

#### Pt Weda Bay Nickel limonite and saprolite reserves at 1 January 2016

LIMONITE RESERVES	MT [	% NI	KTNI	% CO [	KTCO
Proven	31.5	1.27	400	0.17	54
Probable	21.4	1.26	269	0.16	35
Total	52.9	1.26	669	0.17	89
SAPROLITE RESERVES	MT	% NI [	KTNI [	% CO [	KTCO
Proven	75.1	1.78	1,334	0.04	28
Probable	47.2	1.62	765	0.03	16
Total	122.3	1.72	2,099	0.04	44
TOTAL	175.2	1.58	2,768	0.08	134

the figures for reserves. They were established using the procedure for estimating and classifying resources and reserves certified in 2009 by Melabar GeoConsulting.

Works made in 2015 also identified masses made of minerals with an average nickel content varying between 1.8 and 2.0%, representing 35% of mineral resources measured and indicated for saprolites and 38% of saprolites reserves.

## CHANGES IN RESOURCES AND RESERVES IN 2015

There were few changes in the figures for Weda Bay Nickel mineral resources between

end of 2014 and end of 2015—an overall nickel tonnage of 9.3 million tonnes, of which almost 60% were classified as measured and indicated resources. There were no changes to

#### 2.7.2.5. TIZIR'S RESERVES AND RESOURCES

#### MINERAL RESOURCES

The data on mineral resources are mineral-sand tonnages and heavy-mineral contents (HM).

#### TiZir mineral resources at 1 January 2016

		2015		2014			
MINERAL RESOURCES	RUN-OF- MINE (Mt)	HM (%)	HM (Mt)	RUN-OF- MINE (Mt)	HM (%)	HM (Mt)	
Measured	1,585	1.5	23.5	1,623	1.5	24.2	
Indicated	210	1.4	3.1	214	1.4	3.1	
Inferred	120	1.1	1.3				
TOTALS	1,915	1.4	27.9	1,837	1.5	27.3	

The estimates are calculated on block models using ordinary kriging. The mineral resources were estimated at a cut-off grade of 1.0% HM, to a depth of 6 m below the natural groundwater level, with no processing or beneficiation factor applied.

Heavy Mineral contents were determined by heavy-liquid gravimetric separation at the cutoff density of 2.85 g/cm³. The mineralogical blend was determined on composite samples, using Mineral Liberation Analyser (MLA) technology, employing an electron microscope and a microprobe, and using X-ray fluorescence spectrometry.

On average, the heavy mineral concentrates contain approximately 11% of zircon and

77% of titanium-bearing minerals (ilmenite, pseudorutile and rutile).

#### **RESERVES**

The data on reserves correspond to the conversion of resources discussed in the previous paragraph that lie within the area mined by dredging, with the application of mining factors for dilution and loss. Reserves are included in mineral resources.

The start of mining in mid-2014 demonstrated the technical feasibility of heavy-ore extraction and its separation by a mineralurgical method up to the production of commercial-grade concentrates.

## CHANGES IN RESOURCES AND RESERVES IN 2015

Changes to mineral resources between 2014 showed a reduction of measured mineral resources in connection with 2015 mining production and the addition of approximately 1.3 million tonnes of heavy minerals ("HM") classified as inferred mineral resources.

The reserves update was used to plan the lifespan of the Grande Côte mine up to 2040, at a nominal mining output rate of operation.

#### 2.7.2.6 RESOURCES OF ERAMINE S.A.

#### DRAINABLE RESOURCES

Drainable resources were calculated in April 2015 by Montgomery and Associates as Qualified Persons, at the Centenario-Ratonès brine field.

The calculation used the effective porosities for each lithological units in the aquifer. The cut-off grade of 200 mg/L was applied to the resource envelopes. The results are only presented for concessions owned by Eramine S.A.

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

#### TiZir reserves at 1 January 2016

	20	015		2014			
RESERVES	RUN-OF-MINE (Mt)	HM (%)	HM (Mt)	l .	HM (%)	HM (Mt)	
Proven	1,143	1.54	17.64	1,211	1.5	18.3	
Probable	151	1.26	1.91	318	1.1	3.4	
TOTALS	1,294	1.51	19.55	1,529	1.4	21.7	

#### Drainable resources at 1 January 2016

TOTALS	4.256.000.000	1.14	320	7.260
Inferred	2,997,000,000	1.14	305	4,865
Indicated	962,000,000	1.15	353	1,809
Measured	297,000,000	1.15	371	586
DRAINABLE RESOURCES	VOLUME OF BRINES (M³)	AVERAGE DENSITY	LI CONTENT (MG/L)	LEC (KILOTONNES)

#### **EXTRACTABLE RESOURCES**

Brine volumes and "Lithium Carbonate Equivalent" (LCE) tonnages were calculated for a pumping field with 26 shafts operating at an extraction rate of 19L/s per shaft on a pumping field defined for the Ratonès brine field only.

#### Extractable resources at 1 January 2016

	TOTAL OVER 20 YEARS OF PRODUCTION					
EXTRACTABLE RESOURCES	VOLUME OF BRINES (M³)	LI CONTENT (MG/L)	LEC (KILOTONNES)			
Measured	144,000,000	379	290.7			
Indicated	105,500,000	373	209.6			
Inferred	43,900,000	404	94.5			
Measured + Indicated	249,500,000	377	500.3			

The lithium content is the contents extracted from the shaft field averaged out over the duration of pumping. The equivalent LCE tonnage is calculated using the mass of lithium multiplied by a factor from the atomic mass of each element of lithium carbonate, 5.322785.

Inferred extractable resources are indicated for information purposes only, and are included in the extractable resources used to draw up the business plan.

## 2.7.2.7 RESOURCES OF THE COMPANY MABOUMINE

#### MINERAL RESOURCES

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

banded ore are calculated with a cut-off grade of 0.4% Nb2O5.

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

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

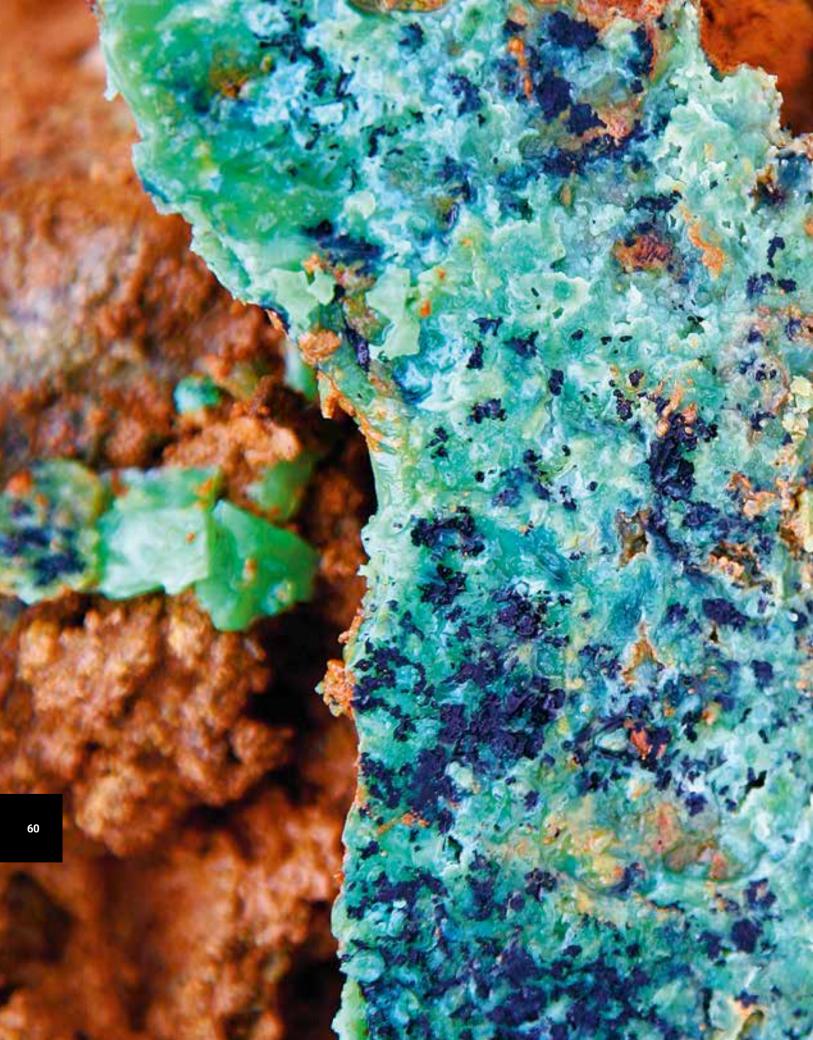
Mineral resources and their classification were certified in 2015 by the SGS Géostat company.

The distinction between inferred (1) and inferred (2) mineral resources is based on the level of information regarding the estimated elements (rare-earths, Ta and U not estimated in inferred (2) mineral resources).

#### Mineral resources for superficial banded ore with a cut-off grade of 0.4% Nb205

				,	,	,	,	,	
MINERAL RESOURCES	Mt	% NB	KTNb	% TR	KTTR	% Ta	KTTa	%U	KTU
Measured	66.5	0.98	650	0.97	644	0.30	20	0.20	15
Indicated	-	-	-	-	-	-	-	-	-
Inferred (1)	79.3	0.70	554	1.04	828	0.20	16	0.20	16
Inferred (2)	49.7	0.85	420		219 (*)	-	NE	-	NE

NE: Not Estimated. (\*) Estimated for Cerium only.



## Chapter 3

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## 3.1 COMMODITY RISK

The Group is exposed to commodity price volatility, affecting both its sales as a nickel and manganese producer and its production costs, as a consumer of energy (fuel oil and electricity) and commodities (nickel, aluminium).

The main Group entities involved are:

 ERAMET, Le Nickel-SLN and Aubert & Duval for nickel;

- Le Nickel-SLN for fuel oil;
- Aubert & Duval for aluminium;
- Erasteel Kloster AB and ERAMET Norway AS for electricity.

Manganese and coke exposures are not hedged since there is no organised market in these commodities.

Hedges are arranged for one to four years, depending on the commodities, and are based on the budget. Only a portion of planned consumption or production is hedged when the criteria in the hedging policy are met. The Group uses various instruments to hedge and limit its exposure while profiting from favourable price fluctuations (futures and options).

At 31 December 2015, the fair value of hedges set up for the various commodities breaks down as follows:

- €2 million in liabilities for nickel (€0 million at 31 December 2014).
- €16 million in liabilities for fuel oil (€10 million in liabilities at 31 December 2014).
- €1 million in liabilities for aluminium (€0 million at 31 December 2014).
- €4 million in liabilities for electricity (€2 million in liabilities at 31 December 2014).

## 3.2 SPECIAL

RELATIONSHIPS WITH THE GROUP'S PARTNERS

#### 3.2.1 POLITICAL RISKS

Some of the Group's activities are carried on in countries where political developments could lead to regulatory changes. In particular, the Group produces and/or markets its products in non-OECD countries, some of which may be classed as countries with no long-term political or economic stability. While the Group ensures that appropriate measures are taken to avoid such risks, political and/or economic changes could have a significant impact on its business.

## 3.2.2 SUPPLY/SALE CONTRACTS

The Group has overall control of the contracts for supply and sale of ore and its by-products, where such contracts are entered into with companies it controls (such as the supply and sales contract between ERAMET and Le Nickel-SLN and the supply of ERAMET Manganese production sites by COMILOG). The other commercial agreements on continuing operations do not entail any particular risks or commitments for the Group. Those agreements are mainly for purchases of commodities (electricity, coke and special alloys) and freight services (sea and land).

To date ERAMET has not entered into any major contracts entailing a major obligation or commitment for the Group as a whole, other than those entered into in the normal course of its business.

## 3.2.3 SPECIAL RELATIONSHIPS WITH THIRD PARTIES

To support its various activities and projects, the Group's policy is to develop and maintain firm, sustainable and complementary partnerships with national partners or local firms. Among other format, these partnerships may consist of a stake in Group subsidiaries, with a number of special covenants to take account of the existing shareholder balance.

#### 3.2.3.1 ERAMET NICKEL

#### RELATIONS WITH STCPI AND NEW CALEDONIA—LE NICKEL-SLN SHAREHOLDERS' AGREEMENT

Le Nickel-SLN, a subsidiary 56% of the shares of which are held by ERAMET, and 10% held by Nisshin Steel, also has a 34% stake held by the Société Territoriale Calédonienne de Participation Industrielle—STCPI.

STCPI is an "SAS" (simplified joint-stock corporation) the sole purpose of which is to hold this interest in Le Nickel-SLN and an interest

of some 4% in the capital of ERAMET (where two directors represent it out of the seventeen on the ERAMET Board). The interest in the share capital of Le Nickel-SLN, initially 30%, was raised to 34% in a share-swap transaction on 23 July 2007, and then sold by the French government when ERAMET was privatised. Its political, financial and strategic value lies in the association of local public interests with the Group's mining and industrial interests in New Caledonia. STCPI represents the three New Caledonian Provinces: the Southern Province, and the Northern and Island Provinces. The Board members and observer are selected to guarantee a balanced representation between the Northern and Island Provinces and the Southern Province.

The Le Nickel-SLN shareholders' agreement of 13 September 2000 followed on from the agreement of 17 July 2000 between the government, the Provinces of New Caledonia and representatives of the island's main political parties. In 2010, the shareholders' agreement was extended for a first additional term until 31 December 2011. Since 2010 it has been extended annually for periods of one year. Its terms include the following:

- a distribution of the directorships on the following basis, at present: eight for ERAMET (including the representative of Nisshin Steel), and four for STCPI, which is also entitled to appoint an observer;
- a reciprocal right of pre-emption for each party;
- a reciprocal call option on the shares held by the party that falls under the control of a company, "of which the main activity, or the main activity of the Group to which it belongs competes with that of Le Nickel-SLN";
- a non-dilution clause whereby, in the event of the sale of shares to another shareholder or a share capital increase, each party will retain the same interest in the share capital

or voting rights as they had previously held, either through the retrocession of shares or joint exercise of the subscription rights in a share capital increase.

Following a STCPI press release on 27 June 2008 offering to open discussions regarding the size of its stake in Le Nickel-SLN, an ERAMET Board meeting on 11 July 2008 resolved that there was no reason to change the shareholding structure of Le Nickel-SLN, which represents a satisfactory balance.

Following a meeting of its Board of Directors on 19 November 2009, Le Nickel-SLN announced that it was instituting new modern corporate governance measures to further involve New Caledonia, with the creation of a Strategy Committee, an Audit Committee and a Remuneration Committee. STCPI has significant representation on all three committees, and chairs the Audit Committee.

On 13 July 2010, STCPI and ERAMET agreed to hold discussions aimed at adjusting the agreement. Its guiding principles would remain unchanged, but the adjustments would take account of the full array of industrial, commercial and technological changes both within Le Nickel-SLN and in its environment since the original agreement. The extensions of that agreement in 2011, 2012, 2013, 2014 and 2015 until 31 December 2016 allow these discussions to continue.

#### SUPPLY CONTRACT WITH NISSHIN STEEL

The ERAMET group and Nisshin Steel have had a ferronickel supply agreement in place since 1991. Nisshin Steel is a Japanese producer of stainless steel with a 10% interest in Le Nickel-SLN. Nisshin-Steel is a major customer that accounts for 10% of sales in the Nickel Division. This agreement was renewed in 2001 and 2007 and is designed to guarantee ferronickel deliveries for several years and iron out any fluctuations in nickel prices.

#### RELATIONS WITH PT ANTAM AND INDONESIA (WEDA BAY PROJECT)

The Indonesian company, Pt Weda Bay Nickel, is the project and exploration company created to develop the nickel and cobalt project at Weda Bay, situated on the island of Halmahera in Indonesia. 90% of its capital is held by Strand Minerals (Indonesia), and the remaining 10% held by the nickel-producing Indonesian public limited corporation, Pt Antam Tbk (Antam), a company specialising in exploration, mining operations, refining and distribution of mining products. Antam is represented by a director on the Board of Pt Weda Bay Nickel (out of a total of five directors, of whom three represent ERAMET) and it also holds an option to increase its shareholding to 25%.

Pt Weda Bay Nickel's exploration and mining are carried out under a Contract of Work with the Indonesian government.

## RELATIONS WITH MITSUBISHI CORPORATION (WEDA BAY PROJECT)

On 19 February 2009 Mitsubishi Corporation acquired a 33.4% interest in Strand Minerals, which owns 90% of the capital of Indonesian company Pt Weda Bay Nickel. In December 2011, Mitsubishi Corporation decided to sell a 3.4% interest in Strand Minerals to the Japanese company Pacific Metals Co. Ltd (Pamco). The shareholders' agreement between ERAMET and Mitsubishi Corporation was amended to allow Pamco to be included. Under this amended shareholders' agreement, Mitsubishi Corporation is represented on the Board of Strand Minerals by two directors out of a total of six, and by one director on the Board of Pt Weda Bay Nickel out of a total of five directors. Pamco is not represented on any of these Boards. Mitsubishi Corporation and Pamco have put options to sell their interests to ERAMET.

#### 3.2.3.2 ERAMET MANGANESE

## RELATIONSHIP WITH THE GOVERNMENT OF GABON

COMILOG has a special relationship with the government of Gabon, which is represented by three members on the Board of Directors. In 2014 Société Équatoriale des Mines, a fully state-controlled company, became a shareholder of COMILOG, replacing the government of Gabon, which had been a shareholder since 1973. From the outset, the State has supported COMILOG through both tax measures (a mining agreement and special tax agreement to finance the sintering complex) and industrial measures (as COMI-LOG's partner in building the Owendo Port, of which its subsidiary, Port Minéralier d'Owendo, holds the concession), and more recently by granting a railway concession to SETRAG, in which COMILOG is the leading partner, and by granting a mining exploration licence for the Mabounié polymetallic deposit (Maboumine project). This relationship, based on trust and the recognition of mutual interests, makes it possible to work together on a constructive basis and to plan for the development of new industrial projects.

For the purposes of its project to construct two silicomanganese and metallic-manganese metallurgical units at Moanda in the Upper Ogooué (known as the Moanda Metallurgy Complex), COMILOG signed two agreements with the Gabonese authorities on 7 January 2010 in Libreville; among other items, the first agreement laid down the specific legal, tax and customs framework for the project, while the second specified the conditions for securing the future energy supply to the complex. To implement the project a special financing facility was set up, with guarantees provided by ERAMET and the Gabonese Republic. The new Moanda Metallurgy Complex was inaugurated in 2015 at a ceremony attended by the Gabonese President and the ERAMET CEO.

On 20 October 2010, ERAMET and the Gabonese Republic concluded an agreement to step up the Gabonese Republic's interest in the capital of COMILOG. Under its terms, from 2010 to 2015 ERAMET will transfer to the Gabonese Republic by stages a further stake of up to 10% of COMILOG S.A.'s capital, which would increase the Gabonese Republic's shareholding in COMILOG S.A. to 35.4%. The first transfer stage involved 3.54% of the share capital; 2.17% of the capital was transferred on

17 December 2010, and the remaining 1.37% for this stage was transferred on 14 June 2011. In addition, a candidate proposed by the Gabonese State was appointed director by the ERAMET General Meeting of Shareholders on 15 May 2013.

## TIZIR PARTNERSHIP WITH MINERAL DEPOSITS LIMITED

On 25 October 2011, ERAMET and Mineral Deposits Ltd created a 50/50 joint venture to take up a 100% stake in TiZir Titanium and Iron (TTI) (Norway) and 90% of the Grande Côte mineral sands project in Senegal. Grande Côte aims to provide TTI with a supply of good-quality ilmenite for its titanium dioxide slag production, and TiZir with a strong position in the zircon market. TiZir avails itself of ERAMET's know-how in mineral processing, metallurgy, R&D, logistics and marketing, and by the experience of the MDL team in project development, and the exploitation of mineral sands.

## 3.3 MINING AND INDUSTRIAL RISKS

#### 3.3.1 RISKS IN RELATION TO ASSESSMENT OF MINING RESERVES AND RESOURCES

Mining reserves and resources may evolve over time, particularly with changes in the technical and economic assumptions used in mining (geological data, mining cost factors, mining technology). Accordingly, resource and reserve estimates are revised each year, both quantitatively and qualitatively. Details of the estimates and assumptions used for this purpose are given in Section 2, sub-section "Reserves and resources" in this document.

## 3.3.2 MINING PROJECT DEVELOPMENT RISKS

Since they are capital-intensive and take up a considerable amount of time, studies for the launch of new mining operations or for the renovation of existing operations are capex decisions which require prior technical feasibility studies with financing assumptions and profitability calculations, which are themselves directly influenced by the relevant commodity

prices and currency rates, the cost of credit and the type of financing chosen. In periods of slower demand, some of these decisions may be delayed or cancelled, which may have an impact on a mining operation's profitability.

## 3.3.3 SAFETY AND ENVIRONMENTAL RISKS

Given the unique capacity of metals for almost indefinite recycling, the Group's business activities naturally dovetail with a sustainable development approach in a global context of scarcity and, accordingly, of the maximum re-use and optimisation of natural resources. Nevertheless, though durable and recyclable, these products may entail hazards or risks at some stage of their transformation or usage.

The Group therefore has to face the challenge of identifying all such hazards, preventing and controlling the risks to its sites, while contributing to the sustainability and development of its business activity.

Consideration of the social and environmental dimensions of sustainable development in connection with business projects forms part of the criteria applied as part of the Group's investment procedure and the Environment, Industrial Risks and Product Responsibility function is systematically represented on project steering committees.

The section below describes the procedures deployed by the Communications and Sustainable Development Department to control industrial and environmental risks at sites.

## 3.3.3.1 INDUSTRIAL RISK PREVENTION POLICY

## METHODOLOGICAL ASSISTANCE WITH RISK ANALYSIS

The Group provides assistance to the sites for their hazard studies. These analyses are used to exhaustively identify major accident scenarios, their causes and impacts, in the light of which prevention and/or protection safeguards (important safety items) are installed to reduce the likelihood or seriousness of contingencies. In 2015 this mainly involved SLN, the Plant C project in Doniambo and the Ecotitanium, VALMET and MKAD projects.

## PREVENTIVE ENGINEERING REQUIRED UNDER THE GROUP'S PROPERTY INSURANCE POLICY

In 2015, ERAMET continued the policy of biannual engineering visits (preventive insurance audits) to all industrial sites in close cooperation with the insurers, underwriters and the Group Insurance Department.

The following sites were visited:

#### - ERAMET Alloys:

- · UKAD,
- · Aubert & Duval: Imphy, and Pamiers (France),
- ERASTEEL: Kloster (three sites, Sweden);

#### - ERAMET Manganese:

 GCMC (USA), BMC (USA), EMI (USA), COMILOG S.A. (Gabon), CMM (Gabon), Kvinesdal (Norway), COMILOG Guilin (China), GECC (China), COMILOG Dunkerque (France) and ERACHEM Tertre (Belgium);

#### - ERAMET Nickel:

· Eurotungstène (France).

The follow-up indicators for the actions decided as a result of these visits are set out in a summary report issued twice a year, covering compliance with standard fire safety procedures and courses of action to protect strategic industrial facilities.

As always, close involvement of the on-site industrial risk officers and the leading insurer's engineering teams in all capex programmes ensured that insurer recommendations are factored into new facilities from the design stage onwards.

In 2015 surveys chiefly focused on the EcoTitanium and VALMET projects and SLN, with 63 kV basement cable protection and protection of critical electrical rooms.

## GROUP CRISIS MANAGEMENT PROCEDURES

These procedures set out best practices and communication requirements for three scenarios:

- Crisis prevention: identification and taking into account at operational level weak signals, crisis simulation exercises so that each person knows their role and in order to continually improve emergency planning (in conjunction with the standard insurance procedure).
- Serious incident management: definition of a serious incident, Group reporting, feedback, communication.
- In a crisis: criteria for identifying crisis situations, Group reporting, organisation during crises (operations management, communication, recourse to experts, crisis unit), feedback.

These procedures have been deployed at all sites. As in 2014, special attention was paid to crisis simulation exercises at all the sites.

Out of the 42 sites currently monitored, 90% conducted one or more exercises in 2015, some of them in cooperation with the fire brigade.

## 3.3.3.2 ENVIRONMENTAL RISK PREVENTION POLICY

#### **AUDIT POLICY**

ERAMET avails itself of a system to perform regular internal audits on the performances of its companies in terms of Environment, Health and Safety. The audits are arranged by the Group's Safety and Environment Departments, on a stringent schedule that at least meets the requirements of ISO 14001 and OHSAS 18001. The chapter addressing environmental protection provides details of the internal audit process.

Other inspections are also carried out as part of the ECOSPHERE insurance programme operated in partnership with AXA. The inspections address both industrial and environmental risks, and provide further information on the environmental impact of sites and structures and the courses of action implemented to

minimise impact. Since 2008, therefore, an inspection programme has enabled the insurers to assess the risk of harm to the environment at 15 sites, in addition to exchange of information and questionnaires filled in by all the units covered by this policy.

The insurers' recommendations, ranked in order of priority, are then followed up in action plans by the sites, with a consolidated review carried out at Group level annually.

This on-site presence is essential to ensure the proper integration of multi-faceted regulations and the challenges that apply to various activities. This detailed knowledge is also primordial for the proactive study of regulatory changes and to encourage progress through exchanges and synergy between sites and Divisions.

The data produced by these auditing and control systems allows the Group to constantly bolster its ongoing improvement process.

#### "ZERO DISPUTE" GOAL

The ERAMET group promotes a policy of strict regulatory compliance, transparency and dialogue with the supervisory authorities in all circumstances, particularly in the event of temporary difficulties or special operating conditions. Since 2007 it has worked towards a "Zero dispute" goal aimed at zero formal notices or legal proceedings liable to arise from any breach by Group sites of binding regulatory requirements.

Monitoring of disputes was amended in 2015 to move forward from a mere observation scheme to a scheme to anticipate and control risks. The list of disputes now takes account of four types of incidents:

- Type 1—Low-level signals: Written warning by the authorities as a reminder of a deadline which, if it is not observed, could lead to formal notice (known in the US as a "notice of violation"), a third-party claim against the plant or in the media.

- Type 2—Declaration of a non-compliance and notice by the authorities to take action to a specific deadline in order to avoid a fine; example in mainland France, New Caledonia, Gabon: notice of violation, in the US: "notice of enforcement" or "consent agreement" between the authorities and the operator, or an "administrative order".
- Type 3-Legal action: Legal proceedings by the prosecution or any other public authority after a notice of violation or a claim submitted to the courts by a third party. Legal claims by employees or third parties for damages arising from an environmental infringement. Legal claims by a third party against an administrative permit issued pursuant to environmental legislation.
- Type 4—Actual sanction: An administrative sanction (fine, suspension of permit), unfavourable legal ruling or criminal conviction.

The 2015 "Zero Dispute" assessment shows that in aggregate terms the number of cases was in keeping with the previous assessment. The number of Type 3 and Type 4 disputes was quite low (three incidents) and the incidents were not so serious, and the same was true of Type 2 incidents (11 incidents, as against eight in 2014).

This very limited number of disputes should be put into perspective against all the detailed requirements in the various mining permits with which Group sites must comply. The number of mining permits in 2015 was 177, each of which includes at least ten parameters to be complied with on an annual, quarterly, monthly or even continuous basis.

## 3.3.4 TRANSPORTATION RISKS

#### **3.3.4.1 SEA FREIGHT**

The Group makes extensive use of shipping to transport its products; first, in various stages,

to production sites, and then for delivery to customers, because of the long distances between the mines where raw materials are extracted and the sites where they are processed, and between those sites and the markets. To protect itself against sharp rises in freight costs, the Group seeks to contract long term at predefined prices and to book some ships on a long-term basis. During periods of low sales activity, on the other hand, this may entail renegotiation of contracts.

The risk of property damage is moreover covered by specific insurance policies.

## 3.3.4.2 RAIL TRANSPORT AND HARBOUR INFRASTRUCTURES

In Gabon, the Group was awarded the concession to operate the Transgabon railway for a 30-year term beginning in November 2005. In addition to providing a public service and transporting miscellaneous goods, the railway carries manganese ore from the Moanda mine to the port in Owendo (Libreville). COMILOG, through its Port Minéralier d'Owendo subsidiary, has a concession to operate the ore port of Owendo.

In Senegal, TiZir's Grande Côte operations also include the 25-year railway concession as of 2011 to transport ore from the mining site to the Dakar harbour facilities. Grande Côte Operations also benefits from a licence to use public domain at the Dakar autonomous port.

An interruption in sea or rail transportation or a sharp rise in transportation prices, notwithstanding long-term contracts, would nevertheless have a negative impact on results.

## 3.4 LEGAL AND TAX RISKS / DISPUTES

# 3.4.1 THE GROUP'S DEPENDENCE ON THE LEGISLATIVE AND REGULATORY ENVIRONMENT

#### 3.4.1.1 SPECIFIC REGULATIONS

Mining operations are subject to specific regulations, depending on extraction locations and activities. These regulations chiefly relate to:

- mining permit and concession regimes;
- obligations specific to mining operations;
- environmental and biodiversity limits and controls;
- site restoration after depletion.

These regulations may change, with a possible impact on operations and results. This is currently the case in Gabon, following the introduction of the Mining Code via Law 017/2014 of 30 January 2015, although the decrees for its application have not been published yet.

In addition to actual mining work, industrial operations are also subject to specific regulations depending on the industrial sites. These regulations mainly cover:

 the regimes governing the mining permits and authorisations;

- compliance with limitations on waste discharge into the natural environment during site operation, taking due account of major industrial risks and health hazards entailed in operations, and the management and elimination of industrial waste;
- the obligations entailed in restoring the site after cessation of operations, factoring in the risks relating to polluted sites, ground pollution and waste.

These regulations may change, with a possible impact on operations, particularly where additional capital expenditure is required to factor in environmental concerns in response to changes in the regulations.

#### 3.4.1.2 SPECIFIC TAX CONCERNS

In addition, the Group's business is partially subject to a special tax framework (royalties, duties and taxes). Its companies and units in mainland France are liable for tax at the standard French rate. The current corporate income tax rate is 33.33%, excluding an additional welfare contribution of 3.3% and a special surcharge of 10.7% applicable since 2013.

It should be noted that ERAMET is the parent company of a tax consolidation group that comprised 21 companies at 31 December 2015.

The following notes apply to subsidiaries outside mainland France:

 Le Nickel-SLN is liable for the 35% mining and metallurgical corporation tax in New Caledonia. Since 1975 the company has enjoyed a tax freeze, which has been renewed several times. The last renewal was for 15 years from 1 January 2002 to December 2016, pursuant to a local order of 13 June 2002. Moreover, some of the subsidiary's capital expenditure programmes in New Caledonia benefited from the tax exemption measures introduced by the Paul and Girardin Acts and tax relief granted under the New Caledonian Tax Code on capital expenditure in metallurgy.

In 2014 New Caledonia introduced a reform of its tax system. On 31 December 2014 a number of laws were published in the New Caledonia Official Journal, and they came into force on 1 January 2015. SLN's distributions to ERAMET will henceforth be subject to an additional income tax contribution of 3% (any distribution in excess of 30 million Pacific francs, i.e. €251,400). In addition, the tax withholding on dividend payments in New Caledonia was raised from 5% to 10% as a result of the introduction of a solidarity contribution of 5%. As an extension to this reform, a new law was published on 29 December 2015 creating an upper limit to the deductibility of overheads of 5% of the amount of external services.

- The Weda Bay project is governed by a contract of work defining, among other issues, the tax regime applicable to production activity at the start of the site's operations.
   Tax matters currently under discussion with the Indonesian Government concern issues relating to State revenue (royalties, tax incentives, VAT). The outcome of these discussions will be decisive for the investment's continuity and profitability.
- The COMILOG subsidiary is liable for income tax at 35% and for export duty and mining royalties that represent approximately 6% of the pithead value of the products mined (close to FOB value), and also a 15% tax on dividends (10% on the fiscal scheme for corporate groups). This tax regime is fixed until 2032 as part of a mining agreement signed in October 2004 and ratified by the

Gabonese Parliament in 2005. The double-taxation convention between Gabon and France signed in Libreville on 20 September 1995 took effect on 1 March 2008, replacing the earlier convention of 21 April 1966. The current convention was published in the Official Journal of the Republic of Gabon of 24-31 July 2011.

A new Mining Code was introduced in Gabon in 2015. The new regulations do not entail any major changes for companies already engaged in mining, but they do contain some favourable provisions for holders of mining exploration licences and companies commencing operations.

China is currently in the process of tightening controls on foreign companies where cross-border flows are involved. This creates more stringent reporting requirements, the adoption of anti-abuse tax rules and reclassification of the business as a permanent establishment of a foreign company in China.

China also undertook a reform of its indirect taxation, with the introduction of a value-added tax system to replace the existing "business tax".

Under an Agreement signed with the Senegalese government in 2005 and Amendment 1 signed in 2007, Grande Côte Operations (GCO) benefits from a mining concession regime for 25 years from November 2007.
 Under the provisions of the mining code it enjoys full exemption for 15 years (exemption from VAT, customs duties, income tax, levies and property tax), not including the investment period (construction).

Moreover, in the case of mining royalties, by way of exemption from the Mining Code, which sets these royalties at 3% of the pithead value, GCO agreed in 2007 to raise these royalties to 5% and to apply production sharing at 10% on the basis of net margin on certain costs.

- Generally, subsidiaries based abroad are liable for standard-rate local taxation and benefit from the double-taxation conventions in force. Tax is not withheld on dividends paid to the parent company by the subsidiaries in Norway, Sweden, the United States, China and Belgium. On the other hand, tax is withheld on dividends paid by COMILOG (Gabon) and SLN (New Caledonia) at a rate of 15% (10% on the fiscal scheme for corporate groups) and 10% respectively.

#### 3.4.2 MAJOR LAWSUITS

Apart from the matters explained below, as far as the Company is aware no government, judicial or arbitration proceedings exist, pending or imminent, that are liable to have or in the last 12 months have had any material effects on the financial position or profitability of the Company and/or the Group.

#### CARLO TASSARA FRANCE LITIGATION

On 17 December 2009, Carlo Tassara France issued a summons for the SIMA, SORAME and CEIR companies and certain members of the Duval family to appear at the Paris Commercial Court. The summons specifies that these proceedings are being brought in the presence of ERAMET. The facts are explained in Note 14 to the consolidated financial statements set out in Section 6 of this document.

On 2 December 2011, the Paris Commercial Court ruled that all of Carlo Tassara France's claims were inadmissible on the grounds that they were time-barred. Carlo Tassara France appealed the ruling. On 19 March 2013, the Paris Court of Appeal upheld the ruling of the Paris Commercial Court in all its provisions.

On 8 July 2014, the Court of Cassation dismissed the appeal filed by Carlo Tassara France against the ruling on 19 March 2013 by the Paris Court of Appeal.

On 10 April 2014 Carlo Tassara France also filed an application for judicial review of the ruling on 19 March 2013 by the Paris Court of Appeal. On 29 September 2015 the Appeal Court dismissed the judicial review submitted by Carlo Tassara France.

#### 3.4.2.1 ERAMET NICKEL

## SLN DISPUTE WITH MANAGEMENT EMPLOYEES

In 2012, some fifty SLN management employees and former management employees submitted a claim to the Nouméa Employment Tribunal against their employer for backpay as an end-of-year bonus for the period that had not been time-barred. The plaintiffs challenged the validity of a measure taken at year-end 1992 by virtue of which this bonus was incorporated into the annual salary paid in twelve monthly instalments.

In binding judgments on 26 August 2014, the Nouméa Employment Tribunal granted these for the period that had not been time-barred. Judgments on 5 November 2015 by the Nouméa Appeal Court confirmed the rulings of the Nouméa Employment Tribunal, but limited the amount due to one twelfth of the gross annual salary for each year considered in the period that had not been time-barred.

#### 3.4.2.2 ERAMET MANGANESE

## FORMER EMPLOYEES OF COMILOG IN CONGO

Before the Transgabon railway commenced operations, COMILOG exported its manganese ore via the Congo, where it employed almost 1,000 people at that time. Following an extremely serious railway accident on 5 Septem-

ber 1991 in the Republic of Congo, COMILOG's rail shipments of ore through this country were suspended. This situation persisted and led to the discontinuation of COMILOG's operations in the Congo, and dismissal of its Congolese employees. After several years of negotiations delayed by the civil war in the Congo, a "memorandum of understanding for the final settlement of the dispute relating to the discontinuation of COMILOG's operations in the Republic of Congo" was agreed by the Republic of Congo, the Gabonese Republic and COMILOG on 19 July 2003. Under this memorandum, COMILOG and the Republic of Congo put an end to all past and future disputes. and the Republic of Congo took over all liabilities and obligations arising from COMILOG's operations in the Congo. Under the terms of this agreement, COMILOG paid the Republic of Congo the sum of one billion two hundred million FCFA to compensate the employees who were dismissed. This sum is in addition to the movables and non-movables transferred at no charge by COMILOG. Challenging the terms of this agreement as unsatisfactory, 867 former employees of COMILOG in the Congo summoned three French subsidiaries of COMILOG, which had never been their employers, and COMILOG, to appear on 9 October 2008 before the Paris Employment Arbitration Tribunal's Conciliation Board. In a ruling on 26 January 2011 the Employment Arbitration Tribunal's Judgment Board declared that it had no territorial competence in the matter. The appellants challenged this in a referral to the Paris Court of Appeal. The Court of Appeal agreed to conduct an initial examination of six cases. In judaments on 20 June 2013, the Paris Court of Appeal ordered two of COMILOG's French subsidiaries to produce various documents. COMILOG and its subsidiaries submitted an appeal against these rulings to the Court of Cassation, and accordingly issued a request to the Court of Appeal for an adjournment until the Court of Cassation had ruled. The Court of Cassation ruling on 28 January 2015 rejected the appeals, confirming that the Paris Court of Appeal judgment of 20 June 2013 had not decided that French employment courts would be competent to rule on the merits of the dispute between the claimants and their former Gabonese employer, and that it had moreover not decided that the French subsidiaries of COMILOG were their employers.

Consequently the six cases were again examined by the Paris Court of Appeal, issuing six judgments on 10 September 2015 whereby it ruled that COMILOG's French subsidiaries were not co-employers of the plaintiffs, and that COMILOG was in fact a Gabonese company. It dismissed the challenges of the four plaintiffs. However, in the case of two of the plaintiffs, which had instigated proceedings with the Congolese authorities, it stipulated French jurisdiction to rule on the claims made against COMILOG, considering that these plaintiffs had been denied justice by the Congolese authorities and that these legal disputes had a sufficient connection with France. COMILOG appealed against these two rulings.

## CRIMINAL PROCEEDINGS AGAINST THE CEO OF SETRAG

On 3 February 2014, a railway accident involving a SETRAG passenger train on a level crossing at Nkoltang (Gabon) led to the deaths of seven occupants of a vehicle. The CEO of SETRAG, the Transgabon railway concession operator, was subsequently charged with manslaughter.

The evidence presented by the Public Prosecutor did not demonstrate any criminal offence or breach by SETRAG of the concession agreement with the State or of the laws and regulations governing rail safety.

On 16 March 2016, the Libreville Tribunal dismissed these charges and ruled public prosecution should seek another legal ground for recourse.

#### MOANDA ENVIRONMENTAL DISPUTE

Four NGOs (non-governmental organisations), an inhabitants' protest group ("collectif d'habitants") and a former Member of Parliament made a number of applications to the Libreville Court of First Instance, in February and March 2011, instituting civil actions, seeking reparation from COMILOG SA and Eramet for environmental damage alleged to have been caused by the operation of the Moanda mining site.

On 13 November 2012, the Libreville Court of First Instance, in response to an application by Comilog SA and the other defendants, declined territorial competence. The appeal filed by the appellants against this judgement was deemed inadmissible by the Libreville Court of Appeal on 16 May 2013. The claimants appealed to the Court of Cassation against the September 2013 judgement of the Libreville Court of Appeal. On 7 January 2015, the Court of Cassation dismissed the claimants' appeal.

#### **GULF CHEMICAL & METALLURGICAL CORP.**

In February 2013, the Group was informed of civil proceedings against Group companies, seeking redress for alleged damage to residents living close to the plant at Freeport, Texas. A summons was received in March 2015 to the court in Wharton county, Texas. The sum of damages that may be claimed is not known

#### 3.4.2.3 ERAMET ALLOYS

## ASBESTOS CLASSIFICATION OF LES ANCIZES

The Les Ancizes establishment belonging to Aubert & Duval has never produced or transformed asbestos or sold materials that are wholly or partly composed of asbestos. This material has only ever been a component of some of the materials used in its heat transfer equipment (furnaces). For example, heat-resistant materials containing asbestos, used in the past at the Les Ancizes site, represented less than 1% of all heat-resistant materials used at the site.

The regulatory scheme for the early retirement of asbestos workers is open to workers of establishments where a significant proportion of workers were significantly exposed to asbestos, regardless of the positions held.

The Employment Minister is responsible for assessing the extent of exposure and adding the establishments concerned to the list of establishments the employees of which qualify for this scheme. The Employment Minister carried out four successive enquiries regarding the Les Ancizes site, and concluded that this establishment did not satisfy any of the regulatory criteria required for it to be added to the list.

A ruling on 7 May 2013 by the Lyons Administrative Court of Appeal nevertheless requested the Employment Minister to add Les Ancizes to the list of sites where employees are entitled to the measure, for the period prior to 2005.

On 1 August 2013, the Council of State suspended the judgement of 7 May 2013 for the period after 1992 and dismissed the appeal for the period before 1993. Classification of the Les Ancizes site was ordered for the period prior to 1993 through a joint ministerial decision of November 2013.

In its decision of 19 May 2014, the Council of State revoked the judgement of 7 May 2013 delivered by the Lyons Administrative Court of Appeal for the period after 1992. It referred the ruling on the merits of the case to the Lyons Administrative Court of Appeal for the period after 1992.

A ruling on 17 November 2015 by the Lyons Administrative Court of Appeal (contrary to the Court ruling in May 2013) found no grounds to classify Les Ancizes on the list of sites where employees are entitled to the measure for the period after 31 December 1992.

The dispute terminated at this point.

## 3.5 LIQUIDITY, MARKET AND COUNTERPARTY RISKS

#### 3.5.1 LIQUIDITY RISK

The Group has a financial liquidity position which is still strong by virtue of:

- the Revolving Credit Facility (RCF) of €981 million, mostly repayable in January 2018. €980 million had been drawn on the facility at the beginning of January 2016;
- a cash surplus of €630 million, €434 million of which were classified as cash and cash equivalents. These cash surpluses are mostly transferred to Metal Securities, the Group's special-purpose entity responsible for pooling and investing Group cash surpluses.

The Group's net borrowings stood at €878 million at 31 December 2015.

#### COVENANTS

The main covenants at Group level are described in Note 7 to the consolidated financial statements in Chapter 6 of this document.

#### 3.5.2 MARKET RISKS

The Group is primarily exposed to three types of market risk: foreign-currency risk, interest-rate risk and commodity risks. These three types of risk are measured and managed by the Group Treasury Department in accordance with Group policies.

#### 3.5.2.1 FOREIGN CURRENCY RISK

The ERAMET group is exposed to two types of foreign currency risk, as follows:

- transactional currency risks when a Group company pays or receives net flows in a currency other than its functional currency;
- foreign currency risks to the balance sheet due to changes in the net assets of subsidiaries measured in currencies other than the euro.

#### TRANSACTIONAL RISKS

The Group has pooled its subsidiaries' transactional foreign currency risks since 2003. Each Group company reports to Group Treasury on its foreign currency exposure. This management scheme is part of a multi-year policy based on procedures approved by the Executive Committee and monthly reporting to its members.

Foreign exchange hedging has been carried out via the special-purpose entity, Metal Currencies, since 2007. The subsidiaries in question determine the amount of their net exposure. The associated risks are then hedged if the net amount is greater than €2 million or the equivalent thereof per currency and per year.

Currency hedging primarily involves the US dollar, but also includes the Norwegian krone, the pound sterling and the Swedish krona.

Details of hedges are explained in Note 7 to the consolidated financial statements in Section 6 of this document.

At 31 December 2015, the fair value of currency hedges covering transactional risks represented net liabilities of €89 million (net liabilities of €71 million at 31 December 2014).

Sales and purchases denominated in foreign currencies (invoices issued, invoices received, receipts and payments) are translated at a monthly exchange rate that represents an accurate approximation of the market exchange rate. At the end of each month trade receivables/payables and bank account balances are restated at the hedging rate indicated by

the Treasury Department. Any differences between:

- the monthly exchange rate applied to recognise sales and receipts / purchases and payments;
- the contractual settlement rate for hedges,

are recognised by each company under current operating profit or loss on sales (under "Translation adjustments on sales") or purchases (under "Cost of goods sold").

A change of plus or minus 0.10 in value in the euro-dollar rate would have an impact, before tax, on the hedges recognised in equity of +€55 million if rates rose, and approximately -€66 million if they fell.

#### **BALANCE SHEET RISKS**

The ERAMET group manages part of the foreign currency risks to the balance sheet by issuing financial liabilities denominated in the same currency as the net assets concerned.

The Group manages balance sheet currency risk on a case-by-case basis.

#### 3.5.2.2 INTEREST RATE RISK

a) Regarding its gross debt position, the Group considers its debt position and market trends when deciding whether to hedge for interest rates. The Group's Treasury Department is responsible for setting up hedges.

A 10-basis point change in rates would not have a significant annual impact on the Group's overall floating-rate debt.

b)Cash surpluses managed by Metal Securities are mostly invested in instruments linked to the EONIA (Euro OverNight Index Average) or EURIBOR (Euro InterBank Offered Rate).

A 10-basis point change in rates would not have a significant annual impact on financial income.

#### 3.5.3 COUNTERPARTY RISK

The Group is exposed to several types of counterparty risk, which arise from its customers and its financial partners, particularly because of its cash surpluses.

For customer risk, the Group uses credit insurance or letters of credit or documentary credits. For unsecured receivables, the Group

has a number of different monitoring and hedging tools: business intelligence ahead of transactions (rating and business-intelligence agencies, published financial statements etc.). Trade receivables are specifically monitored by a credit manager for each Group Division, with a Credit Committee meeting monthly to set credit and outstanding-balance limits for each customer. In addition, every two months a Group Credit Committee exchanges best practices and reviews the commercial situation of key accounts.

For issuers of bonds or negotiable debt securities with maturities beyond three months: the procedure applicable to Metal Securities sets general investment limits according to counterparty rating and maturity. Each counterparty is also subject to regular monitoring of the assessments by credit analysts and/or rating agencies, and all risks are reviewed quarterly.

For UCITS, the procedure applicable to Metal Securities sets a double risk-dispersion rule, with both a maximum investment ratio for a given UCITS and the spreading of the assets managed by Metal Securities. This procedure applies in addition to the risk-spreading rules applied by the fund managers themselves to their assets.

# 3.6 INSURANCE/ COVERAGE OF RISKS LIKELY TO BE INCURRED BY THE ISSUER

# 3.6.1 THE GROUP'S GENERAL COVERAGE POLICY / RISK COVERAGE STRATEGY

#### 3.6.1.1 GROUP ORGANISATION

The Group Risks and Insurance Department establishes and develops management's risk policy and, following approval by the Comex committee, draws up insurance strategies: implementation of Group programmes, monitoring prevention policy in coordination with the Communications and Sustainable Development Department and seeking optimal risk/premium/retention solutions, including use of the Group's captive reinsurer. Pursuant to the Group Charter, it reports to the Group's Chief Financial Officer and on a functional basis to the Audit Committee, and also has direct access to the Group Chairman/CEO.

## 3.6.1.2 RISK IDENTIFICATION AND CONTROL

As part of the implementation of its risk management policy, in 2014 the Group remapped its risks on the principle of a three-year process (remapping in year 1, following by two updates in years 2 and 3). On this principle, the Group's

2014 mapping was updated at the end of 2015.

The main risks identified by risk mapping are treated in several ways:

- Deployment of action plans aimed at strengthening the existing control mechanisms for the major risks identified.
- As far as possible, integration with the Group's internal audit plan: this aims to ensure that the existing control process functions properly, and that the action plans decided are actually implemented.
- Transfer to the insurance market whenever this is possible and advisable.

## 3.6.1.3 USE OF THE INSURANCE MARKET

As risks are identified and their impact controlled, the Group seeks the most appropriate solutions on the insurance market that offer an optimum cost/cover balance. Through underwriters, the Group has deployed global insurance schemes with pools of internationally renowned and financially sound insurers. The Group also uses the market to cover risks that are specific to some of its subsidiaries' activities or non-recurring operations, and in cases where insurance is required under local regulations.

#### 3.6.1.4 REINSURANCE

The Group also has a captive reinsurance company (ERAS) that enables it to provide primary coverage in some insurance schemes. The Group is thus able to more effectively manage premiums via a retrocession mechanism and to decide retention limits. The Divisions are accordingly encouraged to develop their own prevention programmes.

#### 3.6.1.5 AMOUNT OF COVER

The Group considers that it has established sufficient cover, in terms of both scope and amounts insured or cover limits, for the main risks relating to its global operations.

#### 3.6.2 THE DIFFERENT TYPES OF INSURANCE TAKEN OUT

The Group has a varied range of insurance schemes designed to cover the different insurable risks to which it is exposed.

The four main insurance schemes cover civil liability, environmental civil liability, property damage, business interruption and transportation risks.

#### 3.6.2.1 CIVIL LIABILITY INSURANCE

#### **GENERAL CIVIL LIABILITY INSURANCE**

This scheme covers the civil liability incurred by the Group as a result of damage caused to third parties by its business operations or products, i.e. general operating liability, lessors' insurance, product liability including for aerospace products, professional civil liability and cover for sudden and accidental pollution. Cover is comprehensive, meaning that everything not excluded is covered, exclusions being those commonly applied for such risks. Cover is applied on a "claims" basis, meaning that it applies to any claim made during the insurance period (including the subsequent five-year period, pursuant to French regulations). For any claims received, the scheme applies from France. If applicable, when local regulations require local policies, it is used on top of these policies and to compensate for differences in conditions and/or limits on a DIC/DIL basis worldwide.

This scheme, which was rolled out on 1 July 2004 following a tender for AXA Corporate Solutions (leading insurer), was drawn up for two years.

It is based on a "master" policy issued in France covering €75 million and two additional "excess" policies in the respective amounts of €50 and €25 million, supplementing the master policy and providing additional cover of €150 million.

The excesses applicable are usually around €15,000 per claim.

# CIVIL LIABILITY FOR AERONAUTICAL PRODUCTS

The capacity of this programme, operated with Allianz Global Corporate & Specialty (leading insurer) since August 2012, was boosted to €800 million on renewal in July 2015.

# **ENVIRONMENTAL CIVIL LIABILITY**

The policies for Europe and Mexico ( $\le$ 25 million) the United States ( $\le$ 25 million) and New Caledonia ( $\le$ 20 million) were renewed with no major changes.

# 3.6.2.2 PROPERTY DAMAGE AND BUSINESS INTERRUPTION INSURANCE

This scheme covers property damage incurred suddenly and accidentally to the insured property, including the risk of machinery breakage, and any operating losses arising to all Group entities. Cover is comprehensive, meaning that everything not excluded is covered, with exclusions commonly applied for such risks. The programme is based on a master policy issued in France that directly covers the following countries: France, Belgium, Italy, Norway, United Kingdom and Sweden, providing cover on any difference in conditions and/or in limits

(DIC/DIL) under local policies (Gabon, China, USA and Mexico).

When this programme was renewed on 1 January 2015, a tender was arranged and this substantially improved the cover and the financial conditions. It is now operated by a pool of insurers with HDI Corporate Solutions as the leading insurer, offering maximum cover of €300 million.

# 3.6.2.3 TRANSPORTATION INSURANCE

A global Group transportation insurance scheme is in place. This scheme covers all Group entities worldwide, for all types of transportation and all types of freight or goods transported. The scheme comprises three policies: "marine cargo" for goods shipping, "charterer" with RAETS Club and "hull and machinery" with AXA Corporate Solutions.



# Chapter 4

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# **4.1 REPORT** FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS APPROVED BY THE BOARD OF DIRECTORS ON 17 FEBRUARY 2016

Pursuant to the provisions of Article L. 225-37 of the French Commercial Code, this report covers, on one hand, the composition of the Board of Directors, the application of the principle of balanced representation of men and women on the Board and the conditions governing the preparation and organisation of the Board's work and, on the other hand, the internal control and risk management procedures in place within the Company.

# 4.1.1 COMPOSITION OF THE BOARD OF DIRECTORS AND CONDITIONS FOR THE PREPARATION AND ORGANISATION OF ITS WORK

# 4.1.1.1 CORPORATE GOVERNANCE CODE

In accordance with the decision of the Board of Directors taken on 9 December 2008, ERAMET refers to the AFEP/MEDEF corporate governance code for listed companies ("the AFEP/MEDEF code"), as its reference framework; the code is available on the AFEP and MEDEF websites.

The Company considers that its practices are compliant with AFEP/MEDEF code recommendations. In some cases, certain adjustments have been made to those recommendations for reasons detailed in the table set out in the Appendix to this report.

# 4.1.1.2 BOARD OF DIRECTORS

### MEMBERSHIP / INDEPENDENCE

In accordance with the Shareholders' Agreement of 16 March 2012, amended on 21 March 2013, between SORAME and CEIR, on one hand, and FSI Equation (a subsidiary of Bpifrance Participations), on the other, since 15 May 2013 the Board of Directors has been comprised as follows:

- five directors put forward by the SORAME-CEIR concert party;
- three directors put forward by Bpifrance Participations;
- two directors put forward by STCPI;
- one director put forward by mutual agreement between SORAME-CEIR and Bpifrance Participations;
- five "qualified persons", three put forward by the SORAME-CEIR concert party and two by Bpifrance Participations, selected in view of their expertise and their independence from the party that proposes their appointment and from the Company itself, in line with the AFEP/MEDEF corporate governance code for listed companies;
- one director called on to Chair the Board of Directors.

Furthermore, in accordance with the law of 14 June 2013 related to job security (article L. 225-27-1 of the French Commercial Code) and Article 10.9 of the Articles of Association, two directors representing employees were designated, one by the Company Works Council and the other by the European Works Council, and took up their duties in 2014.

Full details of the composition of the Board of Directors at the time of this report can be found in the table set out in the Appendix to this report.

The AFEP/MEDEF code considers that a director is independent "when he has no relationship of any kind whatsoever with the Company, its Group or the management of either that could compromise his freedom of judgement" and also identifies a certain number of criteria that have to be analysed in order to decide whether a director may be classified as independent:

- "not being a salaried employee or corporate officer of the Company, a salaried employee or director of its parent company or of a company consolidated by the latter, and not having been so during the course of the previous five years";
- "not being a corporate officer of a company in which the Company directly or indirectly holds a directorship or in which a directorship is held by a salaried employee designated as such or by a corporate officer (current or former within the past five years), of the Company";
- "not being (or being directly or indirectly linked with) a major customer, supplier, merchant banker or commercial banker of the Company or of its Group, or one of the aforesaid for whom the Company or its Group represents a significant percentage of its business activity";
- "not having any close family connection with a corporate officer";
- "not having been an auditor of the Company during the past five years";

more than twelve years".

- "not having been a Company director for

At the time of this report, based on annual examination by the Board of the criteria set out above, the Board contained seven independent directors out of a total of 16 Board members (the two directors representing employees not being counted in accordance with AFEP/MEDEF code provisions and one of the director posts being currently unoccupied), therefore, more than one third of Board members are independent, in accordance with recommendation 9.2 of the AFEP/MEDEF code in respect of controlled companies.

It is noted that at the annual review of the independent status of directors, the Board performed an appraisal of business relationships existing between the ERAMET group and the group in which certain independent directors hold a corporate office. ERAMET's mining and metallurgical business generates business flows with a limited number of customers among whom no other business relationships exist with ERAMET directors. To carry out its business, ERAMET uses a number of suppliers of raw materials, goods and services. Among these, there are two groups in which two directors in particular (Ms. Lepoutre for petroleum products and Mr. Tendil for insurance) work in a professional capacity. This appraisal enabled the Board to verify that there are no significant business relationships in that regard, either in terms of the nature of goods or services provided, or in terms of their corresponding value or the conditions of their negotiation or provision.

With regard to the independence of directors where the duration of their duties extends beyond 12 years, at its meeting of 16 February 2011, the Board of Directors reasoned that Mr. Treuille, first appointed as a director of the Company in July 1999, could continue to be considered independent owing to his far-reaching experience and expertise. At its meeting of 21 March 2013, the Board of Directors also considered that Mr. Tona, representative of AREVA from 2002 to 2012, who has had no

ties with AREVA since May 2012, satisfied the requisite conditions of independence.

At the time of this report, the Board of Directors of ERAMET consists of 18 members, including seven women, two of whom are directors representing employees, designated in accordance with article L. 225-27-1 of the French Commercial Code. Consequently, women represent 39% of the full Board of Directors and 31% of Board members counted according to the AFEP/MEDEF code (excluding directors representing employees).

Under Article 10 of the Articles of Association, directors may not be over seventy years of age at the time of their appointment and are appointed for a four-year term of office. The Chairman and a majority of members of the Board of Directors (including legal entities and their permanent representatives) must be nationals of a member state of the European Union. In accordance with the Articles of Association, each director should hold at least one share in the Company and, at its meeting of 11 May 2011 the Board of Directors indicated that, in addition, each director should hold one hundred shares within eighteen months of joining the Board.

For historical reasons associated with the Company's shareholding structure and the existence of a Shareholders' Agreement since 1999, the terms of office of Board members appointed by the General Shareholders' Meeting are not staggered. Three terms of office will come to an end at the General Shareholders' Meeting called to approve the financial statements for the year ended 31 December 2016 and the thirteen other ongoing terms of office will end at the General Shareholders' Meeting called to approve the financial statements for the year ended 31 December 2018.

# Other participants at Board meetings

### Observers

At its meeting of 12 April 2000, drawing on the option provided for in Article 18 of the Articles of Association, the Board of Directors decided to provide two Observer posts on the Board and to appoint Group employees to that role, in addition to Works Council representatives. In practice, the two Observers are appointed at the recommendation of the European Works Council; if an Observer guits his/her membership of the Council, the Board will order an early termination of his/her term of office. On 27 July 2012, the Board reappointed Daniel Signoret and Pierre Lescot as Observers for a further four years. On 26 July 2013, the Board appointed Jean-François Rebatel to replace Pierre Lescot for the remaining duration of his term of office.

In view of the new provision specifying mandatory representation of employees on the Board, introduced by the law of 14 June 2013 concerning job security (article L. 225-27-1 of the French Commercial Code), the General Shareholders' Meeting held in May 2014 amended Article 18 of the Company's Articles of Association to remove the option offered to the Board of Directors to appoint Observers. The terms of office of the two Observers currently in office will continue to run until their expiry, under the conditions currently provided by the Articles of Association.

### **Company Works Council Delegate**

Philippe Laignel.

# **ERAMET DIRECTORS' CHARTER**

The duties and obligations of the directors are set out in the Directors' charter, provided for under Article 11-4 of the Articles of Association. Sub-section 6 of Article 12 of the Articles of Association also states that "it is the duty of directors to defend the interests of ERAMET in all circumstances and, whilst carrying out their duties, they shall refrain from any and all actions, or inaction, that may compromise those interests".

Any new director elected by the General Share-holders' Meeting or co-opted by the Board, whether a director in his own right or the permanent representative of a legal entity, must adhere to the charter which gives a general description of the directors' responsibilities, the principles governing their actions and the rules of conduct imposed by current legislation and the Company's Articles of Association.

The charter, which was first adopted in 1999, places particular emphasis on directors' competence, their right of access to information and their duty of disclosure, their attendance at Board meetings and, insofar as possible, at general shareholders' meetings and their independence. In particular, Board members are asked, at all times, to ensure that there is no direct or indirect conflict of interest existing between the Company and any company in which they may hold a position. Such a situation, which must be notified to the Board, may result in a refusal to appoint or a resignation (structural conflict) or an abstention (one-off conflict), depending on the case in point. At the time of writing this report, to the Company's knowledge, no director was involved in a conflict of interest within the meaning of paragraph 14.2 of Appendix 1 to EC Regulation No. 809/2004.

No member of the Board of Directors has entered into a service contract with the Company or one of its subsidiaries.

The obligation of confidentiality and of refraining from dealing in the Company's shares, when in possession of unpublished material information, is stressed. Since 2005, the rule prohibiting dealing in the Company's shares has been set down in a procedure that applies to corporate officers and executives and whose circulation list is regularly updated. At the Board meeting of 16 February 2011, the procedure itself was updated and reassessed and the Board adopted a securities' trading code of conduct for the ERAMET group. The securities trading code of conduct, aimed at preventing insider trading offences and infringements, establishes a period of abstention from any

transaction involving ERAMET securities prior to publication of the Company's annual and interim financial statements and its quarterly financial results.

# INTERNAL REGULATIONS

The By-laws specifying the arrangements for organisation of the Board of Directors are available from the Secretary of the Board of Directors at the Company's head office. It is specified therein that the Board approves the Group's strategic objectives and strategic investments, as well as any transaction, particularly acquisitions or disposals, that may significantly affect Group results, the structure of its balance sheet or its risk profile. Prior to each Board meeting and according to the agenda, directors receive the accounts, the budget and forecasts. Board members will also examine press releases related to the financial statements or to acquisitions or disposals, prior to their distribution, except in a duly justified emergency.

The by-laws also specify the membership, organisation and operation of the Committees, as described here below. The Committees may, within the scope of their respective competencies and having first informed the Chairman, confer with members of the Group's management. They report on the information obtained and advice received.

# **CODE OF CONDUCT**

At the recommendation of the Audit Committee, on 20 January 2010, the Board of Directors adopted the provisions of the Group's code of conduct. The complete text of the code of conduct is available on the ERAMET website. The purpose of the code of conduct is to formalize a base of essential common principles of behaviour for everyone in the Group to refer to and comply with in all situations. These principles apply, in the first instance, to the Group, but the Group encourages all its partners to adhere to the same standards. The principles are as follows: combat any kind of fraud or corruption, avoid any conflict of interest, respect competition rules, protect Group information,

respect and protect health and safety at work, supply quality products and services while observing security and environmental protection standards, promote the Group's territorial and civic responsibility, supply quality information to the Group's local partners and provide reliable and comprehensive information to its shareholders.

A new version of the code of conduct was drafted to further develop and better illustrate the principles guiding the Group's actions and those of its employees and has been in force since 1 January 2015.

The decision to redraft the code of conduct was taken for the following reasons:

- To take into account significant national or international legal developments that had arisen since the Group's previous code of conduct came into force in 2010.
- To enable ERAMET to respond more effectively to changes taking place in society worldwide and to the expectations of all of our stakeholders.
- To provide each employee of the Group with a detailed, clear and explicit reference document, encompassing the main legal or voluntary obligations that we should all respect as part of our duties.

This update to the code of conduct, translated into the Group's twelve languages, was distributed to all Group employees in 2015. It is passed on by members of the Executive Committee, the Management Committee of each Division and the main Corporate managers. An Ethics Officer has specific responsibility for monitoring proper application of the code of conduct.

# ASSESSMENT OF THE BOARD'S WORK

The conclusions of the last formal triennial assessment of the work of the Board of Directors were reviewed at the Board meeting of 14 May 2014. The Board approved the main points drawn from these conclusions and called for the organisation of shorter Board meetings, an extended period of time for prior examination

of the draft financial statements and annual budgets and a stronger role for the Selection Committee with regard to the executives' succession plan.

A further assessment of the Board's work during 2015 was initiated with directors at the end of 2015. Its conclusions were discussed at the Board meeting of 17 February 2016.

### **MEETINGS**

# Meeting notice

Meetings are called as often as necessary by the Chairman who addresses an invitation to all Board members, in accordance with the law. Invitations may be sent to members by any means, including email, in principle one week prior to the date of the meeting. With the exception of meetings held by telephone during the year, the Board's meetings are usually held at the Company's head office (Tour Maine-Montparnasse).

# **Board meeting procedures**

At each Board meeting, a dossier containing files on most of the items on the agenda is given to every participant in the Meeting.

The meeting usually begins with a preliminary report by the Chairman on the main events having occurred since the last meeting, followed by a presentation given by the Divisional Heads on the market conditions relevant to each of the three Divisions. Projects of particular importance in terms of the Group's strategy may be presented.

At the end of the meeting, particularly when the Board is approving the financial statements, a draft press release is usually submitted to directors for their approval and is published at the end of the day or the next day, before markets open, in order to report to the market on the main developments affecting the Company and the Group.

# Minutes of the meeting

The Secretary of the Board (in principle, the Company's Director of Legal Affairs) draws up the minutes for each Board meeting, which the Chairman submits to directors for approval at the next Board meeting, the draft minutes being sent to each participant (directors, observers and Group Works Council members), together with the invitation and agenda, approximately one week prior to the scheduled meeting date.

### **WORK IN 2015**

The Board of Directors met ten times in 2015. The attendance rate of members was 93%.

In addition to examining recurring items relating to the Group's business, Board meetings were concerned, in particular, with:

- approval of the 2014 financial statements of the Company and of the Group and the calling of the annual General Shareholders' Meeting;
- review of the 2015 interim financial statements;
- review of the key events affecting the Group and its business divisions;
- the productivity improvement programmes and investment projects of the three divisions;
- review of the 2016-2018 Operational Plan.

In order to carry out its work, the Board is also aided by the work of four Committees which it has set up. Each Committee may refer to outside experts, as necessary, on matters within their area of expertise.

Individual participation at meetings of the Board of Directors and of the Committees, in 2015, is shown in the table set out here below.

	BOARD OF DIRECTORS	AUDIT COMMITTEE	REMUNERATION COMMITTEE	STRATEGIC COMMITTEE
Michel Antsélévé	100%	-	-	-
Valérie Baudson (1)	100%	100%	-	-
Patrick Buffet	100%	-	-	100%
Cyrille Duval (SORAME)	100%	-	-	100%
Édouard Duval	90%	-	-	100%
Georges Duval	100%	-	-	-
Nathalie de La Fournière (CEIR) (2)	100%	-	-	-
Marie Axelle Gautier	100%	-	-	-
Jean Yves Gilet (FSI Equation)	100%	-	-	100%
Philippe Gomès	80%	-	-	-
Caroline Grégoire-Sainte-Marie	80%	100%	-	-
Thierry Le Hénaff (4)	80%	-	-	33%
Manoelle Lepoutre	90%	-	100%	100%
Pia Olders	100%	-	-	-
Michel Somnolet (3)	66%	50%	50%	-
Claude Tendil	70%	-	100%	-
Frédéric Tona	100%	100%	100%	-
Antoine Treuille	100%	100%	100%	-
Alexis Zajdenweber (State rep.)	90%	-	-	100%
Average	93%	90%	90%	90%

- (1) Appointment by General Shareholders' Meeting of 29 May 2015.
- (2) New permanent representative of CEIR since 4 May 2015.
- (3) Term of office expired at General Shareholders' Meeting of 29 May 2015.
- (4) Resignation on 17 February 2016.

### AUDIT COMMITTEE

The bylaws specifying the membership of the Audit Committee (minimum three members, maximum five members, two thirds being independent Directors, in line with the AFEP/ MEDEF corporate governance code), its operation and its responsibilities were reviewed by the Board on 25 May 2012.

In accordance with article L. 823-19 of the French Commercial Code, this Committee has particular responsibility for monitoring (i) the preparation of financial information (ii) the effectiveness of internal control and risk management systems (iii) statutory audit of the individual and, as applicable, consolidated financial statements by a Statutory Auditor and (iv) the independence of the Statutory Auditor.

To that end, and by application of the responsibilities referred to in the preceding paragraph,

it is the responsibility of the Committee to (i) review the suitability and proper application of the accounting methods used (including off balance sheet commitments); (ii) analyse the interim and annual financial statements (iii) examine the internal audit plans and their conclusions (iv) monitor major disputes (v) examine the Group's foreign exchange and commodity risk management policy and its hedging and investment policies (vi) render an opinion to the Board concerning proposals for the appointment of Statutory Auditors, and (vii) examine the Chairman's report on the preparation and organisation of the Board's work and internal control procedures. It meets at least two days prior to the Board's review. In accordance with recommendations set out in Section 16.2.1 of the AFEP/MEDEF code. the examination of financial statements is accompanied by a presentation given by the

statutory auditors highlighting the main points arising from the statutory audit and the accounting methods chosen, and a presentation given by the Chief Financial Officer describing the Group's risk exposure and significant off balance sheet commitments.

The Company refers to the AMF working group's report on Audit Committees to organise the Audit Committee's work (AMF recommendation of 22 July 2010).

Audit Committee meetings are attended, in particular, by the Chief Financial Officer, the Statutory Auditors, the Group's Internal Audit Director, the Director of Accounting, Tax and Consolidation, the Director of Planning and Management Control, the Financing and Treasury Director and the Group Director of Risk Management and Insurance.

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The Audit Committee is currently comprised of four directors: Valérie Baudson (independent director), Catherine Ronge (independent director), Antoine Treuille (Chairman of the Committee—independent director) and Frédéric Tona (independent director).

Valérie Baudson, a graduate of HEC and the Institute of Political Studies of Paris, is the global head of Amundi's ETF business line and its index fund.

Catherine Ronge, a graduate of the École Normale Supérieure, with a postgraduate degree in Physics and PhD in quantum physics, is Chair of Weave Air, a strategy consultancy firm.

Antoine Treuille, a graduate of ESSEC with an MBA from the University of Columbia, USA, is Executive Managing Director of Altamont Capital Partners LLC, a private equity firm based in New York.

Frédéric Tona, PhD in Applied Geology, spent 30 years working in the mining division of the AREVA group. He is an independent consultant and a director of various companies.

The Audit Committee met nine times in 2015.

In addition to presenting the financial statements for the previous year in February and examining the interim financial statements in July, each year the Committee reviews internal audit reports for the year as well as the internal audit programme for the following year. The examination of the financial statements by the Committee is accompanied by a presentation given by the Statutory Auditors describing the conclusions drawn from their work and the main issues concerned.

In addition to the review of the annual and interim financial statements and the internal audits, in 2015, the Committee examined the following points in particular:

- the Chairman's report on the work of the Board of Directors and on internal control;
- the work of the Internal Audit Department in 2015 and its scheduled work plan for 2016;

- the latest changes to IFRS;
- monitoring changes to the Group's working capital requirement and that of its main subsidiaries;
- the Group's risk management monitoring procedures;
- the Group's currency risk hedging policy;
- the procedure for monitoring the Group's off balance sheet commitments.

### REMUNERATION COMMITTEE

The bylaws specifying the membership of the Remuneration Committee (minimum three members, maximum five members and a majority being independent directors), its operation and its responsibilities were reviewed by the Board on 29 July 2014. This Committee is mainly responsible for making recommendations to the Board of Directors with regard to the remuneration of executive corporate officers of the ERAMET group appointed by the Board of Directors.

The Group's Director of Human Resources, Health, Safety and Security acts as Secretary of the Committee.

The Remuneration Committee currently has four members: Manoelle Lepoutre (independent director), Claude Tendil (Chairman of the Committee—independent director), Frédéric Tona (independent director) and Antoine Treuille (independent director).

The remuneration policy for corporate officers established by the Board of Directors is based on the following elements:

Remuneration is comprised of a fixed portion and a variable portion, decided annually by the Board following recommendations from the Remuneration Committee. The fixed portion has remained unchanged since 1 January 2013, except for the review, on 22 December 2015, of Mr. Vecten's remuneration.

- The variable portion is based on a certain number of criteria and specific targets, the choice and weighting of which are approved by the Board of Directors every year, at the recommendation of the Remuneration Committee; for example, in 2015 it was based on: (i) actual economic performance (Current Operating Profit), (ii) financial performance (net cash position), (iii) the completion vis-àvis the budget and schedule of major capital expenditure programmes, industrial projects or acquisition and development activities, (iv) "managerial" results in terms of team motivation and leadership, project and strategy proposals and goals in the field of health, safety, environmental and industrial risks. For reasons of confidentiality, these results, compared against pre-established targets and accurately defined by the Remuneration Committee and the Board of Directors, may not be disclosed to the general public. The variable portion may not exceed 70% of gross annual fixed remuneration (140% for the Chairman and CEO). The qualitative portion of variable remuneration represents 40% of variable remuneration. Full details are set out in the section on remuneration items falling due or granted to each executive corporate officer of the Company for the financial year ended and submitted to voting at the General Shareholders' Meeting.
- In addition, in respect of stock-based compensation plans, corporate officers may benefit from performance share plans or share subscription or purchase option plans, the terms and conditions of which are decided upon by the Board of Directors, at the recommendation of the Remuneration Committee. Since the Board meeting of 23 July 2007, corporate officers are required to retain 20% of shares acquired under performance share plans, throughout their entire term of office. Given the significant level of this mandatory holding requirement, imposed when the shares are vested, the recommendation set out in the AFEP/ MEDEF code that an additional quantity of

shares in the Company should be purchased when the share grant becomes available, is not imposed. Share grants are awarded annually, at the same time of year, and are not discounted. Since these concern existing shares, as opposed to new shares, there is no share dilution. With regard to the dilution of voting rights, the allocation of existing shares only has a marginal impact, given the composition of ERAMET's equity, on one hand, and the selectivity of the criteria established for these plans, on the other. The share plan regulations prohibit hedging operations and executive corporate officers give a formal undertaking in this respect. In 2015, a total of 34,105 performance shares, in the form of existing shares, all conditional upon the fulfilment of specific performance conditions, were granted to corporate officers. The performance conditions are calculated over a three-year period, as follows: the relative performance of ERAMET shares for one-third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel composed of around sixty comparable companies from two industry panels, namely, "diversified metals and mining" and "steel", and from the Euromoney Mining Index, with the performance conditions being fully achieved if the ERAMET share ranks among the top 15% of the panel) and the intrinsic performance achieved in three instalments over a threeyear period of certain financial indicators for two-thirds of the share grant (50% operating margin (current operating income/revenue) and 50% operating cash-flow, with annual targets related to the Company's budgeted targets and with performance conditions only being fully achieved when these targets are significantly out-performed). No share subscription or purchase options were

- granted during the financial year to these same beneficiaries.
- Corporate officers are eligible for the existing defined benefit supplementary pension plan for ERAMET executives, with new arrangements applicable as from 1 July 2008. In the event of settlement of their pension rights vis-à-vis social security, they may be entitled to a supplementary pension that may not exceed 35% of the reference salary defined in the plan's internal regulations, with said reference salary being capped, in the same regulations, at twenty-five times the annual social security ceiling. The overall remuneration of corporate officers takes into account the benefit represented by the supplementary pension plan. People who have completed at least two years service with the Company are eligible for this plan. The reference period used to calculate the reference salary is twelve months for the annual fixed portion and the average of the three last variable remunerations, calculated on the basis of full years, for the variable portion. The arrangement does not provide for any specific annual rate of increase of potential pension entitlements. All these arrangements, combined with the overall limit of 35% of the reference salary, which is itself limited to 25 times the annual social security ceiling (1), give the whole pension plan guite a balanced structure. Based on the latest actuarial calculation, the present value of the estimated portion of the three corporate officers in question who were still working as at 31 December 2015, out of total commitments in respect of the past service of all beneficiaries of this supplementary pension plan, amounted to €16.9 million at the end of December 2015, with the total amount of commitments being measured under IFRS at €52.4 million.
- Following the reappointment of the Chairman and CEO to that role, decided by the Board of Directors on 29 May 2015, and at the recommendation of the Remuneration Committee, on 29 May 2015 the Board of Directors, with the Chairman and CEO abstaining, voted unanimously to retain all elements of the remuneration of the Chairman and CEO and all the provisions of his corporate officer's contract dated 20 February 2008 (incorporating all the amendments decided since by the Company's Board of Directors at the recommendation of the Remuneration Committee). However, two changes were made to the severance pay falling due to the Chairman and CEO in the event of his departure from the Company (as a result of forced resignation, cancellation or non-renewal of his term of office or modification of the conditions under which he originally joined the ERAMET group):
  - The amount of severance pay which may fall due is equal to twice—instead of three times, as it was previously—the last gross annual fixed remuneration plus twice—instead of three times—the average gross annual variable remuneration received in the last three complete years prior to his departure.
  - The severance pay benefit specified in his corporate officer contract is conditional upon the fulfilment of performance conditions: the total gross variable remuneration (itself subject to specific performance conditions) received over the final three full financial years of his term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period—instead of 20% as it was previously. Consequently, these arrangements rule out payment of such a benefit should the Chairman and CEO fail to achieve his targets.

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In accordance with the provisions of Article L. 225-42-1 of the French Commercial Code, these modified arrangements shall be the subject of a resolution put before the annual General Shareholders' Meeting of 27 May 2016. In addition, in accordance with AFEP/MEDEF Code recommendations, Patrick Buffet does not hold a contract of employment binding him with the Company.

The other corporate officers do not benefit from a commitment or promise relating to the granting of severance pay in respect of their offices. The employment contracts between the Deputy CEOs and the Company have been suspended until their respective terms of office expire. The suspended employment contract of Mr. Vecten provides for the payment, in the event of dismissal. retirement or pensioning-off, of a customary payment, calculated on the basis of the national collective bargaining agreement for executives in the metallurgy industry and on the basis of his reference remuneration (fixed plus variable) as an employee. The collective bargaining agreement provides for a maximum of 18 months' remuneration for maximum length of service of 28 or 30 years depending on the age of the persons concerned upon their departure. The suspended employment contract of Georges Duval contains a clause making provision for the payment, in the event of his dismissal, retirement or pensioning-off, of a contractual indemnity amounting to 18 months' salary, calculated on the basis of his reference remuneration (fixed plus variable) as an employee, which is not combined with the customary payments calculated by application of the national collective bargaining agreement for executives in the metallurgy industry.

There is no provision for corporate officers to receive payment in respect of a non-competition commitment upon conclusion of their respective terms of office.

In the event of a change in control of ERAMET and the termination of an employment contract that is considered to be attributable

to the employer, a specific guarantee, which may not be combined with other indemnities applicable under contracts or collective bargaining agreements, was decided in 2005 and enforced. At 31 December 2014, this guarantee applied to 12 of the Group's senior executives (Mr. Vecten, the only corporate officer beneficiary, certain members of the Group Executive Committee who are not corporate officers and members of the Divisional Executive Committee). This guarantee, which represents an indemnity of three years' remuneration (fixed plus variable) for each executive concerned. was estimated at a total of €5.6 million at 31 December 2015. Patrick Buffet does not benefit from this guarantee.

Under their employment contracts, certain employees also benefit from contractual indemnities, including an indemnity payable upon retirement, calculated on the basis of one to two years' salary (fixed plus variable) and including the rights vested under the collective bargaining agreement to which they are subject.

 Corporate officers also benefit from a supplementary healthcare plan and a supplementary disability and life insurance scheme, offered to all ERAMET group employees.

The Remuneration Committee met five times in 2015

During the year, besides validating the proposed 2014 bonuses and 2015 targets for corporate officers, the Committee also proposed to the Board of Directors, and the latter approved, a 2015 Erashare worldwide bonus share plan, as part of the annual performance share award plan for corporate officers and senior executives of the Company and its subsidiaries, granting two bonus shares to all employees of the Company and its subsidiaries, in addition to a selective performance share and bonus share plan for 2015, granting a total of 132,830 shares, including 95,205 performance shares and 37,625 bonus shares to 276 Group executives (including 34,105 performance shares to corporate officers).

# **SELECTION COMMITTEE**

Comprised of four members (three directors and the Chairman), it recommends the appointment of the directors heading up each of the Group's three Divisions and the Group's Chief Financial Officer. The charter specifying its membership, operation and responsibilities, was reviewed by the Board of Directors on 25 May 2012.

With regard to the consideration of proposals for the appointment of new directors, the Selection Committee ensures that no legal incompatibility or conflict of interest exists and, concerning proposals for the appointment of new independent directors, it studies the extent to which potential candidates meet the independence criteria laid down by the AFEP/MEDEF code. Finally, with regard to the replacement of executive corporate officers in the event of an unforeseen vacancy, it examines and renders an opinion on solutions for their succession.

The Committee is currently comprised of Patrick Buffet, Cyrille Duval, Édouard Duval and Jean-Yves Gilet. This committee does not have an independent Director among its members. This is due to the specific rules of the Shareholders' Agreement designed to structure the relationship between the controlling shareholders of the Company.

The Selection Committee met four times in 2015 to examine nominations for new directorships, the replacement of the Group CFO and the plans for rearrangement of delegate CEOs at the mining divisions. The rate of participation of members at meetings was 100%.

# STRATEGIC COMMITTEE

The Strategic Committee has seven members (six directors and the Chairman). The charter specifying its membership, operation and responsibilities, was adopted by the Board of Directors' meetings of 14 May and 29 July 2014.

The role of the Strategic Committee is to examine and render an opinion to the Board of Directors on the main strategic lines

of the Company as proposed by General Management and on investment, disposal or partnership projects of particular strategic importance, or indeed on any specific matter of strategic significance to the Group.

The Committee currently comprises Patrick Buffet, Alexis Zajdenweber, Cyrille Duval, Édouard Duval, Jean-Yves Gilet, Caroline Grégoire-Sainte-Marie (independent director) and Manoelle Lepoutre (independent director).

The Group's Strategy and Financial Communications Manager acts as Secretary of the Committee.

In 2015, the Strategic Committee met three times. At these meetings, the Strategic Committee examined developments taking place in the markets in which the Group's three Divisions operate and their competitiveness. On a case by case basis, the Committee examined the productivity improvement programmes carried out, as well as certain investment or disinvestment projects.

# 4.1.1.3 MEANS OF SHAREHOLDER PARTICIPATION AT GENERAL SHAREHOLDERS' MEETINGS

The means by which shareholders may participate at general shareholders' meetings are set out in Articles 8, 20, 21 and 22 of the Articles of Association.

# 4.1.1.4 GENERAL MANAGEMENT

# **COMPANY MANAGEMENT METHOD**

Since the deliberations of the Board meeting of 26 March 2003, the Company's Chief Executive Officer is also Chairman of the Board of Directors, given that the Board considered this arrangement best suited to the Company's organisation and shareholding structure, with 63% of the share capital controlled by two shareholder groups in concert. Regular dialogue between the two main shareholders that are parties to the shareholders' agreement

and General Management is thus facilitated through a single point of contact combining the duties of Chairman of the Board of Directors and CEO. This governance method is by far the most common among French companies whose securities are listed on a regulated market. The amalgamation of the functions of Chairman and Chief Executive Officer is in compliance with balanced corporate governance rules, based on:

- a Board structure comprising at least one third independent directors, and two committees (the Audit and Remuneration Committees) that are entirely comprised of independent members;
- prior examination by the Strategic Committee followed by Board approval are required for major strategic lines of action, as described in the paragraph on the "Strategic Committee" here above and in the paragraph concerning "Composition of General Management" here below;
- General Management comprising two Deputy CEOs.

In accordance with Article 16 of the Articles of Association, the Board may, at the recommendation of the head of the Company's General Management, appoint up to five Deputy CEOs. The Company's CEO and the Deputy CEOs must be nationals of a member state of the European Union and may not hold the position beyond the age of 70.

# COMPOSITION OF GENERAL MANAGEMENT

The General Management of the Company and of the Group is organised as follows:

# Chairman and CEO

Patrick Buffet.

At its meeting of 25 April 2007, the Board of Directors granted him all powers conferred by French law to a Chairman and CEO of a public limited company. At its meetings of 11 May 2011 and 29 May 2015, the Board of Directors renewed his powers and those of the Deputy

CEOs. The Board also granted the Chairman and CEO powers to substitute and delegate, under his responsibility, to such persons as he sees fit, with the possibility of sub-delegating such part of his powers as he feels appropriate, by granting special powers for one or more specific purposes.

The Chairman and CEO exercises full authority pursuant to the law and within the scope of the Company's corporate purpose, subject to the proviso that, "no decision relating to the Company's major strategic, economic, financial or technological issues may be taken without first being discussed by the Board", as specified in Article 13, Sub-section 2 of the Articles of Association.

In line with Article 13, Sub-section 4 of the Articles of Association, "acts affecting the Company are signed either by the CEO, the Deputy CEO or by any specially authorised person."

# **Deputy CEOs**

- Georges Duval, ERAMET Alliages,
- Philippe Vecten, ERAMET Manganèse and ERAMET Nickel.

Each deputy CEO is also a Division Manager. The China Department reports to the deputy CEO of the Manganese Division. The Administration and Finance Department, the Human Resources, Health, Safety & Security Department, the Communications and Sustainable Development Department, the Strategy and Financial Communication Department, the Economic Research Department, the Industrial Affairs Department, the Legal Affairs Department and ERAMET International, all report to the Chairman and CEO.

The CFO also supervises IT systems, internal audit, management control, treasury, risk management and insurance, financing, accounting and tax matters.

Monthly Division meetings chaired by the Chairman and CEO enable monitoring of

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monthly reporting and the definition of essential operating choices for the Divisions.

Since September 2004, the Company's management method has also included an Executive Committee (Comex) and an International Management Committee (IMC), which are both chaired by the Chairman and CEO.

The Executive Committee consists of the Chairman and CEO, the Division Managers, the Human Resources, Health, Safety and Security Director, the CFO, and the Communications and Sustainable Development Director. The fact that the heads of corporate support departments (Human Resources, Health, Safety and Security department, Administration and Finance department and Communications and Sustainable Development department) are Executive Committee members, strengthens the effectiveness and consistency of their actions. The aim is to enable cross-entity departments to carry out their three essential roles, namely: an operational role, a supervisory role and a service role for the Divisions.

The International Management Committee meets periodically and is attended by members of the Executive Committee, the CEO of Aubert & Duval and Erasteel, the Chairman of ERAMET International, the CEO of Société Le Nickel-SLN, the CEO of COMILOG, the Maboumine Project Director, the Director of ERAMET in China, the Executive Director in charge of Group development in Africa, ERAMET's General Representative in Gabon, the Director of Strategy and Financial Communication and the Group Director of Legal Affairs.

# 4.1.2 INTERNAL CONTROL PROCEDURES

# 4.1.2.1 THE COMPANY'S INTERNAL CONTROL OBJECTIVES

In accordance with the AMF reference framework, updated in July 2010, the internal control procedures in force at ERAMET are designed to:

- ensure that transaction execution or management activities and the behaviour of personnel, comply with the policies laid down by the Company's governing bodies and those set out in applicable legislation and regulations and that they adhere to the Company's values, standards and internal rules:
- check that the accounting, financial and management information provided to the Company's governing bodies faithfully reflects the Company's business activities and position;
- ensure that insurance procedures and/ or programmes are put in place to protect the Company's assets against risks of loss resulting from theft, fire, improper or illegal actions and natural hazards;
- prevent and control risks of error or fraud, in particular, in the areas of accounting and finance.

However, as with any control system, it cannot provide an absolute guarantee that these risks are totally eliminated.

# 4.1.2.2 OVERVIEW OF THE AUDIT PROCEDURES IN PLACE

# INTERNAL CONTROL PLAYERS

Owing to the diversity of its business activities, ERAMET is organised into three independent Divisions, each with all the functions required for its operations (management, production, sales, purchasing, finance, etc.). In addition to its general management function, the head office provides support and carries out the control work required for the Group's overall cohesion. The following are the main internal control players:

- the Executive Committee, whose membership is set out in the "General Management" section above, meets once every two weeks.
   The International Management Committee, whose membership is also set out in the "General Management" section above, deals, more specifically, with organisational matters. It meets periodically;
- the Internal Audit Department, reporting to the Chief Financial Officer (CFO). Based on an Audit Plan approved each year by the Executive Committee and by the Audit Committee, the department carries out assignments in the Group's various business units as defined in the Plan and as instructed by the Chairman. It reports regularly to members of the Executive Committee and annually to the Audit Committee on the results of its assignments and progress achieved with the resulting action plans. Each year the Audit Committee also reviews the internal audit plan of the Group and its subsidiaries (the current plan and the plan for the following year) and proposes any adjustments it considers necessary to the Board of Directors;
- the Group Planning and Management Control Department reports to the CFO. This department sets out the structure of ERAMET's management control and monitors the Divisions' developing management systems to ensure they are consistent with the Group's goals. The department defines the relevant key performance indicators for the Group, at each level, and helps to implement them for each Division and entity. It is also responsible for Group reporting;
- the Legal Affairs Department reports to the Chairman and CEO. As a service centre, it provides the whole Group with legal support on all issues within its area of expertise;

- the Financing and Treasury Department, reporting to the Chief Financial Officer (CFO), in liaison with the specialist committees of the main subsidiaries, manages hedging of foreign currency exposure and commodity risk, particularly with regard to nickel and oil, and is in charge of financial resource management (investments and borrowings) for the whole Group;
- the Group Risk Management and Insurance department, reporting to the CFO and functionally to the Audit Committee, promotes and coordinates risk management. As such:
  - It carries out an annual update of the Group risk map working from the Divisional risk maps prepared by each of the divisional risk managers.
  - It ensures the implementation of action plans for all major risks, to increase the level of risk control.
  - It reports to the Executive Committee and to the Audit Committee on risk management measures taken.
  - It is also responsible for arranging and monitoring all insurance policies subscribed by the Group;
- the Tax Department, part of the Accounting, Tax and Consolidation Department, reporting to the CFO. As a service centre, it assists the Group's various subsidiaries with their respective tax obligations and fulfils those of the parent company;
- the Communications and Sustainable Development Department. It assists the various Divisions to control and reduce the Group's environmental impact, thereby ensuring the sustainability of ERAMET's business activities, products and markets in line with regulatory, political and labour developments;
- the Group Human Resources, Health, Safety and Security Department. It manages the Company's human resources and ensures that HR policies are consistent across the Group's various entities. The department co-

- ordinates Safety and Security policies within the Group and formalises health issues via a network of local contacts at the sites;
- more generally, every management level in the Company is responsible within its field of expertise for defining, implementing and steering internal control, under the management of the relevant Director and Executive Committee member.

### **RISK MANAGEMENT**

# **Risk Management Charter**

On 11 December 2013, the Board of Directors adopted the terms of the ERAMET group Risk Management Charter. The ERAMET group defines its plan for risk management as follows:

"Our plan of action for Risk Management is a lever for Group management and contributes, in particular, to achieving the following objectives:

- protect our main human and financial resources, and our corporate image;
- safeguard value creation;
- encourage risk-taking at an acceptable level;
- comply with legal and regulatory obligations, and with the values promoted by the Group;
- seek out value-creating opportunities for the Group (e.g. new markets, new customers, etc.)."

The full text of the Charter is available on the ERAMET website.

Because of the constant change taking place in the economic and regulatory environments encompassing the Group's activities, ERAMET must be knowledgeable of the internal or external risks that could prevent it from achieving its objectives or that could impact on any of its main assets or key business processes. The approach implemented by the Group consists of two stages: firstly, the identification and assessment of major risks and, secondly, risk management.

### Risk identification and assessment

- At the end of 2011, the Group performed a Group-wide risk mapping exercise with the assistance of a consulting firm. The method used enabled the identification of the major strategic, operational, financial and compliance risks which could affect the Divisions and, in a broader sense, the Group.
- Since that date, the risk identification and assessment measures were continued, with the aim of implementing best practice in this respect:
  - · introduction of a risk monitoring tool;
  - creation of a Risk Management Committee including all risk areas: security, environment, health, industrial risk, insurance, risk managers);
  - establishment of a risk management procedure to complement the risk management charter;
  - implementation of risk management in all major projects.
- In 2014, a new risk mapping exercise was carried out, based on a three-year process (establishment of a new map in year 1 and follow up with two updates in years 2 and 3).
- In accordance with this process, the 2014
   Group risk map was updated at the end of 2015.

# Treatment of risk

The main risks identified by risk mapping are treated in two different ways:

- Action plans aimed at strengthening the existing control mechanisms are deployed for the major risks identified. The Group Risk Managers are responsible for monitoring this procedure.
- The result of the risk mapping exercise is included in the Group's internal audit plan: the aim of this approach is to ensure that existing control processes are fully functional and that action plans decided upon are successfully implemented.

The operational risks are mainly managed at Divisional level, in a manner adapted to the specific business activities. Industrial and environmental risks are monitored by the Divisions, together with the Communications and Sustainable Development Department.

Liquidity, interest rate, foreign currency and commodity risks are managed by the Treasury Department for the whole Group, together with the relevant contacts in the larger subsidiaries.

Finally, the Group Risk Management and Insurance department, together with the Division heads, establishes the policy for coverage of insurable risk, for all the Group's companies. The various insurance programmes are described in the Group's 2014 Registration Document. Any additions to those insurance programmes will be detailed in the Group's 2015 Registration Document.

# SUMMARY OF INTERNAL CONTROL PROCEDURES IMPLEMENTED IN THE GROUP

- Existing charters: the Audit Committee, Internal Audit (updated in 2015), Legal Affairs Department, Group Risk Management and Insurance Department, Management Control, Tax Department and IT Systems Department have each published a charter. The purpose of these charters is to specify the operating rules of the various committees or departments and to formalise relationships with other parties. Finally, on 20 February 2014 the Board adopted the terms of the Group's new Code of Conduct which came into effect on 1 January 2015.
- Signing authority, other powers: the Division Heads, who are Deputy CEOs, have all the powers granted by law. The Group CFO

has the power granted by the Chairman and CEO to operate the Company's various banks accounts.

- Information systems: the role of the Group IT Department is to make IT systems more harmonised across the Group and support the various subsidiaries. It has set up a worldwide network and a single Group email system. Security has been improved through the auditing of certain systems and the implementation of specific tools. A standard for office technology (hardware and software packages) has been established. Several projects to improve management systems are ongoing in the Divisions, including the implementation of integrated procurement applications for better control of commitments and separation of tasks throughout the supply chain. The "Spring" project was launched in 2011 to provide better security and to modernise our IT infrastructure. A global organisational structure, covering the whole Group and its subsidiaries, is in the process of being implemented. The modernisation work involves three aspects:
- A redesigned workstation, encompassing the latest technologies for office systems, communications, data security and internet navigation, is currently being rolled out.
- The main servers are consolidated in regional centres. The global network is to be reinforced and, if necessary, doubled in size, to support that new technical architecture.
- Concerning business applications, a number of projects are underway to modernise our main ERP platforms around the SAP solution with the aim of providing a more harmonised solution in the long-term for the Group as a whole.

- General organisation of procedures: ERAMET has drawn up, and published within the Company and its subsidiaries, internal procedure manuals for capital expenditure, foreign currency hedging, management procedures (budgeting, operational planning, long-term financing plans, updating forecasts, analysis of over/under-spends, etc.), a consolidation manual and shared accounting rules, travel and expense accounts and financial procedures in relation to cash. Three procedures relating to crisis scenario prevention and management have been established and distributed. These relate to the anticipation and identification of weak signals, major incidents and crisis management in respect of issues or events relating to the safety of facilities, property or persons, and the control of industrial and environmental risks.

# Legal and operational control of subsidiaries by the parent company:

- Owing to the diversity of their businesses, the Divisions are managed independently for their day-to-day management. Each Division has a Management Committee that makes all the decisions within its area of responsibility, reporting to the Group Executive Committee on a regular basis.
- The Legal Affairs Department acts as Secretary to the Board for the main companies (Société Le Nickel-SLN, COMILOG S.A.)
- In 2008, the Board of Directors of COMILOG S.A. set up an Audit Committee and a
  Remuneration Committee. At the meeting
  of the Board of Directors of Société
  Le Nickel (SLN), held in November 2008,
  the Directors representing ERAMET also
  proposed the establishment of three

- committees: a Strategy Committee, an Audit Committee and a Remuneration Committee, as part of a modernised corporate governance structure. This was implemented at the SLN Board meeting of 17 November 2009. This arrangement was modified at the SLN Board meeting of 4 December 2012 to take into account the separation of the functions of Chairman and CEO of the Company and the appointment of new persons to those offices replacing the Chairman and CEO.
- Division meetings: monthly meetings are organised for the management of each Division to review monthly performance and analyse budget over/under-spends and the resulting action plans. Management/ Accounting and Treasury Committee meetings are also held monthly, bringing together Division and parent company CFOs, accountants, management controllers and treasurers, respectively, to deal with common issues and provide the necessary coordination. Specific meetings take place every month to discuss sales, accounting, treasury, insurance and other issues with the Divisions. Finally, specific budgeting, forecast updating and planning meetings are organised with the same participants as Division meetings to address these issues.
- Implementation of the internal audit plan: Internal Audit carried out 16 assignments in 2015 across all the Group's subsidiaries.
- · Control of strategic investments: under the capital expenditure procedures, all projects exceeding €4 million are examined at corporate level in accordance with specific procedures (presentation dossier, approval meetings, follow-up, etc.). Capital expenditure projects are controlled and approved, from a technical perspective, by the Industrial Affairs Department and, from a financial perspective by the Administration & Finance Department. Strategic projects are presented to the Strategic Committee and to the Board of Directors of ERAMET. The main projects will be audited internally once capital expenditure has begun.

 Monitoring of commitments undertaken/ received: independently of the above mentioned procedure, quarterly accounting reporting provides information on these commitments. Moreover, the Legal Affairs Department provides support for major contract negotiations or in the event of disputes.

# INTERNAL CONTROL SYSTEM FOR THE PREPARATION OF FINANCIAL AND ACCOUNTING INFORMATION

- Organisation of the accounting function within the Group: the Accounting Units of the parent company and of its subsidiaries record daily transactions (purchases, sales, cash flow, etc.) and ensure that the accounting methods comply with the Group's established procedures. The Accounting, Tax and Consolidation Department, within the Group Administration and Finance Department, keeps the parent company's accounts, files tax returns and all those relating to tax consolidation, and publishes ERAMET's individual and consolidated financial statements. The necessary coordination with subsidiaries is provided by the Accounting/ Management Committee, through monthly meetings attended by the CFOs, accountants and management controllers of the main Divisions and Subsidiaries.
- Procedures for the preparation of the consolidated financial statements: the consolidation returns are input into the BusinessObjects Finance programme by each subsidiary and Division-level consolidation is carried out by each Division under the supervision and with the support of the central consolidation department. This department also carries out Group consolidation. Consolidation is monthly with annual items (taxes, provisions, etc.) estimated at various times during the year.
- Accounting manual: the consolidation manual is distributed to all subsidiaries and contains the accounting rules which are common to the whole Group and which apply to financial statements drawn up in compliance with IFRS. It sets out the

- measurement methods used by the Group and specifies the rules to be followed for consolidation milestones when preparing the financial statements.
- Budget and management control: the budget for the three-year operational plan, including the budget for the first year, is calculated at year-end for the ensuing year and the budget forecast for the current year will be updated at least three times during the course of the year. These budgets and forecast updates, as well as the related action plans, are formally approved by Division management, the Group Executive Committee and, subsequently, by the Chairman and CEO of ERAMET. An analysis of gaps between budgeted and actual figures is carried out on a monthly basis, firstly at Division level and subsequently at Group level. As a supplement to the financial statements, the Management Control Department prepares analyses of the Group's performance for the period.
- Cash and Financing control: in addition to its pivotal role in managing foreign currency and commodity risk, the Group Administration and Finance Department sets up financing for the Group's main subsidiaries and carries out financial investments together with the managers of those subsidiaries. It centralises cash forecasting for the main companies and assists them in establishing payment methods for at-risk countries. At the end of 2004, the Group set up a cash pooling company, Metal Securities, to serve as a central cash hub for all Group companies. At the end of 2006, an "exchange rate guarantee" company, Metal Currencies, was established to centralise foreign exchange transactions, which had in the past been recognised in the financial statements of each Group entity. Both Metal Securities and Metal Currencies are subject to corporate governance established in full collaboration with the managers of the relevant subsidiaries.
- Work of the Board of Directors' Audit
   Committee: the Audit Committee reviews the interim and annual financial statements,

monitors major disputes and ensures compliance with foreign currency and commodity risk management policy procedures as well as hedging policies. It reviews the internal audit plan and the actions decided upon based on the audits carried out.

 Liaison with the Statutory Auditors: the Auditors carry out half-yearly reviews of the financial statements which are approved at meetings held with the Divisional and Group Finance Departments, the Division Heads, the Group CFO and, subsequently, with the Chairman and CEO of ERAMET.

Paris, 17 February 2016.

The Chairman of the Board of Directors

# List of Directors and their positions

SURNAME, FORENAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
Buffet Patrick Director, (3) (5) Chairman and CEO since 25 April 2007 Born 19 October 1953 (62 years) French nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Mr. Buffet is a mining engineer. He was Senior Executive Vice President of Suez until 2007.	Director: Co-opted to the Board on 7 March 2007 Chairman and CEO: Board meeting of 25 April 2007	Reappointments: General Shareholders' Meetings of 25 April 2007, 11 May 2011 and 29 May 2015, for a four-year term Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In Group companies  Director of Société Le Nickel-SLN  Director of COMILOG S.A.  In non-Group companies  Director of Bureau Véritas and Banimmo (Belgium) (listed companies)  Offices held and completed during the past five years  Director of Rhodia (until 21 October 2011)  Chairman and CEO of Société Le Nickel-SLN (until 31 December 2012)  Member of the Supervisory Board of Arcole Industries (unlisted) (until 4 October 2014)
Antsélévé Michel Director Born 19 February 1965 (50 years) Gabonese nationality Business address: Présidence de la République Libreville Gabon Mr. Antsélévé is Special Advisor to the President of the Gabonese Republic, Head of the Mines, Hydrocarbon, Energy and Hydraulic Resources Department.	General Sharehold- ers' Meeting of 15 May 2013	Expiry date: General shareholders' Meeting called to approve the 2016 financial statements	In non-Group companies  Director representing the Presidency of the Gabonese Republic on the Boards of Directors of Société de Développement des Ports (Gabon), Compagnie Minière de Belinga (Gabon) and Société Nationale de Gestion et de Construction du Logement Social (Gabon)  Offices held and completed during the past five years  Director representing the Gabonese Republic on the Board of Directors of Compagnie de Navigation Intérieure (Gabon)
Baudson Valérie Director, (1) (4) Born 7 May 1971 (44 years) French nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Ms. Baudson is global Head of the Amundi ETF business line and index fund.	General Sharehold- ers' Meeting of 29 May 2015	Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies  • Chairman of the Board of Directors of SPDR LLC (Ireland) (unlisted company)  Offices held and completed during the past five years  None

- (1) Audit Committee.
- (2) Remuneration Committee.
- (3) Selection Committee.
- (4) Independent Director.
- (5) Strategic Committee.

SURNAME, FORENAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
Duval Georges Director Deputy CEO Born 3 May 1946 (69 years) French nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Brother of Édouard Duval, cousin of Cyrille Duval and Nathalie de La Fournière. Mr. Duval is Deputy CEO of ERAMET, Manager of SORAME and CEO of CEIR.	General Shareholders' Meeting of 21 July 1999 Deputy CEO: Board meeting of 23 May 2002	Reappointment: General Shareholders' Meetings of 21 May 2003, 25 April 2007, 11 May 2011 and 29 May 2015 for a four-year term Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In Group companies  Chairman of:  Aubert & Duval (SAS); ERAMET Holding Alliages (SAS);  ERAMET Alloys; Erasteel (SAS) In non-Group companies (unlisted companies)  Manager of SORAME SCA  CEO of CEIR Offices held and completed during the past five years  Chairman of UKAD (S.A.)
Duval Édouard Director, (3) (5) Born 02 December 1944 (71 years) French nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Brother of Georges Duval, cousin of Cyrille Duval and Nathalie de La Fournière. Mr. Duval is Chairman of the Manage- ment Board of SORAME and CEO of CEIR.	General Sharehold- ers' Meeting of 21 July 1999	Reappointments: General Shareholders' Meetings of 21 May 2003, 25 April 2007, 11 May 2011 and 29 May 2015 for a four-year term Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In Group companies  • Director of Société Le Nickel-SLN  • Deputy CEO of ERAMET Holding Alliages (SAS) In non-Group companies (unlisted companies)  • Chairman of the Management Board of SORAME SCA  • CEO of CEIR  • Chairman of ERAMET International (SAS)
Director (3) (5) represented by  Duval Cyrille Permanent representative of SORAME to the Board of Directors Born 18 July 1948 (67 years) French nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Uncle of Nathalie de La Fournière, cousin of Georges and Édouard Duval Mr. Duval is Secretary General of the Alloys Division, Manager of SORAME and CEO of CEIR.	General Sharehold- ers' Meeting of 11 May 2011	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In Group companies  Deputy CEO of ERAMET Holding Alliages  Director of COMILOG S.A.  Permanent representative of ERAMET Holding Alliages on the Board of Metal Securities  Chairman of Brown Europe and of Forges de Montplaisir  Manager of SCI Grande Plaine In non-Group companies  Director of Nexans (listed company)  (unlisted companies)  CEO of CEIR  Manager of SORAME  Offices held and completed during the past five years (Group companies)  Chairman of AD TAF (until 2011)  Manager of Transmet (until April 2014)

- Audit Committee.
   Remuneration Committee.
   Selection Committee.
   Independent Director.
   Strategic Committee.

SURNAME, FORENAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
CEIR Director represented by			
de La Fournière Nathalie Permanent representative of CEIR to the Board of Directors Born 1 October 1967 (48 years) French nationality Address: c/o ERAMET Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Niece of Cyrille Duval, cousin of Georges and Édouard Duval Ms. de La Fournière is Finance and Administration Director of the Agence d'Urbanisme et d'Aménagement Toulouse Aire urbaine.	General Sharehold- ers' Meeting of 11 May 2011	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies None Offices held and completed during the past five years None
Gautier Marie Axelle Director representing employees Born 22 July 1974 (41 years) French Nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Ms. Gautier is in charge of the public law—mining law unit of the Legal Affairs Department.	Appointed by the European Works Council on 12 November 2014 in accordance with Article 10.9 of the Articles of Association	Expiry date: 11 November 2018	In Group companies None In non-Group companies None Offices held and completed during the past five years • Director ArcelorMittal Geo Lorraine (to June 2011)
FSI Equation Director (3) (5) Represented by  Jean Yves Gilet Born 9 May 1956 (59 years) French nationality Business address: 6-8, boulevard Haussmann 75009 Paris, France Mr. Gilet is Executive Director of Bpifrance.	Co-opted by the Board meeting of 25 May 2012 (Ratified by General Shareholders' Meet- ing of 15 May 2013)	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies  Executive Director of Bpifrance Participations  Member of Board of Directors of Eiffage and Orange  Offices held and completed during the past five years  CEO of Fonds Stratégique d'Investissement (2010-2013) (until September 2010)  Member of Board of Directors of ArcelorMittal France, ArcelorMittal Stainless International, ArcelorMittal Europe, ArcelorMittal Stainless France, ArcelorMittal Stainless Belgium, ArcelorMittal Inox Brasil  Member of the Board of Directors of CGG Veritas (2014-2015)

- Audit Committee.
   Remuneration Committee.
   Selection Committee.
   Independent Director.
   Strategic Committee.

SURNAME, FORENAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
Gomès Philippe Director Born 27 October 1958 (57 years) French nationality Business address: Assemblée Nationale 126, rue de l'Université 75355 Paris 07 SP Mr. Gomès is member of Parliament for the 2 <sup>nd</sup> constituency of New Caledonia.	Co-opted by the Board meeting of 10 December 2014	Expiry date: General shareholders' Meeting called to approve the 2016 financial statements	In non-Group companies  Deputy Chairman of STCPI  Chairman of the Board of Directors of ENERCAL  Director of SEM of Tina  Offices held and completed during the past five years  Deputy Chairman of STCPI (from 2004 to 2009)  Chairman of the New Caledonia Air Services Agency (Agence pour la desserte aérienne de la Nouvelle-Calédonie—ADANC) (from 2009 to 2011)  Chairman of Société Immobilière Calédonienne (SIC) (from 2004 to 2009)  Chairman of Société de Participation Minière du Sud Calédonien (SPMSC) (from 2005 to 2009 and in 2014)
Grégoire-Sainte-Marie Caroline Director, (4) (5) Born 27 October 1957 (58 years) French nationality Business address: c/o ERAMET Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Ms. Grégoire-Sainte-Marie has worked in various General Management positions at the Frans Bonhomme, Tarmac and Lafarge groups, in an investor capacity.	Co-opted by the Board meeting of 25 May 2012 (Ratified by General Shareholders' Meet- ing of 15 May 2013)	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies  • Director of Groupama S.A. (listed company), FLSMIDTH (Denmark) and Calyos (Belgium)  • Observer of Safran (listed company) Offices held and completed during the past five years  • Chairman and CEO of Frans Bonhomme, Chairman and CEO of Tarmac
Lepoutre Manoelle Director (2) (4) (5) Born 8 May 1959 (56 years) French nationality Business address: TOTAL 2, place Jean-Millier La Défense 6 92078 Paris La Défense Cedex Ms. Lepoutre is Director of Senior Management and Management Teams of TOTAL Group and is a member of CODIR.	General Sharehold- ers' Meeting of 11 May 2011	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies (unlisted companies)  • Director of Fondation Villette-Entreprises  Offices held and completed during the past five years  • Director of Ifremer (until 2011)
Olders Pia Director representing employees Born 3 May 1971 (44 years) French nationality Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Ms. Olders is head of insurance portfolios.	Appointed by the European Works Council on 23 June 2014 in accordance with Article 10.9 of the Articles of Association	Expiry date: 22 June 2018	In Group companies None In non-Group companies None Offices held and completed during the past five years None

- Audit Committee.
   Remuneration Committee.
   Selection Committee.
   Independent Director.
   Strategic Committee.

SURNAME, FORENAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
Ronge Catherine Director, (1) (4) Born 13 April 1961 (54 years) French nationality Business address: Weave Air 37-41, rue du Rocher 75008 Paris Ms. Ronge is Chairman of Weave Air, a strategy consultancy firm.	Co-opted by the Board meeting of 17 February 2016	Expiry date: General shareholders' Meeting called to approve the 2016 financial statements	In non-Group companies  • Director of Colas, Paprec and Innortex (start-up) Offices held and completed during the past five years  • Director of Innoveox
Tendil Claude Director, (2) (4) Born 25 July 1945 (70 years) French nationality Business address: GENERALI France 7-9, boulevard Haussmann 75309 Paris Cedex 09 Mr. Tendil is Chairman of the GENERALI Group in France.	Co-opted by the Board meeting of 25 May 2012 (Ratified by General Shareholders' Meet- ing of 15 May 2013)	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies  Chairman of the Board of Directors of GENERALI France, GENERALI France Assurances, GENERALI Vie and GENERALI IARD  Director of Europ Assistance Hodling and SCOR SE  Chairman of RVS 5 (association)  Member of the Executive Committee of MEDEF Offices held and completed during the past five years  CEO of Generali France, Generali Vie, Generali Iard (until October 2013)  Chairman of the Board of Directors of Europ Assistance Holding (until June 2015) and Europ Assistance Italie (until April 2015)  Director of Assicurzioni Generali SpA  Member of the Supervisory Board of Generali Investments SpA  Permanent representative of Europ Assistance Holding on the Board of Europ Assistance Spain (until 2014)
Frédéric Tona Director (1) (2) (4) Born 27 August 1947 (68 years) French nationality Business address: c/o ERAMET Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Mr. Tona is an independent consultant in the mining field.	General Sharehold- ers' Meeting of 15 May 2013	Expiry date: General shareholders' Meeting called to approve the 2016 financial statements	In non-Group companies  Director of CMT (Compagnie Minière de Touissit) (Morocco), and Minrex S.A. (Morocco).  Offices held and completed during the past five years  Director of OMM (OSEAD Mining Morocco) (until 2014), OSEAD SAS (France), SOMAIR (Niger), COMINAK (Niger), IMOURAREN (Niger) and CFMM (France).  Director of ERAMET in his capacity as representative of AREVA until May 2011, then in his own name until 25 May 2012.

- Audit Committee.
   Remuneration Committee.
   Selection Committee.
   Independent Director.
   Strategic Committee.

SURNAME, FORENAME OR COMPANY NAME POSITION FAMILY CONNECTION EXPERTISE	DATE OF FIRST APPOINTMENT	DATE OF LAST REAPPOINTMENT AND END DATE OF TERM OF OFFICE	OTHER POSITIONS HELD
Treuille Antoine Director (1) (2) (4) Born 07 October 1948 (67 years) Business address: Charter Pacific Corporation 3239, 47 Street Astoria, NY 11103 USA Mr. Treuille is Chairman of Charter Pacific Corporation (United States).	General Sharehold- ers' Meeting of 21 July 1999	Reappointment: General Shareholders' Meetings of 21 May 2003, 25 April 2007, 11 May 2011 and 29 May 2015 for a four-year term Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	In non-Group companies (unlisted companies)  Chairman of Charter Pacific Corporation (United States)  Director: French American Foundation (USA) and Fondation Franco-Américaine Foch (France)  Offices held and completed during the past five years  Chairman of: Altamont Capital Partners, LLC (United States) (until 2014), Mercantile Capital Partners LLC (United States) (until 2014) and Partex Corporation (until 2013)  Director of BIC S.A. (France), Harris Interactive, Partex Corporation and Imperial Headwear Inc. (United States) (until 2013).
Zajdenweber Alexis Director representing the State (5) Born 18 May 1976 (39 years) French nationality Business address: Agence des Participations de l'État 139, rue de Bercy Teledoc 229 75012 Paris, France Mr. Zajdenweber is Director of energy shareholdings at the French Government Shareholding Agency (l'Agence des Participations de l'État—APE).	Co-opted to the Board on 10 December 2014	Reappointment: General shareholders' Meeting of 29 May 2015 for a four-year term. Expiry date: General shareholders' Meeting called to approve the 2018 financial statements	<ul> <li>In non-Group companies</li> <li>Member of the Supervisory Board of Electricité Réseau Distribution France (ERDF)</li> <li>Director of AREVA Offices held and completed during the past five years</li> <li>Director of Monnaie de Paris (from 2009 to 2011)</li> </ul>
Vecten Philippe Deputy CEO (non Director) Born 22 April 1949 (66 years) Business address: Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Mr. Vecten is Deputy CEO.	Appointed by the Board meeting of 23 May 2007		In Group companies  Director of COMILOG S.A.; COMILOG US; Port Minéralier d'Owendo, Maboumine  Chairman of the Board of Directors of SETRAG and of Eralloys Holding AS  CEO of ERAMET COMILOG Manganèse  Manager of COMILOG Holding Offices held and completed during the past five years  Director of Société Le Nickel-SLN (until June 2012)

- Audit Committee.
   Remuneration Committee.
   Selection Committee.
   Independent Director.
   Strategic Committee.

As provided by paragraph 14.1 of Appendix 1 of EC Regulation No. 809/2004, the Company states that, to its knowledge and at the time of writing this report:

- No conviction of fraud has been handed down, in the last five years, against any member of the Board of Directors or of General Management.
- In the last five years, no member of the Board of Directors or of General Management has
- been associated with a bankruptcy, receivership or liquidation in their capacity as member of an administrative, management or supervisory body, or as CEO, of a company.
- No criminal charge and/or official public penalty has been handed down, in the last five years, against any member of the Board of Directors or of General Management, by the statutory or regulatory authorities (including the relevant professional bodies);
- No director or member of General Management has been barred by a court, in the last five years, from acting as a member of an administrative, management or supervisory body or from participating in the management or business affairs of a listed company.
- No director is subject to a conflict of interest within the meaning of Section 14.2 of Appendix 1 of EC Regulation No. 809/2004 or has entered into a service contract with ERAMET.

# Table summarising changes to the composition of the Board of Directors during the 2015 financial year and up to the date of filing of this registration document

# Co-options

Appointment of new permanent representatives representing legal entity Directors

Appointments by the General Shareholders' Meeting Resignation

On 17 February 2016, Catherine Ronge was nominated by the Board of Directors as a Director replacing Thierry Le Hénaff who resigned.

On 4 May 2015, Nathalie de La Fournière was appointed the new permanent representative of CEIR on the Board, replacing Patrick Duval.

On 29 May 2015, the General Shareholders' Meeting appointed Valérie Baudson as a Director, replacing Michel Somnolet whose term of office had expired.

Valérie Baudson resigned as a Director, with effect as of 31 March 2016.

AFEP/MEDEF CODE RECOMMENDATION	ERAMET CORPORATE GOVERNANCE
Recommendation 10.4: It is recommended that the non-executive directors meet periodically without executive directors or in-house directors in attendance. The internal rules of operation of the Board of Directors should provide for such a meeting once a year, at which time the performance of the Chairman, Chief Executive Officer and Deputy Chief Executive Officers shall be evaluated, and the participants shall reflect on the future of the Company's executive management.	The internal rules of the Board of Directors do not expressly mention the option of holding annual meetings for non-executive directors without having executive directors in attendance. However, in practice, the Remuneration Committee is composed only of non-executive directors and it meets at least once a year, without the presence of the executive directors concerned, to evaluate the performance of the Chairman and CEO and that of the Deputy CEOs.
Recommendation 14: Directors' terms of office should be staggered so as to avoid replacement of the entire body and to favour a smooth replacement of directors.	The distribution of terms of office is currently staggered among two groups of directors: one of four directors and another of 13 directors. This is a consequence of the Company's shareholding structure and of the provisions of the Shareholders' Agreement in force.
Recommendation 15 on Board of Directors' Committees: the committees of the Board may request external technical studies relating to matters within their competence, at the Company's expense.	The internal rules of the Board of Directors and of the Committees do not expressly mention the option of taking recourse to external experts. However, external experts may be consulted, as and when necessary.
Recommendation 17.1 on the composition of the Selection Committee: "it should not include any executive corporate officers and should be comprised mainly of independent directors."	The Selection Committee does not include any independent directors and the Chairman and CEO is a member of the Committee. This is due to the specific rules of the Shareholders' Agreemen designed to structure the relationship between the Company's mair shareholders.
Recommendation 17.2: The Selection Committee is in charge of submitting proposals to the Board for the selection of new directors.	It is not the remit of the Selection Committee to propose candidates for directorships to the Board of Directors.  This situation is due to the particular rules of the Shareholders' Agreement, intended to structure relationships between controlling shareholders of the Company, which only makes provision to the effect that the Selection Committee "is responsible for proposing, to the Company's governing bodies, the appointment of candidates to senior management positions within the Company's various divisions and to the position of Financial Director of the ERAMET group". However, the Selection Committee Charter specifies that "with regard to the examination of proposals for the appointment of new independent directors, the Selection Committee is responsible for examining, whilst adhering to the provisions of the Shareholders' Agreement, the extent to which possible candidates satisfy the independence criteria put forward by the AFEP/MEDEF code and to report to the Board of Directors on its findings in that respect" and that "with regard to the examination of proposals for the appointment of new directors, the Selection Committee is responsible for ensuring, whilst adhering to the provisions of the Shareholders' Agreement, that candidates for directorships do not present any legal incompatibility or conflict of interest".
Recommendation 18.1 on the composition of the Remuneration Committee: "it is recommended that the Remuneration Committee should have one salaried Director among its members".	The current Shareholders' Agreement specifies a contractually predefined composition of the Remuneration Committee. In that respect, the two shareholder groups have agreed their preference for the current form of representation on this Committee which is solely comprised of independent directors, while it is assumed that directors representing employees may not be classified as such.
Recommendation 18.2 on the procedures for operation of the Remuneration Committee: "when the report on the work of the Remuneration Committee is presented, the Board should deliberate on issues relating to the compensation of executive corporate officers without the presence of the latter."	Executive corporate officers may be present during presentation of the report on the work of the Remuneration Committee.  The Board makes its deliberations in compliance with legal rules and governance recommendations.

AFEP/MEDEF CODE RECOMMENDATION	ERAMET CORPORATE GOVERNANCE
Recommendation 23.2.4: performance shares. "In accordance with terms determined by the Board and announced upon the award, the performance shares awarded to executive corporate officers should be conditional upon the acquisition of a defined quantity of shares once the awarded shares become available."	Given the mandatory requirement, imposed upon the acquisition of shares, that a significant level of the shares acquired should be retained (20% of shares throughout the entire term of office), the requirement that an additional quantity of shares in the Company should be purchased when the share grant becomes available is not imposed.  Furthermore, since the first performance share award introduced in 2010, the percentage of shares definitively vested by executive corporate officers, in comparison with the number of performance shares originally granted to them, has been very low, given the stringent performance conditions required.
Recommendation 23.2.5: Chairman & CEO severance pay: These performance conditions set by the Board must be demanding and may not allow for the indemnification of an executive director, unless his or her departure is imposed in some way and linked to a change in control or strategy. The payment of any termination benefits to an executive director must be excluded if the said executive director elects to leave the Company in order to hold another position or is assigned to another position within the same group or is able to benefit in the near future from pension rights.	Should the Chairman and CEO leave the Company (pursuant to forced resignation, cancellation or non-renewal of his term of office or modification of the conditions under which he originally joined the ERAMET group), his entitlement to severance pay, as provided for in his corporate officer contract, is conditional upon the fulfilment of performance conditions: the sum of gross variable remuneration (itself subject to specific performance conditions) received over the last three complete years of his term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period. Consequently, these arrangements exclude payment of such a benefit should the Chairman and CEO fail to achieve his targets. Following renewal of the term of office of the Chairman and CEO at the Board meeting of 29 May 2015, pursuant to the provisions of Article L. 225-42-1 of the French Commercial Code, these arrangements shall be subject to approval by the General Shareholders' Meeting of 27 May 2016.
Recommendation 23.2.6: Supplementary Pension Plans. The reference period used for the calculation of pension benefits must cover several years.	The reference period is twelve months for the fixed portion and the average of the three last gross variable remunerations, calculated in full years for the variable portion. Length of service must be greater than two years.  These supplementary pension plan arrangements, combined with the overall limit of 35% of the reference remuneration, which is itself limited to 25 times the annual social security ceiling (1), provide the whole pension plan with a very well balanced structure.
Recommendation 24.1: ongoing provision of information to shareholders on remuneration received All components of executive corporate officers' remuneration, whether potential or vested, must be publicly disclosed, immediately after the Board meeting at which they are approved.	There is no communication after Board meetings held to review remuneration. The components are communicated in the registration document prior to shareholder consultation.

(1) In 2015, the annual social security ceiling was €38,040.

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# 4.2 STATUTORY AUDITORS' REPORT DRAWN UP PURSUANT TO ARTICLE L. 225-235 OF THE FRENCH COMMERCIAL CODE ON THE REPORT OF THE CHAIRMAN OF THE BOARD OF DIRECTORS OF ERAMET

# 2015 FINANCIAL YEAR

To the Shareholders.

In our capacity as statutory auditors of ERAMET and in accordance with article L. 225-235 of the French Commercial Code (Code de commerce), we hereby report on the report prepared by the Chairman of your Company in accordance with article L. 225-37 of the French Commercial Code (Code de commerce) for the year ended 31 December 2015.

It is the Chairman's responsibility to prepare and submit for the Board of Directors' approval a report on internal control and risk management procedures implemented by the Company and to provide the other information required by article L. 225-37 of the French Commercial Code (Code de commerce) relating to matters such as corporate governance.

Our role is to:

 report on any matters as to the information contained in the Chairman's report in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information; confirm that the report also includes the other information required by article L. 225-37 of the French Commercial Code (Code de commerce). It should be noted that our role is not to verify the fairness of this other information.

We conducted our work in accordance with professional standards applicable in France.

# INFORMATION ON INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES RELATING TO THE PREPARATION AND PROCESSING OF ACCOUNTING AND FINANCIAL INFORMATION

The professional standards require that we perform the necessary procedures to assess the fairness of the information provided in the Chairman's report in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information. These procedures consist mainly in:

 obtaining an understanding of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information on which the information presented in the Chairman's report is based and of the existing documentation;

- obtaining an understanding of the work involved in the preparation of this information and of the existing documentation;
- determining if any material weaknesses in the internal control procedures relating to the preparation and processing of the accounting and financial information that we would have noted in the course of our work are properly disclosed in the Chairman's report.

On the basis of our work, we have no matters to report on the information relating to the Company's internal control and risk management procedures relating to the preparation and processing of the accounting and financial information contained in the report prepared by the Chairman of the Board of Directors in accordance with article L. 225-37 of the French Commercial Code (Code de commerce).

# OTHER INFORMATION

We confirm that the report prepared by the Chairman of the Board of Directors also contains the other information required by article L. 225-37 of the French Commercial Code (Code de commerce).

Paris-La Défense, 22 February 2016 The statutory auditors French original signed by

KPMG Audit Department of KPMG S.A. Denis Marangé

Ernst & Young Audit

Jean-Roch Varon

# 4.3 REMUNERATION OF CORPORATE OFFICERS

# 4.3.1 REMUNERATION POLICY FOR EXECUTIVE CORPORATE OFFICERS

The remuneration of executive corporate officers is set annually by the Board of Directors at the recommendation of the Remuneration Committee. The remuneration of each executive corporate officer is broken down into a fixed portion and a variable portion. The goals of executive corporate officers are determined by the Remuneration Committee and submitted to the Board of Directors for approval.

The remuneration policy for executive corporate officers is based on principles set out in detail in the report of the Chairman of the Board of Directors, under the paragraph heading "Remuneration Committee".

The table below sets out an individual breakdown of gross remuneration due to corporate officers in 2015:

Table 1-Table summarising the remuneration of all executive corporate officers in addition to shares and options granted to each one

TOTAL CORPORATE OFFICERS	2,510,409	4,322,541	2,050,393	1,786,653	4,560,801	6,109,194
Cyrille Duval	0	406,442	0	23,765	0	430,207
Édouard Duval	0	597,947	0	42,777	0	640,724
Philippe Vecten Deputy CEO	471,328	525,707	284,368	224,817	755,695	750,524
Bertrand Madelin (1) Deputy CEO	333,972	458,565	238,676	188,694	572,648	647,259
<b>Georges Duval</b> Deputy CEO	445,915	494,478	180,360	241,690	626,275	736,168
Patrick Buffet Chairman and CEO	1,259,194	1,839,402	1,346,989	1,064,910	2,606,182	2,904,312
(IN EUROS)	2015	2014	2015	2014	2015	2014
	REMUNERATIONS [	DUE IN THE YEAR	VALUE OF PERFORMANCE SHARES GRANTED DURING THE YEAR (2)		TOTAL (3)	TOTAL (3)

<sup>(1)</sup> Up to 27 November 2015.

<sup>(2)</sup> Calculated according to the fair value per share on the day of granting by the Board of Directors, that is, €60.12 at 19 February 2015 and €47.53 at 20 February 2014; for reference, the closing share price on 17 February 2016 was €18.18—no options were granted during the financial year.

<sup>(3)</sup> The valuation method used to calculate the value of performance shares does not permit the actual remuneration of executives to be extrapolated from these figures for the years in question.

Table 2—Table summarising the remuneration of each executive corporate officer

	AMOUNT FOR	AMOUNT FOR 2015		2014
	DUE	PAID	DUE	PAID
Patrick Buffet Chairman and CEO				
Fixed remuneration	807,365	807,365	807,365	807,365
Variable remuneration (4)	377,921	949,151	949,151	712,566
Directors' fees	65,222	74,200	74,200	62,992
Benefits in kind (1)	8,686	8,686	8,686	6,579
Total	1,259,194	1,839,402	1,839,402	1,589,502
Georges Duval Deputy CEO				
Fixed remuneration	326,600	326,600	326,600	326,600
Variable remuneration (4)	88,063	127,227	127,227	119,145
Directors' fees	27,640	36,700	36,700	25,000
Benefits in kind (1)	3,612	3,951	3,951	4,194
Total	445,915	494,478	494,478	474,939
Bertrand Madelin Deputy CEO				
Fixed remuneration (2)	237,808	261,250	261,250	261,250
Variable remuneration	91,438	169,159	169,159	96,924
Directors' fees	0	23,000	23,000	22,500
Benefits in kind (1)	4,726	5,156	5,156	3,194
Total	333,972	458,565	458,565	383,868
Philippe Vecten Deputy CEO				
Fixed remuneration (3)	312,191	306,940	306,940	306,940
Variable remuneration (4)	110,258	173,821	173,821	156,191
Directors' fees	42,181	38,248	38,248	38,737
Benefits in kind (1)	6,698	6,698	6,698	5,614
Total	471,328	525,707	525,707	507,482
TOTAL CORPORATE OFFICERS	2,510,409	3,318,152	3,318,152	2,955,791

No multi-year variable remuneration fell due or was paid out during the financial year.

The combined total remuneration received by the top ten earners at ERAMET in respect of 2015 was €5,860,223 and has been certified by the Statutory Auditors.

This relates to the provision of a Company car.
 Term of office as corporate officer ended on 27 November 2015.
 Fixed remuneration review at Board meeting of 22 December 2015.

<sup>(4)</sup> In view of the Group's financial situation, the corporate officers have voluntarily waived 20% of their variable portion as validated by the Board of Directors.

# Table 3—Table setting out Directors' fees and other remuneration received by non-executive corporate officers

The amount of Directors' fees paid to ERAMET's corporate officers in January 2016 in respect of 2015 was €745,000 (€674,117 in 2014). The total sum allocated to the Board of Directors was set at €700,000 at the General Shareholders' Meeting of 15 May 2013 (thirteenth resolution), to be distributed freely among the directors by the Board of Directors.

For 2015, and in accordance with recommendation 21.1 of the AFEP/MEDEF code, in order to have a predominant variable portion, the distribution rules for Directors' fees were as follows:

- annual fixed amount of €10.000:
- €2,000 for each actual attendance at Board meetings;
- annual fixed amount of €5,000 for Audit Committee members, Remuneration Committee members or Strategic Committee members;

- €1,800 for each actual attendance at Audit Committee, Remuneration Committee or Strategic Committee meetings;
- application of an overall ceiling of €700,000 applied prorata to the sum due to each director.

In addition, €1,525 in travel expenses is paid for each director living abroad in respect of each Board meeting (and Committee meetings in cases where a Committee meeting takes place more than 48 hours before or after a Board meeting).

From 2016 onwards, and in accordance with recommendation 21.1 of the AFEP/MEDEF code, in order to have a predominant variable portion, the distribution rules for Directors' fees will be the following:

- annual fixed amount of €10.000:
- a sum of €2,000 for each Board meeting attended in person, with an annual ceiling of €14,000 corresponding to seven meetings;
- annual lump sum of €5,000 for Audit Committee members, Remuneration Committee members or Strategic Committee members;

- a sum of €1,800 for each Audit Committee meeting attended in person, with an annual ceiling of €9,000, corresponding to five Audit Committee meetings, and for each Remuneration Committee meeting attended in person with an annual ceiling of €7,200, corresponding to four Remuneration Committee meetings, and for each Strategic Committee meeting attended in person with an annual ceiling of €7,200, corresponding to four Strategic Committee meetings.

In addition, €1,525 in travel expenses shall be paid for each director living abroad in respect of each Board meeting (and Committee meetings in cases where a Committee meeting takes place more than 48 hours before or after a Board meeting).

The Directors' fees paid to ERAMET directors by other companies in the Group amounted to an overall total of €45,000 in 2015 (€73,959 in 2014).

No other remuneration was paid to non-executive corporate officers, with the exception of the remunerations specified here below.

The distribution of Directors' fees at the beginning of 2016 in respect of 2015 was as follows (in euros, before deductions):

	ERAMET	OTHER COMPANIES	TOTAL 2015	TOTAL 2014
Michel Antsélévé	36,070	-	36,070	31,150
Valérie Baudson (3)	32,569	_	32,569	-
Patrick Buffet (1)	37,222	28,000	65,222	74,200
Cyrille Duval (1) (SORAME)	37,222	17,000	54,222	52,700
Other remuneration €150,098				
Édouard Duval (1)	35,379	_	35,379	50,200
Other remuneration €62,998				
Georges Duval (1)	27,640	-	27,640	23,500
Patrick Duval (CEIR) (2)	6,757	_	6,757	23,500
Nathalie de La Fournière (CEIR) (2)	20,883	_	20,883	-
Marie Axelle Gautier (8)	27,640	-	27,640	3,666
Other remuneration €87,113				
Jean Yves Gilet (FSI Equation) (4)	37,222	-	37,222	36,700
Philippe Gomès (10)	33,790	-	33,790	4,108
Caroline Grégoire-Sainte-Marie	43,487	-	43,487	35,400
Thierry Le Hénaff	30,219	-	30,219	31,100
Manoelle Lepoutre	39,724	-	39,724	35,200
Louis Mapou (5)	-	_	-	6,500
Pia Olders (7)	27,640	-	27,640	11,000
Other remuneration €51,890				
Michel Quintard (6)	-	-	-	25,117
Michel Somnolet (3)	19,149	_	19,149	51,926
Claude Tendil	35,010	-	35,010	39,300
Frédéric Tona	60,070	_	60,070	40,000
Antoine Treuille	76,931	_	76,931	66,450
Alexis Zajdenweber (State Rep.) (9)	35,379	-	35,379	3,249
TOTAL	700,000	45,000	745,000	674,117

- (1) Other remuneration: see other tables related to corporate officers' remuneration.
- (2) Appointment of Nathalie de La Fournière as the new permanent representative of CEIR, replacing Patrick Duval, on 4 May 2015.
- (3) Appointment of Valérie Baudson by the General Shareholders' meeting of 29 May 2015, replacing Michel Somnolet.
- (4) Amount paid to Bpifrance Participations—In February 2014, Jean-Yves Gilet was appointed representative of FSI Equation.
- (5) Resignation 26 June 2014.(6) Resignation 31 July 2014.
- (7) Director representing employees—Appointment 23 June 2014.
- (8) Director representing employees—Appointment 12 November 2014.
- (9) Co-option 10 December 2014—amount paid to the Ministry of Finance.
- (10) Co-option 10 December 2014.

# Tables 4 and 5-Not applicable

No share purchase or subscription options were granted to executive corporate officers during the financial year. No share purchase or subscription options were exercised by executive corporate officers during the financial year.

Table 6—Performance shares granted to each Executive Corporate Officer during the year

TOTAL		34,105	2,050,393			
P. Vecten	Plan of 19/02/2015	4,730	284,368	19/02/2018	19/02/2020	ditto
B. Madelin	Plan of 19/02/2015	3,970	238,676	19/02/2018	19/02/2020	ditto
G. Duval	Plan of 19/02/2015	3,000	180,360	19/02/2018	19/02/2020	ditto
P. Buffet	Plan of 19/02/2015	22,405	1,346,989	19/02/2018	19/02/2020	Performance of the ERAMET share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (1/3) and intrinsic performance according to financial indicators (2/3) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over three years
	PLAN NO. AND DATE	NUMBER OF SHARES GRANTED	VALUE OF SHARES (1)	ACQUISITION DATE	DATE AVAILABLE	PERFORMANCE CONDITIONS

<sup>(1)</sup> Calculated according to the fair value per share on the day of granting by the Board of Directors, that is €60.12 on 19 February 2015 and €47.53 on 20 February 2014; for reference the closing share price on 17 February 2016 was €18.18.

Table 7—Performance shares becoming available during the financial year for each executive corporate officer

TOTAL		3,747	13,665
P. Vecten	Plan of 20/05/2010	512	1,865
B. Madelin	Plan of 20/05/2010	420	1,530
G. Duval	Plan of 20/05/2010	439	1,600
P. Buffet	Plan of 20/05/2010	2,376	8,670
	PLAN NO. AND DATE	NUMBER OF SHARES THAT BECAME AVAILABLE DURING THE FINANCIAL YEAR (PLAN HOLDING PERIOD ENDED ON 20 MAY 2010)	VESTING CONDITIONS  (NUMBER OF SHARES TO BE VESTED UPON AVAILABILITY IN THE EVENT THAT ALL PERFORMANCE CONDITIONS ARE MET, ACCORDING TO THE TERMS SET BY THE BOARD UPON GRANTING)

Taking into consideration the performance conditions, the vesting rate as a percentage of shares awarded from the 20 May 2010 plan is 27.4%.

Since the Board meeting of 23 July 2007, corporate officers are required to retain 20% of shares acquired under performance share plans, throughout their entire term of office.

# Table 8-Not applicable

There is no share purchase or subscription option plan currently in operation.

Table 9—Historical details of p	erformance share ç	grants-Information	on performance sh	nares		
	PLAN 2010	PLAN 2011	PLAN 2012	PLAN 2013	PLAN 2014	PLAN 2015
Date of Shareholders' Meeting	20/05/2010	20/05/2010	20/05/2010	15/05/2012	15/05/2012	15/05/2012
Date of Board meeting	20/05/2010	16/02/2011	15/02/2012	21/03/2013	20/02/2014	19/02/2015
Total No. shares granted, of which number granted to (total)	65,008	71,665	89,885	145,040	143,510	132,680
Corporate Officers						
P. Buffet	8,670	8,605	10,755	22,405	22,405	22,405
G. Duval	1,600	2,030	1,000	5,085	5,085	3,000
B. Madelin	1,530	1,490	1,865	3,970	3,970	3,970
P. Vecten	1,865	1,820	2,275	4,730	4,730	4,730
Date of vesting of France Plan shares	20/05/2013	16/02/2014	15/02/2015	21//03/2016	20/02/2017	19/02/2018
End date of holding period for France Plan	20/05/2015	16/02/1016	15/02/2017	21/03/2018	20/02/2019	19/02/2020
End date of vesting and holding period for International Plan shares	20/05/2014	16/02/2015	15/02/2016	21/03/2017	20/02/2018	19/02/2019
Performance conditions	of the ERAMET share price (total shareholder return or TSR) in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (50%) and the intrinsic performance of financial indicators (50%) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over 3 years	of the ERAMET share price (total shareholder return or TSR) in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (50%) and the intrinsic performance of financial indicators (50%) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over 3 years	Performance of the ERAMET share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (50%) and intrinsic performance according to financial indicators (50%) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over 3 years	Performance of the ERAMET share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (1/3) and intrinsic performance of financial indicators (2/3) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over 3 years	Performance of the ERAMET share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (1/3) and intrinsic performance of financial indicators (2/3) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over 3 years	Performance of the ERAMET share price in relation to that of comparable companies listed on the Stoxx 600 Basic Resources index (1/3) and intrinsic performance of financial indicators (2/3) (operating margin (current operating income / revenue) and operating cash flow); progressive acquisition over 3 years
Number of shares vested at 31/12/2015 (International Plan)	4,397	3,545				
Number of shares vested at 31/12/2015 (France Plan)	13,097	8,008	13,836	0	0	0
Cumulative number of cancelled or lapsed shares	47,514	60,102	49,074	5,900	4,190	1,741
Performance shares remaining at end of financial year	0	0	26,125	139,140	139,320	131,087

The performance conditions are calculated over a three-year period and, for the 2010, 2011 and 2012 performance share plans, are as follows: the relative performance of ERAMET shares for 50% of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel composed of around 30 comparable companies on the Stoxx 600 Basic Resources Index, with the performance conditions being fully achieved if the ERAMET share is ranked in the top 15% of the panel) and the intrinsic performance achieved, in three instalments over a three-year period, of certain financial indicators for 50% of the share grant (25% operating mar-

gin (current operating income/revenue), and 25% operating cash-flow, with annual targets related to the Company's budgeted targets and with performance conditions only being fully achieved when these targets are significantly out-performed). Taking into consideration the performance conditions, the vesting rate as a percentage of shares awarded is as follows: 2010, 27.4%—2011, 15.6%—2012, 22.4%.

For the 2013, 2014 and 2015 performance share plans the performance conditions are calculated over a three-year period, as follows: the relative performance of ERAMET shares for one-third of the share grant (this involves comparing the change in total shareholder

return over a three-year period with that of a panel composed of around 30 comparable companies on the Stoxx 600 Basic Resources Index, with the performance conditions being fully achieved if the ERAMET share is ranked in the top 15% of the panel) and the intrinsic performance achieved, in three instalments over a three-year period, of certain financial indicators for two-thirds of the share grant (one-third operating margin (current operating income/revenue), and one-third operating cash-flow, with annual targets related to the Company's budgeted targets and with performance conditions only being fully achieved when these targets are significantly out-performed).

Table 10-Summary table of corporate officers

CORPORATE OFFICERS	CONTRACT OF EMPLOYMENT	SUPPLEMENTARY PENSION PLAN	COMPENSATION OR BENEFITS FALLING DUE, OR WHICH MAY FALL DUE, AS A RESULT OF DEPARTURE OR A CHANGE OF POSITION	COMPENSATION RELATED TO A NON-COMPETITION CLAUSE
Patrick Buffet Chairman and CEO Start of term of office: 25/04/2007 End of term of office: AGM to approve 2014 financial statements	No	Yes	Yes	No
Georges Duval Deputy CEO Start of term of office: 23/05/2002 End of term of office as Director: AGM to approve 2014 financial statements	Yes-suspended	Yes	Yes (within limit of suspended contract of employment)	No
Bertrand Madelin Deputy CEO Start of term of office: 01/01/2008 End of term of office: 27/11/2015	Yes-suspended	Yes	Yes (within limit of suspended contract of employment)	No
Philippe Vecten Deputy CEO Start of term of office: 23/05/2007 End of term of office: open ended	Yes-suspended	Yes	Yes (within limit of suspended contract of employment)	No

# 4.3.2 REMUNERATION ITEMS FALLING DUE OR GRANTED TO EACH EXECUTIVE CORPORATE OFFICER FOR THE FINANCIAL YEAR ENDED, SUBJECT TO SHAREHOLDER APPROVAL

Pursuant to recommendation 24.3 of the AFEP/MEDEF code dated June 2013 which, in accordance with article L. 225-37 of the French Commercial Code is the code of reference

applicable to the Company, remuneration items falling due or granted to each Executive Corporate Officer of the Company for the financial year ended are subject to shareholder approval and consist of:

- the fixed portion;
- the annual variable portion and, as the case may be, the multi-year variable portion, with the targets used to determine that variable portion:
- exceptional remuneration items;
- stock options, performance shares and any other long-term remuneration item;

- compensation related to taking up or leaving a post;
- the Supplementary Pension Plan; and
- benefits of any kind.

By voting on the 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> resolutions, shareholders are asked to approve the remuneration items falling due or granted to each Executive Corporate Officer, for the financial year ended 31 December 2015.

Consequently, shareholders are asked to consider the following remuneration items for each Executive Corporate Officer.

# 4.3.2.1 PATRICK BUFFET, CHAIRMAN AND CEO

# REMUNERATION ITEMS SUBJECT TO SHAREHOLDER APPROVAL

# Remuneration items falling due or granted for the financial year ended

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
		No suspended contract of employment; Patrick Buffet has a straightforward corporate officer contract
Fixed remuneration	€807,365 (amount paid)	Gross fixed remuneration for the financial year 2015 approved by the Board of Directors on 19 February 2015 at the recommendation of the Remuneration Committee.
Annual variable remuneration	€377,921 (amount approved for 2015)	At its meeting of 17 February 2016, the Board of Directors, at the recommendation of the Remuneration Committee and following validation of financial items by the Audit Committee, approved the amount of variable remuneration of Patrick Buffet for the financial year 2015 at €472,401 (41.79% of his maximum permitted variable remuneration). In view of the particularly challenging economic situation currently experienced by the ERAMET group, Patrick Buffet has voluntarily waived 20% of his variable portion as initially validated by the Board of Directors. The variable portion is based on certain criteria and on specific targets, whose selection and weighting are proposed by the Remuneration Committee and approved by the Board of Directors. The targets for 2015 were:  (i) the Company's trading results (Current Operating Income);  (ii) the Company's financial position (net cash);  (iii) the accomplishment, vis-à-vis the budget and schedule, of major industrial projects or of development activities;  (iv) "managerial" results in terms of team motivation and leadership, strategic proposals, projects and goals in the fields of health, safety, the environment and industrial risk. The level of accomplishment required, for each of these criteria, is precisely established at the start of the financial year but cannot be disclosed to the general public for reasons related to trade secrets and confidentiality.  The variable portion may not exceed 140% of gross annual fixed remuneration for the Chairman and CEO.  In 2015, the portion related to quantitative targets represented 60% of maximum annual variable remuneration.
Deferred variable remuneration	N/A	Mr. Buffet does not have any deferred variable remuneration.

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Multi-year variable remuneration	N/A	Mr. Buffet does not have any multi-year variable remuneration.
Exceptional remuneration	N/A	Mr. Buffet does not have any exceptional remuneration.
Performance shares or stock options or any other long-term remuneration item	22,405 performance shares = €1,346,989 (applying the method used in the consolidated financial statements, fair value of the share on the day of granting by the Board of Directors) Options = N/A Other items = N/A	On 19 February 2015, at the recommendation of the Remuneration Committee and following the approval of the General Shareholders' Meeting of 15 May 2012 (10th resolution), the Board of Directors granted Patrick Buffet 22,405 performance shares (that is, 0.08% of share capital), for a value of €1,346,989 applying the method used in the consolidated financial statements (fair value of the share on the day of granting by the Board of Directors). The number of shares granted, as specified above, corresponds to the maximum number of shares that may be acquired, fully or partially, three years following granting provided that the performance conditions are fully met and the Company's annual targets, as set out in the budget, have been significantly out-performed. Furthermore, these performance shares are subject to an additional two-year holding period and 20% of these shares are prohibited from sale until the end of the corporate officer's term of office.  These very rigorous performance conditions, calculated over a three-year period, are as follows relative performance of the ERAMET share price, for one third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel composed of 57 comparable companies on the Euromoney Global Mining Index; Diversified Metals & Mining, Steel; with the performance conditions only being fully achieved if the ERAMET share is ranked in the top 15% of the panel); and  intrinsic performance achieved over a three-year period of certain financial indicators for 2/3 (two-thirds) of the share grant (one-third operating margin (current operating income / revenue) and one-third operating cash-flow, with annual targets related to the Company's budgeted targets; this performance condition is only fully achieved in the event of significant out-performance of these targets).  For information purposes, the 2013 performance share plan, which reached its conclusion in 2015, allowed for the acquisition of just 16.37% of all shares o
Directors' fees	€65,222 (gross amount before deductions)	In accordance with the rules for the allocation of Directors' fees applicable to all ERAMET Directors, Patrick Buffet received ERAMET Directors' fees. He also received a gross amount of €28,000 from COMILOG, in accordance with the rules applicable to all directors of that company. In view of the current situation of Société Le Nickel SLN, he chose to waive the Directors' fees due to him for 2015, as did all other directors of that company.
Benefits of any other kind	€8,686 (carrying value)	Mr. Buffet has a Company car.

# Remuneration items falling due or granted for the financial year ended which have been or are subject to shareholder approval pursuant to the procedures related to regulated agreements and commitments

	AMOUNT SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Compensation related to taking up or leaving a post	No payment	Following the reappointment of the Chairman and CEO to that role, decided by the Board of Directors on 29 May 2015, and at the recommendation of the Remuneration Committee, on 29 May 2015 the Board of Directors voted unanimously, with the abstention of the Chairman and CEO, to retain all elements of the remuneration of the Chairman and CEO and all the provisions of his corporate officer's contract dated 20 February 2008 (incorporating all the amendments decided since then by the Company's Board of Directors at the recommendation of the Remuneration Committee). However, two changes were made to the severance pay falling due to the Chairman and CEO in the event of his departure from the Company (as a result of forced resignation, cancellation or non-renewal of his term of office or modification of the conditions under which he originally joined the ERAMET group):  The amount of severance pay which may fall due is equal to twice—instead of three times, as it was previously—the last gross annual fixed remuneration, plus twice—instead of three times—the average gross annual variable remuneration received in the last three complete years prior to his departure.  The severance pay benefit specified in his corporate officer contract is conditional upon the fulfilment of performance conditions: the total gross variable remuneration (itself subject to specific performance conditions) received over the final three full financial years of his term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period—instead of 20% as it was previously. Consequently, these arrangements rule out payment of such a benefit should the Chairman and CEO fail to achieve his targets. In accordance with the provisions of Article L. 225-42-1 of the French Commercial Code, these modified arrangements shall be the subject of a resolution put before the annual General Shareholders' Meeting of 29 May 2016.
Non-competition compensation	N/A	Patrick Buffet is not bound by a non-competition clause.
Supplementary Pension Plan	No payment	Patrick Buffet benefits from the existing defined benefit supplementary pension plan for ERAMET executives, entitling him to a supplementary pension that may not exceed 35% of the reference salary defined in the internal plan regulations, with said reference salary being capped at twenty-five times the annual social security ceiling (ASSC). The reference period used to calculate the reference salary is twelve months for the annual fixed portion and the average of the three last variable remunerations, calculated on the basis of full years, for the variable portion. In Patrick Buffet's case, supplementary pension income is capped at 35% of 25 times ASSC.  This arrangement was authorised by the Board of Directors on 30 July 2008 and approved by the General Shareholders' Meeting of 13 May 2009 (3rd resolution). By way of illustration, calculation made for Mr Patrick Buffet based on the reference remuneration as set out above (fixed + average variable for the last three years) amounts to an annual gross income of 282,923 euros as of 31/12/2015 (before taxes and social charges), which is 17.4% of his global gross remuneration (fixed gross annual remuneration + average gross annual variable remuneration for the last three years including the year 2015).  Because a significant reduction rate apply on the annual amount paid (reduction from 35% to 26.25%) in the event of an early draw down of pension benefits between 60 and 65 years of age.  Reminder: these Article 39 supplementary pension plan arrangements of ERAMET provide the whole pension plan with a very well balanced and reasonable structure.
Supplementary insurance scheme and healthcare plan		Patrick Buffet benefits from the supplementary healthcare plan and the supplementary disability and life insurance scheme operating within the ERAMET group. In accordance with the procedures related to regulated agreements and commitments, this commitment was authorised by the Board of Directors on 17 February 2010 and approved by the General Shareholders' Meeting of 20 May 2010 (3rd resolution).
ASSEDIC entitlement	N/A	Patrick Buffet does not benefit from such entitlement.
Customary severance payments (collective bargaining agreement)	N/A	Patrick Buffet does not benefit from any customary severance indemnity under a collective bargaining agreement, whether upon retirement or upon departure for any other reason.

#### 4.3.2.2 GEORGES DUVAL, DEPUTY CEO

#### REMUNERATION ITEMS SUBJECT TO SHAREHOLDER APPROVAL

#### Remuneration items falling due or granted for the financial year ended

Fixed remuneration	AMOUNT OR CARRY-ING VALUE SUBJECT TO SHAREHOLDER VOTE  €326,600 (amount paid)	PRESENTATION  Georges Duval has a contract of employment, suspended throughout his term of office on the Board.  Gross fixed remuneration for the financial year 2015 approved by the Board of Directors on 19 February 2015 at the recommendation of the Remuneration Committee.
Annual variable remuneration	€88,063 (amount approved for 2015)	At its meeting of 17 February 2016, the Board of Directors, at the recommendation of the Remuneration Committee and following validation of financial items by the Audit Committee, approved the amount of variable remuneration of Georges Duval for the financial year 2015 at £110,079 (48.15% of his maximum permitted variable remuneration). In view of the particularly challenging economic situation currently experienced by the ERAMET group, Georges Duval has voluntarily waived 20% of his variable portion as initially validated by the Board of Directors.  The variable portion is based on certain criteria and on specific targets, whose selection and weighting are proposed by the Remuneration Committee and approved by the Board of Directors. The targets for 2015 were:  (i) the Company's trading results (Current Operating Income);  (ii) the Company's financial position (net cash);  (iii) the accomplishment, vis-à-vis the budget and schedule, of major industrial projects or of development activities;  (iv) "managerial" results in terms of team motivation and leadership, strategic proposals, projects and goals in the fields of health, safety, the environment and industrial risk.  The level of accomplishment required, for each of these criteria, is precisely established at the start of the financial year but cannot be disclosed to the general public for reasons related to trade secrets and confidentiality.  The variable portion may not exceed 70% of gross annual fixed remuneration for the Deputy CEOs.  In 2015, the portion related to quantitative targets represented 60% of maximum annual variable remuneration.
Deferred variable remuneration	N/A	Mr. Duval does not have any deferred variable remuneration.
Multi-year variable remuneration	N/A	Mr. Duval does not have any multi-year variable remuneration.
Exceptional remuneration	N/A	Mr. Duval does not have any exceptional remuneration.

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Performance shares or stock options or any other long-term remuneration item	3,000 performance shares = €180,360 (applying the method used in the consolidated financial statements, fair value of the share on the day of granting by the Board of Directors) Options = N/A Other items = N/A	On 19 February 2015, at the recommendation of the Remuneration Committee and following the approval of the General Shareholders' Meeting of 15 May 2012 (10 <sup>th</sup> resolution), the Board of Directors granted Georges Duval 5,085 performance shares (that is, 0.01% of share capital), for a value of €180,360 applying the method used in the consolidated financial statements (fair value of the share on the day of granting by the Board of Directors). The number of shares granted, as specified above, corresponds to the maximum number of shares that may be acquired, fully or partially, three years following granting provided that the performance conditions are fully met and the Company's annual targets, as set out in the budget, have been significantly out-performed. Furthermore, these performance shares are subject to an additional two-year holding period and 20% of these shares are prohibited from sale until the end of the corporate officer's term of office.  These very rigorous performance conditions, calculated over a three-year period, are as follows:  • relative performance of the ERAMET share price, for one third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel composed of 57 comparable companies on the Euromoney Global Mining Index; Diversified Metals & Mining, Steel; with the performance conditions only being fully achieved if the ERAMET share is ranked in the top 15% of the panel); and  • intrinsic performance achieved over a three-year period of certain financial indicators for 2/3 (two-thirds) of the share grant (one-third operating margin (current operating income / revenue) and one-third operating cash-flow, with annual targets related to the Company's budgeted targets; this performance of these targets).  For information purposes, the 2013 performance share plan, which reached its conclusion in 2015, allowed for the acquisition of just 16.37% of all shares originally granted. Furthermore, these shares are subject to an additional
Directors' fees	€27,640 (gross amount before deductions)	In accordance with the rules for the allocation of Directors' fees applicable to all ERAMET Directors, Georges Duval received ERAMET Directors' fees.
Benefits of any other kind	€3,612 (carrying value)	Mr. Duval has a Company car.

## Remuneration items falling due or granted for the financial year ended which have been or are subject to shareholder approval pursuant to the procedures related to regulated agreements and commitments

	AMOUNT SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Compensation related to taking up or leaving a post	No payment	Mr. Duval does not benefit from any commitment or undertaking related to severance indemnity under the terms of his corporate office.  Georges Duval's suspended employment contract makes provision for the payment, in the event of his dismissal, retirement or pensioning-off, of a contractual indemnity amounting to 18 months' salary, calculated on the basis of his reference remuneration (fixed plus variable) as an employee, which is not combined with the customary payments calculated by application of the national collective bargaining agreement for executives in the metallurgy industry.
Non-competition compensation	N/A	Georges Duval is not bound by a non-competition clause.
Supplementary Pension Plan	No payment	Georges Duval benefits from the existing defined benefit supplementary pension plan for ERAMET executives, entitling him to a supplementary pension that may not exceed 35% of the reference salary defined in the internal plan regulations, with said reference salary being capped at twenty-five times the annual social security ceiling (ASSC). The reference period used to calculate the reference salary is twelve months for the annual fixed portion and the average of the three last variable remunerations, calculated on the basis of full years, for the variable portion.  This arrangement was authorised by the Board of Directors on 30 July 2008 and approved by the General Shareholders' Meeting of 13 May 2009 (3rd resolution). This arrangement was authorised by the Board of Directors on 30 July 2008 and approved by the General Shareholders' Meeting of 13 May 2009 (3rd resolution). By way of illustration, calculation made for Mr Georges Duval based on the reference remuneration as set out above (fixed + average variable for the last three years) amounts to an annual gross income of 148,058 euros as of 31/12/2015 (before taxes and social charges), which is 33% of his global gross remuneration (fixed gross annual remuneration + average gross annual variable remuneration for the last three years including the year 2015). Reminder: these Article 39 supplementary pension plan arrangements of ERAMET provide the whole pension plan with a very well balanced and reasonable structure.
Supplementary insurance scheme and healthcare plan		Georges Duval benefits from the supplementary healthcare plan and the supplementary disability and life insurance scheme operating within the ERAMET group.  In accordance with the procedures related to regulated agreements and commitments, this commitment was authorised by the Board of Directors on 17 February 2010 and approved by the General Shareholders' Meeting of 20 May 2010 (3rd resolution).

#### 4.3.2.3 BERTRAND MADELIN, DEPUTY CEO, UP TO 27 NOVEMBER 2015

#### REMUNERATION ITEMS SUBJECT TO SHAREHOLDER APPROVAL

#### Remuneration items falling due or granted for the financial year ended

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
		Bertrand Madelin has a contract of employment, suspended throughout his term of office on the Board.
Fixed remuneration	€237,808 (amount paid)	Gross fixed remuneration approved by the Board of Directors on 19 February 2015 at the recommendation of the Remuneration Committee, paid from 1 January to 27 November 2015 (end of his term of office as a corporate officer)
Annual variable remuneration	€91,438 (amount approved for 2015)	At its meeting of 17 February 2016, the Board of Directors, at the recommendation of the Remuneration Committee and following validation of financial items by the Audit Committee, approved the amount of variable remuneration of Bertrand Madelin for the financial year 2015 (from 1 January to 27 November 2015) at €91,438 (50% of his maximum permitted variable remuneration).  The variable portion is based on certain criteria and on specific targets, whose selection and weighting are proposed by the Remuneration Committee and approved by the Board of Directors. The targets for 2015 were: (i) the Company's trading results (Current Operating Income); (ii) the Company's financial position (net cash); (iii) the accomplishment, vis-à-vis the budget and schedule, of major industrial projects or of development activities; (iv) "managerial" results in terms of team motivation and leadership, strategic proposals, projects and goals in the fields of health, safety, the environment and industrial risk.  The level of accomplishment required, for each of these criteria, is precisely established at the start of the financial year but cannot be disclosed to the general public for reasons related to trade secrets and confidentiality.  The variable portion may not exceed 70% of gross annual fixed remuneration for the Deputy CEOs.  In 2015, the portion related to quantitative targets represented 60% of maximum annual variable remuneration.
Deferred variable remuneration	N/A	Mr. Madelin does not have any deferred variable remuneration.
Multi-year variable remuneration	N/A	Mr. Madelin does not have any multi-year variable remuneration.
Exceptional remuneration	N/A	Mr. Madelin does not have any exceptional remuneration.

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Performance shares or stock options or any other long-term remuneration item	3,970 performance shares = €238,676 (applying the method used in the consolidated financial statements: fair value of the share on the day of granting by the Board of Directors) Options = N/A Other items = N/A	On 19 February 2015, at the recommendation of the Remuneration Committee and following the approval of the General Shareholders' Meeting of 15 May 2012 (10th resolution), the Board of Directors granted Bertrand Madelin 3,970 performance shares (that is, 0.01% of share capital), for a value of €238,676 applying the method used in the consolidated financial statements (fair value of the share on the day of granting by the Board of Directors). The number of shares granted, as specified above, corresponds to the maximum number of shares that may be acquired, fully or partially, three years following granting provided that the performance conditions are fully met and the Company's annual targets, as set out in the budget, have been significantly out-performed. Furthermore, these performance shares are subject to an additional two-year holding period and 20% of these shares are prohibited from sale until the end of the corporate officer's term of office.  These very rigorous performance conditions, calculated over a three-year period, are as follows:  • relative performance of the ERAMET share price, for one third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel composed of 57 comparable companies on the Euromoney Global Mining Index; Diversified Metals & Mining, Steel; with the performance conditions only being fully achieved if the ERAMET share is ranked in the top 15% of the panel); and  • intrinsic performance achieved over a three-year period of certain financial indicators for 2/3 (two-thirds) of the share grant (one-third operating margin (current operating income / revenue) and one-third operating cash-flow, with annual targets related to the Company's budgeted targets; this performance condition is only fully achieved in the event of significant out-performance of these targets).  For information purposes, the 2013 performance share plan, which reached its conclusion in 2015, allowed for the acquisition of just 16.37% of all sha
Directors' fees	No payment	Bertrand Madelin did not receive any Directors' fees from ERAMET, since he is not a director of ERAMET S.A. In view of the current situation of Société Le Nickel SLN, he chose to waive the Directors' fees due to him for 2015, as did all other directors of that company.
Benefits of any other kind	€4,726 (carrying value)	Mr. Madelin has a Company car.

## Remuneration items falling due or granted for the financial year ended which have been or are subject to shareholder approval pursuant to the procedures related to regulated agreements and commitments

	AMOUNT SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Compensation related to taking up or leaving a post	No payment	Mr. Madelin did not benefit from any commitment or undertaking related to severance indemnity under the terms of his corporate office.  Bertrand Madelin's suspended employment contract makes provision for the payment, in the event of dismissal, retirement or pensioning-off, of a customary indemnity, calculated on the basis of the national collective bargaining agreement for executives in the metallurgy industry and on the basis of his reference remuneration (fixed plus variable) as an employee. The collective bargaining agreement provides for a maximum of 18 months' remuneration for maximum length of service of 28 or 30 years depending on the age of the persons concerned upon their departure. In the event of a change in control of ERAMET and the termination of an employment contract deemed as being attributable to the employer, a specific guarantee, which may not be combined with other indemnities applicable under contracts or collective bargaining agreements, was decided upon in 2005 and would be enforceable. It represents an indemnity equivalent to three years' remuneration (fixed + variable).
Non-competition compensation	N/A	Bertrand Madelin is not bound by a non-competition clause.
Supplementary Pension Plan	No payment	Bertrand Madelin benefits from the existing defined benefit supplementary pension plan for ERAMET executives, entitling him to a supplementary pension that may not exceed 35% of the reference salary defined in the internal plan regulations, with said reference salary being capped at twenty-five times the annual social security ceiling (ASSC). The reference period used to calculate the reference salary is twelve months for the annual fixed portion and the average of the three last variable remunerations, calculated on the basis of full years, for the variable portion.  This arrangement was authorised by the Board of Directors on 30 July 2008 and approved by the General Shareholders' Meeting of 13 May 2009 (3rd resolution). By way of illustration, calculation made for Mr Bertrand Madelin based on the reference remuneration as set out above (fixed + average variable for the last three years) amounts to an annual gross income of 112,789 euros as of 31/12/2015 (before taxes and social charges), which is 28.4% of his global gross remuneration (fixed gross annual remuneration + average gross annual variable remuneration for the last three years including the year 2015).  Because a significant reduction rate apply on the annual amount paid (reduction from 35% to 26.25%) in the event of an early draw down of pension benefits between 60 and 65 years of age.  Reminder: these Article 39 supplementary pension plan arrangements of ERAMET provide the whole pension plan with a very well balanced and reasonable structure.
Supplementary insurance scheme and healthcare plan		Bertrand Madelin benefited from the supplementary healthcare plan and the supplementary disability and life insurance scheme operating within the ERAMET group. In accordance with the procedures related to regulated agreements and commitments, this commitment was authorised by the Board of Directors on 17 February 2010 and approved by the General Shareholders' Meeting of 20 May 2010 (3 <sup>rd</sup> resolution).

#### **4.3.2.4 PHILIPPE VECTEN, DEPUTY CEO**

#### REMUNERATION ITEMS SUBJECT TO SHAREHOLDER APPROVAL

#### Remuneration items falling due or granted for the financial year ended

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
		Philippe Vecten has a contract of employment, suspended throughout his term of office on the Board.
Fixed remuneration	€312,191 (amount paid)	Gross fixed remuneration for the financial year 2015 approved by the Board of Directors on 19 February 2015 at the recommendation of the Remuneration Committee and reviewed at the Board of Directors meeting of 22 December 2015 at the recommendation of the Remuneration Committee.
Annual variable remuneration	€110,258 (amount approved for 2015)	At its meeting of 17 February 2016, the Board of Directors, at the recommendation of the Remuneration Committee and following validation of financial items by the Audit Committee, approved the amount of variable remuneration of Philippe Vecten for the financial year 2015 at €137,822 (64.15% of his maximum permitted variable remuneration). In view of the particularly challenging economic situation currently experienced by the ERAMET group, Philippe Vecten has voluntarily waived 20% of his variable portion as initially validated by the Board of Directors.  The variable portion is based on certain criteria and on specific targets, whose selection and weighting are proposed by the Remuneration Committee and approved by the Board of Directors. The targets for 2015 were: (i) the Company's trading results (Current Operating Income); (ii) the Company's financial position (net cash); (iii) the accomplishment, vis-à-vis the budget and schedule, of major industrial projects or of development activities; (iv) "managerial" results in terms of team motivation and leadership, strategic proposals, projects and goals in the fields of health, safety, the environment and industrial risk.  The level of accomplishment required, for each of these criteria, is precisely established at the start of the financial year but cannot be disclosed to the general public for reasons related to trade secrets and confidentiality.  The variable portion may not exceed 70% of gross annual fixed remuneration for the Deputy CEOs.  In 2015, the portion related to quantitative targets represented 60% of maximum annual variable remuneration.
Deferred variable remuneration	N/A	Mr. Vecten does not have any deferred variable remuneration.
Multi-year variable remuneration	N/A	Mr. Vecten does not have any multi-year variable remuneration.
Exceptional remuneration	N/A	Mr. Vecten does not have any exceptional remuneration.

	AMOUNT OR CARRY- ING VALUE SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Performance shares or stock options or any other long-term remuneration item	4,730 performance shares = €284,368 (applying the method used in the consolidated financial statements: fair value of the share on the day of granting by the Board of Directors) Options = N/A Other items = N/A	On 19 February 2015, at the recommendation of the Remuneration Committee and following the approval of the General Shareholders' Meeting of 15 May 2012 (10 <sup>th</sup> resolution), the Board of Directors granted Philippe Vecten 4,730 performance shares (that is, 0.02% of share capital), for a value of £284,368 applying the method used in the consolidated financial statements (fair value of the share on the day of granting by the Board of Directors). The number of shares granted, as specified above, corresponds to the maximum number of shares that may be acquired, fully or partially, three years following granting provided that the performance conditions are fully met and the Company's annual targets, as set out in the budget, have been significantly out-performed. Furthermore, these performance shares are subject to an additional two-year holding period and 20% of these shares are prohibited from sale until the end of the corporate officer's term of office.  These very rigorous performance conditions, calculated over a three-year period, are as follows:  • relative performance of the ERAMET share price, for one third of the share grant (this involves comparing the change in total shareholder return over a three-year period with that of a panel composed of 57 comparable companies on the Euromoney Global Mining Index; Diversified Metals & Mining, Steel; with the performance conditions only being fully achieved if the ERAMET share is ranked in the top 15% of the panel); and  • intrinsic performance achieved over a three-year period of certain financial indicators for 2/3 (two-thirds) of the share grant (one-third operating margin (current operating income / revenue) and one-third operating cash-flow, with annual targets related to the Company's budgeted targets; this performance condition is only fully achieved in the event of significant out-performance of these targets).  For information purposes, the 2013 performance share plan, which reached its conclusion in 2015, allowed for the acquisition of just 16.37% of all sha
Directors' fees	€42,181 (gross amount before deductions)	Philippe Vecten did not receive any Directors' fees from ERAMET, since he is not a director of ERAMET S.A. He received a gross amount of €42,181 for his attendance at Board meetings of COMILOG and its subsidiaries, in accordance with the rules applicable to all directors of those companies.
Benefits of any other kind	€6,698	Mr. Vecten has a Company car.

## Remuneration items falling due or granted for the financial year ended which have been or are subject to shareholder approval pursuant to the procedures related to regulated agreements and commitments

	AMOUNT SUBJECT TO SHAREHOLDER VOTE	PRESENTATION
Compensation related to taking up or leaving a post	No payment	Philippe Vecten does not benefit from any commitment or undertaking related to severance indemnity under the terms of his corporate office.  Philippe Vecten's suspended employment contract makes provision for the payment, in the event of dismissal, retirement or pensioning-off, of a customary indemnity, calculated on the basis of the national collective bargaining agreement for executives in the metallurgy industry and on the basis of his reference remuneration (fixed plus variable) as an employee. The collective bargaining agreement provides for a maximum of 18 months' remuneration for maximum length of service of 28 or 30 years depending on the age of the persons concerned upon their departure. In the event of a change in control of ERAMET and the termination of an employment contract deemed as being attributable to the employer, a specific guarantee, which may not be combined with other indemnities applicable under contracts or collective bargaining agreements, was decided upon in 2005 and would be enforceable. It represents an indemnity equivalent to three years' remuneration (fixed + variable).
Non-competition compensation	N/A	Philippe Vecten is not bound by a non-competition clause.
Supplementary Pension Plan	No payment	Philippe Vecten benefits from the existing defined benefit supplementary pension plan for ERAMET executives, entitling him to a supplementary pension that may not exceed 35% of the reference salary defined in the internal plan regulations, with said reference salary being capped at twenty-five times the annual social security ceiling (ASSC). The reference period used to calculate the reference salary is twelve months for the annual fixed portion and the average of the three last variable remunerations, calculated on the basis of full years, for the variable portion.  This arrangement was authorised by the Board of Directors on 30 July 2008 and approved by the General Shareholders' Meeting of 13 May 2009 (3rd resolution). By way of illustration, calculation made for Mr Philippe Vecten based on the reference remuneration as set out above (fixed + average variable for the last three years) amounts to an annual gross income of 167,694 euros as of 31/12/2015 (before taxes and social charges), which is 35% of his global gross remuneration (fixed gross annual remuneration + average gross annual variable remuneration for the last three years including the year 2015).  Reminder: these Article 39 supplementary pension plan arrangements of ERAMET provide the whole pension plan with a very well balanced and reasonable structure.
Supplementary insurance scheme and healthcare plan		Philippe Vecten benefits from the supplementary healthcare plan and the supplementary disability and life insurance scheme operating within the ERAMET group. In accordance with the procedures related to regulated agreements and commitments, this commitment was authorised by the Board of Directors on 17 February 2010 and approved by the General Shareholders' Meeting of 20 May 2010 (3rd resolution).

# **4.4 INFORMATION** RELATING TO PENSION COMMITMENTS FOR GROUP'S CORPORAL OFFICERS – ARTICLE R. 225-104-1 OF THE FRENCH COMMERCE CODE AS IMPLEMENTED BY DECREE N°2016-182 OF 23 FEBRUARY 2016

a) Name of the commitment concerned	Corporate officers are eligible for the existing defined benefit supplementary pension plan for ERAMET executives.
b) Reference to legal provisions identifying the corresponding scheme	Article 39 - 5° of the French Tax code
c) Conditions for joining the scheme and other eligibility conditions to benefit from the scheme	People who have completed at least two years service with the company and whose annual remuneration (fixed and variable) exceeds 5 times the annual social security ceiling are eligible for this plan.  Conditions to benefit from the scheme: be at least 60 years old, have ended his/her professional career at ERAMET or one of the ERAMET group companies and fulfil the eligibility criteria for pension benefits under the basic social security pension scheme.
d) Terms and conditions for determin- ing the reference salary determined by the scheme in question and used to calculate the rights of beneficiaries	The reference period used to calculate the reference salary is twelve months for the annual fixed portion and the average of the three last variable remunerations, calculated on the basis of full years, for the variable portion. There is no automatic reevaluation factor in the scheme.
e) Pattern of vesting of rights	The arrangement does not provide for any specific annual rate of increase of potential pension entitlements.
f) Existence of a ceiling and the amount and terms and conditions for determining the ceiling	In the event of settlement of their pension rights vis-à-vis social security, they may be entitled to a supplementary pension that may not exceed 35% of the reference salary defined in the plan's internal regulations, with said reference salary being capped, in the same regulations, at twenty-five times the annual social security ceiling.  A significant reduction rate apply on the annual amount paid (reduction from 35% to 26.25%) in the event of an early draw down of pension benefits between 60 and 65 years of age.
g) Terms and conditions for funding the benefit	ERAMET subscribed an insurance plan with an authorised company. Contributions are entirely financed by ERAMET, they are globalized, do not created any individual right prior to eligibility to the supplementary pension plan and are not allocated to an individual account opened in the names of potential beneficiaries.
h) Estimated amount of the annuity as of the end of the financial year period	Estimated gross annual annuity (before taxes and social charges) for each corporate officer:  • P. Buffet: €282,923, which amounts to 17.4% of his global gross remuneration (annual gross fixed portion and the average of the three last variable remunerations, calculated on the basis of full years including 2015, for the variable portion) for a retirement as of the end of 2015.  • G. Duval: €148,058, which amounts to 33% of his reference salary.  • B. Madelin: €112,789, which amounts to 28.4% of his reference salary.  • P. Vecten: €167,694, which amounts to 35% of his reference salary.
i) Related tax and social security charges payable by the company	In the estimated amount as of 31/12/2015, there is no tax or social security charge. ERAMET opted for a levy on contributions to the insurance company; no contribution was paid in 2015.

## 4.5 **SECURITIES** HELD BY MEMBERS OF THE BOARD OF DIRECTORS AND BY GENERAL MANAGEMENT

Some directors have a material interest in the Company's share capital.

#### 4.5.1 INDIRECT INTERESTS

Georges, Édouard and Cyrille Duval are shareholders of SORAME and CEIR, managers of SORAME and CEOs of CEIR.

#### 4.5.2 DIRECT INTERESTS

No director has a direct material interest in any Group subsidiary.

#### 4.5.3 LOANS AND GUARANTEES GRANTED OR ARRANGED

The Company has not granted or arranged any loans or guarantees for the benefit of members of the administrative, management or supervisory bodies.

SHARES HELD AT 31 DECEMBER 2015	EQUITIES	VOTING RIGHTS
Michel Antsélévé	100	100
Valérie Baudson	100	100
Patrick Buffet	16,137	28,523
SORAME	8,051,838	16,103,676
Cyrille Duval	5,781	6,487
Édouard Duval	941	1,571
Georges Duval	2,189	3,837
CEIR	1,783,996	3,567,992 <sup>(1)</sup>
Nathalie de La Fournière	100	100
Marie Axelle Gautier	4	4
FSI Equation	6,810,317	13,620,634 <sup>(2)</sup>
Philippe Gomès	1	1
Caroline Grégoire-Sainte-Marie	150	250
Manoelle Lepoutre	100	200
Pia Olders	13	22
Claude Tendil	100	200
Frédéric Tona	204	204
Antoine Treuille	160	320
Alexis Zajdenweber (State representative)	n/a	n/a
Philippe Vecten	2,456	4,118

<sup>(1)</sup> Including 720,866 voting rights which are not exercisable until 21 July 2016 (see AMF Decision No. 214C1461 of 21 July 2014).

<sup>(2)</sup> Including 2,751,872 voting rights which are not exercisable until 21 July 2016 (see AMF Decision No. 214C1461 of 21 July 2014).

## 4.6 SPECIAL REPORT ON BONUS SHARE GRANTS

#### FY 2015

Dear Shareholders,

Pursuant to the provisions of Article L. 225-197-4 of the French Commercial Code, this report is presented to the General Shareholders' Meeting.

#### 4.6.1 GRANTS TO CORPORATE OFFICERS OF THE COMPANY

PLAN OF 19 FEBRUARY 2015	NUMBER OF SHARES	VALUE
Patrick Buffet	22,405	1,346,989
Georges Duval	3,000	180,360
Bertrand Madelin	3,970	238,676
Philippe Vecten	4,730	284,368

## 4.6.2 GRANTS TO NON-CORPORATE OFFICER EMPLOYEES OF THE COMPANY AND ITS SUBSIDIARIES

PLAN OF 19 FEBRUARY 2015	NUMBER OF SHARES	VALUE
Jean-Didier Dujardin	4,970	298,796
Michel Carnec	4,295	258,215
Bertrand Madelin	3,970	238,676
Denis Hugelmann	3,585	215,530
Catherine Tissot-Colle	2,885	173,446
Pierre Gugliermina	1,500	101,820
Philippe Gundermann	1,500	90,180
Jean de L'Hermite	1,300	78,156
Marie-Christine Jaulmes	1,000	60,120
Pietro Amico	900	61,092

#### 4.6.3 GRANTS TO ALL BENEFICIARY EMPLOYEES

Each employee on the payroll received 2 bonus shares, subject to length of service conditions, as part of the bonus share plan of 19 February 2015.

The Board of Directors



## Chapter 5

## SUSTAINABLE DEVELOPMEN

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## 5.1 SUSTAINABLE DEVELOPMENT POLICY AND ORGANISATION

## 5.1.1 SUSTAINABLE DEVELOPMENT POLICY

ERAMET is a mining and metallurgical group that operates three world-class mining sites and about fifty industrial sites, while developing projects. Due to the nature of its mining and industrial activities, the Group is concerned by all the aspects of sustainable development and social responsibility (economic and social development, environmental protection, good relations with stakeholders). Aware of the strong inter-dependence of ERAMET and the regions in which it operates, ERAMET has a long-term commitment to implementing a continuous improvement process and placing Sustainable Development at the heart of its activities. By pursuing its activities in a sustainable manner in the areas in which it operates, ERAMET's goal is to constantly increase the acceptability of its operations and accompany its development in new regions and new sectors.

In this value-creating, continuous improvement rationale, ERAMET's Board of Directors adopted a Sustainable Development policy in 2010.

This policy is based on four priorities:

- protecting and developing the Group's employees;
- managing risks and impacts on health and the environment;

- factoring sustainable development into the product and innovation policy;
- and lastly nurture a trusting relationship with stakeholders.

The full text is available on ERAMET's website at the following address: http://www.eramet.com/publications/la-politique-de-developpement-durable.

In 2015, the Communications and Sustainable Development teams finished developing an e-learning module aimed at pursuing a large-scale campaign to raise Group employees' awareness of this policy and the ways in which it can be implemented in concrete terms.

The Group's Sustainable Development Policy is deployed at all the Divisions and sites and is applied to daily activities via multi-annual hierarchic objectives based on different levels of priority and approved by the COMEX. The latest version of these objectives, covering the 2015-2016 period, was approved by the Group's COMEX in November 2014.

This action plan is based on the four following areas:

- reinforce systems to control environmental and industrial risks;
- anchor continuous environmental improvement to our activities;
- improve the Group's environmental and societal reporting;
- strengthen our stakeholders' knowledge and the interfaces with them.

Finally, the Group's Code of Conduct, the new modified version of which came into effect in January 2015, sets out the rules and principles of action and behaviour that unite and bind us all, and oversee the whole compliance programme that ERAMET has set up. This concerns many areas of Group and employee commitments: development, respect for

and trust in stakeholder relations, the safety of employees and their families, respect for and protection of the environment, security, respect for clients, social dialogue, combating all kinds of coercion and harassment, transparency, preventing corruption, observing rules of competition, etc.

## 5.1.2 THE ORGANISATION OF SUSTAINABLE DEVELOPMENT

Involvement from the highest levels of the Company reflects the Group's commitment. The Directors of Communications and Sustainable Development and Human Resources are both members of the Group's Executive Committee (COMEX) and they propose, support and follow up these various initiatives, including if necessary other functional departments. The Communications and Sustainable Development Department (DC2D) has an Environment, Industrial Risks and Products Department (DERIP) and a Public Affairs Department while the Human Resources Department (HR) includes a Safety and Prevention Department (SP) and a Security Department. Lastly, the Group also has a Medical Officer in charge of activating the Group's Health policy.

To reinforce its commitment and efficiency, in 2015 these corporate functions were reorganised into a common integrated management objective based on seven processes shared by these five activities, i.e. health, safety, the environment, industrial risks and products, emphasising a strong risk management culture.

The orientations and action plans are adapted to each operational entity and Division in the Group. Over the past years, ERAMET has set up several cross-functional theme-based working groups (biodiversity, mining environment) to reinforce environmental coordination between the Head Office and the Divisions, or the coordination of corporate functions

based on the risk management objective. This reinforces the sharing of experience and the proper application of the Group's rules.

At the same time, the Group is very careful to integrate social, environmental, health and safety, cultural and societal criteria when it conceives and develops its projects. By referring to the best international standards, the Group strives to build long-lasting relations with its stakeholders everywhere it sets up business and to respect any specific rules and cultures and current scientific knowledge. For this purpose, the Communications and

Sustainable Development Department is always represented in the project steering committees. In part 5.4 of this Chapter, we will describe how these general principles are applied in all the Group's projects.

Lastly, the Group introduced monitoring and control instruments to measure the concrete implementation of the sustainable development objectives across the whole scope. These instruments include dedicated information systems that collect and consolidate related indicators for the whole scope. Details on the frameworks and tools used to produce

this information are given in the methodology note in paragraph 5.8.

The Group also uses an internal system to audit the performance of its entities regarding the Environment, Health, Safety and Energy. This is described in paragraph 5.2.1. The data produced by these auditing and control systems allows the Group to constantly bolster its ongoing improvement process.

## 5.2 **ENVIRONMENTAL** CONSERVATION

#### 5.2.1 CHALLENGES, OBJECTIVES, ORGANISATION AND MEANS OF PREVENTING ENVIRONMENTAL RISKS

## 5.2.1.1 ENVIRONMENTAL CHALLENGES FACING ERAMET SITES

The activities carried out at the Group's industrial and mining sites sometimes differ greatly as do the geographical areas of the operations.

Therefore, the environmental challenges vary considerably from one site to another.

The environmental challenges specific to the Group's three mining operations are described in detail in the paragraph on the mining environment (5.2.6).

The following table gives an overview of all the main environmental challenges for the main categories of industrial sites within the Group. This summary strives to enhance the reader's understanding. Obviously, it is macroscopic and rather simplistic and does not fully

reflect the diversity of challenges facing each individual site. Moreover, some sites carry out activities involved in several of the categories presented here. Furthermore, most of the industrial sites located in France come under ICPE regulations (Classified Facility for the Protection of the Environment) and some have the SEVESO status.

Summary t	able of	environmental	challenges	facing	ERAMET	industrial sites

	PYROMET- ALLURGICAL SITES (FURNACES)	HYDROMETAL- LURGY SITES	METAL- LURGICAL PROCESSING AND CONVERSION SITES (rolling mills, forges, closed die forging, heat treatment, etc.)	COMMENTS
Water consumption	Significant	Significant	Moderate	With the exception of hydrometallurgical sites, most of the Group's water consumption is related to industrial facilities' cooling circuits. The water used in these processes is not subjected to any conversion or pollution. In addition, most sites use closed-circuit systems that considerably reduce requirements. In other cases, the water taken up is returned to the natural environment.
Water emissions	Moderate	Significant	Low	Relatively speaking, it is the hydrometallurgical sites that present the highest risks in terms of water pollution, due to the use of chemicals. All industrial water is treated before being discharged.
Air emissions	High	Low	Moderate	Sites that have metallurgical furnaces account for most of the Group's air emissions (dust, nitrogen oxide or sulphur oxide). Most of the facilities are equipped with emission collection systems in accordance with applicable regulations.
Energy consumption / greenhouse gases	High	Low	Moderate	Sites that have metallurgical furnaces and/or electricity production facilities are those that consume the most energy and emit the most greenhouse gases.
Production of hazardous waste	Significant	Significant	Moderate	The Manganese Division's "chemicals" operations generate a large quantity of production and purification residues (called ore gangues).  Pyrometallurgy produces dust, sludge and slag, some of which can be considered as hazardous waste, according to their intrinsic characteristics and the places of operation.
Impacts on biodiversity	Low	Low	Low	Most of the Group's industrial sites are located in industrial and urban areas.

Lastly, to complete the previous table, it should be mentioned that production sites are usually built on slabs that protect the ground and hazardous product storage areas are fitted with containment systems. However, as industrial practices have evolved, the oldest sites may present historical soil pollution risks.

It should be noted that noise pollution does not have any significant impact on the environment. The various sites concerned comply with the noise levels stipulated in their operating permits and this matter does not seem to be significant in the Group's list of disputes.

## 5.2.1.2 ENVIRONMENTAL OBJECTIVES

The Group's environmental initiatives are enshrined in the eight principles of action set out in the Environment Charter published in 2002, the full text of which is available on ERAMET's internet site at the following address:

http://www.eramet.com/sites/default/files/charte\_environnement\_2010\_fr.pdf

As indicated in the introduction (5.1), cross-functional, multi-year environmental objectives are developed, updated and followed up according to the Sustainable Development Policy.

Since 2007, the Group has also worked towards a "Zero dispute" goal, aiming for zero formal notices or legal proceedings liable to arise from any breach by Group sites of binding regulatory requirements. The information on this system, which greatly evolved in 2015, and the results it produced are set out in detail

in paragraph 3.3.3 Safety and Environmental Risks.

Lastly, the Group continues to deploy ISO 14001 certified environmental management systems for all industrial and mining sites that face significant environmental challenges. The results of this process are set out in Section 5.2.2.

## 5.2.1.3 ORGANISATION AND INSTRUMENTS FOR ENVIRONMENTAL RISK PREVENTION

To implement its objectives, the Group is supported by a network of in-house experts and a well structured organisation:

- The Environment, Industrial Risks and Products Department (DERIP) coordinates numerous environmental protection initiatives as well as the general process of continual improvement which has prevailed for several years.
- The Group's three divisions have a system in place that coordinates environmental matters.
- The Public Affairs Department (DAP) steers and coordinates CSR initiatives linked to relations with stakeholders.
- In sites where there is a network of over 90 people who carry out HSE duties and who report to general management at most sites.
- Once a year, the domain Committee on Health & Safety (H&S) and the Environment (E) analyses the skills available in the Group with regard to requirements and objectives. This proactive process is carried out in coordination with the Group Divisions' Human Resources Departments and the Prevention and Security/Sustainable Development Departments.

In November 2015, over 80 members of the HSE network and Group managers met in Lille in France to discuss "the involvement of men and women in HSE" with sessions devoted to sharing experiences, giving feedback and listening to others and the intervention of external experts.

On the sites, in the Divisions and even at Head Office, there are no end of training and awareness-raising initiatives covering the essential aspects of management and environmental responsibility. In 2014 and 2015 for example, an e-learning module devoted to the management of risks linked to chemicals was developed.

Some of the strong points of the Group's environmental management process are the monitoring and control systems.

A dedicated environmental information system (EraGreen) has been fully deployed at all the industrial and mining sites, allowing environmental performance indicators to be collected and consolidated. Most of these indicators are provided by the sampling and analysis plans developed by the sites perfectly in line with their operating permit requirements.

The Group also uses an internal system to audit the performance of its entities regarding the Environment, Health, Safety and Energy. The common audit framework is based on three main themes: the involvement of people, operational control and prevention It completely integrates the requirements of ISO 14001, OHSAS 18001 and ISO 50001. Mixed teams of Group auditors (central Departments, Divisional coordinators and site representatives), who have been trained according to an in-house framework, organise these audits so that HSE aspects at each site are assessed every two to four years at the most, depending on the improvements suggested at the previous audit. This involvement strengthens the level of cross-functional expertise of HSE managers

and encourages operational teams to share experience. Over the past few years, 34 of the 48 sites facing significant environmental challenges were audited using these methods.

In 2014 and 2015 a great deal of work was done to improve the internal auditing process and by the end of 2015 the procedure implemented had been adapted. This work completely updated the framework and resulted in more instructive reports. It also reinforced the system used to monitor action plans set out in the reports.

Other inspections carried out as part of the insurance programme which address both industrial and environmental risks, provide more information on the environmental impact of the sites and the structures and actions implemented to minimise the impact. This onsite presence is essential to ensure the proper integration of multi-faceted regulations and the challenges that apply to various activities.

Lastly, as indicated in the mining and industrial risks section of Chapter 3 in the reference document, the Group has indicators that allow it to follow the implementation of its "zero disputes" goal concerning binding environmental regulations.

#### 5.2.1.4 FINANCIAL RESOURCES DEVOTED TO ENVIRONMENTAL CONSERVATION

Overall environmental capital expenditure is estimated to be almost €43 million in 2015, spread out over about 40 sites. This figure is much higher than that of 2014 due to the significant capital expenditure devoted to the environment at the Tizir TTI site (Norway). If this specific capital expenditure is excluded, the capital expenditure devoted to the environment remains high at €24 million, illustrating the sustainability of ERAMET's commitments to environmental protection and the regulatory compliance in very difficult times.

The capital expenditure discussed here is strictly related to environmental protection and prevention. For example, it covers the installation of new facilities or work carried out to minimise impacts. The cost also covers some capital expenditure for new activities with exclusively environmental dimensions. In 2015, 46% of environmental capital expenditure was used to combat air pollution and 40% to prevent water pollution. The rest was reserved for waste management, biodiversity, and the prevention of other impacts.

Mining sites spent considerable amounts on preventing water pollution. This capital expenditure was mainly aimed at controlling the quality of runoff water via settling tanks. Tanks and containments were also installed or replaced to prevent any hydrocarbon pollution. Therefore this can cover the construction of engineering works, the creation of settling tanks, work on down-coming water, work to improve filling stations and the installation and management of piezometers. These different examples perfectly apply to the mining sites in Kouaoua, Thio and Tiébaghi at the SLN in New Caledonia, the COMILOG site in Gabon and the GCO in Senegal.

The industrial sites also devoted a great deal of capital expenditure to the prevention of water pollution. In no particular order, we can cite: holding tanks, double-walled storage tanks, gutters, slabs, repairs to sewerage systems, rainwater collection basins, recovery of process water, incidence basin in the event of fire or storms, etc. In 2015, the most significant capital expenditure was invested in the ERACHEM site in Baltimore (USA) to allow it to continue constructing a de-nitrification plant and comply with the new regulations being imposed upon it, and in the GCMC site in Freeport (USA).

As regards preventing air pollution, the main capital expenditure in 2015 concerned the Tizir TTI titanium dioxide slag production site in Norway, where several new filtration installations were built, allowing the plant to significantly improve its environmental performance.

ERAMET Norway's sites in Kvinesdal and Porsgrunn also invested in various improvements such as replacing or reinforcing dust removers and equipment to reduce levels of fugitive dust. SLN Doniambo (New Caledonia) and GCMC in Freeport (USA) also continued to invest in initiatives to improve the quality of air.

#### 5.2.2 ISO 14001 CERTIFICATIONS

The significant progress made in recent years with regard to the goal of gradual introduction of measures along the lines of Environmental Management Systems continued in 2015.

Since 2013, the Group has measured the progress of its ISO 14001 certification goal for sites likely to have a real impact on the environment.

Therefore, some sites whose activities do not present, or no longer present, significant environmental risks are not included in the scope of comparison, i.e. sites where operations have ceased and distribution centres.

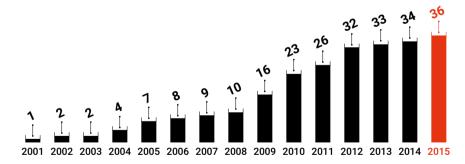
At the end of 2015, 36 sites had obtained ISO 14001 certification, which represents 75% of the target objective (number of sites).

Two more sites obtained ISO 14001 certification:

- SLN mining site-Poum;
- SLN mining site-Thiebaghi.

To support and evaluate sites in their environmental approach, the Group carries out internal pre-certification audits, and follow-up audits in the fields of health, safety (H&S) and the environment, using the internal audit framework mentioned in 5.1.2.

#### Changes in sites with ISO 14001 certification (including mines)



At the start of 2016, the Group has three new sites undertaking this process. The mines in Kouaoua, Nepoui and Thio successfully underwent their ISO 14001 certification audits at the end of 2015 and have applied for certification. They should officially receive this recognition in the first few months of 2016.

#### **5.2.3 EMISSION AND WASTE MANAGEMENT**

#### 5.2.3.1 AIR

AIR EMISSIONS		2013	2014	2015
Sulphur oxides (SOx)	tonnes	13,500	11,021	13,494
Nitrogen oxide (NOx)	tonnes	5,234	6,366	6,045
Volatile organic compounds (VOC)	tonnes	438	377	390
Total canalised dust	tonnes	1,629	1,355	1,219
Nickel	tonnes	8.8	11.2	13.3
Manganese	tonnes	161	144	149

In parallel to energy requirements, it has been noted that it is mainly the pyrometallurgical activities with their melting facilities and heat treatment furnaces that contribute to canalized air emissions.

 ${\rm CO_2}$  emissions are discussed in paragraph 5.2.5.

The air emissions produced depend on the type of raw materials and ores used, the transfer and loading technologies in place, the installed capacity of facilities and above all the level of activity at sites.

In pyrometallurgy, the emissions channelled are generated where material is handled, at furnaces and where there are operations involving casting and grinding, liquid metal and slag.

In hydrometallurgy, dust emissions are usually channelled when there are operations involving the handling, grinding, drying and transport of materials.

Sulphur oxide emissions (SOx) are mainly produced at the SLN (the thermal power plant and Doniambo plant). After a slight fall in 2014, related to repair work on fuel storage tanks which led to SLN losing its flexibility with regards the different fuel qualities available, 2015 was more representative of normal operations at a power plant and there was a return to the same level as that of 2013.

Grande Côte Opérations (GCO), which started operating in 2014, has gradually increased its nominal production, so in 2015 it contributed to the Group's rising SOx emissions.

Levels of nitrogen oxide (NOx) have been relatively stable over the last three years.

The downward trend in Volatile Organic Compounds (VOC) in air emissions started in 2014 was confirmed in 2015. Erasteel in Commentry, the ERAMET Sandouville plant and the Moanda Industrial Complex in Gabon greatly contributed to this improvement by reducing their emissions.

There was a sharp fall in canalized dust emissions once again in 2015. The 25% improvement achieved within two years is partly due the different capital expenditure invested over the past years, but an asymptotic level has probably been reached (as most of the sites use the best available technologies) and it will be more and more difficult to improve this performance while striving to maintain it over time.

The Group also concentrates on diffuse releases. Initiatives continued in order to develop a deeper understanding of the sources of these releases. The situations are very varied and the rules and hypotheses adopted to assess these releases at sites or specific places of operations can be very variable.

Levels of nickel and manganese air emissions over the past three years have remained more or less the same, and are related to the level of activity. Their relative variability can be explained by the fact that low concentrations are multiplied by high quantities.

#### **5.2.3.2 WATER**

AQUEOUS DISCHARGES		2013	2014	2015
Suspended solids (SS)	tonnes	5,246	6,159	8,479
Chemical oxygen demand (COD)	tonnes	168	151	145
Nickel	tonnes	8.7	12.2	6.4
Manganese	tonnes	129.5	62.9	107.0

As with air emissions, ERAMET is determined to reduce its aqueous discharges. Industrial sites are striving to improve treatment processes to ensure that the water they release is of better quality.

The general tendency for Suspended Solids (SS) remains very variable from one year to the next and SLN Doniambo (New Caledonia) produces most of the Group's discharge. As explained in previous years, these variations are due to the variable amounts of SS found in the sea water used for plant cooling and slag granulation but this year work to move the slag storage stall resulted in an exceptional increase.

Other industrial sites contribute to these figures but their quantities are lower. This is the case with ERAMET Marietta (USA) and ERACHEM COMILOG in Tertre (Belgium).

The Chemical Oxygen Demand (COD) has regularly improved over the past two years. Great progress has been made at some sites, like the Doniambo plant in New Caledonia and the Les Ancizes plant (France).

As regards metal discharge, there was a significant fall in nickel discharges in 2015, allowing the Group to achieve levels that were below the levels usually reached in previous years.

As for manganese aqueous discharge, ERACHEM COMILOG Tertre (Belgium) significantly contributed to the increased levels.

Indeed, an unexpected spillage in June was not contained due to repair work being carried out on the industrial water collection basin at the time. Showing great transparency towards local authorities, the site decided to take corrective action during these maintenance phases.

Finally, the Group's sites carefully monitor the quality of ground water and the impact of the activity on soils and sub-soils. There are hundreds of piezometers deployed at the Group's different sites, both within their borders and outside their borders. They are used in the first stages of all new projects (characterisation of the initial state) and to monitor any possible impact on ground water and surface water.

#### 5.2.3.3 WASTE

WASTE PRODUCTION		2013	2014	2015
Quantity of non-hazardous waste	thousand tonnes	3,647	3,764	4,595
Quantity of hazardous waste	thousand tonnes	72	71	77

Environmental management systems set up at more than 75% of Group sites lead to specific waste management.

#### NON-HAZARDOUS WASTE

The notion of hazardous and non-hazardous waste is defined in accordance with the regulations of the countries in which the Group operates. Indeed, at the moment, the status of waste varies greatly from one country to another.

Mining activities and their related industrial operations are the main sources of non-haz-

ardous waste. A large quantity of this is stored in industrial basins in Gabon. They are fine fractions of manganese ore collected after the washing phase that separates the granular parts intended for sale. As regards nickel, the pyrometallurgical processing at the Doniambo plant generates a large quantity of non-hazardous waste in the form of slag. The three main contributors, i.e. the SLN, the Moanda mine and Moanda Industrial Complex

(CIM), account for 95% of the total quantity calculated for 2015.

Much smaller quantities of by-products and non-hazardous waste are generated by industries involved in steel-making, melting-reduction and the production of ferroalloys. They come in the form of slag and inert slag which is mainly stored in internal landfills and some of which is recycled by an external operator.

of deliberately rich slag generated in the ferromanganese pyrometallurgical process, which serve as a secondary raw material to fuel the furnaces that produce silicomanganese, thus contributing to the circular economy concept. The calculation of non-hazardous waste is

It should be noted that the non-hazardous

waste calculations do not include the tonnages

The calculation of non-hazardous waste is also affected by the significant tonnages that result from maintenance operations, works, decommissioning (rubble, scrap metal, etc.) as well as occasional operations to remove waste stored on site for several years, as was the case in 2015 in Moanda or at some SLN sites.

#### HAZARDOUS WASTE

Activities that generate hazardous waste are mainly the pyrometallurgical and chemical processes carried out by the Manganese Division.

Therefore, the Manganese Division's "chemicals" operations generate a large quantity of production and purification residues (called ore gangues). The fact that approved landfill sites handle this waste means that the applicable regulations are complied with on all points.

Pyrometallurgy produces dust, sludge and sodium-calcium slag, some of which can be considered as hazardous waste, according to their intrinsic characteristics and the places of operation.

The quantity of hazardous waste remained stable between 2013 and 2014 but rose in 2015, mainly due to increased activity at the new Moanda Metallurgy Complex (C2M) in Gabon and due to more limited operations such as the removal of contaminated soil caused by the dredging of a canal at ERAMET Sandouville (France).

#### **5.2.3.4 SITE REHABILITATION**

The Group carefully monitors potential impacts on the soil and subsoil arising from past, continuing or future mining and industrial operations.

Over the past several years, the Group has developed a policy and expertise in investigating, identifying, monitoring and managing land under potential impact from different projects like the rehabilitation of industrial areas, internal landfills at the end of their working life, former mines, etc. and also soil mapping before new projects are set up.

Moreover, the Group takes all these issues carefully into account in its internal audits and when it acquires new activities.

The key events of 2015 are listed below. In the industrial field:

- Aubert & Duval Gennevilliers (France): The B&C plants ceased activities in 2011 and the initial dismantling and restoration operations were carried out in 2013 and 2014. Further studies conducted upon completion of this work revealed the need to establish an additional management plan, and this was submitted to the administration in 2015. Further work will be carried out in 2016 to achieve the target objectives set out by the administration and to ensure this land can be used for industrial activities in the future

In 2015, Plant A, which started a similar process in 2014, submitted a management plan on the restoration of its land (it is still being examined by the administration).

As was the case with plants B&C, the site called upon the services of a project management expert (the RAMBOL-ENVIRON firm) to help it draw up documents and supervise the work.

- GCMC Freeport (USA): The site of GCMC Freeport (USA) recycles the metal found in

used oil catalysts. The site reached an agreement with the authorities as part of a final judgement in 2013 including action it must take to control impact on soils. To this end and in accordance with the schedule, GCMC finalised the internal actions and in 2015, as part of its voluntary action plan, with the Texan environment authorities (TCEQ), continued carrying out studies and seeking solutions to include in the management plan for the "Clean Closure" of the former remote storage area for residue from used catalyst processing. The study and finalisation process continues.

- Valdi Feurs (France): In 2014, the site announced its discontinuation of activities, filed the associated statement and proposed a management plan to the supervisory authority which led to an operating permit that set out the restoration objectives. The restoration work started in 2015 should be finalised in the first quarter of 2016. The site adopted a similar type of procedure to that taken at the Gennevilliers B&C plants. A project manager has been commissioned to organise the call for tenders and supervise the work on site.
- Valdi Le Palais (France): As its waste recycling activities are to be transferred to the Erasteel Commentry site (France), the site announced its discontinuation of activities and in 2015 it launched an environmental assessment study with a view to submitting a land restoration management plan in 2016.
- Erasteel Commentry (France): As part
  of preparations for the waste recycling
  activities from VALDI, this site has prepared
  construction platforms and carried out the
  necessary investigations that have resulted,
  when justified, in the management of polluted soil and materials in the areas concerned.
- SETRAG (Gabon): Since COMILOG took over the railway concession, environmental au-

dits have gradually been carried out and have revealed a significant impact on soils. Set up before any legislation on the environment was introduced, SETRAG has undertaken to find solutions to this legacy problem. An environmental and social management plan (ESMP) was developed with the impact assessment file accompanying the voluntary process of ICPE regularization. Detailed studies on the initial diagnosis enabled the site to start taking the first measures in

2014 to ensure safety and control and the action plan continued in 2015. Restoration work started on the ground around the filling stations and will continue in 2016.

 SLN (New-Caledonia): As part of preparations for the platform of the future power plant, a study was carried out on the 15-hectares of land to assess ground conditions and a management plan was submitted to the administration. Initiatives were also taken in the mining sector. They are described in the chapter on The Mining Environment (5.2.6) and in Chapter 5.2.7 devoted to biodiversity.

An important point to note here is the institution of a policy of systematically mapping ground condition before the start to any new project, in accordance with the Group's Sustainable Development policy.

#### **5.2.4 SUSTAINABLE USE OF RESOURCES**

#### **5.2.4.1 WATER CONSUMPTION**

CONSUMPTION		2013	2014	2015
Total water consumption	million m <sup>3</sup>	31.5	33.5	34.9

Before discussing the water consumption of sites in the ERAMET group, it should be emphasised that none of the Group's industrial sites are located in countries confronted with "water stress", as defined by the UN, in other words when water resources per inhabitant, including all uses, usually drops below 1,700 m³ per person. Despite the fact that water resources are usually substantial and plentiful on its sites, the Group attaches great importance to preserving resources. Many initiatives are taken to ensure that just the required quantity is used.

The total water consumption for 2015 can be broken down as follows:

- 53% of surface water (water from the sea, rivers or lakes);
- 28% of ground water;
- 12% of industrial water (industrial quality water provided by an external network);
- 7% of drinking water bought from a distribution network.

Mining, metallurgy, hydrometallurgy and chemicals are activities that consume water for a range of purposes:

- Cooling of furnaces and other metallurgical installations;
- Washing of ore, raw materials and by-products;
- Hydrometallurgy processes: solubilisation and reaction environments.

We should also remember that water is required to manage certain processes carried out within the Group. For example, the cooling of the electric furnaces must be perfectly managed and optimised. In some cases, a water supply shortage could present a highrisk situation during which security must be ensured before any other consideration.

When it is technically possible, the sites:

 favour the internal recycling of the water consumed. The cooling of furnaces and other metallurgic facilities as well as all other high-consumption processes are mainly carried out in a closed circuit. The

- water consumed is mainly top-up water to compensate for evaporation;
- use water from a neighbouring industrial site like at ERAMET Norway Porsgrunn.

In 2015, total water consumption increased slightly.

Indeed, Grande Côte Opérations (GCO) in Senegal, which alone accounts for 25% of the Group's total consumption, started operations in 2014 and is gradually increasing its production and therefore its consumption.

Further efforts to reduce water consumption continued elsewhere. This year, the efforts paid off at Erasteel Commentry which successfully recycled all its rainwater, and also at Aubert & Duval Les Ancizes thanks to its initiative to "track down leaks". The Moanda mining site (Gabon) benefited from an improved rate of recirculation for its industrial water resulting in savings of 30% in its top-up water.

## 5.2.4.2 USE OF RAW MATERIALS / CIRCULAR ECONOMY

ERAMET is totally involved in the process of promoting a circular economy.

The sustainable use of mineral resources is described in the Mining Environment chapter (5.2.6) and further information can also be found in the chapter on Responsible Purchasing—Monitoring the supply of "conflict minerals" (5.3.4).

For years, ERAMET has strived to ensure that some of the waste it generates at its sites is recycled in its processes. Moreover, it ensures that waste containing metals resulting from the manufacture or use of products marketed by other industrial players is recycled within its various processes.

The Group's Alloys Division is a long-standing and major player in this recycling of materials. Indeed, internal metal residue (machining chips, offcuts, etc.) and external residue (secondary raw materials) are put into the Group's steelworks furnaces. This sector has extremely high recycling levels. The quantity of secondary raw materials used varies greatly and depends on the sites and their processes but can reach almost 90% at some sites.

Alloys Division's Recycling also extends to aeronautical-quality titanium, through the Ecotitanium project for the production of ingots for use by UKAD, using scraps and shavings. Its business model is implementing the principle of circular economy.

Likewise, at pyrometallurgical plants that produce manganese alloys, large quantities of ferromanganese slag are used to produce silico-manganese.

For many years, ERAMET has also been developing its recycling business. Part of the Manganese Division is specialised in activities based on the use of secondary raw materials.

This is the case with GCMC Freeport (USA) which mainly recycles used catalysts from the petrochemicals industry and ERACHEM COMILOG Tertre (Belgium) which produces copper salts and oxides from waste. The activities carried out by Valdi (France), a major player in the re-use of contained metals via the recycling of waste from the steel industry, catalysts from the petrochemicals industry and rechargeable and disposable batteries, joined the Alloys Division with a view to developing new synergies.

Efforts are also made to re-use waste when its physico-chemical characteristics allow. Thus, slag from SLN (New Caledonia) and low-level slag from COMILOG Dunkerque are approved and used in road construction applications.

#### **5.2.4.3 INDUSTRIAL ECOLOGY**

Industrial ecology is a management procedure that does not simply aim to reduce pollution at the end of the chain in terms of "final waste", but tries to reduce the flow of material and energy by designing industrial ecosystems in which these flows would circulate as much as possible in closed loops.

According to this concept, instead of getting rid of the flows of matter emitted by a process, we can either re-use this matter within the Company or pass it on to third parties. This flow, which can be electricity, steam, waste or water, can be re-used in three different ways:

- within the Company to fuel another process or for other purposes, like heating a plant's offices for example;
- by outside neighbouring companies to fuel their installations or flows from other companies can be used;
- the community can re-use these flows (to heat shops or sports facilities for example).

Aware of the need to control their impact, the Group's sites have for a long time sought to introduce or reinforce this type of initiative, as illustrated in the following examples.

#### **RE-USING FLOWS INTERNALLY**

There are many examples of internal, and often long-standing, recycling initiatives. Water recycling initiatives are very common and sometimes the rates can reach 95%. Some sites also recover rainwater for use in the plant's industrial water circuit instead of ground water or surface water. To ensure energy efficiency, hot gas that has been generated is often reused within the Company; ERACHEM Mexico recycles it to pre-heat manganese ore during grinding operations instead of using fossil energy. The most significant examples include the SLN site in Doniambo (New Caledonia) which has a sensible heat circuit and the ERAMET Norway site in Sauda which recycles and burns gas rich in carbon monoxide. Steam produced from the sensible heat of gases given off during processes is often used within companies to heat offices and buildings.

### RE-USE OF FLOWS BY OTHER COMPANIES OR FROM OTHER COMPANIES

Synergies between neighbouring companies are also closely studied in the Group. In Belgium, ERACHEM COMILOG in Tertre is still very involved in the Eco-Zoning project, especially in the fields of transport, sanitation and optimised energy between all the industrial facilities in the area.

In New Caledonia, the SLN collects aluminium cans inside and outside the Company and this partially meets the requirements of the ferronickel refining process. Thermal recovery of the region's waste oils also allows Plant B to reduce its consumption of fuel.

In France, the Sandouville site uses steam as its main source of energy. 97% of this steam

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comes from a non-carbon source mainly provided by a neighbouring company (SED-IBEX) that burns chemical waste. The rest is provided by a wood-burning boiler installed on the site.

### RE-USE OF FLOWS BY NEIGHBOURING COMMUNITIES

Some Group sites allow neighbouring communities to benefit from surplus flows, free of charge. ERAMET Norway in Sauda and Kvinesdal use their excess steam production to heat the ground under the towns' streets, which are often icy or covered in snow, and the stadium to prevent the ground from freezing in winter.

A large proportion of the Group's overall water consumption is used by the general public or the staff living in the accommodation provided to them.

These types of initiatives are being generalised. In terms of R&D, the Group's ERAMET Research centre (Trappes, France) integrates these requirements into its process development programmes as objectives: ensuring optimal neutrality of residue, minimising emissions and consumption (energy, water and consumables, etc.).

## 5.2.5 ENERGY AND CLIMATE CHANGE

In 2015, in view of the strategic nature of energy, the Group decided to set up a new "Group Energy Centre" within the Industrial Affairs Department. It encompasses missions related to energy purchasing, energy efficiency and climate change.

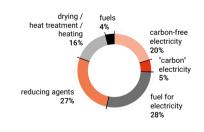
#### **5.2.5.1 ENERGY CONSUMPTION**

In 2015, the energy consumption (16.6 TWh) was virtually stable compared with 2014 (16.5 TWh).

The energy consumed by the Group serves several main purposes:

 Extractive metallurgy: In order to transform (through reduction reactions), the oxides contained in ores into metal alloys which it then sells, the Group uses mostly pyrometallurgical processes.

- These processes require energy so that the reduction or melting reaction temperatures can be reached, under the form of electrical energy and metallurgical reducers that also contain energy. This consumption is directly related to the activity.
- Mastering the processes also imply to have a good control on the water content of the ores upstream. The amount of energy needed to carry out these tasks depends on the weather conditions.
- Process metallurgy and hot forming. Alloys processing, hot forming and related heat processing are energy-consuming (electricity and gas).
- Processes implemented for manganese chemistry and recycling businesses are also energy-consuming (electricity and gas mostly).
- The last use is fuel for mining equipment.
   The consumption is proportional to the activity (ore volumes produced) and mostly to the amount of stripping and preliminary works needed (total volumes handled).





ERAMET group has seven core activities (pyrometallurgy, metallurgy, chemicals, mining, logistics, recycling and R&D). 83% of the energy requirements are consumed by 14 of the Group's pyrometallurgy plants.

It should also be noted that 79% of the electricity bought in 2015 was produced without recourse to fossil energy, and therefore with a lower carbon footprint (including 55% hydraulic energy and 24% nuclear energy).

#### **5.2.5.2. ENERGY EFFICIENCY**

- After COMEX approved the Group's Energy Policy in September 2013, which adopts the principles of the ISO 50001 standard, the Group's Industrial Affairs Department continued the ongoing deployment of its energy efficiency process initiated in 2005.
- Therefore, an additional operating mode associating those at site level and those at corporate level was set up. Three types of representatives were defined:
  - the Group coordinator, mainly in charge of organising the process, providing methodology (the Group coordinator is an AFNOR certified ISO 50001 auditor), providing expertise on several of the Group's core businesses and keeping a close eye on regulations and technologies;
  - site energy correspondents who represent the site's Departments in terms of the ISO 50001 standard; they are in charge of locally promoting continuous improvement in the field of energy;
  - the Sites' Departments whose main role is to show great commitment to an energy management system based on the principles of the ISO 50001 standard, and of course, allocating the resources required to fulfil each site's objectives. The Divisional departments are called upon to support the sites' departments;
  - the deployment continued in the three Divisions in 2015 and several sites applied the Group's new recommendations.

- As part of the energy efficiency process, energy performance indicators are set up for each site.
- The value and trend of these indicators are analysed in relation to each local process. As there is such a wide range of activities and processes, there is no point in consolidating these indicators at Group level. Consequently, to ensure confidentiality and protect processes, the Group has decided not to provide more detailed information on these indicators.
- In 2015, another site (Sandouville) obtained
   ISO 50001 certification, bringing the total number of certified sites to five. Several other sites are in the process of being certified.

### CHANGES IN EUROPEAN REGULATIONS: COMPULSORY ENERGY AUDITS

The Group's initiative is perfectly in line with Europe's new regulations which require large companies to carry out an energy audit every four years. All the energy audits of the sites concerned were conducted before the legal deadline, i.e. before the end of 2015, by a team of qualified internal auditors.

#### **5.2.5.3 CLIMATE CHANGE**

### GREENHOUSE GAS MANAGEMENT AND REDUCTION POLICY

The missions of the energy centre set up in 2015 include:

 Playing an active role in the climate change committees of French and European professional bodies (AFEP, A3M, Eurofer, Euroalliages) that represent the industry visà-vis the French and European authorities in the drafting of related regulations.

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- Informing the relevant sites about such regulations and assisting them with their application.
- Helping define and roll out the Group's policy with respect to climate change, in close cooperation with the Communications and Sustainable Development Department.
- Managing the accounts of the relevant French sites vis-à-vis the European greenhouse gas allowance registry. The Norwegian sites manage their own accounts in consultation with the energy centre.

## ETS 3: Directive 2009/29/EC of 23 April 2009 amending Directive 2003/87/EC "in order to enhance and extend the Community system for greenhouse gas emission allowance trading"

The Group played an active role in the discussions between the industry (via professional bodies) and the national and European authorities (Commission, Parliament and Council).

#### **ERAMET sites concerned**

Alloys Division: Aubert & Duval: Les Ancizes,
 Firminy, Pamiers and Interforge;

Erasteel: Commentry.

 Manganese Division: COMILOG Dunkerque, ERAMET Norway (Porsgrunn, Sauda, Kvinesdal) and TiZir Titanium & Iron in Tyssedal (Norway).

#### Free allowances

Calculation of the number of free allowances is based on the general formula:

#### Free allowances

=

#### specific emissions

(according to benchmark)

х

#### historical production volume

(2005-2008 median activity)

X

#### trans-sectoral reduction factor

The Commission decision of 27 April 2011 set out the various terms which will differ according to the installations and sub-installations.

It should be noted that the forging sites (AD Pamiers and INTERFORGE) are not included in the list of sectors with a "risk of carbon leakage" and therefore, they will not be entitled to free quotas. However, for a transitional period, they received a decreasing number of free quotas (from the historic 80% of emissions in 2013 to 30% in 2020 and 0% in 2027).

At the end of 2013, the European Commission approved the allocation of the free quotas proposed by the French and Norwegian authorities. Therefore, all the sites in the Group concerned officially received free quotas throughout period 3.

The sites' 2015 emissions are in the process of being checked by the European Commission's approved bodies. They will issue the "reasonable assurance reports" that are essential to surrender the quotas in the official registers sometime in 2016.

#### IMPACT OF CLIMATE CHANGE

A study has been initiated to assess and anticipate the impact of climate change on the Group's activities. Via the environmental reporting tool Eragreen, sites are asked specific questions on their risk assessment and the measures they intend to take to adapt to it.

In 2015, approximately 30% of sites indicated they may be affected by the consequences of climate change. The consequences mentioned by the sites most often are:

- possible consequences of rising sea levels;
- possible consequences of extreme weather conditions (drought, violent winds, flooding, etc.).

With the current knowledge on possible consequences of climate change, sites have not planned any short-term measures to adapt to any hypothetical consequences. With regard to a possible rise in lea levels, sites located near the coast consider the altitude of their facilities to ensure minimal to negligible impact.

At Group level, climate change could lead to higher taxes on energy and more difficulty obtaining funding for some investments. Currently, it is difficult to assess these consequences more clearly.

#### **CARBON FOOTPRINT**

ERAMET's initial Carbon Footprint, was carried out in 2007-2008 in joint consultation with Carbone 4, a company in receipt of ADEME approval.

The Group's carbon footprint for 2007 was approximately:

#### 6.35 million tonnes CO<sub>2</sub> equivalent

Breakdown per item:

- 87% for "energy" which includes energy consumption (electricity, gas, fuel oil, coal) and the consumption of reducing agents needed in processes (coke, coal, anthracite, etc.)
- 8% for freight
- 3% for "inputs": CO<sub>2</sub> emitted, particularly during the production of scrap used in arc furnaces in steelworks.

According to the "GHG Protocol" classification, the Group's emissions can be broken down as follows:

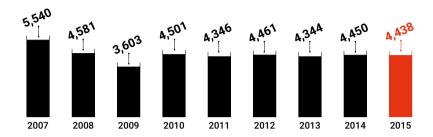
- Scope 1 emissions = 4,742,098 tonnes of  $CO_{av}$  i.e. 74% of the total.
- Scope 2 emissions = 797,918 tonnes of CO<sub>2</sub>,
   i.e. 13% of the total.
- Scope 3 emissions = 810,473 tonnes of CO<sub>2</sub><sup>1</sup>
   i.e. 13% of the total.

#### Changes in the Group's Carbon Footprint

To follow changes in the carbon footprint over time, only emissions of Scopes 1 and 2 are taken into account (representing 87% of the total) because they are easy to calculate based on the Group's activity. The data used to calculate these emissions is entered into the Group's system for consolidating environmental data (EraGreen).

The following table shows changes in the Group's emissions between 2007 and 2015.

ERAMET Group - Changes in group's emissions - Tonnes of CO2 emitted (scopes 1 & 2)



Apart from 2009, this footprint remains stable.

The deviation from 2007 is mainly related to differences in scopes between the footprints (China, Norway, etc.).

Aubert & Duval (AD) is the only corporate entity of the Group in France to employ over 500 people and therefore it is subject to the application of Article 75 of the French environment act Grenelle II and order 2011-829.

With the assistance of a BURGEAP consultant, a carbon footprint assessment was carried out for this scope in 2011, based on the "guidelines on greenhouse gas emission inventories" drawn up by the national coordination centre (2012 version).

The first part of the 27 November 2012 report details the consolidation of greenhouse gas emissions for all the French Aubert & Duval sites. The second part summarises the main initiatives that Aubert & Duval intends to take to reduce these emissions.

The review reports the following emissions:

- Direct emissions (Scope 1) = 85,491 tCO<sub>2</sub>e
- Indirect emissions (Scope 2) =  $16,504 \text{ tCO}_2\text{e}$
- Total emissions (Scopes 1 and 2) = 101,995 tCO<sub>2</sub>e

## 5.2.6 THE MINING ENVIRONMENT

This chapter is devoted to the environmental protection initiatives implemented at the productive mining sites (excluding measures related to biodiversity which will be presented in Chapter 5.2.7). Measures related to mining projects under development are described in Chapter 5.4 Industrial and mining projects.

The Group's mining operations do not include underground mines.

The mine operated by COMILOG on the Bangombé plateau in Gabon is one of the world's richest manganese ore deposits and is covered by a 4-5 meter-thick layer of overburden. Due to the characteristics of the deposit and the ore, this mine produces very little waste rock.

SLN operates 15 nickel mines in New Caledonia; the seven largest ones are operated directly by SLN and the others are contracted out to local operators. The mines are located on rugged terrain at altitudes of between 250 and 1,000 meters. With this type of deposit, approximately 7 to 9 tonnes of overburden has to be removed in order to produce 1 tonne of useable ore. Therefore, it is essential that this waste rock is stored in such a way as to ensure the security and protection of the environment.

The Grande Côte mineral sands mine in Senegal produces zircon, ilmenite, rutile and leucoxene. The mining operations follow an optimised route to mine deposits in the sand dunes close to the coast to the north of Dakar. The extraction operations are carried out in a mobile 12-hectare, 6-meter deep artificial basin. The mining process uses a dredge with a capacity of 7,000 tonnes per hour, linked to a floating concentration plant where minerals are separated from the sand via a granulometric and gravimetric process. After extracting the useable fractions (about 1.8% of the sand processed), the sand is put back in place behind the facilities to re-form the dune. The heavy mineral concentrate obtained is transferred to a land-based separating plant where commercial products are obtained by granulometric, gravimetric, electro-static and magnetic separation. The small quantities of products that are not used at this stage are reincorporated into the reconstituted dunes. The water required to carry out these operations is pumped from a deep aguifer and recycled, as far as possible. The mine does not use any chemicals and does not produce any mining waste

#### Summary table of environmental challenges facing ERAMET mining sites

	SLN MINES IN NEW CALEDONIA	COMILOG COMILOG IN GABON	GCO MINE IN SENEGAL	COMMENTS
Strain on water resources (quantity)	Low vulnerability	Low vulnerability	Very vulnerable	Because of high rainfall at the sites in New Caledonia and Gabon, the matter of water consumption is relatively unimportant. However, in Senegal the opposite is true—the two aquifers used by the mine are important water reserves for local people and the country.
Erosion	Very vulnerable	Average vulnerability	Average vulnerability	The nature of the soil and rocks, the topography of the deposits and the presence of fragile receiving bodies make erosion a very sensitive subject New Caledonia. In Senegal, after the dredging operations, the reconstituted dunes are vulnerable to wind and water erosion. In Gabon, the deposit was recently extended to a downward sloping area and this has exacerbated the problem relatively speaking as the rest of the mine is not very vulnerable to erosion.
Acid mine drainage	No acid mine drainage	Low risk of acid mine drainage	Low risk of acid mine drainage	Generally, ERAMET mining sites are not really concerned by the risk of acid mine drainage. In Gabon, only one horizon of barren rock located in the current extension of the deposit is likely to present this risk. In Senegal, a sand horizon containing peat can be encountered during mining operations and may potentially generate a slight acidification.
Production of waste rock	Very vulnerable	Low vulnerability	Low vulnerability	Most of the waste rock from the Moanda mine is put back into the pits immediately. The Senegal mine does not produce waste rock. However, in New Caledonia, much greater quantities of waste rocks are produced. Operating methods at SLN are changing and instead of storing waste rocks in heaps, more and more often, they are used to fill up the pits.
Production of residues	Low vulnerability	Low vulnerability	Low vulnerability	Only the COMILOG mine and the Tiébaghi and Népoui mining sites produce significant quantities of mining residue during the concentration stages. This residue is chemically stable and cannot be considered as waste that is dangerous for the environment. Moreover, in New Caledonia, residue from processing plants is recycled and sold as a mining by-product.  In Senegal, 98% of the sand is returned to the environment straight after the useable fraction has been extracted.
Biodiversity	Very vulnerable	Average vulnerability	Average vulnerability	The biodiversity at New Caledonia's sites is considered remarkable mainly because of its highly endemic nature. Studies carried out with regard to international standards showed that the mining sites in Gabon and Senegal are not as vulnerable. However, the Senegal mine is next to important market gardening areas.

## 5.2.6.1 MINING ENVIRONMENT MANAGEMENT STRUCTURES

Teams dedicated to ensuring that the environment is factored into mining operations are present on the sites and in the subsidiaries concerned in Gabon, Senegal and New Caledonia.

Since 2010, within the framework of its Sustainable Development Policy, ERAMET has reinforced the construction, formalisation and international coordination of environmental

management tools for mining activities. The following initiatives were taken to achieve this:

- All the mining subsidiaries drew up a Mining Environment action plan; the progress of these action plans is regularly reviewed with the Group's Environment, Industrial Risks and Product Department.
- A community of mining environment experts was set up and meets regularly. Its role is to draw up guidelines on the best practices to apply throughout the Group and to encourage sites to exchange expertise. Sustainable
- Development was one of the main themes discussed at the Geology, Mining and Mineral Processing activities seminar held in October 2015 in Johannesburg.
- The Group's internal audit guidelines were adapted to the specificities of mining activities, thus enabling the mining sites to be fully integrated into the Group's auditing system.
- Environment Management Systems compatible with the requirements of standard ISO 14001 were implemented by the mining subsidiaries. Two of the five main SLN

mining centres were certified in 2015, and the three others applied for this certification in December 2015. In 2012 COMILOG obtained its certification and in November 2015 this certification was renewed. It covers the Moanda mining operations, storage activities, transportation of ore and sinter to Owendo and equipment maintenance.

- In recent years, all SLN mining sites have updated their environmental impact studies within the framework of the reform to the New Caledonian Mining Code. This considerable task enables each site to have comprehensive studies on the environment and ecosystems in which they operate together with efficient environment management plans suited to their own specific characteristics.
- At the same time, since 2012, a lot of effort has been put into developing environmental studies for the COMILOG mine in Gabon to gain a better understanding of the site's environmental characteristics with a view to developing a pertinent strategy for the rehabilitation of the site. These studies concern the soil, hydrology, hydrogeology and biodiversity of the site.
- Lastly, in consultation with the authorities,
   COMILOG has decided to go beyond the mandatory regulations imposed upon it and to carry out a comprehensive environmental impact study to enable it to better prepare the extension of Moanda's mining operations to the edge of the present deposit (the downward sloping part of the deposit within the COMILOG concession).
- In 2014, the supervisory authorities carried out an environmental and social audit at the Grande Côte mining site in Senegal.
   The results of this audit were considered as satisfactory by the authorities and served as a basis to update the site's Environment Management Plans.

## **5.2.6.2 DEVELOPING RESOURCES RESPONSIBLY**

The development of mining resources is one of the Group's core businesses. Mineral resources are extracted in a responsible way, i.e. by minimising impact during the exploration and extraction stages, and by optimising the use of deposits. In New Caledonia, geologists limit the number of tracks opened, prefer indirect geophysical exploration that does not impact the environment and transport equipment by helicopter during exploration operations. They also use modelling tools to improve their understanding of deposits and better evaluate resources. This data is passed on to miners who optimise the extraction stages by reducing the volume of tailings handled, by mapping areas precisely, by keeping the surface areas of cleared land to a minimum, and by maximising the recycling of the mineral profile. On the sites, these recovery improvements can be seen in the implementation of GPS on diggers and the display of loading plans in the cabins.

Moreover, ERAMET researchers are seeking ways of recycling tailings and ore with an even lower content. This determination was demonstrated in Moanda, Gabon, where COMILOG incurred a capital expenditure of €12 million. The sand processing workshop can recover the finest fractions of ore by using a magnetic separation process developed within the Group.

The SLN has developed techniques to use ores that were initially considered as marginal and thus significantly extend the life of deposits while reducing the final environmental impact. These results were achieved thanks to the construction of washing plants (Ore Processing Plants) that allow ore to be concentrated without adding chemicals. Since 2010, SLN has been developing co-products from the washing unit and also the products selectively stored in heaps. In five years, more than 985,000 tonnes of products have been

developed, making the recycling of secondary raw materials a concrete reality.

Lastly, the Research Centre in Trappes is working hard to develop innovative, high value-added, geo-metallurgical methods for the non-destructive characterisation and modelling of complex geological profiles.

#### **5.2.6.3 WATER MANAGEMENT**

Concerning the mining sites in New Caledonia, and to a lesser extent those in Gabon, the main objective of water management is to prevent erosion caused by the stripping the land, and thus prevent runoff water from taking suspended solids (SS) into receiving bodies.

The avoid this, some time ago, SLN equipped its sites with sedimentation basins which trap the suspended solids and prevent them from being deposited in the natural environment. Before the water reaches these structures, many precautions are taken to limit erosion: keeping sites out of water, reducing uncovered areas as much as possible, preserving natural dikes around the edges of stripping sites, organising runoff water to reduce its speed, implementing hydraulic locks, etc. Each of SLN's mining sites has a Water Management Plan which describes these measures which fully comply with New Caledonia's regulations. Implementing these Water Management Plans as and when operations develop represents an ongoing commitment and considerable capital expenditure. Thus, over the past three years, the capital expenditure devoted to water management at these sites has exceeded €15 million.

The specific know-how developed by SLN on erosion prevention was compiled into a technical guide which was published in 2005 and revised in 2012 (called the "Blue Guide"). It is considered a reference by the profession in New Caledonia and by the Group worldwide.

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In Gabon, the subject of erosion is less sensitive because the deposit is located on a plateau and the upper geological stratum offers better drainage. This observation was confirmed in a study carried out in 2012-2013 to characterise the bodies of water and the hydrology of the site. However, the mine operators are aware of the measures they need to take to limit erosion. This subject is being carefully considered in relation to the current extension of the deposit to the slope. Therefore, a specific water management plan has been set out in the impact study on this extension. It was implemented at the same time as operations and is the subject of special environmental monitoring.

In addition, over the past few years, important progress has been made in the management of aqueous discharge from the ore concentration facility at the Moanda site. In 2010, basins to store ultra-fine residue were put into operation to prevent discharges from entering the river Moulili. These basins were built to recover overflow water and redirect it to the concentration facility, to ensure that no discharge enters the river.

In Senegal, the matter of water management is sensitive because mining operations use two aquifers, one of which is very important for the people and the country in general. Given this situation, every precaution is taken to ensure that the impact of the mine is as low as possible. GCO has a team of experts entirely devoted to hydrogeology.

The water management system was designed in such a way as to avoid any additional pressure on the groundwater table which is used by the neighbouring population to water their crops and has been authorised by the relevant department of the State of Senegal. All the mining facilities are managed in such a way as to keep variations in groundwater levels to a minimum. This aquifer is monitored twice a day. More than 80% of the net consumption

of the mine is used to ensure a constant level of water in the basin in which the installations float. For this, the mine pumps water from a deeper aquifer. Limits on the pumping rate are set by authorities and since production started they have been observed by GCO. The water from this aquifer is recycled as much as possible. Moreover, this aquifer is constantly monitored. To this end, nine piezometers were installed in 2015 to check this deep aquifer (Maestrichtian).

Monthly reports on this matter are sent to the administrations concerned. Continuous monitoring has shown that the measures taken are effective and that no harmful consequences on the water resources have been observed since operations started.

## 5.2.6.4. MANAGING TAILINGS AND MINING WASTE

Given the considerable amount of tailings that SLN handles in its operations, in terms of environmental protection, it is extremely important to store tailings in suitable structures and replant the sites to reduce erosion and minimise the impact on ecosystems and landscapes.

Thanks to its long experience, SLN has developed efficient techniques, one of which involves creating heaps of tailings. The structures are built according to good practices and their long-term stability is ensured, even during times of cyclonic rainfall. These tailings heaps are constantly monitored (internal investigations) and regularly assessed by an outside third party. As it did for water management techniques, the SLN published a technical guide that was updated in 2012, describing the construction methods for these heaps and the sizing rules. This guide applies to all SLN's direct and subcontracted mining operations. Moreover, to keep clearing to a minimum and aid in the rehabilitation of sites, for several

years the SLN has been creating spoil tips within the former mines.

In Gabon, the issue is not as sensitive because much smaller volumes of tailings are handled and the mining technique involves opening and closing pits one after the other, therefore most of the tailings are put back into the pits straight after the extraction process.

The mine in Senegal is not in the least concerned by this problem because the sand dune is reconstructed after the dredging and extraction equipment has passed over the usable part.

The mining residue produced by ore concentration facilities at the mines is chemically stable and, according to the regulations, does not constitute hazardous waste. In Gabon, this residue is stored in seven basins with a capacity of one million cubic meters. These structures are subject to continuous environmental surveillance and monitoring. In Senegal, very small quantities of residue are produced by the concentration plant and, given its characteristics, this residue can be returned to the natural environment when the dune is reformed. This residue may contain small volumes of naturally low-level radioactive minerals which are managed in such a way as to minimise environmental exposure.

## **5.2.6.5 REHABILITATION OF MINING SITES**

#### IN NEW CALEDONIA

All the SLN mining sites carry out continuous rehabilitation. This work includes reshaping and replanting the land. The methods and results of this are described in Chapter 5.2.7 Preserving Biodiversity.

Over the past two years, as part of the implementation of the environmental management

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system for mines, SLN has completely revised its internal procedures and instructions for rehabilitation and formalised the know-how developed over the past ten years or so. The aim of this is to share good practices, ensure site homogeneity, and allow rehabilitation operations to be better integrated into short and medium term mine planning. To this end, a Technical Guide to the optimal management of topsoil was published for example.

Out of SLN's five mining centres, three have a formalised master plan on rehabilitation. Master plans for the other two centres have almost been finalised.

Lastly, over the past few years, a considerable amount of restoration work to complete the rehabilitation has been conducted, continued or finished:

- In Poum, restoration work on the former Fabrice tip (a tip that had slid down before SLN recovered the Poum Massif) was completed in 2014. This allowed more than 130,000 m³ of fallen material to be evacuated and 50,000 m³ of hillside to be remodelled. In 2015, this site was replanted.
- On the Thio Plateau the SLN teams continued to remodel a very old tailings tip. Most of the very large earthmoving works (about 200,000 m³ of earth moved) and landscape remodelling was completed. It involved impressive water canalisation and management systems and the remodelling of the tip.
- In Népoui, the closure of the Rachel tailings tip was completed with the hydraulic seeding of about six hectares of land.

This year, the SLN, in collaboration with the relevant administrations, conducted a large-scale operation at the foot of the mining sites, to remove gravel from two streams that flow into the river Thio (the Nakalé and the Nemburu).

#### **IN GABON**

It is much easier to replant the landscape in Gabon than in New Caledonia because plants

recolonize the area naturally. When restoring sites, the landscaping aspects are of key importance; mounds of tailings, a few meters in height and created during operations, have to be remodelled.

- Since 2010, the mining procedure has been reviewed so as to integrate land reshaping as and when operations progress. Remodelling work on areas that were disturbed prior to this date was also undertaken and is the subject of an annual objective in the mine's environmental management system. The results of this work are described in the following Chapter 5.2.7 Preserving Biodiversity. In addition to these concrete initiatives, prior studies to define a full rehabilitation strategy for the Bangombé mining plateau continued in 2015.
- Moreover, operations to restore the river Moulili by extracting the ultra-fine sediment deposited in the riverbed downstream from the mine washery have been ongoing since 2010. At the end of 2015, more than 8 million tonnes of manganese sediment had been excavated. These operations are carried out in strict compliance with the Environmental and Social Management Plan drawn up following the impact study. Moreover, in June 2014, in a spirit of transparency and consultation, COMILOG organised a discussion seminar on the rehabilitation of the downstream section of the river. This seminar brought together all the stakeholders concerned (authorities, civil society, NGOs, scientists, etc.). It enabled a consensus to be reached and recommendations to be made for this downstream section and these were then passed on to the supervisory authorities. This consultation process was the first of its kind to be conducted in Gabon. In 2015, the engineering studies and impact studies prior to the work agreed upon after this seminar were conducted in accordance with the principles of transparency and consultation with stakeholders that prevailed at the seminar.

#### IN SENEGAL

The specific operating method used at this mine, whereby the beneficiation plant moves along the deposit gradually, leads to the clearing of the vegetation in the area, composed of sparsely distributed grasses and trees. Neighbouring populations' expectations are high with regard to the replanting of dunes reformed after the mobile mining installations have passed, but this represents a challenge due to low rainfall and a short rainy season. After consulting the authorities concerned, the populations and their representatives, a rehabilitation strategy was formalised at the end of 2013. The rehabilitation work is regularly monitored within a formalised and dedicated consultation framework, set up in 2015 by the Sub-Prefect of Méouane. An audit by the Inspectorate for Forestry and Water ascertained that the rehabilitation operations were successful and the rehabilitation strategy rigorously applied. This resulted in a compliance certificate dated October 2015 being issued for the rehabilitation operations conducted since production started in 2014. The results of this work are described in the following Chapter 5.2.7 Preserving Biodiversity.

## 5.2.7 PRESERVING BIODIVERSITY

The multiplicity and location of ERAMET's mining and metallurgical activities have enabled it to acquire considerable experience in subjects related to biodiversity. Boosted by its experience in biodiversity conservation, and the mitigation of its activities' impact, and at the joint instigation of its employees and the Executive Committee, ERAMET decided to formalise its actions by adopting a Biodiversity Policy that was conveyed to the Group's employees in 2015.

This policy is based on three main areas:

 Gaining a better knowledge and understanding of biodiversity and its functions.

- 2. Taking action to conserve biodiversity.
- 3. Increasing awareness, exchanging and sharing.

It aims to bring all the diversified practices of the Group's sites together in one agreement. The principles set forth are to be applied at sites in a manner proportional to local issues. The full text can be accessed directly on ERAMET's website at the following address:

#### http://www.eramet.com/sites/default/files/ eramet\_politique\_biodiversite\_fr.pdf

Over the past few years, the Group has taken advantage of its experience to:

- take part in local, national and international ad hoc discussions;
- expand a skill within ERAMET via an internal working group devoted to biodiversity set up in 2012;
- develop methodological tools to manage biodiversity at ERAMET sites in a coordinated manner.

The goal is to reduce the impact of the Group's activities, in a manner that is proportionate to the risks, throughout the life of the sites.

Internationally, ERAMET is very involved in the Business and Biodiversity Offsets Programme (BBOP), a recognised think-tank that the Group joined in 2011. In 2015, ERAMET took part in the annual seminar and chaired the think-tank's executive committee.

In France, ERAMET plays an active role in discussions on the draft law aimed at recovering biodiversity, particularly through its chairing of MEDEF's Biodiversity Working Group (1).

#### **5.2.7.1 BIODIVERSITY ISSUES**

The mining and metallurgical activities of ERAMET may have an impact on species, habitats and ecosystem services, whether ordinary or remarkable biodiversity, depending on the location. However, as the following table illustrates, the Group's main biodiversity issues are concentrated in three geographical areas: New Caledonia, Gabon and Indonesia. Despite a low to moderate vulnerability of biodiversity, a great deal of effort is put into the site in Senegal because the rehabilitation and replanting operations represent a challenge.

The Group has no mining or metallurgical sites in protected areas. However, this is not the case with SETRAG, the Gabon train company, whose railway tracks cross the RAMSAR (2) of the Bas-Ogooué site (for 56 km), the RAMSAR of the Rapides de Mboungou Badouma and Doume site (for 30 km) and the Lopé National Park (for 62 km) which is a UNESCO World Heritage site (3). The RAMSAR and National Park sites were set up in 2007 and 2009. i.e. 35 years after the construction of the Trans-Gabon railway. Moreover, SETRAG joined forces with Gabon's Ministry of Water and Forests and the NGO WWF (4) to combat poaching by raising the awareness of its personnel and by prohibiting the transportation of protected species.

SITES	NEW CALEDONIA	GABON	INDONESIA	OTHERS
Number of species (flora and flora) classified as CR <sup>(2)</sup> in the IUCN red list <sup>(3)</sup>	4	2 (*)	0 (*)	0
Number of species (flora and flora) classified as EN <sup>(4)</sup> in the IUCN red list	24	4 (*)	14 (*)	0

<sup>(\*)</sup> These values are based on the findings of characterisation studies carried out at the Weda Bay Nickel and Mabournine projects.

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<sup>(2)</sup> CR: IUCN classification referring to critically endangered species.

<sup>(3)</sup> IUCN: International Union for Conservation of Nature.

<sup>(4)</sup> EN: IUCN classification referring to endangered species.

<sup>(1)</sup> MEDEF: Mouvement des Entreprises de France (movement of French enterprises).

<sup>(2)</sup> The RAMSAR list designates wetlands of international importance.

<sup>(3)</sup> UNESCO: United Nations Educational, Scientific and Cultural Organization.

<sup>(4)</sup> WWF: World Wildlife Fund.

Number of sites located within 10 km of a protected area	21
Average distance of these sites from protected areas	2 km
Types of protected areas	Nature Reserve, National Parks, ZNIEFF <sup>(1)</sup> , ZICO <sup>(2)</sup> , Natura 2000 <sup>(3)</sup> , Ramsar, UNESCO World Heritage

(1) ZNIEFF: Zone d'Intérêt Écologique, Faunistique et Floristique—natural area of ecological, faunistic and floristic interest.

(2) ZICO: Zone Importante pour la Conservation des Oiseaux-Important Bird Area (IBA).

(3) Natura 2000 is a European network of Special Protection Areas and Special Areas of Conservation designated by Member States.

#### 5.2.7.2 IN NEW CALEDONIA

The Société Le Nickel (SLN) mines nickel deposits at different sites in the heart of a region known for its great biodiversity and the very endemic nature of its plants and animal species.

The SLN has been developing reliable and environmentally-friendly rehabilitation methods for more than 30 years. Hydraulic seeding and planting have led to the replanting of approximately 265 ha of land. The low fertility of the soil, which is rich in metals and poor in organic elements, together with extreme rainfall con-

ditions, make these studies very complicated and difficult and thus produce results that are not always very apparent in the short term.

Since 2010, the SLN has put a great effort into re-organising this "replanting" activity and has succeeded in considerably increasing the surface areas treated while at the same time continuing to improve the quality of the features created. In 2015, 26 ha of land were rehabilitated and 26 ha were replanted. The following table indicates the surface areas affected and rehabilitated in the last four years of operations at the five mining centres.

SURFACE AREA (IN HECTARES)	2012	2013	2014	2015
Surface area affected during the year	41	60	48	52
Surface area rehabilitated during the year	50	13	26	26
Surface area replanted during the year	29	21	21	26

On 1 January 2013, SLN's Management set up a Biodiversity Strategy based on international standards on biodiversity conservation. Through this, the SLN drew up an overall biodiversity management plan that was applied at each mining centre in 2015 via flora and fauna management plans adapted to the specific local ecological issues. These management plans include measures to avoid certain areas, measures to combat invasive species, measures to multiply vulnerable species and initiatives to gain better scientific knowledge. The operational implementation

is accompanied by awareness-building and training of technicians involved in the mining environment and operations managers.

In addition, the SLN continued its work on compensation, aimed at assessing the feasibility of achieving no net loss in biodiversity in New Caledonia by following an offset approach in a biodiversity hotspot. To do this, the SLN develops tools to calculate the losses and gains in biodiversity with the support of its scientific partners and the firm MICA Environnement. These tools are being tested at two pilot sites.

Moreover, in 2015, the SLN, together with the Union of Mining Industries in New Caledonia and Northern and Southern Provinces, took part in the current discussions on the region regarding compensation and implementation tools.

#### **5.2.7.3 IN GABON**

The Compagnie Minière de l'Ogooué (COMI-LOG) has been mining manganese ore on the Bangombé plateau in Moanda, Gabon, for more than fifty years.

Although there are still considerable reserves of manganese ore on this plateau, and it will be possible to mine them for more than ten or even twenty years, part of the plateau has already been rehabilitated. The mining procedure has been reviewed so as to integrate a reshaping stage and develop the topsoil as and when work progresses. Since 2010, areas that were disrupted in the past have also been gradually reshaped.

In 2014, a mining environment brigade was created and this significantly increased the surface areas rehabilitated, i.e. more than 220 ha in two years.

SURFACE AREA (IN HECTARES)	2012	2013	2014	2015
Surface area affected during the year	46	64	67	52
Surface area rehabilitated during the year	28	31	95	119

At the same time, COMILOG continues improving its rehabilitation strategy by taking account of findings from the last environmental studies developed for the Bangombé plateau and operations on its edges.

Alongside the mining activities of COMILOG, the *Parc de la Lékédi* which is 5 km from Bakoumba, in the South-East of the Republic of Gabon, covers 14,000 hectares of savannah, gallery forests and lakes. It is made up of three reserves and is home to representative examples of local wildlife like buffaloes, mandrills, chimpanzees, gorillas, red river hogs, panthers, and antelopes.

The park is dedicated to preserving protected species, observing animals and taking in young animals that have become orphans as a result of poaching (monkeys and primates). It is also involved in research into biodiversity and the fight against poaching, in partnership with Gabonese and international scientists and organisations.

In 2015, initiatives will be taken, in collaboration with Gabon's Ministry of Water and Forests, to raise the awareness of local authorities, village and district leaders, and elected representatives. The Mandrillus project, set up in 2011 in partnership with the CNRS, was continued. The researchers and field assistants study a population of mandrills in the wild with a view to answering fundamental questions on evolutionary ecology, anthropology, feeding ecology, animal communication, etc. and also more specific questions on conservation and epidemiology.

With the aim of protecting gorillas, the park works with the Aspinall Foundation. In 2015, it launched a project to reintroduce orphan gorillas into the park. It should culminate in

2017 with the release of the group formed in the Batéké Plateau National Park.

The park is also involved in:

- a new programme, started in 2014, to reintroduce species that are threatened or extirpated in Gabon (e.g. Cobe de Fassa antelopes) with the National Parks Agency and the International Union for Conservation of Nature. The first reintroductions should take place in 2016;
- a plan to repopulate the Batéké Plateau National Park with buffaloes in order to reinforce the population of large carnivores (lions).

In 2013, the Park also joined forces with the NGO Conservation Justice and the Regional Department for Water and Forests of Upper Ogooué to conduct joint awareness-raising and anti-poaching campaigns. The results were very positive in terms of seizure and confiscation of illegal weapons.

Lastly, the park is Gabon's leading producer of Tilapias. For neighbouring populations, this fish is a well-appreciated alternative to bushmeat.

In Gabon, the Maboumine project involving the beneficiation of a deposit of niobium and rare earths is located approximately 250 km from Libreville, to the south of Lambaréné. The site is located in quite a remote area where forestry activities were carried out in previous decades.

The project immediately recognised the site's great biodiversity which is related to:

 the location of the country: Gabon is part of the Congo Basin, the world's second largest area of tropical rainforest after the Amazon Basin;  the fact that it is close to wetlands of international importance—the Bas-Ogooué RAMSAR site.

So particular attention was paid to biodiversity right from the exploration stage:

- the first characterization and evaluation studies on fauna and flora in 2012 and 2013;
- an initial evaluation of biodiversity issues was carried out, based on the criteria set out in International Financial Corporation's performance standard 6 in 2013 and 2014;
- the assistance of recognised Gabonese and international experts: the National Centre for Scientific and Technological Research (CENAREST), the National Herbarium of Libreville, the Missouri Botanical Garden (MBG), the Wildlife Conservation Society (WCS), and the firms of environmental consultants TEREA and Golder & Associates;
- biodiversity is taken into account in the project development and location scenarios.

#### 5.2.7.4 IN INDONESIA

Weda Bay Nickel's project to extract and beneficiate nickel is located on the island of Halmahera, in the equatorial region in Indonesia. There are two well-known ecological features of this island which is located:

- near the three ecological boundaries of Wallace, Weber and Lydekker which means that the island has a mixture of Asian and Australasian species of fauna and flora;
- in the middle of the Coral Triangle which is world-renowned for its coastal and marine biodiversity and which stretches between the coasts of the Philippines, the Celebes and Papua.

Within this context, ERAMET and its subsidiary Weda Bay Nickel (WBN) have placed biodiversity at the heart of this Greenfield project and between 2009 and 2014, with recognised Indonesian and international experts and specialists, they conducted studies to establish the initial state of the environment and assess the impact on biodiversity.

In line with the performance standards set out by the International Finance Corporation (IFC), the project undertook to ensure a positive impact on biodiversity, given the presence of critical habitats. WBN ensured that the mitigation sequence was applied in the development of the project and established an initial study on the feasibility of offsets based on the BBOP standard with a view to compensating for any residual negative impacts of the project.

The WBN project is currently suspended.

### **5.2.7.5 IN SENEGAL**

In Senegal, operations in Grande Côte started in 2014. The mining of mineral sands involves gradually clearing away the vegetation as a floating dredger moves alongside the deposit.

The biodiversity is not particularly vulnerable here. The main challenge is the rehabilitation and replanting of large areas of land. After reconstructing the dune, the replanting methods used are the same as those developed in New Caledonia: the areas concerned are covered with topsoil which encourages seed and plant growth, then pioneer endemic species are sown or planted to stabilise the dunes in the short term and help other species recolonize the area in the long term. However, there are two particularities:

- the reconstruction of a dune landscape;
- replanting operations can only be conducted during the rainy period, between July and September.

The first replanting tests were carried out on-site in 2014 and were conclusive. Two methods were used:

- seeds harvested in that area were sown;
- local species of plants developed in nurseries were planted.

In 2015, the rehabilitation methods were proved to be successful and a much larger area was covered.

SURFACE AREA (IN HECTARES)	2014	2015
Surface area affected during the year	150	188
Surface area rehabilitated during the year	2	45
Surface area replanted during the year	2	45

# 5.3 INFORMATION ON SOCIETAL COMMITMENTS IN FAVOUR OF SUSTAINABLE DEVELOPMENT

### 5.3.1 TERRITORIAL, ECONOMIC AND SOCIAL IMPACT OF THE COMPANY'S ACTIVITY

# 5.3.1.1 EMPLOYMENT AND REGIONAL DEVELOPMENT

The ERAMET group is present in over twenty countries worldwide and actively participates in the economic and social development of the countries and regions in which it operates. This is seen in the emergence of companies linked to the sites' activities, the construction of local infrastructures that are important for the development and involvement of sites in major national or regional sustainable development initiatives.

### THE EMERGENCE OF COMPANIES

Group sites encourage the emergence of local companies because the nature and devel-

opment of the sites' activities often lead to a great deal of subcontracting which gives rise to specific requirements.

In 2015, COMILOG in Gabon continued to reinforce and develop the local economic fabric by organising regular multi-themed meetings with all its 300 subcontracting SMEs. Another concrete example can be seen in Gabon where the opening of the Moanda metallurgy complex generated approximately 400 indirect jobs, in addition to the 432 direct jobs.

Subcontracting allows local populations to become involved in sites' economic activities. In New Caledonia, the SLN is at the origin of most of the industrial subcontracting in the region. These activities include contract work, transporting ore, watering tracks, replanting, and managing water at mines. Numerous industrial sites lead to the creation of specialised SMEs. For example, the Brown Europe site in France led to the creation of a SME specialised in precision engineering.

# CONSTRUCTION OF LOCAL INFRASTRUCTURES

The Group's major subsidiaries can contribute directly to the construction of local infrastructures.

In Senegal for example, Grande Côte Opération (GCO) set up community projects in consultation with local populations and authorities: these include the construction of a new primary school in Ngouye Yewatt, an upper-secondary school in Ndjiligne, a new community market in Ndoucoura, a bus station in Fass Boye and a ten-kilometre extension of the water supply network in Diogo for 13 villages.

In New Caledonia, as part of several partnerships and agreements with mining towns and Provinces, the SLN helps fund municipal facilities like stadiums and contributes to the repair, restoration and construction of capital goods (bridges, roads, etc.).

## INITIATIVES RELATED TO SUSTAINABLE DEVELOPMENT

Aware of the impact they can have on their environment and communities, there are more and more sites opening up to civil society and undertaking regional and national initiatives related to sustainable development.

Site representatives contribute to local and national studies on themes like energy savings, clean production, climate plans and water conservation, via their participation in working groups on these themes. For example, the Sandouville site in France gave a talk on sustainable steam in the UIC carriage of the COP21 Climate Train that stopped in Le Havre, close to ERAMET's Sandouville site. In Senegal, GCO took part in the Sustainable Development Show. Some sites are also involved in national and European research programmes to work on various themes like energy efficiency in industry for example.

More generally, the initiatives implemented by COMILOG in Gabon and GCO in Senegal are in line with the two national programmes called "Gabon Emergent" and "Senégal Emergent" aimed at the sustainable development of these two countries' potential in human, natural and mineral resources.

# 5.3.1.2 RELATIONS WITH NEIGHBOURING AND LOCAL POPULATIONS

Aware of its responsibility towards society and more specifically towards neighbouring and local populations, the Group is committed to keeping its stakeholders informed of its activities by taking part in local information committees and by raising the general public's awareness of sustainable development.

### LOCAL INFORMATION BODIES

As sites are often located near towns, and nowadays in towns due to urbanisation, they are more than ever integrated into local life. They take part in local information and consultation Commissions to keep populations informed about their activities, to give them news on the site, particularly regarding industrial risks, to ensure transparency.

Public meetings give sites the opportunity to present a site's new activities to their stakeholders. They sometimes attract hundreds of local people who want to learn more about the industrial sites located close to their homes. In 2015, the French sites in Pamiers and Commentry, and the GCMC site in Freeport (United States) held public meetings to present the major changes of the year, like the construction of new workshops. Other subsidiaries like Erasteel Kloster A.B. (Sweden) inform local populations of any significant changes that have taken place at their site via other media, like local newspapers and newsletters, for example.

Every year since 2010, Weda Bay Nickel (WBN) Indonesia has organised numerous information meetings for the local populations. In 2015, it changed the format of these meetings: This year, WBN organised a big meeting that brought together people from over 290 villages all at once, in the presence of the project team.

## RAISING POPULATIONS' AWARENESS ON SUSTAINABLE DEVELOPMENT

As regards sustainable development, the Group's sites go further than just informing the public; they help train the public and raise its awareness.

The four examples presented here illustrate the initiatives taken to raise people's awareness on the different aspects of sustainable development in the different countries in which the Group operates.

Eramine Sudamerica in Argentina organises training sessions on the collection and recycling of waste. In Sweden, the Erasteel Kloster A. B. sites organise information campaigns for young students from Uppland province and Dalarna province to raise their awareness of sustainable development and the environment. In the United States, the Bear Metallurgical site, in cooperation with a neighbouring plant, offered the local community a free paper recycling programme via the Abitibi Paper Retriever association.

Lastly, in Gabon, information campaigns on poaching are organised every year to raise the awareness of local populations.

# 5.3.2 RELATIONS WITH OTHER STAKEHOLDERS

All ERAMET sites, whether involved in mining, metallurgy, pyro-metallurgy or hydro-metallurgy, interact with a wide variety of stakeholders on a daily basis, i.e. neighbours, schools, customers, public authorities, associations, etc. These interactions can take many forms—presenting their sites and celebrating events.

One of the first steps, prior to any discussions, is to identify and map the stakeholders, whose profiles vary according to their sites, location and activity. Using simple tools (Excel files) or specific tools, many of the Group's sites formalise these maps.

# 5.3.2.1 INITIATIVES THAT PROMOTE DIALOGUE

There are many types of dialogue with local stakeholders. These can be local consultations, specific initiatives, information meetings, or Open Days and each site acts according to its own sensibilities and resources, in line with the Group's sustainable development policy.

### OPENING THE SITES TO THE PUBLIC

To ensure transparency and communicate better, the Group's sites regularly open their doors to all types of stakeholders—employees' families, neighbouring populations, local authorities, customers, etc. These visits can host between a few dozen and a few hundred people who come to discover their facilities and activities.

They can be organised as part of a national plan such as the French "National Science and Engineering Day" or be organised to meet a local demand. In 2015, the Pamiers site (France) organised as many as 24 visits, including public presentations to show local people and schools the activities involved in metallurgy and the environment.

In New Caledonia, 1,700 visitors came to the SLN Doniambo plant and took part in three open days based on the theme "SLN generations". The fact that so many people came shows there is a great interest for the largest local company, its miners and metallurgists who have been forging its identity for generations. Visiting the industrial site and seeing the

exhibition devoted to "SLN Generations" was an emotional moment for the elders and the 7th generation employees. Visitors were also able to talk to employees about their economic, environmental and societal commitments.

### CELEBRATING EVENTS

Industrial and mining sites regularly celebrate events that are important to themselves and their stakeholders.

At the end of 2015, ERAMET Research inaugurated its new mineral processing hall in the presence of over 130 guests. During the day, visitors were able to go on a guided tour of the site, attend presentations on the research centre's skills (hydro-metallurgy, pyro-metallurgy, mineral processing, engineering, modelling, HSE, etc.) and meet experts from ERAMET Research. In Norway, the Sauda site celebrated its 100th anniversary in the company of representatives of local and national authorities and, in particular, the Norwegian Minister for Trade.

# 5.3.2.2 DIALOGUE WITH EDUCATIONAL INSTITUTIONS AND SUPPORT FOR EDUCATION AND TRAINING

The Group is committed to a policy of active support for the education and training of local communities and young people in particular. This support takes many forms on the sites, at the head office and within the Group's projects.

## DIALOGUE WITH EDUCATIONAL INSTITUTIONS

Numerous sites and subsidiaries of the Group have strong ties with educational institutions. This manifests itself in:

- site visits organised for classes of all levels;

- class sponsorships;
- partnerships with educational institutions;
- participation in the definition of training programmes for educational institutions.

Cooperation programmes with local institutions are also implemented. The French site of Aubert & Duval Les Ancizes (Puy-de-Dôme) once again took part in an organisation called "Science Schools". Made up of pupils, teachers, instructors, representatives of Aubert & Duval and local partners, this organisation sets up events related to education and in 2015 it organised two major events:

- introducing sustainable development to primary school classes via support with class projects, organising a day when all the classes presented their work and workshops prepared by Aubert & Duval;
- receiving teachers, university lecturers and scientists at the site to discuss a theme related to sustainable development and have an instructive tour of an installation.

Group representatives regularly share their expertise by giving talks to specialised master classes at schools of higher education. For example, a talk on energy efficiency was given at INSA and a talk on the environment and the social challenges of mining and industrial projects was given at the Paris École des Mines.

In Gabon, the COMILOG and Maboumine subsidiaries helped set up the training programmes for the future Mines and Metallurgy School in Moanda.

In Indonesia, the WBN project makes access to training easier by continuing to finance the schooling of 30 students and by financing 10 new grants for students from local villages, currently attending the Indonesian universities

of Makassar, Manado, Bandung, Jakarta, and Ternate.

### HOSTING STUDENTS

Every year, most of the Group's sites host interns, apprentices and PhD students for a few weeks or a few months. The students come from various horizons: junior high schools, high schools, specialised schools, universities, and top graduate schools, and they learn how an industrial site operates. They are also given the opportunity to put the knowledge they acquired on vocational courses into practice.

Therefore, the Group's sites play an important role locally as regards knowledge transfer. The Norwegian Porsgrunn site is a good example of this. In 2015, it hosted students of all levels via partnerships with various schools and for a few weeks it hosted some German students doing apprenticeships at BASF. Overall, the Group hosts approximately 1,000 students or apprentices every year.

# 5.3.2.3 DIALOGUE WITH THE AUTHORITIES

All the Group's sites are in regular contact with their authorities to discuss any subject that either party may bring up. This is the case with the Lithium project in Argentina. Every month, a meeting with the Secretariat of Mines is held to report on the progress of the project and exchange information on its development.

Even outside the context of everyday regulatory obligations, numerous sites keep in contact with their authorities; they regularly invite them to visit their facilities and learn about their business and activities. These visits are good opportunities to present what has been achieved with capital expenditure, what projects are in the pipeline and the main challenges. This was

the case when the new Moanda Metallurgy Complex in Gabon was inaugurated in the presence of the President of the Gabonese Republic, local elected representatives, the Prefect, the Governor and their teams. In 2015, the GCO site in Senegal received a delegation of several members of the Parliamentary network for Good Mining Governance, accompanied by the NGOs Oxfam and Forum Civil. On this occasion, they saw the industrial site and the process implemented and visited the new village near the site as well as the rehabilitation sites.

Relations with authorities are also fostered by the Group's Head Office. The various entities of the ERAMET group meet up with ministerial offices and departments to present the Group's activities and concerns, to take part in working groups, organise visits of our facilities, or simply answer their enquiries. Similar exchanges are had with the European authorities in Brussels.

# 5.3.2.4 STRONG INVOLVEMENT IN PROFESSIONAL BODIES

Whether at national, European or international level, ERAMET is very involved in professional bodies that represent its own activities and generally contribute to the promotion and development of companies and their industrial and commercial activities.

There are different levels of Group involvement. Several members of the Comex and Board members represent the Group in bodies concerned with governance and management: this is the case with the *Alliance des Minerais, Minéraux et Métaux* (A3M), the Extractive Industries and Primary Processing Strategy Committee, the MEDEF, EuroAlliages, the European Powder Metallurgy Association, the International Manganese Institute and

the Nickel Institute. In addition, several Group experts take part in the work of various commissions and theme-based working groups set up by these professional bodies.

# 5.3.2.5 PARTNERSHIPS AND SPONSORSHIPS

The ERAMET group is involved, to varying degrees, in different partnerships and sponsorships, based on various themes like the environment, support for the population, sport and culture.

# LOCAL PARTNERSHIPS AND SPONSORSHIPS

The vast majority of sites have entered into one or more partnerships with local associations to finance activities. The sums involved are a few hundred or a few thousand Euros in each case. Sporting activities were sponsored by French, Norwegian, Chinese, and New Caledonian sites. In Gabon, COMILOG funds the MangaSport sporting associations every year and has been doing so for several decades.

Sites encourage the development of cultural initiatives and all contribute financially to the development of various activities, i.e. supporting shows aimed at developing people's interest in classical music in disadvantaged areas (Eurotungstène, France), supporting a festival of sacred music (Pamiers, France) and an international dance festival (Tertre, Belgium). In Norway, the Porsgrunn site once again sponsored the town's theatre festival this year.

In the field of community and educational support, charities received many sponsorships for their projects. For example, in Gabon, the fight against HIV/AIDS received support; in the United States, small local projects were sponsored and in Argentina, the development of quinoa

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crops was supported. In 2015, the GCO in Senegal developed a partnership with the National Eco-Village Agency (ANEV) to provide support in setting up a new village. Among other things, the implementation of the Eco-Village concept led to the construction of 35 houses equipped with running water and solar-powered lighting, the construction of facilities for the community like a school, a dispensary and even a mosque. Moreover, reforestation was achieved by creating 15 hectares of woodland around the village. To bear witness to the good practices implemented in this project, the government of Senegal invited representatives of the GCO, together with the ANEV, to take part in the COP21 held in Paris in 2015.

Some sites fund environmental protection initiatives or enter into partnerships with NGOs. In 2015, the SLN entered into a partnership with Mocamana, an environmental association involved in reforestation initiatives in New Caledonia. The four Norwegian sites of TiZir Titanium & Iron in Tyssedal, and ERAMET Norway in Kvinesdal, Porsgrunn and Sauda have been partners with Bellona for several years. This NGO provides them with advice and expertise on subjects related to the environment.

### **FOUNDATIONS**

The ERAMET group now supports two foundations created in 2010. The first was set up as part of the WBN project and the second was created under the aegis of Aubert & Duval and is dedicated to this subsidiary's French sites.

The Saloi Foundation, set up and sponsored by the WBN project in Indonesia, aims to implement community development programmes on Halmahera Island. In concrete terms, it acts in four areas: education, the local economy, health, environmental and cultural initiatives.

The Aubert & Duval Foundation aims to develop initiatives that contribute to the vitality of the French regions in which Aubert & Duval sites operate and to support local micro-economic projects and associations. The Foundation focuses on two areas: promoting regional action (local economic initiatives,

micro-entrepreneurship, the development of tourism, etc.) and human development (sporting, cultural, and leisure activities, training and education, etc.). The Foundation collects applications from the French Aubert & Duval sites seeking funding for sponsorships, studies the projects and then arbitrates. The Foundation's Executive Committee then allocates a budget to the sites for their sports, cultural or charity sponsorships.

So once again in 2015, the Aubert & Duval Foundation sponsored the Combrailles Training Centre (Puy-de-Dôme), that started operating in 2015 and that provides technical training for different people: apprentices, those on sandwich courses, salaried employees following ongoing training courses, job seekers, etc. Located near the site in Les Ancizes (France) and open to all local companies and groups, the Combrailles Training Centre can cater for up to 500 trainees per year.

Moreover in 2015, AFFRI (The African Foundation for Resources and Industry) set up at the initiative of ERAMET and MDL, the two shareholders of TiZir Ltd which owns the Grande Côte deposit in Senegal, continued designing and preparing an economic and social development project for the benefit of rural communities located close to the Grande Côte project.

# 5.3.3 RESPONSIBLE GOVERNANCE

# 5.3.3.1 CODE OF ETHICS AND TRANSPARENCY

In line with the values ERAMET group has established for itself and to respond more effectively to the global issues it faces, on 1 January 2015, the Group adopted a new Code of Ethics that has been translated into the twelve languages used within the Group and which has four goals:

- respond to social change better;

- specify, clarify and explain the essential notions concerning the working environment of the Group's employees;
- give clearer, more explicit indications on the legal obligations imposed on everyone, and take account of changes in national and international legislation governing the Group's activities;
- ensure the internal coherence of documents and usefully complete a system of internal rules and commitments.

In the course of 2015, the Code of Ethics was widely circulated. All managers in the Group, whatever the country of the site, received a communications kit to help them raise the awareness of their teams with regard to the Code of Ethics.

Lastly, a task force has been set up to develop a rapid learning module on the Code of Ethics in 2016 for all the Group's employees.

Of all the themes developed in this Code, business ethics has a very mobilising effect. More than half of the Group's sites have spent time discussing this subject in the Company at least once in the year.

Moreover, via its employees, ERAMET is involved in national, European and international federations representing the sector's interests. It is for this reason that the Group registered with the European Union's Transparency Register.

# 5.3.3.2 EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI)

ERAMET has been a supporter of EITI (Extractive Industries Transparency Initiative) since 2011. Based on a set of principles and rules, as well as a coalition made up of governments, companies, civil society groups, investors and international organisations, EITI promotes transparency on local revenues. In signing up to these principles, ERAMET shows its intention to beneficiate natural resources responsibly and be transparent on money transfers between businesses and

host countries, but also to report regularly to its stakeholders.

By taking part in national and multi-stakeholder working groups, ERAMET's EITI correspondents help implement the EITI in the different countries in which the Group operates, i.e. the countries that adhere to this initiative or that have applied for membership. Moreover, ERAMET keeps a close watch on the changes and implementation of France's membership of the EITI announced by the President of the French Republic at the G8 Summit held in June 2013 in Moscow. Lastly, ERAMET follows the progress of the reform of governance and the EITI standard scheduled for 2016.

### 5.3.3.3 CUSTOMER RELATIONS— PRODUCT INFORMATION

The Group's sites implement product traceability which involves providing information on all the stages of the process, i.e. the receipt of raw materials, the manufacturing of the finished product and delivery to the customer.

When compulsory, the sites produce safety data sheets (SDS) to circulate information on chemicals. However, when it is not compulsory to draw up a SDS but the Group considers that external and internal stakeholders should have sufficient information on products and substances, sites draw up RMIS (Risk Management Information Sheet), which are nearly the same as SDS.

Moreover, the Group's entities and sites only sell their products to other industrial operators ("Business to Business" relations). Within this framework, the Group produces full information on the product and its downstream use and distributes it to its customers. Numerous information and discussion forums are organised for players involved in upstream and

downstream sectors of the metal and metal processing industry.

Product traceability is mainly carried out upstream to identify the source of the raw materials. Those who use our products, especially major customers from cutting-edge sectors, attach great importance to traceability because it enables them to track the raw materials used to make a particular part and to identify all the stages that led to the production of the finished product from this material.

# 5.3.4 RESPONSIBLE PURCHASING

# 5.3.4.1 THE GROUP'S RESPONSIBLE PURCHASING CHARTER

In force since 2013, the Responsible Purchasing Charter formalises the Group's desire to ensure that purchasing integrates sustainable development issues better and it strives to promote a process of continuous improvement. ERAMET's expectations with regard to its suppliers, subcontractors and service providers concern three main areas: working conditions and labour standards, the environment, good business practices.

The in-house deployment and awareness building continued in 2015. One-third of the Group's industrial and mining sites give the Responsible Purchasing Charter to their subcontractors and suppliers and the long-term objective is that all ERAMET sites will do this.

Some sites have also formalised a responsible purchasing process more specifically. This is the case with COMILOG in Gabon which has drawn up a "Supplier Guide" describing the Responsible Purchasing Charter and the values on which it is based.

# 5.3.4.2 RELATIONS WITH SUBCONTRACTORS AND SUPPLIERS

Due to its activities, ERAMET has recourse to purchasing and subcontracting. Great attention is paid to this subject because of the specific issues associated with the Group's activities and also because of the strong expectations of the stakeholders in this matter.

Therefore ERAMET gives priority to suppliers that offer products and services that are environmentally friendly and socially responsible while remaining very competitive and prefer to work with local suppliers.

With purchases representing almost XPF 30 billion (€251.40 million), 90% of which are made locally, a significant proportion of the SLN's expenses are incurred through purchases from companies in New Caledonia, and the SLN takes account of social and environmental aspects in its approach to local suppliers.

In line with the principles set out in the Responsible Purchasing Charter, more and more sites are integrating CSR criteria into their assessments of subcontractors and suppliers. This is the case with some ERAMET Nickel sites (SLN in New Caledonia, WBN in Indonesia) ERAMET Alloys (Pamiers, France) and ERAMET Manganese (Guilin and GECC Chongzuo in China) which in 2015, added a series of questions on environmental protection and business ethics to their supplier assessments.

At the French sites of Aubert & Duval TAF in Gennevilliers and Les Ancizes, suppliers are always required to provide indicators on safety and the environment, including their compliance with certifications such as the ISO 14001, etc. Moreover, the site in Les Ancizes checks the dependency ratio of its suppliers and aims to ensure that it does not represent more than 20% of their sales.

At Eurotungstène (Isère, France), the level of quality of its suppliers is assessed according to their fulfilment of the commitments made. Boasting triple certification, the site adopts a continuous improvement approach with its suppliers. To ensure this approach, all of Eurotungstène's "key" suppliers are assessed by the Purchasing department every year. As the internal customers are involved in the assessment, it is an opportunity to exchange ideas and make progress. This type of annual assessment of suppliers that directly affect the final product delivered to the customer is also conducted on the sites of the Group's subsidiary Erasteel.

Moreover, the Group makes sure that its suppliers comply with the European REACH regulations and wishes to promote good business practices. ERAMET also took part in various French initiatives (SME pact, Innova-

tive SME) aimed at improving the visibility of commitments among suppliers.

# 5.3.4.3 MONITORING AND SUPPLY OF "CONFLICT MINERALS"

Some of the Group's sites use tungsten or tin in their production process. These two minerals are considered as "conflict" minerals because in some regions of the world the activity may be used to finance armed groups and fuel civil wars. Eurotungstène pays close attention to the conditions in which these resources are mined, to compliance with the "Conflict Mineral Trade Act", more commonly called the Dodd Frank Act, and to the guidelines set out for multinational companies by the OECD. Eurotungstène is also a member of the TI-CMC (Tungsten Industry—Conflict Minerals Council) and as such is listed as a company that gets its tungsten supplies from compliant

suppliers ("conflict free smelters"). Moreover, Eurotungstène has set up a process whereby it gets suppliers to make a written commitment to meet these requirements and it systematically examines any potential new entrant in the suppliers' list.

In 2014, the subsidiaries of ERAMET Alloys, Aubert & Duval and Erasteel, adopted a "Conflict Minerals Policy Statement" specifying that ERAMET Alloys will not obtain supplies of minerals from areas of conflict and requires its suppliers to give information on the source of supply of these metals.

Lastly, the Group's Public Affairs Department is keeping a close eye on work on the plan to introduce a European Regulation on conflict minerals and any implications for the Group if this regulation is adopted.

# 5.4 INDUSTRIAL AND MINING PROJECTS

ERAMET is driving projects, currently at different stages of maturity, some of which are described below:

- 1. the Weda Bay Nickel project in Indonesia;
- 2. the Maboumine project in Gabon;
- 3. the new electrical power plant in New Caledonia:
- 4. the SETRAG modernisation project;
- 5. the Lithium project in Argentina;
- the plan to extend titanium activities in Varilhes, France (MKAD), and the plan to recycle aeronautical titanium (EcoTitanium);

7. the plan to create added value by recycling metals, for the Erasteel Commentry site in France.

It should be pointed out that the Board meeting on 14 October 2015 suspended the Group's major projects.

All these projects are developed in accordance with the Group's Sustainable Development policy, with its Code of Ethics and environmental, health and safety charters and international reference standards. The aim is to establish a long-term trusting relationship with the communities present in the regions where the Group operates, and to prevent any violation of the basic rights of these communities, particularly the native communities, as appropriate. This is achieved by implementing mechanisms for dialogue with representatives of the stakeholders concerned.

Environmental, social, corporate and health aspects are taken into account right from the beginning. Experts and specialists in sustainable development are incorporated into the industrial, technical, legal and financial

teams and participate in the various steering and management committees right from the project brief, feasibility and pre-construction stages. Likewise, they take part in the due diligence audits in the case of planned M&As, and in due diligence audits related to asset disposals. Lastly, the environmental and social aspects for which the Group can be held liable are integrated into the risk assessment and management process for these capital expenditures.

# 5.4.1 THE WEDA BAY NICKEL PROJECT IN INDONESIA

Due to the depressed market conditions, most projects for nickel-processing plants in Indonesia have either been put on hold or are advancing at a much slower pace, and ERAMET is no exception. Together with its Japanese and Indonesian partners, the Group decided to suspend the Weda Bay Nickel project (WBN) in 2014.

As a result, the impact study addenda being drawn up to take account of the latest recommendations issued by the International Finance Corporation in 2012, as well as the latest engineering adaptations to the project design have been suspended.

However, the teams dedicated to sustainable development at the site remain mobilised and are focussing their efforts on monitoring and managing environmental and social aspects, ensuring compliance with the Equator Principles, the International Financial Corporation's Performance Standards, the Group's policies and Indonesian regulations.

In line with its commitments, WBN actively maintains relations with local communities, Indonesian authorities and its scientific partners.

The deployment of its social and environmental management plans in the field and with its subcontractors strengthens the development of the project's overall environmental and social management system.

In accordance with the statement made, the project has been suspended until the middle of 2017 at the earliest.

### 5.4.2 THE MABOUMINE BENEFICIATION OF NIOBIUM AND RARE EARTHS IN GABON

The company Maboumine, a subsidiary of COMILOG, holds a mining exploration licence for the Mabounié polymetallic deposit, near the town of Lambaréné in Gabon. This deposit is rich in niobium (used in steels and super alloys), rare earths (group of 17 metals used in hybrid cars, wind turbines, oil catalysts, etc.) and uranium.

After the first initial characterisation studies conducted between 2012 and 2013, a social and environmental impact study was carried

out in 2015 as part of plans to construct a pilot plant. This study found that the potential impacts are acceptable.

For several years, ERAMET's research centre has been working with international research laboratories to develop an innovative hydro-metallurgical process to extract the valuable elements from this deposit.

In 2014 and 2015, a framework study was carried out to draw up a projected business plan for an industrial project of which the specifications had not yet been confirmed, given the uncertainties weighing on market prices, particularly rare earths.

Moreover, the level of technical risks means that R&D studies need to be continued in order to develop an economically viable process.

Discussions are currently under way with all the stakeholders, especially the Gabonese Republic, concerning the future of the project.

# 5.4.3 PLANS FOR A NEW ELECTRIC POWER PLANT IN NEW CALEDONIA

In New Caledonia, at the Doniambo industrial site, the SLN recovers its nickel ores via a pyrometallurgical process. The drying, calcination and reduction furnaces are mostly fuelled by a fuel plant dating back to 1972.

This project meets two fundamental requirements for the SLN's site:

- 1. Replace the present power plant and thus sustain the industrial activity.
- Improve performance and considerably reduce the environmental footprint (the new power plant will comply with the most recent European environmental standards on air emissions).

In 2015, the SLN applied for its building permit and operating permit.

However, confronted with difficult economic conditions, the ERAMET group decided to suspend the project at the end of 2015.

# 5.4.4 THE SETRAG MODERNISATION PROJECT

The Trans-Gabon railway crosses Gabon, from Libreville to Franceville, over a distance of 710 km and has 52 engineering structures and 22 stations. As well as transporting ore from COMILOG to the port of Owendo, it plays a strategic role in the country's economic development.

The company SETRAG (Société d'Exploitation du Transgabonais) operates the railway within the framework of a Concession Agreement drawn up in 2005 and updated in 2015. SETRAG manages the infrastructure, the traffic and railway operations (passengers, wood, ore and other goods).

Over the past several years, SETRAG has stepped up the pace of maintenance and restoration work on the Trans-Gabon railway line. These efforts go beyond normal maintenance.

Yet despite all this work, the general state of the railway continues to penalise network operations. Therefore, SETRAG has decided to intensify the infrastructure renovation programme. This requires a high level of capital investment that cannot be financed by own resources. So the company has turned to the International Financial Corporation and Proparco to study the possibility of funding for this programme.

In order to complete the application for funding and also to manage the risks and impacts related to this programme and to apply for the operating permit, between 2014 and 2015, SETRAG launched an environmental and social assessment study and developed management plans and dedicated initiatives.

# 5.4.5 THE LITHIUM PROJECT IN ARGENTINA

Lithium is one of the metals with a high growth potential—to develop energy storage in portable equipment and electric vehicles for example. ERAMET teams have developed an innovative extraction process for the production of lithium salts used in the manufacture of cathodes for Lithium-ion batteries.

This is an alternative way of producing lithium salts from brine and is fundamentally different from the traditional process involving the natural evaporation of brine. The environmental impact of this new process is far lower than that of the traditional process. This process was developed in partnership with IFPEN (IFP Energies Nouvelles) and ten patents have been filed for it.

In 2012, the Argentinian subsidiary, ERAMINE SUDAMERICA S.A., discovered a deposit of lithium in the Province of Salta, in the north of Argentina: the "salar de Centenario-Ratones". Since then, it has conducted an exploration programme which revealed considerable potential resources, and enough to develop a large-scale industrial project (see chapter on resources—reserves).

In 2014, the Salta government endorsed the agreement signed by REMSA, a public company in the Salta Province, and ERAMINE SUDAMERICA which allows ERAMET to acquire mining shares in the deposit that extends over almost 500 square kilometres. The agreement not only allows ERAMINE SUDAMERICA to carry out a programme of work to estimate the resources and evaluate the deposit, it also provides for the taxation framework for its industrial operations.

In 2015, the exploration programme was continued to confirm the extent of the deposit and enhance the reliability of estimations of lithium resources. The exploration activities, such as the drilling, pumping tests, hydrodynamic modelling, engineering studies and social and environmental studies required for the development of the project were conducted

in accordance with the Group's Sustainable Development policy, in other words, in compliance with Argentina's regulations and international standards. ERAMINE SUDAMERICA has regular exchanges with communities living near the site of the project and has launched several development projects with them.

# 5.4.6 THE EXTENSION OF TITANIUM ACTIVITIES IN VARILHES IN FRANCE (MKAD) AND THE AERONAUTICAL TITANIUM RECYCLING PROJECT (ECOTITANIUM)

In order to provide a comprehensive offering to its customers, MKAD, a joint venture created by Mecachrome and Aubert & Duval, located near the present Pamiers site, in the town of Varhiles, less than one hour from Toulouse, intends to develop a unit specialising in finishing aviation-grade titanium parts and to consolidate the Group's position in closed dieforged parts. This two-stage project involves the creation of a new plant that will complete the European aviation-grade titanium parts sector.

In 2015, MKAD obtained its operating permit for the first phase (production in one single place of current parts divided between numerous subcontractors) and is preparing the technical files for the second phase (stepping up its current and future programmes).

Moreover, the construction of EcoTitanium is still under way on the Saint-Georges-de-Mons site, with a view to setting up the first aviation-grade titanium recycling sector.

# 5.4.7 THE PRODUCTION OF HIGH-SPEED STEEL AND THE RECYCLING OF BATTERIES AND CATALYSTS ON THE SAME SITE IN FRANCE

In 2015, ERAMET decided to group together the activities of three plants on the Erasteel Commentry site:

- the recycling of alkaline and saline batteries that used to be carried out at Valdi Feurs but which stopped in 2011;
- the recycling of oil catalysts carried out at Valdi Le Palais-sur-Vienne;
- the production of high-speed steels carried out at Erasteel Commentry which uses metals recycled by Valdi.

This project benefits from strong industrial synergies and a value chain approach based on innovative and efficient resources. It is located in the heart of the town and its future activities will depend upon a "Seveso high threshold" status due to the storage of large quantities of used oil catalysts. This project shows the shift from steel making to waste recycling using the process employed by Valdi in the past together with many environmental, technical and industrial improvements.

The environment, safety and stakeholder consultations were taken into account right from the framework study. Design criteria were defined, an application for an operating permit (DDAE) was drawn up and there were regular discussions with local populations, local elected representatives, nearby manufacturers, and the Regional Directorate for the Environment, Planning and Housing (DREAL).

The application for the DDAE was filed in March 2015. The public enquiry was carried out in June and July 2015 and was preceded by an information meeting with local residents. The building permit was granted in June 2015 and the application for an operating permit is being studied at the beginning of 2016.

# 5.5 **RESPONSIBILITY**

# FOR CHEMICALS

### 5.5.1 CHALLENGES

ERAMET is one of the world's leading producers of alloy metals, super-alloys and high-performance steels, and also produces a series of chemicals resulting from various hydro-metallurgical and recycling processes. The Group pays special attention to the management of the chemical substances and mixtures it uses or produces, and strives to replace the most dangerous substances whenever possible to ensure a high level of risk control and protection for human health and the environment.

Because of its diversified activities, ERAMET acts on two fronts—it both uses and produces substances and chemical mixtures. Indeed, the development of these products requires the use of ores, minerals, recycled secondary materials and a series of metal additives to ensure the right composition of the shades required. The use of chemicals as "commodities" (acids, bases, salts, etc.) is also common. Moreover, the Group has to manage numerous products used in laboratories, in the maintenance of facilities and for other specific purposes like treating water, trapping gases, and airborne particles.

To improve knowledge on the intrinsic properties and impact of the products and to specify risk management measures, a great deal of commitment is required. This involves both analysing the dangerousness of the metals in certain products and taking their physical form into account according to whether they

are sold as solids or not. The Group's mining activities are also integrated into these studies.

The Group's commitment is reflected in its involvement in professional organisations dedicated to developing robust scientific knowledge and also in the role of lead registrant taken on by some subsidiaries to meet the requirements of the European REACh regulation (Registration, Evaluation and Authorisation of Chemicals).

At European level, special attention is still paid to the authorities' monitoring of the selection of substances of very high concern and to the process that may result from their inclusion in the candidate list for authorisation. Indeed, the REACh regulation includes an authorisation procedure aimed at gradually replacing substances of very high concern with less hazardous substances. Selection of these substances involves the Member States. the European Commission and the European Chemicals Agency (ECHA), as well as producing companies, importers and users of these substances and other interested parties. This selection process continued throughout 2015. The Group took part in some of this work and actively contributed to discussions between producers and users, particularly within the professional organisations concerned.

At an international level, new regulations and important revisions came into effect in 2015. In the USA in particular, the "HAZCOM 2012" revision was introduced by the OSHA (Occupational Safety and Health Administration). It

concerns the hazard standards communication which now adopts the UN GHS benchmark system (Global Harmonized System). It is much easier now to compare an American Safety Data Sheet (SDS) with a European one. This globalisation and harmonisation of rules and standards has also led to the application of regulations that are similar to REACh in South Korea, China and Turkey. ERAMET followed the application of these new regulations closely, but considers that the impacts on its markets are limited.

# 5.5.2 THE ORGANISATION AT ERAMET

In 2015, the internal organisation of the Group with regard chemicals management became centralised at Group Management level in order to increase the synergy between Divisions and to improve the exchange of good practices. Five years after the first REACh registrations, chemical risk management has reached maturity and regulations and practices are tending to become globalized.

# **5.5.2.1 HARMONISING PRODUCT DOCUMENTS**

One of the fundamental missions of chemicals expertise is to provide support to in-house clients like departments involved in sales, logistics and industrial matters. In 2015, this involved revising more than 100 Safety Data Sheets (SDS) of commercialised products. This update led to the permanent elimination in June 2015 of the former hazard assessment classification system based on directive EU 67/548, which was replaced by the application of the EU 1272/2008 regulation, known as the CLP regulation.

The updates must always be available in the client's language. This means always having

the SDS available in the five European languages: French, English, German, Italian and Spanish and being able to provide versions in Swedish, Slovakian, Portuguese, Chinese, Arabic, Korean and Japanese, depending on the clients. The exposure scenarios for all safety data sheets distributed in Europe were also reviewed. This second part of the SDS, only required in Europe, specifies the conditions of use and the precautions to take to ensure safe and controlled levels of exposure.

This new organisation also allows expertise to be provided in the upstream stages of project design.

# 5.5.2.2 CENTRALISING SCIENTIFIC EXPERTISE

In Europe in 2015, the hazard classification system based on the CLP regulations was applied to mixtures. For a mining and metallurgical Group like ERAMET, mixtures are usually alloys, i.e. a particular mixture of different metals, based on a specific structure and fixed process.

The knowledge acquired by different Divisions, on each of the constituents may partially explain the chemical characteristics and the impacts on health and the environment. Therefore, it is efficient to centralise information and studies from each Division (nickel, cobalt, manganese, copper, etc.) in order to describe the toxicological and ecotoxicological properties of the Group's alloys.

To illustrate the importance of this inter-divisional exchange of information on alloys, the Nickel Division carried out different studies on cobalt metal in 2015. They provide a better understanding of how this metal behaves in an alloy structure and provide justification for placing the alloy in a specific hazard classification.

This complementarity also applies to ores. Scientific studies had already been carried

out on nickel ore and they concluded that it presented no danger. In 2015, similar studies were carried out on manganese ore and they also concluded that it presented almost no danger, except for a property that caused mild irritation to the eyes. This finding led to the revision of the manganese ore classification. A note indicating "Eyes irritant 2" was added and a SDS was provided.

Further information can also be requested by authorities like the European Chemicals Agency (ECHA) which, following the examination of REACh files on several manganese compounds (manganese dioxide, manganese carbonate, silicomanganese and ferromanganese slag), decided to ask for further toxicological tests at the end of 2014. In 2015, the required information was collected by the manganese compounds consortium and completed with toxicological tests. Therefore, the Manganese consortium will be able to reply to the authorities within the deadline, in the second half of 2016.

# 5.5.2.3 COMPLEMENTARITY IN COMPLIANCE WITH REGULATIONS

The latest changes to SEVESO III also came into force in Europe in 2015. This directive provides a framework for the prevention of major industrial risks, and greatly strengthens the link between the SEVESO classification and the chemicals classification. A great deal of support on this matter was provided to those European sites in the Group concerned.

The aim was to facilitate the exchange of information and know-how for the characterisation of products and risk control, in order to establish the most accurate and pertinent classifications and to adapt the preventive measures for potential risks as efficiently as possible. For sites, this also allows any issues related to product regulations to be managed in an efficient and cross-functional manner.

This rigorous approach taken to understand products also applies to suppliers. Numerous audits on the quality and conformity of information in the suppliers' SCS were also carried out in the Alloys Division.

Moreover, changes to the classification of hazardous products from the constitution of REACh files also have consequences on the conditions under which hazardous materials are transported. Some changes in the classification of hazardous products can even lead to modifications in international shipping regulations. This "upstream-downstream" connection between the two hazard classifications have to be anticipated and monitored to ensure deliveries comply with regulations. In 2015, the Group strived to do this with the utmost rigour.

# 5.6 HEALTH AND SAFFTY

# 5.6.1 STRUCTURE AND FUNCTIONING OF HEALTH AND SAFETY

The Group's commitment to Occupational Health and Safety is made at the highest levels of the Company by the Group's Executive Committee. ERAMET's Director of Human Resources is in charge of the dedicated initiatives.

This commitment is materialised in a Safety Charter that was revised in 2015 and a Group Health Policy drawn up in 2007.

The Director of Safety and Prevention and the Group's Medical Officer report directly to him. Together, they draw up the Health and Safety policy and orientations for the Group and propose them to the Executive Committee. Once they are approved, these orientations are applied in the Divisions by the Deputy CEOs, assisted by Health and Safety coordinators, then they are applied at the sites by the Directors of the sites, who are assisted by site health and safety coordinators.

To protect the health and safety of employees as well as subcontractors working on sites, preventive measures are taken at workstations. They aim to ensure the fitness for employment of these workers and prevent accidents and occupational illnesses.

At each site, occupational health professionals monitor the health of the employees. The Group's main sites (Les Ancizes, Pamiers for Aubert and Duval, Doniambo for the SLN,

Moanda for COMILOG, Owendo for SETRAG) have an Occupational Health Department with one or more occupational health officers and nurses.

In 2015, to improve efficiency, this organisation was reviewed: new management rituals were defined and implemented, teams with expertise on hazardous substance exposure (CMR, dust, etc.) were grouped together at Group level and new guidelines were formalised. This maximizes synergies between the security, health, and environment functions, and also Group auditing and risk management functions, and represents a move towards a common culture of risk management.

# 5.6.2 HEALTH & SAFETY ORIENTATIONS AND ACHIEVEMENTS IN 2015

In 2015, six agreements related to safety were concluded and signed. They concern the following sites:

- For Alloys: UKAD, Erasteel GmbH.
- For Manganese: Baltimore, Marietta, Sauda and Chongzo.

Moreover, in 2015, the Group's orientations concerned:

- The reorganisation of HSE within the framework of Optimum.
- Initiatives in the field continued, particularly associating first-level supervision with the use of Safety tools, both for employees and for the main subcontractors.
- Resources were centred on dealing with workstations presenting the highest risks.
- Reporting and analyses associated with accidents were improved.
- Medical surveillance of employees was improved.

- The quality of life at work was improved by taking more account of change management.
- Support for the epidemiological studies in Moanda.

The achievements described below are some examples of how these orientations were implemented:

# 5.6.2.1 OVERHAULING THE GROUP'S HSE AUDITING PROCESS

In order to improve the HSE management process, the Group's internal auditing system that had been in place for more than 10 years was reviewed.

Two types of audits were defined:

- audits to review risks;
- detailed audits focused on certain priority risks

New reporting formats were created to make them more global, easier to assimilate by the entities being audited and perfectly in line with the risk management process. Therefore, from just a few graphs, management can interpret the main issues identified by the audit.

Lastly, the rituals of monitoring post-auditing actions were reorganised between the divisions and the Group's HSE departments.

Eight Group HSE audits were carried out at the three divisions' industrial and mining sites in 2015, resulting in the mapping of specific risk control.

# 5.6.2.2 GENERAL IMPLEMENTATION OF "DETECTION-ACTION" TOOL

In 2015, the "detection-action" tool was generalised. This means that any ERAMET employee can take immediate action to reduce

the risks when he or she detects a situation that presents a specific hazard.

This process has two objectives:

- ensure greater strictness by forcing workers to see working situations in terms of safety;
- create a reflex whereby workers reacts immediately when faced with any potentially dangerous situation.

Everyone, including supervisors, workers, office staff and administrative staff, helped improve working situations by taking standard initiatives like tidying up, making the right choice concerning tools and PPE (Personal Protective Equipment), correcting postures and attitudes that pose a risk and signposting hazards that cannot be eliminated immediately. On its own, the pioneer of this approach, i.e. the Alloys Division, took over 180,000 initiatives to reduce risks.

### 5.6.2.3 SYSTEMATIZING SAFETY-ORIENTED INTERACTIONS IN THE FIELD

To improve managerial proximity, the Group deploys its supervisors, of all levels, and trains them to interact with operators in the field of Safety.

This approach has three objectives:

- mark the commitment and rigour of the whole managerial line;
- improve pragmatic knowledge on hazards in the field via a benevolent approach for operators;
- ensure supervisors gain a better understanding of the actual problems that teams encounter in the field so they can help the teams better.

Deployed by members of the COMEX each time they visit the site, these interactions are essential aspects that help improve the culture of Safety in the Group.

# 5.6.2.4 TAKING ACCOUNT OF THE QUALITY OF LIFE AT WORK AND PSYCHO-SOCIAL RISKS WHEN REORGANISING HEAD OFFICE FUNCTIONS AND SUPPORT FUNCTIONS

Important changes in the organisation of head office functions and support functions may lead to psychosocial risks. They have been reduced thanks to several initiatives as well as institutional social dialogue:

- A participative approach to develop cost-reduction measures, involving 70 managers in workshops, generated ideas that were then submitted to the Group's COMEX for arbitration. This phase of preparation and thought allowed managers to take control of the changes they considered useful and necessary.
- A human impact study was carried out to measure the risks associated with the changes requested and risk control initiatives were defined and implemented.
- The project was conducted with as much transparency as possible and different communication tools were targeted at each category of staff to support the information passed on to social partners: "Optimum cafés", periodical letters, information meetings, etc.
- Specific support was offered to each of the staff categories affected: "manager workshops" targeted supervisors to train them how to use change management tools and discuss difficulties with their peers. Confidential and personal "Information and Advice" consultations, available to everyone, provided support to employees affected by the plans to help them plan for a career outside of ERAMET. Lastly, an occupational psychologist was available at set times for anyone who wanted to have an anonymous consultation.

All these measures allowed employees to overcome the difficulties that such a reorganisation implies.

# 5.6.2.5 INTRODUCTION OF A HEALTH INDICATOR PILOT SYSTEM

The health department in Pamiers (Aubert & Duval) is testing a series of health indicators to track the impact of occupational health prevention measures. These indicators cover awareness raising initiatives, job retention initiatives, chemical risks and the quality of life at work. They are being deployed gradually, starting with the Alloys Division.

# 5.6.2.6 MOANDA EPIDEMIOLOGICAL STUDY

Several recommendations were made at the 8th FED SYSMIN and one of them was to conduct an epidemiological study. Therefore, to assess the potential impact of its mining and industrial activities on the health of local populations, COMILOG conducted a series of environmental and health studies in Moanda that lasted more than two years.

The populations' exposure to fine dust and Mn dust by inhalation and by ingestion was assessed. At the same time, a case-control study and surveys of local populations were carried out. The findings were presented to the Gabonese Ministry of Health directorate general, to COMILOG's Management Committee, to the Formalised Consultation Framework and to local populations (at a meeting in Moanda town hall).

The main conclusions indicate that COMILOG's mining and industrial activities do not present any health hazards for local populations. The whole dossier (six reports) is in the process of being approved by the Gabonese Ministry of Health.

Recommendations from these studies will continue to be discussed and decisions will

be taken within the Formalised Consultation Framework as part of its ongoing activities.

5.6.2.7 ASBESTOS-RELATED RISK MANAGEMENT

For the Group, asbestos-related risk management concerns environmental asbestos at Nickel mines and products containing asbestos at industrial sites.

In New Caledonia, there are specific operating procedures to control asbestos-containing seams if they are discovered during mining operations. Operators are trained to take the necessary precautions and specific medical surveillance is provided, in consultation with

the authorities, social partners and other mine operators.

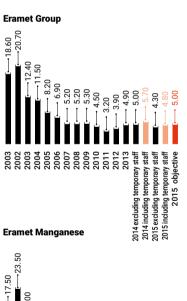
None of the Group's industrial sites have ever produced or transformed asbestos nor sold materials that are fully or partly made of asbestos. This material has never been a raw material for the Company but only a constituent of some of the materials used in its heat transfer equipment. For example, heat-resistant materials containing asbestos, used in the past at the Les Ancizes site, represented less than 1% of all heat-resistant materials used at the site

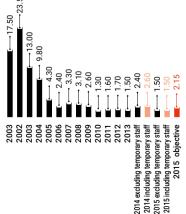
In line with applicable regulations, most notably in France, technical asbestos audits were carried out by approved inspectors at all the Group's industrial sites, and the audit findings and recommendations have been used to prepare detailed action plans.

# 5.6.3 HEALTH & SAFETY PERFORMANCE

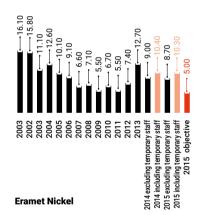
The Group monitors the accident rate at its sites constantly and the results are formally reviewed every month. The indicators monitored concern the frequency rate of lost-time accidents and of accidents without lost-time for ERAMET staff and for temporary staff and the accident severity rate for ERAMET staff. The trends of these indicators are displayed below.

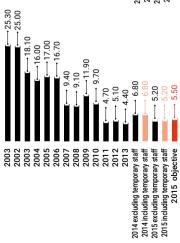
### Changes in the Frequency Rate (TF) since 2001





### **Eramet Alloys**





There were 122 accidents with lost-time in the Group (employees and temporary staff), down 14% compared to 2014. The frequency rate associated with this is 4.8. The Group had set an objective of under 5. In 2015, the severity rate was 0.26. No fatal accidents were declared.

These encouraging results confirm the adjustments to the Safety Charter and the areas of work considered. This approach, based on proximity to the field and the involvement of the whole managerial line, from directors to workshop foremen, will be consolidated in 2016.

# 5.7 HUMAN RESOURCES

# 5.7.1 THE GROUP'S HUMAN RESOURCES POLICY

The ERAMET group feels that the men and women in its community are the leading factors that drive its performance. They are responsible for the strength of the customer relationship, which is at the heart of the Group's business development. They are responsible for future growth driven by enhanced technological leadership and on the most comprehensive possible demonstration of their managerial and technical capabilities. Lastly, they are responsible for controlling the management and operational excellence in each Division.

The ERAMET group's Human Resources strategy is an adaptation of the strategy adopted by the Group to deal with its challenges. It is based on six main strategic objectives:

- 1. Identify, attract, retain and develop talented people, reflected in our will to diversify our talent pool and make it more international, with more women in managerial positions, develop local talent, anticipate skills that will be required, develop cross-functionality, versatility and mobility to provide staff for our projects and absorb cycles, prepare tomorrow's leaders, develop and pass on skills.
- 2. Develop and recognise performance that creates value by ensuring that a performance process is implemented and managed, supporting employees' performance and strengthening the relation between pay and performance: basic, variable and longterm pay.
- 3. Strengthen managerial skills, define and promote the role of management by associating it and training it to manage its teams.

- 4. Help implement an employee-friendly working environment that complies with Group values by aiming for 'zero accidents', by promoting well-being at work illustrated by equality, transparency, exemplary management, ethics and the observance of the Group values, by active management of issues related to Occupational Health, the implementation on all sites of national regulations and ILO directives, and by ensuring our employees benefit from social protection to cover major risks while maintaining our competitiveness.
- 5. Develop and promote constructive relations with social partners by ensuring the implementation of a decentralised but coordinated approach anchored to the economic realities of companies and sites, by promoting transparent and continuous dialogue, by ensuring that systems and organisations evolve and by being exemplary in the handling of social issues.
- 6. Develop the operational excellence of the HR function, by acquiring efficient an appropriate tools, by presenting a clear and legible organisation that serves its in-house clients, by placing the HR function at the heart of strategic and business objectives.

While ERAMET has a very marked international dimension (more than 62% of its workforce works outside mainland France), the Group also relies on subsidiaries which are highly present and well-known locally. The Group's human resources management is thus decentralised but it is still based on unifying principles and tools that are shared by all Group companies and sites.

ERAMET group's social policy clearly reflects its desire for:

- strong Group management involvement (information and discussion seminars, development courses, meetings with Group and Company managers, intra and inter-divisional career development and mobility);
- employee involvement in the life of their Company and Group via regular, clear information (regularly distributed Company and site newsletters, Group intranet, induction days for new recruits);
- dialogue with social partners, both formally (remuneration policy, training, welfare and employment management) and on a day-today basis on sites.

### **5.7.2 EMPLOYMENT**

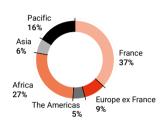
### 5.7.2.1 TOTAL WORKFORCE AND GEOGRAPHIC BREAKDOWN

On 31 December 2015, the Group employed 13,938 employees in 20 countries, compared with 13,992 employees on 31 December 2014. The HR reporting in force within the Group concerns the consolidated workforce and the managed workforce.

### Workforce on 31 December (open-ended and fixed-term contracts)

	2013	2014	2015	BREAKDOWN IN 2015
France	5,368	5,171	5,159	37%
Europe ex. France	1,370	1,345	1,316	9%
The Americas	693	665	666	5%
Africa	3,331	3,747	3,771	27%
Asia	1,045	854	822	6%
Pacific	2,219	2,210	2,204	16%
TOTAL	14,026	13,992	13,938	100%

### Total workforce in 2015 by geographical area



### 5.7.2.2 BREAKDOWN OF TOTAL WORKFORCE BY DIVISION

Between 2014 and 2015, the listed workforce remained stable. It fell for all divisions and the Holding Division, with the exception of the Alloys Division in which the workforce increased following the transfer of Valdi's activities. The decision to freeze the recruitment of managerial staff particularly affected the Holding company where the workforce has continued to fall since 2014.

### **Workforce per Division**

	2013	2014	2015	BREAKDOWN IN 2015
Holding company	514	455	439	3%
Nickel Division	2,974	2,809	2,777	20%
Manganese Division	5,673	5,982	5,898	42%
Alloys Division	4,865	4,746	4,824	35%
TOTAL	14,026	13,992	13,938	100%

### Total workforce in 2015 by Division



### 5.7.2.3 BREAKDOWN OF TOTAL WORKFORCE BY TYPE OF EMPLOYMENT CONTRACT

On 31 December 2015, 92% of the Group's employees had open-ended contracts.

The technical nature of mining and metallurgical jobs calls for a long period of professional training, and very little use is made of shortterm contracts.

29% of the fixed-term contracts concerned Asia where this type of contract is more

widespread and corresponds to modes of management that are specific to this region.

Employees on fixed-term contracts within the Group have the same social entitlements and benefits (insurance schemes, healthcare costs, profit-sharing, etc.,) as employees on open-ended contracts.

### Workforce by type of employment contract

	2013	2014	2015	BREAKDOWN IN 2015
Open-ended contracts	13,079	12,763	12,812	92
Fixed-term contracts	947	1,229	1,126	8
TOTAL	14,026	13,992	13,938	100%
Temporary staff (in full-time equivalent)	2,557	1,137	934	

### 5.7.2.4 BREAKDOWN OF TOTAL WORKFORCE BY SOCIO-PROFESSIONAL CATEGORY

ERAMET has extended the French notion of socio-professional category to all its entities which share the following definitions:

Workers Supervisory staff

clerks, technicians, foremen (white collars)

workers (blue collars)

Management

executives, managers, post-graduate staff, civil engineers (white collars)

### Workforce by socio-professional category

	2013	2014	2015
Workers	52%	54%	53%
Supervisory staff	34%	32%	33%
Management	14%	14%	14%

### **5.7.2.5 AVERAGE AGE AND AGE PYRAMID**

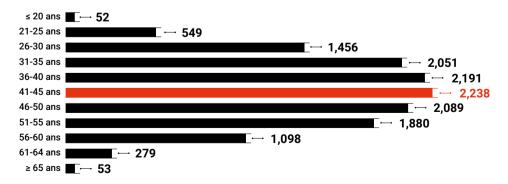
The average age of employees in the Group was 42 on 31 December 2015.

	SUPERVISORY	
WORKERS	STAFF	MANAGEMENT
41	45	45

Employees over 50 accounted for 27% of the total workforce and those aged 30 or under a little over 14% of the total workforce.

ERAMET keeps a close watch on changes to the managers age pyramid, in order to anticipate the retirement of its key members of staff. Since the People Review process was set up locally, in Divisions and at Group level, ERAMET has access to updated succession plans every year for all its key positions.

### Group age pyramid



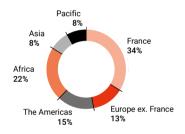
### 5.7.2.6 RECRUITMENT

Companies in the Group recruited 1,156 employees in 2015 (excluding transfers between companies), down 17.7% compared with 2014. Since the summer of 2013, the Group has stopped recruiting managerial staff from outside the Group and has actively encouraged internal mobility.

### New recruits by geographic region (excluding transfers between Group companies)

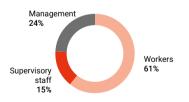
	2013	2014	2015
France	503	362	387
Europe ex. France	115	127	153
The Americas	145	136	176
Africa	359	654	258
Asia	126	74	95
Pacific	82	52	87
TOTAL	1,330	1,405	1,156

# New recruits in 2015 excluding transfers within the group



The recruitment of employees on open-ended contracts can be broken down into the following professional categories:

# Recruitment of staff on open-ended contracts in 2015 excluding transfers within the group



Since 1 January 2013, ERAMET pays close attention to the recruitment of employees on open-ended contracts aged under 30 and over 55.

	RECRUITMENT OF STAFF ON OPEN-ENDED CONTRACTS IN 2015		
	< 30 > 55		
TOTAL	151	24	
Total percentage of employees recruited on open-ended contracts	36%	5%	

### **5.7.2.7 DEPARTURES**

The total number of departures (this notion encompasses resignations, redundancies, retirements, contract termination by mutual consent, but does not include transfers within the Group) in 2015 reached 1,169, including 230 resignations (20% of departures), 236 redundancies (20% of departures), compared with 252 in 2014, and 180 retirements (16% of departures). The end of fixed-term contracts mainly accounts for the other departures (44% of departures).

### Departures by geographic area (excluding transfers within the Group)

	2013	2014	2015
France	439	540	381
Europe ex. France	134	149	151
The Americas	199	168	177
Africa	208	221	232
Asia	551	265	129
Pacific	101	67	94
TOTAL	1,632	1,410	1,169

### Breakdown of the reasons for the departures

# Departures 2015 excluding transfers within the group



### 5.7.3 WORK ORGANISATION

### 5.7.3.1 WORKING HOURS

The types of working-hour organisation vary by company, their type of business and locations and are defined to match business needs and employee preferences as much possible. Wherever it operates, the ERAMET group complies with applicable legislation on working hours. For reference, working hours are as follows:

- in mainland France: 35 hours per week;
- in Norway: 37.5 hours per week;
- in New Caledonia: 37.5 hours per week;
- in China, Gabon, the United States, Sweden:
   40 hours per 5-day week.

### **5.7.3.2 PART-TIME WORKERS**

There are part-time employment contracts in many of the countries in which the Group operates. The workforce concerned by this type of contract represents 1.5% of the total workforce, all categories of staff taken together.

On 31 December 2015, 211 people had parttime employment contracts, two-thirds of whom were women.

162

72% of these part-time employees, i.e. 153 people, work in France and represent 3% of the total workforce in mainland France.

### 5.7.3.3 WORK ORGANISATION

In 2015, 55% of the employees worked daytime hours while 45% worked on shifts.

# 5.7.3.4 ABSENTEEISM (DATA FROM THE CSR SURVEY)

The reasons for absence covered here are random unexpected absences like illness, maternity, occupational accidents, commuting accidents and unjustified absences.

The average rate of absenteeism in the Group was 2.3% in 2015. Out of the 30 French sites, seven had a rate lower than 1.5%, three had a rate higher than 7.5%. The average rate in France was 2.3%. In the rest of Europe, the average rate was 1.7% with fluctuations of 0% to 16%. In the Americas, the rate was about 4.5%. In Africa, the average rate was 6.5% with a range of between 0.1% and 10.0%. The average rate in Asia was lower than the Group's rate with a range of between 0% and 3.8%. The average rate in Pacific area was 4.89%.

# 5.7.4 A FAIR AND COMPETITIVE REMUNERATION POLICY

Employee expertise and level of responsibility are remunerated with a fixed salary in line with past experience and the practice of each business in the sector. The Group's remuneration policy aims to be equitable and competitive but also tailored to the specific local factors of the country in which activities are carried on.

One in two executives has variable individual remuneration arrangements based on annual quantitative and qualitative objectives. The Group provides a common framework for setting and assessing annual objectives.

Remuneration arrangements based on collective results may exist in some countries; they can be legal arrangements (profit-sharing schemes in France, etc.) or voluntary arrangements set up by the Group according to local practices (incentive plans based on Company results, collective saving plans). Profit-sharing schemes are often based on negotiated criteria related to safety, the environment and the Company's activity. Depending on the arrangements in force, these bonuses can be invested in saving schemes offering advantageous terms.

Surveys on remuneration are carried out each year to assess the competitiveness of the remuneration packages offered by the Group in relation to those offered by companies working in the same business sectors.

In each country in which the Group operates, the remuneration policy is designed to reward performance while adapting to the local environment.

# 5.7.4.1 PERSONNEL—PAYROLL CHARGES

Salaries account for the main part of employee remuneration.

In 2015, personnel costs for the ERAMET group stood at €682 million, compared with €674 million in 2014, i.e. a limited increase of 1.2%.

Over 11,400 employees, i.e. 82% of the workforce, had their fixed salary increased in 2015, either via a general increase or via an individual performance-related increase.

### **5.7.4.2 EMPLOYEE BENEFITS**

In line with Group agreements on staff provident schemes for major risks and unforeseen events, the ERAMET group wants all mainland France employees to benefit from supplementary healthcare cover. In France, a new collective agreement was signed in July 2014 by all the employee representative bodies. These new provisions ensure the sustainability of the healthcare plan, by balancing the accounts and giving the plan an interdependent, collective and family character. The Company also pays the health insurance contributions of employees leaving the Company and becoming affiliated to Pole Emploi (the French employment agency). This portability enables former employees to enjoy the same guarantees as active employees for a period of one year.

Provisions have been recorded for all pensions, severance compensation, medical coverage, staff provident schemes and other benefits for working or retired personnel in line with current practices in each country.

Provisions are also recorded for the portion not covered by insurance companies or pension funds, particularly for US and Norwegian companies (generally defined-benefit plans). The liabilities under these specific plans are in the USA (42%), Norway (17%), New Caledonia (7%) and in France (very old specific plans which are now closed). The other plans are defined contribution plans whereby employer contributions are expensed in the period to which they relate. Details of the main assumptions used to calculate these liabilities are set out in the consolidated financial statements.

Finally, a supplementary pension plan (Article 39) for a group of managers has also been fully provided for. On 31 December 2015, the estimated actuarial value of the plan for active recipients was €52.3 million.

# 5.7.4.3 EMPLOYEE SHARE OWNERSHIP

In an effort to develop a sense of Group belonging, in places in which it operates, and to share the value created, in 2009, the ERAMET group decided to implement worldwide bonus share plans. This plan, called EraShare, originally consisted in granting 5 bonus shares to each Group employee, regardless of the country, Division, job or level of responsibility.

Since July 2011 in France and Italy, and since July 2013 in other countries, employees have been entitled to all rights associated with ERAMET shares, including voting rights and dividend entitlement. An information leaflet on EraShare was also prepared in the nine languages used within the Group to support the worldwide implementation of the arrangement.

Six new plans to allocate bonus shares were implemented in 2010, 2011, 2012, 2013, 2014 and 2015 involving the same scope, and allowing 2 extra shares to be allocated to over 14,000 employees each year.

# 5.7.4.4 EMPLOYEE PROFIT-SHARING SCHEME

In mainland France and New Caledonia, discretionary profit-sharing agreements are regularly negotiated and signed with the social partners. They supplement any regulatory provisions on profit-sharing. The discretionary profit-share is paid to employees with over three months' service on 31 December broken down into a fixed standard amount and a portion that depends on the reference gross annual remuneration. In 2014, the Group's Human Resources Department specified in a framework memorandum the three elements that ERAMET group wishes to find in the renewed agreements, as from 2014:

- the Group's financial income;
- the entity's financial income;

 the entity's specific operational progress criteria (security criteria, service rate, reject rate, WCR variation, etc.).

In 2015, eleven of the Group's companies in France and New Caledonia made profit-sharing payments for 2014. Thus, €17.1 million was paid to the beneficiaries concerned (gross amount).

### **5.7.4.5 EMPLOYEE SAVINGS PLAN**

In mainland France and New Caledonia, ERAMET group employees can sign up to a Company Savings Plan to set up salary savings. The sums paid under mandatory and discretionary profit-sharing schemes may also be paid in, as well as voluntary payments made monthly or on a one-off basis by employees. Group companies participate in the savings plan through a top-up to the sums paid by employees (the arrangements for paying the top-up vary from company to company).

A range of diversified employee shareholding funds (Fonds Communs de Placement d'Entreprise or FCPE) is offered to the Group's employees. There is also a collective pension fund scheme (Plan d'Épargne Retraite Collectif or PERCO).

On 31 December 2015, 6,257 employees and former employees of ERAMET in France had an Employee Savings Plan, with total assets of about €69.70 million, i.e. approximately €11,000 per saver. All the assets are broken down as follows—90% in the FCPE and 10% in the PERCO. In 2015, the Group's French companies paid approximately €2.56 million top-up money (gross amount) into the Group's Employee Savings Plan (PEG) and the PERCO, i.e. an average of €778 for each employee who paid into the plan (there were 3,294 in 2015).

### 5.7.5 SOCIAL DIALOGUE ON THE GROUP'S RESTRUCTURING OBJECTIVES

Industrial Relations are coordinated at corporate level to ensure the traceability and follow-up of ongoing negotiations, the agreements reached (109 worldwide) and the social environment. Regular reporting is carried out via performance indicators, and regular or theme-based coordinated exchanges between sites on current and shared topics.

Moreover, agreements are negotiated and followed up in a centralised manner with trade unions in mainland France in order to ensure that they are implemented consistently at all the sites, particularly those related to employee benefits (healthcare costs, provident schemes, employee saving plans), safety and professional equality.

Lastly, via the European Works Council with its 34 elected representatives from France, Norway, Belgium and Sweden and the Group Works Council with its 32 elected representatives from mainland France and New Caledonia, it is possible to communicate with social partners and discuss the Group's outlook, the developments and projects and to answer their questions.

The Group's economic and financial results in 2014 and 2015 and the still uncertain outlook in many markets have led Management at corporate level, in subsidiaries and on sites to pursue their efforts to improve productivity while undertaking restructuring programmes aimed at optimising organisations via Job Saving Plans for example.

As the price of nickel on international markets continued to be unfavourable, the Nickel Division pursued and intensified its initiatives:

 Studying the reorientation of industrial activities at the Sandouville site and studying the possibility of diversifying its upstream supply of nickel matte.

- Continuing its ambitious initiatives to improve competitiveness and productivity at the SLN in New Caledonia, by launching internal reorganisation plans and specialising in the production of higher-margin products.
- Improving the efficiency of head office functions integrating a smaller workforce.

At each stage of these developments, social partners, employee representative bodies (Works Council and Central Works Council) and representative Trade Unions were closely associated with the risk analysis and the stakes and were regularly consulted on each of the scopes concerned. Firstly, this enabled us to obtain favourable opinions on the reorganisation and secondly to ensure that the Division's improvement objectives are met. Within this context, specific appraisals were conducted by the site's Works Council and ERAMET's Central Works Council to analyse and assess the changing industrial situation at the Sandouville site, the outlook and the reorganisation needed to ensure its sustainability.

The Manganese Division took action at all of its business units according to the situation of each of its markets and within specific local contexts:

- The Ore and Alloys Business Unit pursued and intensified its action to enhance productivity and reliability against a backdrop of declining commodity prices and manganese alloy prices:
- in Gabon both in its subsidiary COMILOG and in SETRAG (improving the railway service and enhancing the logistics of ore transportation are major objectives);
- in China by adapting production to market constraints and by adjusting the workforce at its Manganese Alloys plant in New Guilin:
- in Norway by continually adapting its organisation.

- The Manganese Chemistry Business Unit, with its long-term commitment to the improvement process, pursued its action in Belgium and Mexico;
- The Recycling Business Unit pursued its objectives of recapturing market share in America.

Taking account of its local context, each entity and Business Unit, accompanied its action with specific social dialogue with its trade unions.

Activities at head office were also restructured as part of the plan to make corporate functions more competitive.

The Alloys Division continued to take action to improve its economic ratios, its customer service rate and its industrial organisation:

- On behalf of its subsidiary Aubert & Duval, the Management of Aubert & Duval undertook an important plan to improve its processes and reduce its overheads, therefore it implemented the changes decided in 2014, i.e. reorganisation and reduced workforce.
- A major industrial transformation project at Erasteel, involving a reduction in its workforce, continued in 2015.

Lastly, a programme called Optimum was launched to improve performance and reduce costs. It concerns Group management, Division Management, R&D and Engineering. This programme aims to simplify, harmonise and rationalise operating procedures, in relation to the Group's changing outlook and the reduced number of projects under study.

The programme started in 2014, was completed in 2015 and four agreements on methods were signed by all Trade Unions concerned.

### **5.7.5.1 A MODERATE WAGE POLICY**

The Group's financial position resulted in a moderation of the wage policy in 2015. The various negotiations allowed 26 wage agreements to be reached within the Group.

# 5.7.5.2 CONSOLIDATING THE SOCIAL POLICY

In 2015, in addition to the agreements signed as part of the information and consultation procedures on reorganisation projects, the Group's social policy was consolidated through adaptations of the arrangements in force, and in consultation with the trade union organisations.

Thus, negotiations concerning mainland France led to:

- changes in the agreements on employee saving plans and provident schemes;
- several profit-sharing agreements that had reached maturity in mainland France were negotiated.

Negotiations concerning existing agreements are aimed at 1) ensuring a level of compliance with legislative and regulatory developments (changes to the portability of provident schemes, preparations for the management of health expenses in responsible contracts), AMF recommendations (changes in FCPE names) and 2) improving these existing agreements further to the various audits on social security (controlling the balance of systems and developing the related social security and employer contributions) and audits on employee saving plans (FCPE yield, repositioning investment profile on risk/investment levels).

In the framework of joint monitoring committees, discussions with trade unions continued on subjects like employee savings plans, the quality of life at work, the prevention of difficult working conditions, gender equality, etc.

# 5.7.5.3 CHANGES AFFECTING GOVERNANCE

In accordance with the French law on job security, there was a change in the representation of the workforce on the Board of Directors which integrated two women employee Board members who were appointed by the Company Works Council of ERAMET S.A. and by the European Works Council.

It should also be noted that a consultation was carried out on the Company's Strategic Priorities with the Company Works Council of ERAMET S.A., the parent company, and the Social and Economic Database was deployed.

This consultation and these new tools help improve the knowledge of the Company and Group and share the necessary information to enable social partners to perform their duties.

# 5.7.6 EMPLOYEE DEVELOPMENT AND CAREER MANAGEMENT

# 5.7.6.1 THE PROCESS OF CAREER MANAGEMENT

ERAMET has always paid particular attention to the development of its employees. Respecting people and developing their potential is one of the Group's values and is the first objective of its HR Strategy. With the freeze on outside recruitments introduced in the Group in July 2013 and the current restructuring operations, the advantages of our internal mobility and career development processes are even more evident.

Indeed, in the framework of job-saving plans introduced in Metropolitan France in 2015, the

mobilisation of HR teams at all Group sites have enabled internal mobility to be promoted through processes put in place by the Group (job vacancies published in ERAJOB, the internal job exchange, career orientation interviews, etc.).

Hence, at the end of December 2015, with regard to the job-saving plan following the Optimum Project on Corporate structures, a third of the repositioning solutions involved internal mobility.

On 31 December 2015, as part of Wave 1 and 2 of APMF Projects (Projects to improve Processes and operating methods in the Alloys Division), 56% of internal transfers were registered.

In the past two years, ERAMET has formalised and provided information on career management and the roles and responsibilities of each person.

The "Career Development and Mobility Charter" defines everyone's roles and responsibilities (employee, Manager and HR) so that the development and progress of people's careers can be promoted and encouraged in a clear, precise and shared framework using tools and processes.

It emphasises the importance of encouraging employees to take initiatives and be proactive in their own career development.

A brochure called "Parcours: Carnet de route" (careers—a roadmap) has been in wide circulation. It illustrated the Charter's essential points via examples and testimonies from employees. This "Roadmap", given to all the Group's managers, explains the basic aspects of the Charter, describes the tools and processes available for career development and

above all shows the managers the vast range of opportunities and progressions possible via testimonies and examples.

To ensure this career development plan is implemented in an optimal manner, management processes are set up and coordinated throughout the year.

Annual Performance Reviews (APR) enable mobility wishes to be collected and taken into account at the monthly HR network meetings and the "People Reviews". These Manager Reviews are organised in the sites, Business Units, entities and countries. They aim to identify people who need to progress, to discover their potential, etc.

Other meetings are organised half way through the year, for each type of job (leadership techniques and job committees). These needs for progression are reviewed in a cross-departmental manner, and the medium-term needs and resources are assessed for each type of job.

These exchanges are consolidated in each Division at the Divisional Manager Reviews held at the end of the year, thus enabling concrete suggestions to be made at the Annual Performance Reviews.

A review of executives and key Group positions was held at the end of the year with the COMEX.

Reports are drawn up and the Talent@work Succession module is used to record these career prospects.

Lastly, a Career Appraisal Interview for all employees in Metropolitan France was introduced in 2015. This is devoted to career prospects, particularly in terms of qualifications and employment. It focuses on the employee's career, professional development and training requirements.

# 5.7.6.2 A TRAINING MODULE ON RECRUITMENT /MOBILITY FOR MANAGERS AND HR

To help Managers fulfil their role as career managers, a **training module on recruitment and mobility** has been made available in the framework of **IMaGE**.

This module trains managers and HR to conduct **job interviews using the same tools,** to choose people in an **objective and transparent** manner, to provide **good-quality feedback** to internal and external applicants.

This training course is also based on the "Recruitment" module developed in Talent@ Work which raises participants' awareness on subjects related to non-discrimination.

# 5.7.6.3 ERAJOB 2.0 AND THE CAREER MODULE

ERAJOB (the Group's internal job exchange) was re-developed in 2012 on the Human Resources Information System "Talent@Work": ERAJOB 2.0. The job offers are available via the **Career module** so people can apply online, transfer a job offer to another person, set up alerts for specific jobs, etc.

Due to the Group's difficulties, a measure to freeze the outside recruitment of managers on open-ended contracts has been in force since July 2013. However, special dispensations can be obtained upon approval from the COMEX.

A **Recruitment module** has also been developed in Talent@work, enabling HR and managers in charge of an internal or external recruitment to follow the process, from the moment a position is defined to the moment it is filled.

### **5.7.6.4 TRAINING**

The different training modules designed within IMaGE (ERAMET group's Management Institute) are intended for Group employees:

- to encourage their integration by giving them the keys to understanding the Group's processes of organisation and management;
- to develop the Group's managers by giving them access to technical and managerial programmes;
- to encourage participants to exchange best practices;
- to build development courses.

Integrating and improving know-how, raising awareness of specific risks, sharing experience and best practices, developing a cross-company approach at Group level, promoting the

application of managerial methods and reaffirming the Group's expertise and its technical leadership—these are the challenges for the training programmes that are undertaken by the Group annually at all its sites.

The courses aimed at improving managerial skills, ("Basic Management" and "Performance Based Management") are in line with the rationale behind broader managerial training that also includes key skills in Safety, Project Management, Continuous Performance Improvement and Communication.

As regards the vocational training of its employees, the ERAMET group prioritises training that focuses, firstly, on safety and, secondly, on the development of technical skills giving employees a better understanding of processes and their environment.

In 2015, IMaGE (ERAMET group's Management Institute) provided about 10,000 hours of training. 1,087 people followed these various training programmes in 2015. This school now offers several training courses aimed at integrating and developing managerial staff.

Twenty-four Group executives and managers attended the 12<sup>th</sup> session of the ERAMET Leaders Program lasting one week. Since 2006, 245 executives have taken part in this programme which allows them to create a network, improve their knowledge of the Group, discuss strategic development policies with senior management, etc.

In 2015, the executive development programme was organised once again for the third group. The ERAMET Executive Development Program is a twelve-day course given in English in partnership with Duke Corporate Education. It aims to enhance the participants' leadership skills and prepare them for their career within the Group. This third group followed their first session in Paris in 2015 (five days in

the classroom) and will go on a Learning Trip to India (seven days) in 2016.

In 2015, time was spent on deploying a training module on Continuous Performance Improvement tools, bringing together more than 300 executives and managers who worked on a common methodological framework to consolidate the local implementation of improvement plans.

New training modules were created in 2015 (like the "Change Management" programme) and were added to the IMaGE catalogue of training courses which also integrated the AMI (Alloys Management Institute) programmes under the IMaGE banner as part of the Optimum project. There are now 45 training programmes available.

Efforts were made to digitalise the training courses ("Blended" Learning, E-learning, Video-training, etc.) and in 2015, this was achieved for 25% of the offering.

Altogether, in 2015, ERAMET group employees received more than 317,500 hours (1) of training, i.e. about 23 hours of training per employee for the year. Thus, almost 11,300 employees (1), i.e. 80% of the total workforce, received training in 2015 (compared to 374,500 hours in 2014 corresponding to 27 hours per employee and almost 11,200 employees trained last year).

### 5.7.6.5 PERFORMANCE MONITORING

There are three aspects to successful mobility and career development:

- good performance in the job;
- the existence of an opportunity;
- the desire to demonstrate mobility functionally and/or geographically.

Therefore, the Annual Performance Review (APR) is an important opportunity for employees to talk to their direct superiors about their performance, reaching their goals, determining the roadmap for the coming year and also their wishes as regards mobility.

The dedicated Talent@work form is then completed with details from the APR. Thus, the details expressed are extracted and processed by the HR, as part of the People Reviews for example.

For several years, all members of Group management have had an Annual Performance Review, during which their performance is evaluated in relation to the goals set for the elapsed year alongside application of the values of the ERAMET group.

In 2015, 4,417 managerial and non-managerial staff had annual performance reviews. Indeed, many sites have started to extend the benefits of this system to non-managerial staff.

The document used for the Annual Performance Review (APR) was modified to integrate the roll-out of a new Goal Management module. Indeed, following the commitment survey, and in an effort to better monitor and assess performance, the working group in charge of performance decided to implement this module which enables managers to follow the progress of goals set for their teams, adjusting them if necessary, and using this tool for mid-year reviews, etc.

The widespread use of the APR form in Talent@Work has now considerably improved access to information on staff mobility requests and ensured that these requests are better taken into account in career management and people reviews and has optimised the follow-up.

At the end of 2014, a programme on how to identify and assess talent potential was organ-

ised at the initiative of the Manganese Division in Gabon. This programme was used to train the COMILOG Management Committee in methodology and to carry out an assessment campaign. The HR network of entities in Gabon also received training.

The Optimum Project aimed at improving performance at the Group's Head Offices and support departments identified current areas for improvement based on training, recruitment management, etc.

# 5.7.7 EQUAL OPPORTUNITIES— MEASURES TO PROMOTE NON-DISCRIMINATION AND DIVERSITY

### **5.7.7.1 ENSURING GENDER EQUALITY**

Currently, 15% of the Group's total workforce is female, and more specifically: 7% of operators, 24% of supervisors, technicians and workers and 21% of managers are women.

% of women in total workforce	15%
% of women in managerial positions	21%
% of women hired on open-ended contracts in 2015	14%
% of women hired as managers on open-ended contracts in 2015	16%

All Group entities are striving to take initiatives to promote the employment of women even in jobs that, in the past, have usually been held by men.

Therefore, efforts are being made locally to encourage secondary and high school pupils and students to consider technical careers. Premises are being adapted to integrate the needs of female staff (changing rooms), and equal gender measures are being introduced

in the collective agreements signed at many of the sites in mainland France. The Alloys Division is also committed to hiring women to carry out machining jobs.

Initiatives to prevent discrimination are also taken in the United States, at the ERAMET Marietta Inc. site for example, where a course on diversity and anti-harassment is given every year to raise awareness.

In Gabon, during the campaign to recruit employees for the CMM's new industrial facilities, efforts were made to recruit women, who account for almost 25% of this unit's workforce. The Imphy site also took part in a forum on careers for women in the Nièvre department in France.

### 5.7.7.2 LIFE-WORK BALANCE

In mainland France, the Group continued its efforts to raise team awareness on Psycho-Social Risks via the ZEPHYR programme which was introduced three years ago.

This matter is also addressed during the Annual Performance Reviews. Indeed, during this special annual meeting, some of the interview between the employee and his/her manager is devoted to the organisation of work, the workload and the life-work balance.

In this field, the Group also encourages a certain number of local initiatives of different natures but all aimed at promoting this essential balance: sabbatical leaves were granted to employees wanting to pursue personal projects, tele-working measures were introduced for employees encountering personal problems, measures to facilitate parenthood were also introduced at some sites: the organisation of working time, the allocation of CESU cheques (cheques for universal employment services) to pay for home helps (child-minders, homework helpers, cleaners, etc.).

# 5.7.7.3 EMPLOYMENT AND INTEGRATION OF DISABLED PEOPLE

ERAMET group strives to employ and integrate disabled people.

The Group employs 267 disabled people (data from the CSR survey). This figure is probably an under-estimation because regulations in some States do not allow the number of disabled people to be counted.

At most of the Group's sites, different initiatives are undertaken to encourage the employment of disabled people: adapting premises, access points and workstations, organising awareness-raising campaigns, funding hearing aids, contributing to organisations and associations that help disabled people and at Aubert & Duval in Les Ancizes, there is even a firm that comes to the site two days a month to provide support and enable disabled employees to remain in work.

Work is also subcontracted out to sheltered workshops and associations that employ disabled people. Many of the Group's sites also address the issue of accessibility to premises.

Every year, the Handicap Mission made up of representatives from entities in Paris and Trappes (ERAMET TMM (Holding and Nickel)), ECM, Erasteel, Aubert & Duval, ERAMET Research, ERAMET Ingénierie, ERAMET International) organises various awareness-raising events during the Disabled People's Employment Week.

The Handicap Mission undertaken by ERAMET group entities based in Paris (Tour Maine Montparnasse) and Trappes apply the measures set out in the law on Equal Rights and Opportunities, Participation and Citizenship of 11 February 2005. It was created in 2012 in order to make employees in the Group aware of the disability issues. It is made up of representatives of the entities' different departments (Health/Safety, HR, Communication, etc.). One of its objectives is to develop appropriate partnerships with companies that work in the adapted sector (catering services and meal trays, floral decoration, etc.).

ERAMET is a partner of Officiel du Handicap, an organisation made up of public and private players committed to promoting a better integration of disabled people in France (employment, sub-contracting, accessibility, technology, etc.).

In 2015, as part of the creation of ERAMET Services (Shared Services Centre) based in Clermont-Ferrand, ERAMET focused its attention on the recruitment of disabled people.

# **5.7.7.4 EMPLOYING YOUNGER AND OLDER WORKERS**

In mainland France the Group's Management has signed an action plan related to the Generation Contract and it is committed to implementing inter-generational synergies. This plan expresses a desire to integrate young people and help them progress while at the same time putting the experience of older people to advantage and preserving their know-how. Across the scope of the Group, 24 people who are 10 years from the legal age of retirement were recruited.

In 2015, the Group received over 1,450 young people on work-based training contracts (apprenticeships or professional training contracts) and internships.

Since 2013, together with 60 major groups, and within the framework of the AFEP (Association Française des Entreprises Privées), ERAMET has been committed to employing young people. Indeed, the Group is a signatory to an initiative called "Jeunes et Entreprises" (Youth & Business).

Furthermore, ERAMET has developed relations with educational establishments locally and nationally. This has led to various initiatives and partnerships: for example, numerous visits were organised to more than 46 Group entities which received pupils from nearby secondary and high schools, students from local universities and *Grandes Écoles*, teachers and professors.

ERAMET takes part in many school forums in mainland France and in the countries in which it operates. This is an opportunity to present the Group and its different businesses, to talk to young people and advise them on the direction to take. Many of the Group's employees also contribute to the curriculum, most of them voluntarily, by presenting the Company or teaching about specialised technical fields. Some of these experts are also on school advisory boards or school boards of governors. There are also scientific exchanges between some projects and the laboratories of some *Grandes Écoles* or universities and teachers.

With a great deal of support from the Trappes research centre (ERAMET Research) and its teams, the Group is very involved in partnership operations with some *Grandes Écoles*: ERAMET sponsors the 2015 class of students from the *École Nationale Supérieure de Chimie de Paris* (Chimie ParisTech) and it helps fund study trips or options (ENSG, Montpellier University (Geology), Mines ParisTech (ENSMP Soil and Subsoil option), ECP (Energy option)).

The SLN has a partnership with the preparatory classes at Jules Garnier High School in Nouméa. The assistance provided by SLN is precious to these young Caledonians who go to mainland France to pursue their scientific studies.

### 5.7.7.5 OBSERVING THE FUNDAMENTAL CONVENTIONS OF THE INTERNATIONAL LABOUR ORGANISATION AND HUMAN RIGHTS

ERAMET complies with the regulations in force in the different countries in which the Group operates.

As the Group indicates in the Code of Ethics, ERAMET complies with the international standards of the International Labour Organisation, and more generally it complies with the principles of international law related to human rights. In particular, the Group bans the use of forced or child labour, whether directly or via its suppliers or partners and respects the freedom of association.

The Group also guarantees the fair treatment of all its employees in terms of professional equality by combating employment and job-related discrimination, seeks to prevent any physical harm to the people on its sites, and respects the moral integrity of all employees. The Group seeks to ensure good human relations within work teams. In particular, it undertakes to combat all forms of violence and promotes respect for others and warmth in professional relations.

When the Group's entities report on non-financial matters every year, they are asked a question concerning their compliance with the provisions of the fundamental conventions of the ILO (freedom of association or right of collective bargaining, the abolition of child labour, combating undeclared work, eliminating discrimination in employment and occupations) and it is important to stress that their feedback was excellent, illustrating the attention they pay to this subject.

In 2015, all the Group's sites were actively engaged in circulating the Group's Code of Conduct.

# 5.8 METHODOLOGY

# 5.8.1 SYSTEM OF INDICATORS

Chapter 5 aims to inform stakeholders of the action taken by ERAMET in favour of Sustainable Development. The system of indicators used to do this was designed in such a way as to provide the most accurate picture possible of the Group's significant challenges given its activities. It includes the list of information required by article R. 225-101-1 of the French Commercial Code. In addition, other indicators have been chosen based on those proposed by the Global Reporting Initiative and its version dedicated to Mines & Metallurgy.

### **5.8.2 REPORTING SCOPE**

ERAMET group's reporting scope covers:

- Social aspects: all the consolidated companies in the chart of accounts. For some indicators (indicated "CSR data" in the text), the reporting covers 101% of the consolidated workforce, by including nine more companies (TiZir London, Sodepal, Maboumine, Metallied Irun, ERAMET Alloys UK, Erasteel GmbH, ERAMET Services, Erasteel India, Aubert & Duval Deutschland GmbH), which makes a total of 172 people.
- Safety aspects: all the consolidated companies in the chart of accounts, including Ecotitanium, Sodepal and Metallied Irun, but excluding sales offices (which account for less than 1% of the Group's workforce).
   Entities that have recently joined the Group

(from acquisitions, new projects) may be excluded from the scope of consolidation if their reporting is not reliable or if the project does not yet represent a significant activity in the Group (in 2015: Maboumine and Mukulu, accounting for less than 1% of the Group's workforce). The reporting scope for safety in 2015 was the same as that in 2014.

- Environment and Energy: all the Group's sites if these sites meet the following criteria:
  - in financial terms, ERAMET has a controlling interest of at least 50%;
  - the sites are subject to environmental regulations (licence, code, national regulations).

This scope does not include sites:

- where only administrative work is carried out (e.g. sales offices);
- where the project stage is under way and no production intended for sale is conducted (six entities concerned).

With 57 sites concerned, the environmental reporting scope in 2015 was the same as that in 2014.

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The following table sums up all the entities included in the different reporting scopes.

COUNTRY	LEGAL ENTITIES	SITES	SOCIAL DATA SCOPE	SAFETY SCOPE	ENVIRONMENT— ENERGY SCOPE
Germany	Aubert & Duval Special Steels GmbH—Stahlschmitt	Mönchengladbach	X	Х	X
	ERAMET International	Frankfurt	×		
Argentina	Eramine:	Salta	X	х	
Belgium	ERACHEM COMILOG	Tertre	X	X	X
Brazil	ERAMET Latin America	São Paulo	X		
China	Aubert & Duval Moulds & Die Technology (ADMDT)	Wuxi	×	x	X
	Erasteel Trading Co. Ltd	Tianjin	×		
	COMILOG Far East Development (CFED)	Hong Kong	x		
	ERAMET China Guilin COMILOG Ferro Alloys Ltd	Guilin	×	x	X
	ERAMET COMILOG Shanghai Trading (ECST) & ERAMET COMILOG Shanghai Consultancy Services (ECSCS)	Shanghai	X		
	Guangxi ERAMET COMILOG Chemical (GECC)	Chongzuo	X	X	X
Korea	ERAMET International	Seoul	X		
Spain	Metallied Powder Solutions	Irun		Х	
United States	Erasteel Inc	Boonton	×	×	X
		Romeoville	x	x	X
	ERAMET North America	Pittsburgh	X		
	Bear Metallurgical Corp.	Butler	x	x	X
	ERACHEM COMILOG	Baltimore	x	x	X
		New Johnsonville	X	x	X
	ERAMET Marietta	Marietta	X	x	X
	Gulf Chemical & Metallurgical (GCMC)	Freeport	×	x	X
	Aubert & Duval USA	Charlotte	X		
France	EcoTitanium			x	
	Aubert & Duval	Les Ancizes	×	X	X
		Clermont-Ferrand La Pardieu	x	x	
		Issoire	×	x	X
		Heyrieux	×	x	X
		Imphy	X	x	X
		Gennevilliers	×		
		Pamiers	×	×	X
		Firminy	×	X	X
	Aubert & Duval TAF	Gennevilliers	×	×	X
	Brown Europe	Laval-de-Cère	X	X	X
	Construction de Moules Metalliques (CMM)	Landévant	X	X	X
	ERAMET Alloys and Aubert & Duval TMM	Paris		X	
	Erasteel	Commentry	X	×	X
		Champagnole	X	×	X
		Paris	×	X	
		Chalon-sur-Saône			
	Forges de Monplaisir	Saint-Priest	×	Х	X
	Interforge	Issoire	X	Х	X
	SUPA	Varilhes	X	Х	X
	UKAD	Les Ancizes	×	Х	Х
	Valdi	Feurs		Х	
		Le Palais-sur-Vienne	X	X	X

COUNTRY	LEGAL ENTITIES	SITES	SOCIAL DATA SCOPE	SAFETY SCOPE	ENVIRONMENT— ENERGY SCOPE
	ERAMET Holding	Paris and Trappes	X	Χ	
	ERAMET Ingénierie	Trappes	x	х	
	ERAMET Research	Trappes	x	х	Х
	COMILOG Dunkerque	Dunkerque	x	х	X
	ERAMET COMILOG Manganese	Paris and Trappes	x	x	
	COMILOG International	Paris	×		
	ERAMET Nickel	Sandouville	X	Х	Х
		Paris and Trappes	X	Х	
	Eurotungstene Poudres	Grenoble	×	Х	X
Gabon	COMILOG S.A.	Moanda Com- plexe C2M	X	x	х
		Moanda Com- plexe CIM	x	×	Х
		Owendo Track Maintenance Department	x	x	Х
		Port Minéralier Owendo	x	Х	х
		Moanda Mine	×	Х	Х
	Maboumine	Lambaréné	×		
	SETRAG	Owendo	x	х	X
	SODEPAL	Bakoumba	x	х	
	SOMIVAB	Libreville, Biliba, Essassa	x	×	Х
India	ERAMET India Private Limited	Mumbai	х	Х	
Indonesia	Pt Weda Bay Nickel	Jakarta, Halmahera	X	x	
Italy	ADES	Ferrara	X	Х	X
	ERAMET International	Trezzano	X		
Japan	ERAMET International	Tokyo	X		
Mexico	ERACHEM Mexico	Tampico	X	X	X
Norway	ERAMET Norway	Kvinesdal	X	Х	Х
		Sauda	X	Х	Х
		Porsgrünn	X	Х	X
	ERAMET Titanium & Iron (ETI)	Tyssedal	X	Х	Х
New	Eralloys Holding	Nouméa	X		
Caledonia	SLN	(Doniambo)	X	Х	X
		Kouaoua	X	Х	X
		Népoui	X	X	X
		Poum	X	X	X
		Tiébaghi Thio	X	X	X
United	Erasteel Stubs	Warrington	X	X	X
Kingdom					
Senegal	Grande Côte Opérations—TiZir	Diogo Soderfors	X	X	X
Sweden	Erasteel Kloster	Långshyttan	X	X	X
		Vikmanshyttan	X	X	X
Toiwon	FDAMET International		X	X	X
Taiwan	ERAMET International	Taipeh	X		

### 5.8.3 COLLECTING, CONSOLIDATING AND CHECKING DATA

The social reporting (including safety reporting) is based on Era-Link, the dedicated input and consolidation tool, and on a qualitative questionnaire sent to the entities concerned (which also allows the feedback of information on the sites' societal commitments). For some common indicators, the figures from these two tools are compared allowing the data to be checked.

"Reporting on Safety and providing Information in the event of an Exceptional Situation" is the reference system in terms of Safety reporting. The applicable version was revised in 2015.

Data on occupational accidents are compared to the declarations made by sites to the Prevention and Safety Department via the Group's HSE SharePoint.

The environment and energy reporting process is based on a procedure that was updated in 2014 and which clearly specifies responsibilities and operating methods.

A dedicated information system called Era-Green, deployed at all sites in 2011, is used for the environment and energy reporting process. All the quantitative data given in the present report (environmental data) has been extracted from EraGreen and comes exclusively from the data entered by each of the Group's sites and validated by each site director.

EraGreen contains automatic data checking systems based on comparisons with previous years. In addition, annual reports drawn up by sites using EraGreen are always checked by experts from the divisions or the Group to ensure they are coherent.

# 5.8.4 SPECIFICITIES AND METHODOLOGICAL LIMITATIONS

- In 2015, for the first time, the frequency rates <sup>(1)</sup> and severity <sup>(2)</sup> rates of occupational accidents were calculated by including temporary staff in the workforce.
- Due to scheduling constraints, some monthly data on the environment may not be available for the last month of the year. In this case, the missing data is estimated as accurately as possible on the basis of past data for the site, and, if necessary, correlated with production, in accordance with the Group's baseline.
- If an environmental measurement is considered erroneous or is unavailable, an estimation based on past ratios is used, and adjusted according to the level of production at the site. This situation may arise for nitrogen oxide (NOx) and canalised dust levels for example because, for some sites, the quantities declared are based on a limited number of measurements taken during the year.
- COD (Chemical Oxygen Demand): this parameter is difficult to measure and various chemicals may interfere with it, particularly the presence of chlorides. Regarding the pertinence of the measurement of this indicator at Eurotungstène Grenoble (France), the situation is not ideal. As the operating permit obliges the site to measure COD in accordance with specific conditions and methods of analysis, this data is integrated into the consolidated reporting despite this difficulty which results in the indicator being considerably over-estimated.
- Waste: depending on the national regulations that apply to the sites, waste is declared in

- the environmental reporting. The quantities declared correspond to the quantities of waste evacuated to treatment channels during the year. The criteria that identify waste as hazardous or non-hazardous vary from one country to another so the reporting on this cannot be completely homogeneous.
- Water consumption: the quantities of sea water used to cool the thermal power plant and for the slag granulation process at the SLN (New Caledonia) and the water used to cool installations at the Marietta site (United States) are not counted because the water is returned to the natural environment directly without undergoing any transformation.
- Greenhouse gas emissions: reporting is carried out in compliance with rules set out in the GHG protocol (WRI). Emission factors are based on the carbon footprint criteria established by ADEME, the French environment and energy agency.
- The registered workforce: employees with an employment contract with the Company ("CDD" fixed-term contracts, "CDI" open-ended contracts) and who were registered as members of staff on the last day of the reporting period. This information corresponds to the number of people, regardless of the hours they work (full-time and part-time). Each employee is counted as one person.

<sup>(1)</sup> The **frequency rate** of occupational accidents is the number of occupational accidents occurring in a given period, per million hours worked. Frequency rate = (number of occupational accidents x 1,000,000) / number of hours worked.

<sup>(2)</sup> The severity rate of occupational accidents is the number of calendar days lost following an occupational accident, occurring in a given period, per thousand hours worked. Severity rate = (number of days lost following an occupational accident x 1,000) / number of hours worked.

# **5.9 REPORT** BY ONE OF THE STATUTORY AUDITORS APPOINTED AS INDEPENDENT THIRD PARTY, ON THE CONSOLIDATED HUMAN RESOURCES, ENVIRONMENTAL AND SOCIAL INFORMATION INCLUDED IN THE MANAGEMENT REPORT

### YEAR ENDED 31 DECEMBER 2015

This is a free English translation of the designated independent third party's report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditor of the company ERAMET S.A., (the "Company"), appointed as independent third party and certified by COFRAC under number 3-1049 (1), we hereby report to you on the consolidated human resources, environmental and social information for the year ended 31 December 2015, included in the management report (hereinafter named "CSR Information"), pursuant to Article L. 225-102-1 of the French Commercial Code (Code de commerce).

### Company's responsibility

The Board of Directors is responsible for preparing a Company's management report including the CSR Information required by Article R. 225-105-1 of the French Commercial Code in accordance with the guidelines used by the Company (hereinafter the "Guidelines"), summarized in the management report and available on request from the Company's head office.

### Independence and quality control

Our independence is defined by regulatory texts, the French Code of ethics (Code de déontologie) of our profession and the requirements of Article L. 822-11 of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements, French professional standards and applicable legal and regulatory requirements.

### Statutory Auditor's responsibility

On the basis of our work, our responsibility is to:

- attest that the required CSR Information is included in the management report or, in the event of non-disclosure of a part or all of the CSR Information, that an explanation is provided in accordance with the third paragraph of Article R. 225-105 of the French Commercial Code (Attestation regarding the completeness of CSR Information);
- express a limited assurance conclusion that the CSR Information taken as a whole is, in all material respects, fairly presented in accordance with the Guidelines (Conclusion on the fairness of CSR Information).

Our work involved six persons and was conducted between September 2015 and February 2016 during a six weeks intervention

period. We were assisted in our work by our CSR experts.

We performed our work in accordance with the French professional standards and with the order dated 13 May 2013 defining the conditions under which the independent third party performs its engagement, and with International Standard ISAE 3000 (2) concerning our conclusion on the fairness of CSR Information.

# 1. ATTESTATION REGARDING THE COMPLETENESS OF CSR INFORMATION

### Nature and scope of our work

On the basis of interviews with the individuals in charge of the relevant departments, we obtained an understanding of the Company's sustainability strategy regarding human resources and environmental impacts of its activities and its social commitments and, where applicable, any actions or programmes arising from them.

We compared the CSR Information presented in the management report with the list provided in Article R. 225-105-1 of the French Commercial Code.

For any consolidated information that is not disclosed, we verified that explanations were provided in accordance with Article R. 225-105, paragraph 3 of the French Commercial Code.

We verified that the CSR Information covers the scope of consolidation, i.e., the Company,

<sup>(1)</sup> Whose scope is available at www.cofrac.fr.

<sup>(2)</sup> ISAE 3000—Assurance engagements other than audits or reviews of historical financial information.

its subsidiaries as defined by Article L. 233-1 and the controlled entities as defined by Article L. 233-3 of the French Commercial Code within the limitations set out in the methodological note, presented in the Section 5.8 of the management report.

### Conclusion

Based on the work performed and given the limitations mentioned above, we attest that the required CSR Information has been disclosed in the management report.

# 2. CONCLUSION ON THE FAIRNESS OF CSR INFORMATION

### Nature and scope of our work

We conducted approximately ten interviews with the persons responsible for preparing the CSR Information in the departments in charge of collecting the information and, where appropriate, responsible for internal control and risk management procedures, in order to:

 assess the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and understandability, and taking into account industry best practices where appropriate;  verify the implementation of data-collection, compilation, processing and control process to reach completeness and consistency of the CSR Information and obtain an understanding of the internal control and risk management procedures used to prepare the CSR Information.

We determined the nature and scope of our tests and procedures based on the nature and importance of the CSR Information with respect to the characteristics of the Company, the human resources and environmental challenges of its activities, its sustainability strategy and industry best practices.

Regarding the CSR Information that we considered to be the most important (3):

at parent entity level, we referred to documentary sources and conducted interviews to corroborate the qualitative information (organization, policies, actions), performed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data. We also verified that the information was consistent and in agreement with the other information in the management report;

- at the level of a representative sample of entities selected by us <sup>(4)</sup> on the basis of their activity, their contribution to the consolidated indicators, their location and a risk analysis, we conducted interviews to verify that procedures are properly applied and to identify potential undisclosed data, and we performed tests of details, using sampling techniques, in order to verify the calculations and reconcile the data with the supporting documents. The selected sample represents 20% of headcount and between 14% and 31% of quantitative environmental data disclosed.

For the remaining consolidated CSR Information, we assessed its consistency based on our understanding of the Company.

We also assessed the relevance of explanations provided for any information that was not disclosed, either in whole or in part.

We believe that the sampling methods and sample sizes we have used, based on our professional judgment, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal

(3) **Social information:** Workforce on 31 December 2015, Workforce by type of employment contract, Workforce by socio-professional category, New recruits, Departures, Number of resignations, Number of dismissals, Percentage of women in managerial positions, Number of training hours held during the exercise, Lost time injury frequency rate, Accident severity rate.

Environmental information: Total energy consumption, CO<sub>2</sub> emission related to energy, Total canalised dust, Chemical oxygen demand (COD), Quantity of hazardous waste, Total water consumption.

Qualitative information: Occupational health and safety conditions, Organization of social dialogue including information procedures, consultation and negotiation with the employees, The organization of the Company to integrate environmental issues and, if appropriate, the assessments and certification process regarding environmental issues, Resources allocated to prevention of environmental risks and pollution, Land usage, Measures implemented to protect and conserve the biodiversity, Action implemented against corruption.

(4) Social information: Aubert & Duval (AD) Les Ancizes (France), Setrag (Gabon), Erach S.A. (Belgium).

Environmental information: Aubert & Duval (AD) Les Ancizes (France), Comilog Gabon Mine Moanda (Gabon), Erachem Comilog Tertre (Belgium), Eramet Norway Kvinesdal (Norway), Société Le Nickel (SLN), Centrale Thermique Doniambo (New Caledonia).

control systems, the risk of not detecting a material misstatement in the CSR Information cannot be totally eliminated.

### Conclusion

Based on the work performed, no material misstatement has come to our attention that

causes us to believe that the CSR Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

French original signed by:
Paris-La Défense, 18 February 2016
KPMG S.A.

Anne Garans
Partner
Climate Change and Sustainability Services

Denis Marangé Partner



# Chapter 6

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# 6.1 **2015 CONSOLIDATED** FINANCIAL STATEMENTS

### **6.1.1 INCOME STATEMENT**

(€ MILLION)	NOTES	FY 2015	FY 2014
Sales	3/4	3,015	3,075
Cost of sales and other income		(2,726)	(2,521)
Administrative and selling expenses		(172)	(161)
Research and development expenditure	4	(25)	(30)
EBITDA	3	92	363
Amortisation and depreciation of non-current assets and provisions for contingencies and losses	4	(283)	(277)
Current operating profit (loss)	3/4	(191)	86
Other operating income and expenses	5	(553)	(101)
Operating profit (loss)	3	(744)	(15)
Net financial income	6	(74)	(60)
Share of income from joint ventures and associates	9	(78)	(44)
Income tax	10	(9)	(48)
Profit (loss) for the period		(905)	(167)
Attributable to non-controlling interests	5	(191)	(8)
Attributable to equity holders of the parent	3/5	(714)	(159)
Basic/Diluted earnings per share $(\in)$	5	(27.11)	(6.06)

### **6.1.2 STATEMENT OF COMPREHENSIVE INCOME**

(€ MILLION)	NOTES	FY 2015	FY 2014
Profit (loss) for the period		(905)	(167)
Translation differences for subsidiaries' financial statements in foreign currency		22	28
Change in revaluation reserve for hedging financial instruments		(30)	(92)
Income tax		-	15
Items recyclable to profit or loss		(8)	(49)
Revaluation of net defined benefit plans liabilities	11	(10)	(18)
Income tax		3	1
Items not recyclable to profit or loss		(7)	(17)
Other comprehensive income		(15)	(66)
Attributable to non-controlling interests		(14)	(9)
Attributable to equity holders of the parent		(1)	(57)
TOTAL COMPREHENSIVE INCOME		(920)	(233)
Attributable to non-controlling interests		(205)	(17)
Attributable to equity holders of the parent		(715)	(216)

These items are shown in the statement of changes in shareholders' equity under Other comprehensive income (OCI).

The impact of Other comprehensive income on Net profit (loss) Group share in the 2015 reporting period is not material.

The impact of -€57 million on Net profit (loss) Group share for FY 2014 under Other comprehensive income mainly relates to the change in the measurement of hedging financial instruments following an unfavourable change in the EUR-USD exchange rate.

## **6.1.3 CASH FLOW STATEMENT**

(€ MILLION)	NOTES	FY 2015	FY 2014
Operating activities			
Profit (loss) for the period		(905)	(167)
Non-cash income and expenses	6	761	303
Cash generated from operations		(144)	136
Net change in working capital requirement	8	131	(86)
Net cash flow from operating activities (1)	3	(13)	50
Investing activities			
Payments for non-current assets	9	(249)	(316)
Proceeds from non-current asset disposals		12	10
Net change in non-current financial assets	9	(29)	(5)
Net change in current financial assets	9	224	(251)
Joint ventures capital increase		_	(3)
Impact of changes in consolidation scope		-	30
Net cash used in investing activities		(42)	(535)
Financing activities			
Dividends distributed to non-controlling interests in consolidated companies	5	-	(25)
Bond issues	6	140	482
Repayment of borrowings	6	(220)	(194)
Change in bank overdrafts	6	49	(11)
Other changes	6	5	10
Net cash used in financing activities		(26)	262
Exchange-rate impact		(3)	11_
Increase (decrease) in cash and cash equivalents		(84)	(222)
Opening cash and cash equivalents	6	516	738
Closing cash and cash equivalents	6	432	516
(1) Including under operating activities			
Interest income	6	11	14
Interest paid	6	(62)	(50)
Tax paid	10	(71)	(59)

## **6.1.4 CHANGES IN SHAREHOLDERS' EQUITY**

(€ MILLION)	NUMBER OF SHARES	SHARE CAPITAL	SHARE PRE- MIUM	RESERVES/ HEDGING INSTRU- MENTS	RESERVES/ DEFINED BENEFIT PLANS	TRANS- LATION ADJUST- MENTS	OTHER RESERVES	ATTRIBUT- ABLE TO EQUITY HOLDERS OF THE PARENT	ATTRIBUTABLE TO NON-CON- TROLLING INTERESTS	TOTAL SHARE- HOLDERS' EQUITY
Shareholders' equity at 1 January 2014	26,543,218	81	373	10	(37)	(29)	2,134	2,532	476	3,008
Profit (loss) for the period							(159)	(159)	(8)	(167)
Other comprehensive income		_	-	(70)	(17)	30	-	(57)	(9)	(66)
Total comprehensive income		-	-	(70)	(17)	30	(159)	(216)	(17)	(233)
Dividends distributed								-	(25)	(25)
Share-based payment			,				5	5		5
Other movements							1	1		1
Total transactions with shareholders		_	-	-	-	-	6	6	(25)	(19)
Shareholders' equity at 31 December 2014	26,543,218	81	373	(60)	(54)	1	1,981	2,322	434	2,756
Profit (loss) for the period							(714)	(714)	(191)	(905)
Other comprehensive income		_	-	(20)	(7)	26	-	(1)	(14)	(15)
Total comprehensive income		-	-	(20)	(7)	26	(714)	(715)	(205)	(920)
Share-based payment							5	5		5
Other movements							(146)	(146)	93	(53)
Total transactions with shareholders		_	-	-	-	-	(141)	(141)	93	(48)
Shareholders' equity at 31 December 2015	26,543,218	81	373	(80)	(61)	27	1,126	1,466	322	1,788

## MAIN COMPONENTS OF THE CHANGE IN EQUITY

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

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

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

Translation adjustments recognise the conversion differences deriving from the translation of the financial statements of foreign subsid-

iaries into euros. They also comprise the fair value changes of the net investment hedges of foreign subsidiaries.

At the end of the 2015 reporting period, the ERAMET group remeasured the put option granted by it to Mitsubishi (see Note 12) directly in equity, and now recognises the non-controlling interest in the Weda Bay project in Indonesia directly in shareholders' equity, Group share (held through Strand Minerals (Indonesia) Pte Ltd., a 66.6%-owned subsidiary of ERAMET).

## **6.1.5 BALANCE SHEET**

## **ASSETS**

(€ MILLION)	NOTES	31/12/2015	31/12/2014
Intangible assets and goodwill	9	370	593
Property, plant & equipment	9	2,116	2,296
Investments in joint ventures and associates	9	169	231
Non-current financial assets	9	153	141
Deferred tax	10	8	108
Other non-current assets	8	70	39
Non-current assets		2,886	3,408
Inventories	8	937	1,019
Trade receivables and other current assets	8	538	645
Tax receivables	8/10	58	61
Derivatives	7	30	23
Current financial assets	6	196	420
Cash and cash equivalents	6	432	516
Current assets		2,191	2,684
TOTAL ASSETS		5,077	6,092

## **LIABILITIES**

(€ MILLION)	NOTES	31/12/2015	31/12/2014
Share capital		81	81
Share premium		373	373
Hedging instrument revaluation reserve		(80)	(60)
Revaluation reserve for net defined benefit plans liabilities		(61)	(54)
Translation adjustments		27	1
Other reserves		1,126	1,981
Attributable to equity holders of the parent		1,466	2,322
Attributable to non-controlling interests	5	322	434
Shareholders' equity		1,788	2,756
Employee-related liabilities	11	215	202
Provisions	12	564	488
Deferred tax	10	136	242
Borrowings—long-term portion	6	1,163	1,031
Other non-current liabilities	8	31	29
Non-current liabilities		2,109	1,992
Provisions—short-term portion	12	33	42
Borrowings—short-term portion	6	181	316
Trade payables and other current liabilities	8	748	781
Tax liabilities	8 / 10	31	64
Derivatives	7	187	141
Current liabilities		1,180	1,344
TOTAL LIABILITIES		5,077	6,092

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#### CHANGES TO THE 2015 CONSOLIDATED FINANCIAL STATEMENTS

The presentation of the consolidated financial statements and their accompanying notes has been modified compared to that used previously in the reporting period ended 31 December 2014 to make them easier to read and more relevant, in keeping with the AMF recommendations given in its Guide to the relevance, consistency and readability of financial statements published in June 2015.

Most of the accounting principles, except for the general accounting principles relating to the basis of preparation of the consolidated financial statements, presented previously in Note 1 are now applied in all the other Notes.

The former Notes 5 to 24 to the balance sheet and Notes 25 to 30 and Note 34 to the income statement are now grouped into major transversal themes in Notes 4 to 12.

A cross-reference table between the presentation adopted for the consolidated financial statements at 31 December 2015 and the one used previously for the reporting period ended 31 December 2014, is given at the end of the consolidated financial statements in Note 18.

## NOTE 1 DESCRIPTION OF THE ERAMET GROUP'S BUSINESS

The ERAMET group is one of the world's largest producers of:

- alloy metals, especially manganese and nickel, which are employed to boost the properties of steel;
- high-performance special steels and alloys used by industries such as the aeronautical sector, the energy production sector and the tooling industry.

The ERAMET group is divided into three Divisions.

# ERAMET Manganese extracts and upgrades manganese

**COMILOG** operates the Moanda mine in Gabon.

The manganese extracted is treated in the Group's metallurgical and chemical processing plants in France, in China, in Europe and in the United States. The Group produces the industry's widest range of alloys.

## **ERAMET Nickel extracts and upgrades nickel**

Le Nickel-SLN operates five mines and one metallurgical plant in New Caledonia. The ERAMET group is also involved in the Weda Bay Nickel project to mine a major nickel deposit in Indonesia.

One part of the nickel is then upgraded in the **Sandouville** refinery in France to produce pure nickel, nickel chloride, nickel carbonate and cobalt chloride. Also, **Eurotungstène** produces cobalt and tungsten powders in France.

# ERAMET Alloys creates, produces and treats alloys

**Aubert & Duval** and **Erasteel** make special steels and superalloys, notably for the aeronautical and energy sector. These markets call for high added-value metallurgical expertise.

The ERAMET group has also expanded in titanium, aluminium and aluminium-lithium alloys and in the powder metallurgy business.

Additionally, the ERAMET group is exploring large projects in new business segments with a strong growth potential such as mineral sands (titanium dioxide and zircon), lithium and recycling.

# NOTE 2 KEY EVENTS IN THE REPORTING PERIOD

# Worsening of market conditions—Group's major projects suspended

Given the global environment in which metals are at a 15-year low, the Group is particularly affected by the nickel and manganese prices that simultaneously hit their all-time low.

The Group's Board of Directors of 14 October 2015 decided to reinforce the operational action plan to improve cash flow:

- limit capital investments to only safety concerns and maintenance of equipment;
- suspend major Group projects;
- continue to implement the ongoing asset disposal programme;
- continue to strictly follow the 2014-2017 plan to cut costs and improve productivity.

# Reinforcement of the SLN savings and financing plan

To cope with the financial difficulties following the sharp drop in the price of nickel, Le Nickel-SLN (called SLN) set up a short term savings plan right from the end of the H1 2015, and boosted its competitiveness plan for the 2016-2017 period.

On 23 December 2015, ERAMET granted a loan of €120 million to SLN, expiring on 31 May 2016. €45 million of this loan had been utilised at 31 December 2015. The total loan amount was raised from €120 million to €150 million following the decision of the ERAMET Board of Directors on 17 February 2016.

As nickel prices remained low right from the beginning of the year 2016, SLN stepped up its savings plan and will put before its Board of Directors in end-April 2016, a plan to adapt to the economic climate in order to ensure its business continuity and the financing of its operations under that plan.

ERAMET's Board of Directors will also give its opinion on the plan at that date.

# Inauguration of the Metallurgy Complex at Moanda

The Moanda Metallurgy Complex (CMM) was officially inaugurated on 12 June 2015 by the President of the Gabonese Republic and the Group's Chairman and Chief Executive Officer.

This metallurgical treatment plant for ore includes a plant to produce 20,000 tonnes of manganese metal per year and a plant to produce 65,000 tonnes of silico-manganese per year.

The plant ramp-up was continued during the 2015 reporting period.

#### Impairment of assets

Considering the degraded market conditions in the 2015 reporting period and the historically low metal prices, at 31 December 2015, the ERAMET group recognised asset impairment losses of €474 million <sup>(1)</sup> in all on a certain number of assets affecting notably the mining divisions.

# Limitation of deferred tax assets for the tax loss carry-forwards of Le Nickel-SLN

Given the decline in LME nickel prices and the financial situation of its subsidiary Le Nickel-SLN (see above), the ERAMET group no longer recognises deferred tax assets on tax loss carry-forwards in New Caledonia. The total impact for the 2015 reporting period was €194 million (1).

## NOTE 3 OPERATIONAL PERFORMANCE OF DIVISIONS AND THE GROUP—SEGMENT REPORTING

The ERAMET group is divided into three Divisions: ERAMET Nickel, ERAMET Alloys and ERAMET Manganese. Each Division offers different products and services and relies on distinct technologies and sales strategies. Their operational and financial performance is therefore monitored separately. Their contribution to the main financial indicators of the Group is given below.

#### ACCOUNTING METHOD

The financial disclosures of the Divisions are prepared in compliance with the accounting principles adopted for the Group's reporting. In this connection, the operational performances of joint ventures—the TiZir sub-group (ERAMET Manganese) and Ùkad (ERAMET Alloys)—are posted using the proportionate consolidation method. The reconciliation with the published data is given in the Joint venture contribution column

Transactions between the Divisions are carried out under market conditions.

#### ESTIMATES. ASSUMPTIONS AND JUDGEMENTS

The Executive Committee, the main operating decision-maker regularly assesses the performance of each Division against the following indicators:

#### Sales.

- EBITDA including the gross profit (difference between sales and the cost of sales), Administrative and selling expenses and Research & Development expenditure before depreciation, amortisation and provisions, which are presented separately.
- Current operating profit (loss), grouping together EBITDA, amortisation and depreciation, and provisions for contingencies and losses. The current operating profit (loss) excludes material transactions that are considered to be unusual in nature, notably events relating to restructuring and impairment losses.
- Cash flows generated by operating activities grouping together EBITDA, other operational cash flows not impacting EBITDA and the change in working capital requirement (WCR).
- Industrial investments, grouping together the acquisitions of intangible assets and property, plant and equipment.

The Executive Committee also monitors consolidated indicators such as:

- **Net profit (loss) Group share,** defined as the net income after tax, attributable to ERAMET's shareholders, after accounting for the percentage of non-controlling interest in each subsidiary controlled by the Group.
- Net financial debt, representing the gross financial debt (long-term and short-term borrowings) less current financial assets, and cash and cash equivalents. These components include the valuation of derivatives used to hedge the debt (currency and rate hedges).
- **Gearing,** defined as the ratio of Net financial debt to Shareholders' equity.

  The Holding companies that are the Group's central departments (cash management, currency risk management, captive reinsurance) do not constitute a Division. Their aggregates are shown in a column with the inter-Division eliminations (Holding and eliminations).

## 3.1 RECONCILIATION OF PUBLISHED FINANCIAL STATEMENTS AND GROUP REPORTING

		JOINT VENTURES			JOINT VENTURES	
	FY 2015	CONTRIBUTION	FY 2015	FY 2014	CONTRIBUTION	FY 2014
(€ MILLION)	PUBLISHED (1)		REPORTING (2)	PUBLISHED (1)		REPORTING (2)
Sales	3,015	94	3,109	3,075	69	3,144
EBITDA	92	_	92	363	-	363
Current operating profit (loss)	(191)	(16)	(207)	86	(11)	75
Operating profit (loss)	(744)	(69)	(813)	(15)	(39)	(54)
Consolidated net profit, Group share	(714)	_	(714)	(159)	-	(159)
Net cash generated by operating activities	(13)	6	(7)	50	(7)	43
Industrial capital expenditure	242	25	267	305	41	346
(Net financial debt)	(716)	(162)	(878)	(411)	(136)	(547)
Shareholders' equity	1,788	(9)	1,779	2,756	(2)	2,754
Equity, attributable to Group	1,466	_	1,466	2,322	-	2,322

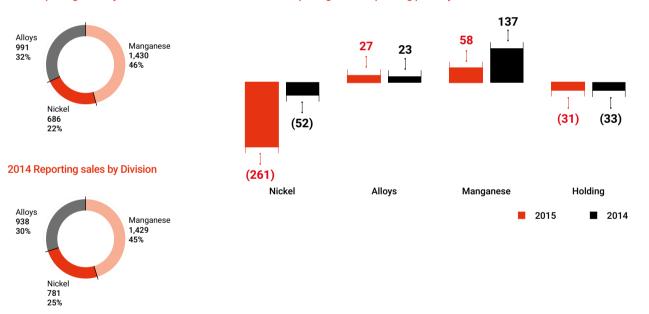
- (1) Published data with joint ventures accounted for using the equity method, as per current regulations.
- (2) Data from Group Reporting, where joint ventures are consolidated proportionally.

## 3.2 PERFORMANCE INDICATORS PER DIVISION

(€ MILLION)	NICKEL	ALLOYS	MANGANESE	HOLDING CO. AND ELIMINATIONS	TOTAL
FY 2015					
Sales	686	991	1,430	2	3,109
EBITDA	(156)	78	196	(26)	92
Current operating profit (loss)	(261)	27	58	(31)	(207)
Net cash generated by operating activities	(60)	27	106	(80)	(7)
Industrial capital expenditure (intangible assets, property, plant & equipment)	56	44	164	3	267
FY 2014					
Sales	781	938	1,429	(4)	3,144
EBITDA	42	81	266	(26)	363
Current operating profit (loss)	(52)	23	137	(33)	75
Net cash generated by operating activities	(18)	18	140	(97)	43
Industrial capital expenditure (intangible assets, property, plant & equipment)	97	48	199	2	346

## 2015 Reporting sales by Division

## 2015/2014 Reporting current operating profit by Division



## 3.3 SALES AND INDUSTRIAL INVESTMENTS BY GEOGRAPHIC AREA

(€ MILLION)	FRANCE	EUROPE	NORTH AMERICA	ASIA	OCEANIA	AFRICA	SOUTH AMERICA	TOTAL
Sales (sales destination)								
FY 2015	419	977	663	889	36	85	40	3,109
FY 2014	407	986	664	947	16	81	43	3,144
Industrial capital expenditure (intangible assets, property, plant & equipment)								
FY 2015	49	47	21	1	53	95	1	267
FY 2014	56	28	19	20	73	149	1	346

## 3.4 CONSOLIDATED PERFORMANCE INDICATORS

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

## **INCOME STATEMENT**

(€ MILLION)	FY 2015	FY 2014
Sales	3,109	3,144
EBITDA	92	363
Current operating profit (loss)	(207)	75
Operating profit (loss)	(813)	(54)
Net financial income	(90)	(68)
Share of income from associates	(1)	-
Income tax	(8)	(49)
Profit (loss) for the period	(912)	(171)
Non-controlling interests	(198)	(12)
Group share	(714)	(159)
Basic/Diluted earnings per share $(\in)$	(27,11)	(6,06)

## STATEMENT OF CHANGES IN NET DEBT

(€ MILLION)	FY 2015	FY 2014
Operating activities		
EBITDA	92	363
Cash impact of items below EBITDA	(252)	(238)
Cash generated from operations	(160)	125
Change in WCR	153	(82)
Net cash generated by operating activities	(7)	43
Investing activities		
Industrial capital expenditure	(267)	(346)
Other investment flows	(16)	26
Net cash used in investing activities	(283)	(320)
Net cash used in financing activities	-	(25)
Exchange-rate impact	(41)	(27)
(Increase)/decrease in net financial debt	(331)	(329)
Opening (net financial debt)	(547)	(218)
Closing (net financial debt)	(878)	(547)

 $The \ reconciliation \ of \ cash \ and \ cash \ equivalents \ in \ the \ statement \ of \ cash \ flows \ to \ the \ net \ financial \ debt \ in \ the \ ERAMET \ group \ reporting \ is \ as \ follows:$ 

(€ MILLION)	31/12/2015	31/12/2014
Cash and cash equivalents	432	516
Other current financial assets	196	420
Borrowings	(1,344)	(1,347)
Joint venture contribution	(162)	(136)
Net financial debt—Reporting	(878)	(547)

3,704

4,255

ECONOMIC ASSESSMENT		
(€ MILLION)	31/12/2015	31/12/2014
Non-current assets	3,003	3,407
Inventories	974	1,058
Trade receivables	293	387
Trade payables	(430)	(435)
Simplified WCR	837	1,010
Other items of WCR	(136)	(162)
Total WCR	701	848
TOTAL	3,704	4,255
(€ MILLION)	31/12/2015	31/12/2014
Equity, attributable to Group	1,466	2,322
Equity, non-controlling interest	313	432
Shareholders' equity	1,779	2,754
Cash and cash equivalents and current financial assets	(630)	(938)
Borrowings	1,508	1,485
Net financial debt	878	547
Ratio of net financial debt to shareholders' equity (gearing)	49%	20%
Employee liabilities and provisions	812	732
Net deferred tax	123	130
Derivatives	112	92

## **NOTE 4 CURRENT OPERATING PROFIT (LOSS)**

The current operating profit (loss) reflects the performance of the ERAMET group's ordinary business as presented and defined in Note 3. This section presents its components: sales, cost of sales, Administrative and selling expenses, Research & Development expenditure, and amortisation and provisions.

## 4.1 SALES

**TOTAL** 

## ACCOUNTING METHOD

Sales mostly comprise sales of ores (nickel and manganese) and manufactured goods (special steels, alloys, superalloys, etc.) to third parties. The earnings from the sale of these products are recognised from the time all the risks and rewards attached to the ownership of the sold product have been transferred to the client.

Sales are gross sales less trade rebates. Transportation and manufacturing expenses are included in the cost price of the goods sold.

Consolidated sales for 2015 decreased by 2% at €3,015 million, compared to €3,075 million in 2014 (-€60 million).

The comparison against the Group's reported sales and the distribution by Division are given in Note 3.

#### 4.2 COST OF SALES AND OTHER INCOME

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

#### 4.3 ADMINISTRATIVE AND SELLING EXPENSES

#### ACCOUNTING METHOD

Administrative and selling expenses mainly comprise personnel costs for non-industrial sites and other central administrative services.

#### 4.4 RESEARCH AND DEVELOPMENT EXPENDITURE

#### ACCOUNTING METHOD

Research and development expenditure relates to expenses for scientific and technical activities necessary for the research, development and implementation of new manufacturing processes or the improvement of existing processes. Once the technical feasibility and profitability of a project have been established, the costs incurred are capitalised. These expenses also include the geology expenses incurred in the mining sites (ERAMET Nickel and ERAMET Manganese) that are already in operation.

#### Expenses for the period

(€ MILLION)	31/12/2015	31/12/2014
Non-capitalised research and development expenditure	25	30
of which, geological expenditure:		
• Nickel	7	7

#### 4.5 AMORTISATION AND DEPRECIATION OF NON-CURRENT ASSETS AND PROVISIONS FOR CONTINGENCIES AND LOSSES

#### ACCOUNTING METHOD

#### Amortisation and depreciation of non-current assets

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

Where the duration or the pace of utilisation of an asset cannot be determined reliably, the straight-line method is applied. The selected depreciation method is applied across all similar assets with the same conditions of use.

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

Any significant change in the planned utilisation of the asset, in terms of duration or the pace, will result in the depreciation being revised for the current year and future years. Likewise, in the case where impairment loss provisions are set aside or reversed following the comparison between the value in use of a non-current asset and its carrying amount (Note 9), the depreciation basis is modified prospectively, i.e. the depreciation is adjusted based on the new duration or the new pace of use for the current reporting period and future reporting periods. The depreciation for the reporting period is recognised under a separate heading, Amortisation and depreciation of non-current assets, which is between EBITDA and Current operating profit (loss).

#### Provisions for contingencies and losses

See Note 12.

#### ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The ERAMET group uses two depreciation methods, the straight-line method and the units-of-production method.

#### Straight-line depreciation method

The depreciation of property, plant and equipment is calculated on a straight-line basis over the estimate useful lifespan at 31 December 2015:

- · Buildings 10-50 years
- Industrial and mining facilities 5-50 years
- Other Property, plant & equipment 2-10 years

Assets invested in the SETRAG concession are depreciated over the shorter of their useful lives or the remaining period of the concession. Computer software is amortised over a variable period not exceeding five years.

#### **Units-of-production method**

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

If the production is not deemed to fluctuate significantly from one year to the next, as with the assets whose material lifespan is shorter than the life of the plant or the mine to which they relate, the assets are depreciated according to the straight-line method mentioned above over the life of the plant or the mine.

#### Depreciation start date for non-current assets

Non-current assets are depreciated from the time they are ready to be put into service.

#### **Revision of depreciation periods**

The residual values and useful life of non-current assets are revised and adjusted as appropriate, at the end of each reporting period. Change is seen as a change in estimates, and impacts only the current and later reporting periods.

The ERAMET group measures its existing assets and the depreciation period when reviewing mining plans (ERAMET Nickel and ERAMET Manganese) and plant operation plans at the end of each reporting period. When it is established that the life of the allocated assets no longer matches the remaining period of expected returns, their depreciation period is modified prospectively. Uncertainties are inherent to the estimation of reserve quantities, especially as regards assumptions about future prices, the geology of the mines, the mining methods used and associated costs incurred to develop and mine these reserves. Changes in these assumptions could lead to major adjustments in the estimation of reserves, which may be the basis for impairment or modification in depreciation expense in future periods.

## Provisions for contingencies and losses

See Note 12.

TOTAL	(283)	(277)
Provisions	8	(5)
of which, amortisation and depreciation of acquisition price allocation	(4)	(10)
Amortisation and depreciation of non-current assets	(291)	(272)
Property, plant & equipment—Note 9	(270)	(251)
Intangible assets—Note 9	(21)	(21)
(€ MILLION)	FY 2015	FY 2014

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## NOTE 5 NET PROFIT (LOSS) GROUP SHARE AND NON-CONTROLLING INTEREST

The Net profit (loss) Group share is the Net income for the period after tax, attributable to ERAMET shareholders, after accounting for the non-controlling interest in each of the Group's companies.

Apart from the Current operating profit (loss), the Net income for the period includes the following components:

- Other operating income and expenses (see below);
- Net financial income (Note 6);
- Share of income from joint ventures and associates (Note 9);
- Income tax (Note 10).

## 5.1 CURRENT OPERATING PROFIT (LOSS)—NET PROFIT (LOSS) GROUP SHARE CROSS-REFERENCE TABLE

(€ MILLION)	NOTES	FY 2015	FY 2014
Current operating profit (loss)	3/4	(191)	86
Other operating income and expenses	5	(553)	(101)
Operating profit (loss)	3	(744)	(15)
Net financial income	6	(74)	(60)
Share of income from joint ventures and associates	9	(78)	(44)
Income tax	10	(9)	(48)
Profit (loss) for the period		(905)	(167)
Attributable to non-controlling interests	5	(191)	(8)
Net profit (loss)—Group share	3/5	(714)	(159)

#### **5.2 OTHER OPERATING INCOME AND EXPENSES**

## ACCOUNTING METHOD

Other operating income and expenses include only very limited, unusual, abnormal and infrequent income and expenses for particularly material amounts that the ERAMET group presents separately in its income statement in order to facilitate understanding of current operating performance. They include the following components in particular:

- · restructuring costs;
- · costs incurred for development projects whose profitability has yet to be demonstrated;
- · defined benefits plan settlements and modifications;
- · capital gains and losses from sales of assets;
- · impairment losses on goodwill and non-current assets.

### **DETAIL BY CATEGORY**

Other operating income and expenses	(553)	(101)
Impairment of assets	(422)	1
Other operating income and expenses excluding impairment	(131)	(102)
(€ MILLION)	FY 2015	FY 2014

TOTAL	(131)	(102)
Other income and expenses	(34)	(37)
Other items	(25)	(11)
Employee benefits—plan amendment	(3)	3
Employee benefits—impact of restructuring	6	3
Restructuring and redundancy plans	(12)	(32)
Development projects	(97)	(65)
Other projects	(16)	(15)
Weda Bay project	(10)	-
Plant C project	(25)	(1)
Lithium project	(10)	(4)
Niobium project	(36)	(45)
(€ MILLION)	FY 2015	FY 2014

Following the Group's decision to put major projects on hold (see Key events in the reporting period), the expenditure in the 2015 reporting period for the construction of a new electric power plant in New Caledonia and for the Weda Bay project in Indonesia is now expensed.

## IMPAIRMENT OF ASSETS AND IMPAIRMENT LOSSES

(€ MILLION)	FY 2015	FY 2014
Losses on impairment tests—Goodwill	(6)	-
Losses on impairment tests—Intangible assets	(241)	-
Losses on impairment tests—Property, plant & equipment	(147)	(14)
Reversals on impairment tests—Property, plant & equipment	-	15
Losses on impairment tests—Intangible assets and PPE	(394)	1
Other impairment of assets	(16)	-
Other provisions	(12)	-
TOTAL IMPAIRMENT OF ASSETS AND IMPAIRMENT LOSSES—NOTE 9	(422)	1

(€ MILLION)	FY 2015	FY 2014
ERAMET Nickel	(256)	-
ERAMET Alloys	(12)	15
ERAMET Manganese	(154)	(14)
TOTAL IMPAIRMENT OF ASSETS AND IMPAIRMENT LOSSES	(422)	1

See Note 9-Investments, section Impairment of assets.

## 5.3 NET EARNINGS PER SHARE, GROUP SHARE

## ACCOUNTING METHOD

Net earnings per share can be obtained by dividing the Group share of net profit (loss) by the average number of shares outstanding during the reporting period. This average number of shares outstanding excludes treasury shares.

Diluted earnings per share can be obtained by adjusting Net profit (loss) Group share for the period and the number of shares for potentially dilutive effects, mainly represented by employee share subscription and purchase plans.

	FY 2015				FY 2014	
	NET PROFIT (LOSS) GROUP SHARE	AVERAGE NUMBER OF SHARES	EARNINGS PER SHARE	NET PROFIT (LOSS) GROUP SHARE	AVERAGE NUMBER OF SHARES	EARNINGS PER SHARE
Basic earnings per share	(714)	26,339,672	(27.11)	(159)	26,303,185	(14.11)
Diluted earnings per share (1)	(714)	26,339,672	(27.11)	(159)	26,303,185	(14.11)
(1) Where basic earnings per share are negative, the diluted earnings per share are deemed equal to it, in which case the instruments are considered to be anti-dilutive.						

## 5.4 NON-CONTROLLING INTEREST SHARE IN EARNINGS—MINORITY INTEREST

	SHARE OF		SHARE	OF	
	% OF NON-CONTROLLING	PROFIT (LOSS)	SHAREHOLDERS' EQUITY	PROFIT (LOSS)	SHAREHOLDERS' EQUITY
(€ MILLION)	INTEREST	FY 2015	31/12/2015	FY 2014	31/12/2014
At beginning of period			434		476
Dividends distributed			-		(25)
Profit (loss) for the period			(191)		(8)
Change in financial instrument revaluation reserve			(10)		(7)
Translation adjustments			(4)		(2)
Other movements			93		-
At period end		(191)	322	(8)	434
Le Nickel-SLN	44%	(170)	114	(18)	287
COMILOG S.A.	36.29%	(12)	195	11	211
Strand Minerals Inc.	33.4%	_	-	(2)	(85)
Pt Weda Nickel Ltd	10%	(9)	11	- [	17
Interforge	6%	-	2	-	2
Other companies		_	-	1	2

See Statement of changes in equity.

## NOTE 6 NET FINANCIAL DEBT AND SHAREHOLDER'S EQUITY

## **6.1 NET FINANCIAL DEBT**

Net financial debt represents the gross financial debt (long-term and short-term borrowings) less current financial assets, and cash and cash equivalents. These components include the valuation of hedging derivatives (currency and rate hedges) for debt and investments.

#### ACCOUNTING METHOD

Borrowings are initially recognised on the basis of the amount received, less the cost of financing incurred. Borrowings are subsequently measured at amortised cost. Any variance between the amounts received and the redemption value of the borrowing is recognised in the income statement, in Net financial income (Borrowing costs) over the term of the borrowing, using the effective interest rate (EIR) method.

Net financial debt	(716)	(411)
Other current financial assets	196	420
Cash and cash equivalents	432	516
Borrowings	(1,344)	(1,347)
Borrowings—short-term portion	(181)	(316)
Borrowings—long-term portion	(1,163)	(1,031)
(€ MILLION)	31/12/2015	31/12/2014

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## **6.2 BORROWINGS**

## **BORROWINGS BY CATEGORY**

(€ MILLION)	31/12/2015	31/12/2014
Borrowings on capital markets	691	687
Bank loans	451	523
Bank overdrafts and creditor banks	73	24
Finance lease liabilities	49	60
Other borrowings and financial liabilities	80	53
TOTAL  • Long-term portion	<b>1,344</b> 1.163	<b>1,347</b> 1,031
Short-term portion	181	316
· Short-term portion	101	310

## **BORROWINGS ON CAPITAL MARKETS AND BANK LOANS**

(€ MILLION)	NOMINAL	INTEREST RATE	MATURITY	31/12/2015	31/12/2014
Bond issue—ERAMET S.A.	€525 million	4.50%	2020	527	525
Euro private placement—ERAMET S.A. (*)	€50 million	5.29%	2026	51	52
Euro private placement—ERAMET S.A. (*)	€50 million	5.10%	2026	51	51
Deutsche Bank (Schuldschein) Ioan— ERAMET S.A.	€60 million	6-month Euribor + 2%	2020	62	59
Borrowings on capital markets				691	687
ICBC / BNP Paribas / BGFI—COMILOG S.A. borrowings	\$217 million	6-month Libor + 4.3% / +2.1%	2018/2022	120	140
Issued commercial paper—ERAMET S.A.	€2 million	Between 0.45% and 0.81%	1 year max.	2	81
Borrowing base—ERAMET S.A.	€56 million	1-month Euribor + 2.1%	2017	56	73
European Investment Bank-ERAMET S.A.	€80 million	1.736%	July 2025	80	-
Other borrowings with credit institutions				193	229
Borrowings with credit institutions				451	523

<sup>(°)</sup> With investor put options that may be exercised after the  $7^{\text{th}}$  year.

Certain borrowings need to comply with financial ratios or covenants (Note 7).

## **CHANGE OVER THE PERIOD**

At period end	1,344	1,347
Translation adjustments	23	15
Other changes	5	10
Change in bank overdrafts	49	(11)
Repayment of borrowings	(220)	(194)
New borrowings	140	482
At beginning of period	1,347	1,045
(€ MILLION)	FY 2015	FY 2014

(€ MILLION)	31/12/2015	31/12/2014
Euro	1,060	1,074
US dollar	215	210
CFA franc	35	28
Pound sterling	5	2
Norwegian krone	7	6
Other currencies	22	27
TOTAL	1,344	1,347
Less than one year	181	316
One to five years	953	273
Over five years	210	758
TOTAL	1,344	1,347

## **CONFIRMED CREDIT FACILITIES**

(€ MILLION)	31/12/2015	31/12/2014
Unused confirmed credit facilities (1)	981	981
Undrawn BEI financing (2)	-	80

(1) Bank covenants relating to these credit facilities are wholly satisfied. These covenants relate to the ratio of the Group's net financial debt to shareholders' equity. (2) This credit facility was drawn entirely in FY 2015.

## **BORROWINGS BY INTEREST RATE**

421 2 -		538 11 -	
421		538	
1			
	423		549
_		-	
89		130	
775		641	
	864		771
	57		27
31/	12/2015	31	/12/2014
	775	775 89	57 864 775 641 89 130 - 423

## FINANCE LEASE LIABILITIES

	31/12/	2015	31/12/2014	
(€ MILLION)	NOMINAL VALUE	DISCOUNT VALUE	NOMINAL VALUE	DISCOUNT VALUE
Less than one year	12	11	13	11
One to five years	33	31	39	36
Over five years	8	7	14	13
Total before interest expense	53	49	66	60
Interest expense	-	4	-	6
TOTAL	53	53	66	66

#### 6.3 CASH AND CASH EQUIVALENTS

#### ACCOUNTING METHOD

Cash includes cash in hand and demand deposits, excluding bank overdrafts which appear under borrowings. Cash equivalents correspond to marketable securities and consist of investments held to meet short-term cash requirements.

Marketable securities are recognised in the statement of financial position at their fair value. To be considered a cash equivalent, they must be readily convertible to cash and subject to negligible risk of fluctuations in value. Changes in fair value are recognised in the Net income for the period.

#### **DETAIL BY CATEGORY**

	NET AMOUNT	NET AMOUNT
(€ MILLION)	31/12/2015	31/12/2014
Cash	50	77
Cash equivalents	382	439
TOTAL	432	516
DETAIL BY CURRENCY		
(€ MILLION)	31/12/2015	31/12/2014
Euro	301	484
US dollar	91	17
Yuan Ren-Min-Bi (China)	6	6
Norwegian krone	23	3
Other currencies	11	6
TOTAL	432	516
DETAIL BY INTEREST RATE TYPE		
(€ MILLION)	31/12/2015	31/12/2014
Interest-free	33	36
Fixed interest rates	22	68
Variable interest rates	377	412

Interest-free items mainly consist of non-interest-bearing sight deposits.

**TOTAL** 

Cash includes cash in hand and at bank. Cash equivalents mostly comprise the following items managed by Metal Securities:

money-market securities totalling €173 million (as compared to €70 million at 31 De-

cember 2014) bearing interest based on the EONIA index rate (Euribor OverNight Index Average);

- negotiable debt securities totalling €115 million (as compared to €242 million at 31 December 2014) bearing interest based on the EONIA index rate;
- interest-bearing bank accounts amounting to €22 million (compared to €65 million at 31 December 2014).

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The change from one period to the next is analysed through the statement of cash flows drawn up using the indirect method.

Non-cash income	and expenses	s break down	as follows:

Non-cash income and expenses	761	303
Share of income from joint ventures and associates	78	44
Proceeds from asset disposals	1	(3)
Deferred tax	(20)	(65)
Financial instruments	4	16
Accretion expenses	9	12
Depreciation, amortisation, impairment and provisions	689	299
(€ MILLION)	FY 2015	FY 2014

## **6.4 CURRENT FINANCIAL ASSETS**

#### ACCOUNTING METHOD

These assets mostly comprise bonds of listed European companies that do not satisfy the criteria to qualify as cash equivalents. These bonds are measured at their fair value upon first-time recognition. The fair value used is the stock-market value for listed bonds, and for unlisted bonds, is based on estimates using specific financial criteria reflecting the specific situation of each bond (similar transactions or discounted value of future cash flows).

Where those bonds exhibit objective evidence of significant or lasting loss of value, the cumulative impairment loss, previously recognised in equity, is recognised in Net income for the period.

Changes in the fair value of these investments are recognised in transferable equity under Change in fair value of available-for-sale financial assets. The amount recognised in equity was null for the 2014 and 2015 reporting periods.

The net change of €224 million in current financial assets between 2014 and 2015 is shown in the net cash flows relating to investing activities.

## 6.5 NET FINANCIAL INCOME

Net financial income	(74)	(60)
Other financial income and expenses	(22)	(27)
Net debt cost	(52)	(33)
(€ MILLION)	FY 2015	FY 2014

#### **NET BORROWING COST**

## ACCOUNTING METHOD

The net debt costs include the expenses relating to gross debt and financial revenue in connection with bonds and investment securities. The borrowing costs relate to interest payable on the debt and other costs incurred in connection with the borrowing of funds. Borrowing costs that are linked directly to the acquisition, building or production of an asset that requires more than 12 months to be put into service are deducted from the financing expense to which they relate. All the other borrowing costs are expensed in the current period in which they are incurred.

(€ MILLION)	FY 2015	FY 2014
Interest income	11	14
Interest expense	(62)	(50)
Net income on marketable securities	3	1
Changes in fair value of marketable securities	(1)	(1)
Net translation differences	(3)	3
TOTAL	(52)	(33)

## OTHER FINANCIAL INCOME AND EXPENSES

#### ACCOUNTING METHOD

The Other financial income and expenses include all the components of Net financial income except for income and expenses relating to the net debt cost.

(€ MILLION)	FY 2015	FY 2014
Investment and dividend income	1	2
Gains (losses) on the disposal of investments in associates	(2)	6
Employee benefits—net interest	(6)	(7)
Accretion expenses	(9)	(12)
Financial instruments ineligible as hedges—currency	(3)	(15)
Financial instruments ineligible as hedges—commodity	(1)	(1)
Securitisation financial expense	(2)	(1)
Other	_	1
TOTAL	(22)	(27)

Accretion expenses relate to provisions for mining site restoration and for dismantling industrial facilities.

The financial instruments that do not qualify as hedges correspond to the portion of hedging instruments recognised in income.

## **6.6 SHAREHOLDERS' EQUITY**

## CHANGES TO THE SHARE CAPITAL

The share capital of €80,956,814.90 is composed of 26,543,218 fully paid-up shares with a par value of €3.05 each.

	31/12/2015				31/12/	2014			
		SHARE CAPITAL	VOTING RIGHTS		SHAR	SHARE CAPITAL		VOTING RIGHTS	
BREAKDOWN	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES	
Registered shares									
SORAME & Compagnie d'Études Industrielles du Rouvray (CEIR)	37.06	9,835,834	44.17	19,671,668	37.06	9,835,834	44.18	19,671,668	
FSI Equation (Bpifrance subsidiary)	25.66	6,810,317	30.58	13,620,634	25.66	6,810,317	30.59	13,620,634	
S.T.C.P.I.	4.03	1,070,587	4.81	2,141,173	4.03	1,070,587	4.81	2,141,173	
ERAMET S.A.	0.82	218,276	-	_	0.87	230,051	-	_	
ERAMET S.A. share fund	0.20	52,373	0.24	104,746	0.20	52,373	0.24	104,746	
Other	32.23	8,555,831	20.20	8,995,747	32.19	8,544,056	20.18	8,985,301	
TOTAL NUMBER OF SHARES	100.00	26,543,218	100.00	44,533,968	100.00	26,543,218	100.00	44,523,522	
of which, registered shares	69.27	18,387,508	82.03	36,531,116	69.51	18,449,298	82.02	36,519,203	
of which, bearer shares	30.73	8,155,710	17.97	8,002,852	30.49	8,093,920	17.98	8,004,319	

Pursuant to a shareholders' agreement signed on 16 March 2012, which entered into force on 16 May 2012 and will expire on 31 December 2016, subject of the AMF decision and notification No. 212C0647, the Company, as of 16 May 2012, is under the majority control of a declared concert party of shareholders comprising:

 a concert sub-group comprised of SORAME and CEIR, companies controlled by the Duval family, pursuant to a simultaneous shareholders' agreement of 19 July 1999, that came into effect on 21 July 1999, and was amended by a rider on 13 July 2009;

- Bpifrance (public investment bank), via its subsidiary FSI Equation.

The provisions of the above shareholders' agreement and of the concert sub-group can be found in the main extracts of the texts of the

AMF decision and notification No. 212C0647 and No. 209C1013 (rider of 13 July 2009).

Since 1 January 2002, registered shares meeting the required conditions have qualified for double voting rights.

## TREASURY SHARES

The table below summarises the treasury share transactions:

		PRICE SUPPORT (1)	AWARDS TO EMPLOYEES <sup>(2)</sup>	TOTAL
Position at 31 December 2013		106,952	177,909	284,861
As a percentage of share capital	26,543,218	0.40%	0.67%	1.07%
Bonus share grants			(37,459)	(37,459)
Purchases/Sales		(17,351)		(17,351)
Position at 31 December 2014		89,601	140,450	230,051
As a percentage of share capital	26,543,218	0.34%	0.53%	0.87%
Bonus share grants			(45,393)	(45,393)
Purchases/Sales		33,618		33,618
Position at 31 December 2015 As a percentage of share capital	26,543,218	<b>123,219</b> 0.46%	<b>95,057</b> 0.36%	<b>218,276</b> 0.82%

<sup>(1)</sup> Liquidity contract signed with Exane BNP Paribas.

ERAMET treasury shares are classified under Other reserves and recognised at purchase cost for an amount of €23 million at 31 December 2015 (€33 million at 31 December 2015). These transaction amounts were allocated to shareholders' equity.

<sup>(2)</sup> Instructions to buy back 250,000 shares (ceiling reached in 2013).

## NOTE 7 FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

This note gives an overview of the financial instruments of the ERAMET group, the associated risks, its risk management objectives, sensitivity and monitoring of the financial risk management strategy.

#### ACCOUNTING METHOD

#### Financial instruments

Derivative assets and liabilities, current financial assets, and cash and cash equivalents are initially recognised in the balance sheet at their fair value (normally the transaction price) adjusted for transaction costs. At each period closing, the change in fair value is recognised in income (Other financial income and expenses) unless a cash flow hedge exists. In that case, the change is recognised in Other comprehensive income and shown in equity (change in the revaluation reserve of hedging financial instruments).

#### Derivative instruments

The ERAMET group uses derivatives to hedge certain risks. To manage its foreign currency risk, the ERAMET group uses foreign currency forwards/futures, foreign currency swaps and, to a lesser extent, foreign currency options. Foreign currency forwards/futures are recognised as hedges where the ERAMET group has defined and documented the hedging relationship and demonstrated its effectiveness. Interest-rate risk is managed using interest-rate swaps. Lastly, the ERAMET group also uses collars and swaps when hedging commodity purchases and sales (nickel, fuel oil, aluminium and electricity).

Derivatives are measured at their fair value upon initial recognition. Subsequently, the fair value of derivatives is remeasured at each reporting date. The fair value of foreign currency forwards/futures is estimated on the basis of market conditions. The fair value of interest rate derivatives is that which the ERAMET group would receive (or pay) to transfer current contracts at the reporting date. The fair value of commodity derivatives is estimated on the basis of market conditions. Derivatives are shown in the balance sheet under current assets or liabilities.

#### Hedging

Gains or losses on hedging instruments are recognised symmetrically with the gains or losses on the hedged items. However, the fair value changes of hedges, independently of the hedged transactions, are recognised on the income statement for the period under Current operating profit (loss) or Other financial income and expenses depending on the nature of the hedge.

The ERAMET group identifies the hedging item and hedged item when the hedge is set up and formally documents the hedging relationship by identifying the hedging strategy, the hedged risk and the hedge effectiveness measurement method:

- Fair value hedge: the hedged item is remeasured in respect of the hedged risk and the hedging instrument is measured and recognised at fair value. The changes in both items are recognised simultaneously in Current operating profit (loss).
- Cash flow hedge: the hedged item is not remeasured. Only the hedging instrument is remeasured at fair value. To offset the remeasurement, the effective portion of the change in fair value that can be ascribed to the hedged risk is recognised net of tax in shareholders' equity. The cumulative amounts in shareholders' equity are recognised in income for the period when income is affected by the hedged item. The ineffective portion is retained in income for the period.
- Hedging of net investment in foreign subsidiaries: derivatives intended to hedge net foreign currency investment in foreign subsidiaries are
  treated as net foreign currency investment hedges. The profit or loss from such hedges, and the changes in fair value (apart from the time
  value) are recognised in equity as currency translation differences, and transferred to income when the subsidiary is sold.
- Recognition of derivatives that do not comply with hedge accounting conditions: the ERAMET group uses these derivatives only to hedge
  future cash flows, and changes in fair value are immediately recognised in Other financial income and expenses.

#### Fair value measurement

The ERAMET group measures its financial instruments at fair value at each reporting date.

Fair value is the amount for which an asset could be sold, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. When measuring fair value, it is assumed that the transaction for selling the asset or transferring the liability is carried out:

- · in the main market for that asset or that liability; or
- if there is no main market, in the best market for that asset or that liability.

The fair value measurement of a non-financial asset considers the capacity of a market participant to generate economic benefits by making full use of the asset or by selling it to another market participant who will make full use of the asset.

The fair values of financial instruments are ranked according to a three-level hierarchy:

- · Level 1: Listed prices (unadjusted) on an active market for the same assets and liabilities;
- · Level 2: Listed price on an active market for a similar instrument, or another measurement technique based on observable parameters;
- Level 3: Measurement technique incorporating non-observable parameters.

The criteria for classifying and recognising financial assets and liabilities, and where appropriate, any changeover from one level to another in the fair value hierarchy are given below.

### ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The uncertainties and estimates as well as the judgements used are considered for the valuation of forward/futures contracts, the application of hedge accounting and the valuation of derivatives measured at fair value.

To continue to apply hedge accounting to raw material purchases and sales (nickel, fuel oil, aluminium, and electricity), the ERAMET group establishes that the heading instrument is efficient so as to offset, retrospectively and prospectively, the currency risk on its raw material purchases and sales, and ensures that the documentation complies strictly with the requirements. The processes for testing the efficiency of the hedge call for the use of judgements and estimates.

#### Fair value measurement

The fair value represents an estimate at a given date and can change from one period to another due to market conditions and other factors. The ERAMET group gives priority to the assumptions that the market participants would use to determine the price of the asset or the liability, on the consideration that the market participants act in their own best economic interests. The ERAMET group uses measurement techniques that are appropriate in the circumstances and for which sufficient data is available to determine the fair value, maximising the use of pertinent observable inputs while minimizing the use of non-observable inputs.

## 7.1 FINANCIAL INSTRUMENTS SHOWN IN THE BALANCE SHEET

	31/12/2015	BREA	KDOWN BY	TYPE OF	INSTRUME	NT	31/12/2014	BREA	KDOWN BY	TYPE OF	NSTRUME	NT
(€ MILLION)	STATE- MENT OF FINAN- CIAL POSITION	FAIR VALUE THROUGH P&L	AVAIL- ABLE- FOR- SALE ASSETS	LOANS AND RECEIV- ABLES	LIABILI- TIES AT AMOR- TISED COST	DERIVA- TIVES	STATE- MENT OF FINAN- CIAL POSITION	FAIR VALUE THROUGH P&L	AVAIL- ABLE- FOR- SALE ASSETS	LOANS AND RECEIV- ABLES	LIABILI- TIES AT AMOR- TISED COST	DERIVA- TIVES
Non-consolidated subsidiaries	50		50				48		48			
Other non-current financial assets	103			103			93			93		
Other non-current assets	70			70			39			39		
Trade receivables	288			288			385			385		
Other current assets	250			250			260			260		
Derivatives	30					30	23					23
Other current financial assets	196		196				420		420			
Cash and cash equivalents	432	432					516	516				
Assets	1,419	432	246	711	-	30	1,784	516	468	777	-	23
Borrowings— long-term portion	1,163				1,163		1,031				1,031	
Other non-current liabilities	31			31			29			29		
Borrowings— short-term portion	181				181		316				316	
Trade payables	406			406			418			418		
Other current liabilities	342			342			363			363		
Derivatives	187					187	141					141
Liabilities	2,310	-	-	779	1,344	187	2,298	_	-	810	1,347	141

No reclassification among categories of financial instruments was carried out during the period. Investments in associates and Other current financial assets are recognised in the balance sheet at fair value. The Other non-current financial assets are measured at amortised cost calculated using the effective interest rate (EIR).

Borrowings are recognised at amortised cost measured at the effective interest rate (EIR). Securities and borrowings may, as appropriate, be interest-rate hedged and the portion linked to interest-rate changes is remeasured; their fair value is close to their value shown in the balance sheet, owing to their small amount and the hedges.

The fair value of trade receivables and trade payables is equal to the value shown in the balance sheet, since for the most part they fall due in less than one year.

The fair value of financial instruments broken down by fair-value hierarchy is as follows:

	31/12/2015	31/12/2015 BREAKDOWN BY FAIR VALUE CATEGORY			31/12/2014 BREAKDOWN BY FAIR VA CATEGORY		
(€ MILLION)	VALUE IN THE BALANCE SHEET	LEVEL 1	LEVEL 2	VALUE IN THE BALANCE SHEET	LEVEL 1	LEVEL 2	
Current financial assets	196	196		420	420		
Cash and cash equivalents	432	432		516	516		
Derivatives	30		30	23		23	
Assets	658	628	30	959	936	23	
Derivatives	187		187	141		141	
Liabilities	187	-	187	141	_	141	

## 7.2 EFFECTS OF FINANCIAL INSTRUMENTS ON THE INCOME STATEMENT

(€ MILLION)	FY 2015 IMPACT ON PROFIT (LOSS)	FINANCIAL INCOME AND (EXPENSES)	AMORTISED COST	FAIR VALUE	TRANSLATION ADJUSTMENTS	PROFIT (LOSS) ON DISPOSAL	NET IMPAIRMENT
Investment securities	(1)	1				(2)	
Other financial assets	2	9			(1)		(6)
Derivatives	(28)			(28)			
(Net debt)/Net cash	(56)	(50)	(5)	(2)	(2)	3	
TOTAL	(83)	(40)	(5)	(30)	(3)	1	(6)

(€ MILLION)	FY 2014 IMPACT ON PROFIT (LOSS)	FINANCIAL INCOME AND (EXPENSES)	AMORTISED COST	FAIR VALUE	TRANSLATION ADJUSTMENTS	PROFIT (LOSS) ON DISPOSAL	NET IMPAIRMENT
Investment securities	11	2				10	(1)
Other financial assets	(2)	(1)					(1)
Derivatives	[ 11			11			
(Net debt)/Net cash	(34)	(36)	(2)	(1)	4	1	
TOTAL	(14)	(35)	(2)	10	4	11	(2)

The financial revenue from subsidiaries consists of dividends. The gains or losses on currency and commodity hedges are for the most part recognised in Current operating profit (loss). The portion that does not qualify as hedges is recognised in Other financial income and expenses.

#### 7.3 BREAKDOWN OF DERIVATIVES INCLUDED IN THE STATEMENT OF FINANCIAL POSITION

	31/12/20	)15	31/12/2014		
(€ MILLION)	ASSETS	LIABILITIES	ASSETS	LIABILITIES	
At beginning of period	23	141	45	34	
Change in hedging instruments for the period—shareholders' equity (1)	(2)	25	(19)	62	
Change in hedging instruments for the period— financial income/loss (2)	12	16	(4)	12	
Net change in hedging derivatives (3)	(3)	18	1	33	
Other movements	-	(13)	-	-	
At period end	30	187	23	141	
Net position in hedging derivatives (3)	7	55	10	37	
Financial instruments—currency hedges	8	94	13	83	
Financial instruments—interest-rate hedges	-	-	-	8	
Financial instruments—commodity hedges	15	38	-	13	

<sup>(1)</sup> The impact corresponds to the effective portion of the change in fair value of derivative instruments used to hedge foreign currency, interest rates and commodities risks.

Foreign-currency receivables and debts are translated at the closing rate, and the difference between the closing rate and the hedging rate is recognised under "Financial instrument assets and liabilities".

#### 7.4 RISK MANAGEMENT

The Group uses derivatives to control its exposure to foreign currency, interest-rate and commodity risks. The Executive Committee delegated the management of the main risks to the ERAMET group Finance Department. This management is carried out directly by ERAMET or via companies such as Metal Currencies, created specifically to manage the Group's foreign currency risk.

The Group's policy is to reduce its exposure to interest rate and foreign currency fluctuations, but not to speculate. Positions are traded either on organised markets, or over the counter with top-notch banking counterparties.

Gains or losses on hedging instruments are recognised symmetrically with the gains or losses on the hedged items. However, unrealised losses on financing hedging transactions ineligible under hedging standards are recognised in Net income for the period.

All transactions outstanding at the reporting date are recognised in the statement of financial position, with no set-off.

## FOREIGN CURRENCY RISKS

When the exposure stemming from borrowings taken out by Group companies in currencies other than their functional currencies is not offset by income in those currencies, the Group may have recourse to hedging instruments. In addition, the Group uses financial instruments to limit its exposure to the currency risk on its sales and on certain dollar-denominated costs.

The ERAMET group is exposed to two types of foreign currency risk, namely:

- transactional foreign currency risks where a company has income in a currency other than its functional currency that is not offset by purchases in that currency;
- foreign currency risks to the balance sheet related to the changes in net assets of subsidiaries measured in currencies other than the euro.

The Group centralises the subsidiaries' foreign currency risk. Each Group company reports its exposure in currencies other than its functional currency, to Group Treasury. This management is part of a multiyear policy with procedures approved by the Executive Committee along with monthly reporting to its members. The Group manages the foreign currency risk to the balance sheet for each case individually.

<sup>(2)</sup> The impact corresponds to the non-effective portion of the change in fair value of derivative instruments used to hedge foreign currency, interest rates and commodities risks.

## TRANSACTIONAL RISKS

Currency hedging primarily involves the US dollar but also includes the Norwegian Krone, the pound sterling, the Swedish Krona and the Japanese yen. These hedges are designed to protect the Group's present and future positions on trade transactions, more than 50%

of which are invoiced in foreign currencies, whereas production costs are for the most part denominated in euros. The transactions are carried out via the company Metal Currencies.

The subsidiaries in question determine the amount of their net exposure based on multiyear budgets and forecasts. The associ-

ated risks are then hedged within a maximum horizon of thirty-six months if the amount is greater than €2 million or the equivalent thereof per currency, unless exemptions apply. The Group uses various instruments to hedge against currency risk, such as futures/forward contracts and options.

## **BALANCE SHEET RISKS**

The ERAMET group manages foreign currency risks to the balance sheet, primarily related to the US dollar, by issuing financial liabilities denominated in the same currency as the net assets in question, or via currency swaps.

The breakdown of the hedging portfolio by currency is shown below:

AT 31 DECEMBER 2015	2015 SALES			2016 SALES			2017 SALES AND BEYOND		
(FOREIGN CURRENCY UNIT MILLION)	AMOUNT	CURRENCY	RATE	AMOUNT	CURRENCY	RATE	AMOUNT	CURRENCY	RATE
Commercial hedges									
EUR/USD	155	USD	1.26	297	USD	1.18	201	USD	1.18
EUR/NOK	351	NOK	8.71	755	NOK	8.93	730	NOK	9.41
Other hedges—total amount not detailed by year									
EUR/USD	233	USD	1.15						
EUR/NOK	1,022	NOK	8.95						

AT 31 DECEMBER 2014	2014 SALES			2015 SALES			2016 SALES AND BEYOND		
(FOREIGN CURRENCY UNIT MILLION)	AMOUNT	CURRENCY	RATE	AMOUNT	CURRENCY	RATE	AMOUNT	CURRENCY	RATE
Commercial hedges									
EUR/USD	317	USD	1.23	394	USD	1.29	213	USD	1.30
EUR/NOK	46	EUR	8.34	86	EUR	8.55	70	EUR	8.82
Other hedges—total amount not detailed by year									
EUR/USD	582	USD	1.27						
EUR/NOK	(1,118)	NOK	8.70						
USD/CNY	139	CNY	6.23						

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At 31 December 2015, the fair value of currency hedges covering transactional risks represented a net liability of €89 million (net liability of €71 million at 31 December 2014).

A change of plus or minus 0.10 in the EUR-USD exchange rate would have a pre-tax impact on the hedges recognised in equity of +€55 million should exchange rates rise and approximately -€66 million should those rates fall.

The notional amount of currency hedging contracts breaks down as follows:

		31/12/	2015		31/12/2014					
(FOREIGN CURRENCY UNIT MILLION)	FORWARD/ FUTURE SALES	FORWARD/ FUTURE PURCHASES	CALL OPTIONS <sup>(1)</sup>	PUT OPTIONS <sup>(1)</sup>	FORWARD/ FUTURE SALES	FORWARD/ FUTURE PURCHASES	CALL OPTIONS <sup>(2)</sup>	PUT OPTIONS <sup>(2)</sup>		
Currency against EUR										
USD	1,732	702	416	338	870	22	589	320		
JPY	30	_	_	_	203	-	-	-		
GBP	8	_	_	_	9	1	-	-		
NOK	-	1,513	967	1,345	229	2,277	807	1,167		
Currency against SEK										
JPY	166	-	_	_	75	-	-	-		
USD	8	-	_	_	14	3	-	-		
Currency against USD										
CNY	-	-	-	-	-	18	68	121		

<sup>(1)</sup> Not including USD88 million in exotic call options and USD38 million in exotic put options.

The pre-tax impact on shareholders' equity and earnings of financial instruments hedging foreign currency risks is shown below:

	CURRENCY HEDGES							
	FY 20 <sup>-</sup>	15	FY 2014					
(€ MILLION)	TRANSACTIONAL RISKS	BALANCE SHEET RISKS	TRANSACTIONAL RISKS	BALANCE SHEET RISKS				
At beginning of period	(98)	1	16	(29)				
Change in unexpired hedging portion (1)	(47)		(73)					
Change in ineffective portion via income (2)	(3)		(15)					
Change in effective portion via income (3)	46		(26)					
Translation adjustments and other movements	(2)	26		30				
At period end	(104)	27	(98)	1				
Changes recognised in shareholders' equity:								
Hedging reserve	(1)		(99)					
Translation reserve		26		30				
TOTAL	(1)	26	(99)	30				
Changes recognised via income:								
Current operating profit (loss)	(46)		26					
Net financial income	(3)		(15)					
TOTAL	(49)	-	11	-				

<sup>(1)</sup> The impact corresponds to the effective portion of the change in fair value of derivative instruments used to hedge foreign currency risks.

<sup>(2)</sup> Not including USD59 million in exotic call options and USD59 million in exotic put options.

<sup>(2)</sup> The impact corresponds to the non-effective portion of the change in fair value of derivative instruments used to hedge foreign currency risks.

<sup>(3)</sup> Foreign-currency receivables and debts are translated at the closing rate, and the difference between the closing rate and the hedging rate is recognised under "Financial instrument assets and liabilities".

#### INTEREST RATE RISKS

Depending on market conditions and on forecast changes in Net financial debt, the Finance Department monitors the breakdown between fixed and floating rate debt and cash investments, and decides on whether or not to set up rate hedges. The financial instruments used are interest rate swaps, caps, and floors. The Group's Treasury Department is responsible for setting up hedges.

The cash surpluses managed by Metal Securities are invested in:

- instruments linked to the EONIA (Euro OverNight Index Average) or EURIBOR (Euro InterBank Offered Rate) rates;
- fixed-rate instruments swapped against the EURIBOR.

These instruments are classified among Other current financial assets and are hedged using interest rate futures (fixed rates against floating rates). Other cash surpluses managed by Metal Securities are primarily invested in instruments linked to the EONIA (Euro OverNight Index Average) rate.

#### **COMMODITY RISKS**

The Group is exposed to commodity price volatility, affecting both its sales as a nickel and manganese producer and its production costs, as a consumer of energy (fuel oil and electricity) and commodities (nickel, aluminium).

The Group holds derivative instruments for the purposes of reducing its exposure. For this purpose, the ERAMET group mainly uses forwards, combined call and put options, and call options.

The main Group entities involved are:

- ERAMET and Le Nickel-SLN for nickel sales;
- Aubert & Duval for nickel purchases;

- Le Nickel-SLN for fuel oil:
- Aubert & Duval for aluminium;
- Erasteel Kloster AB and Tinfos Jenverk A/S for electricity.

The exposures to manganese and coke price volatility are not hedged since there is no organised market in these commodities.

Hedges are contracted with horizons of one to four years, depending on the commodities, and are based on the budget. Only part of the forecast consumption or production is hedged (e.g. for fuel oil, a maximum of 80% of the budget is hedged). The Group uses various instruments to hedge and limit its exposure: futures and options.

At 31 December 2015, the fair value of hedges set up for the various commodities stood at €22 million in net liabilities (€13 million in net liabilities at 31 December 2014).

The main commodities contracts outstanding are set out below:

		31/12/2015		31/12/2014			
(TONNES)	SWAPS	CALL OPTIONS	PUT OPTIONS	SWAPS	CALL OPTIONS	PUT OPTIONS	
Nickel	7,949	-	-	151	-	-	
Fuel oil	99,996	_	_	120,000	60,000	60,000	
Brent crude oil (barrel)	_	275,040	275,040	_	660,000	660,000	
Aluminium	2,125	_	-	5,666	-	-	

A change of plus or minus 10% in commodity prices would have no material pre-tax impact on the hedges recognised through shareholders' equity.

#### LIQUIDITY RISKS

The Group is not exposed to liquidity risk given its substantial financial liquidity, at 31 December 2015, from its cash positions, its investments and bonds and a revolving credit

facility (of €981 million). Cash surpluses of the Group's subsidies are mostly transferred to Metal Securities, the Group's special purpose entity responsible for pooling and investing the Group's cash surpluses.

#### REVOLVING CREDIT FACILITY

In 2012, ERAMET signed the extension of its credit facility as provided for in the multicurrency revolving credit facility (RCF) agreement

up to 2017, for €800 million. In early 2013, ERAMET signed an amendment to this agreement raising its amount from €800 million to €981 million, and extending it by another year, from January 2017 to January 2018. The credit line intended to finance the operations and investments in assets was entered into on terms congruent with market conditions at the time of its signature. This facility is governed by a single covenant.

The Group is liable to repay its borrowings, primarily comprising financial market borrowings and bank borrowings, and its other liabilities and derivatives for which the schedule (including future interest) is given below:

		FUTURE PAYMENT SCHEDULE						
(€ MILLION)	STATEMENT OF FINANCIAL POSITION	LESS THAN ONE YEAR	ONE YEAR TO FIVE YEARS	MORE THAN FIVE YEARS	TOTAL			
Borrowings on capital markets	691	52	683	114	849			
Bank loans	451	110	360	84	554			
Bank overdrafts and creditor banks	73	73			73			
Finance lease liabilities	49	12	33	8	53			
Other borrowings and financial liabilities	80	14	52	32	98			
TOTAL BORROWINGS	1,344	261	1,128	238	1,627			
Derivatives	187	187			187			
Trade and other payables	748	748			748			
TOTAL OTHER FINANCIAL LIABILITIES	935	935	-	-	935			

The schedule of future receipts on financial assets is set out below:

		FUTURE RECEIPTS SCHEDULE AT FAIR VALUE						
(€ MILLION)	STATEMENT OF FINANCIAL POSITION	LESS THAN ONE YEAR	ONE YEAR TO FIVE YEARS	MORE THAN FIVE YEARS	TOTAL			
Other current financial assets	196	196			196			
Cash and cash equivalents	432	432			432			
TOTAL CASH AND CASH EQUIVALENTS	628	628	-	-	628			
Derivatives	30	30			30			
Trade and other receivables	608	538		70	608			
TOTAL OTHER FINANCIAL ASSETS	638	568	_	70	638			

Where appropriate, financial liabilities are covered by banking covenants at the Group level or locally; the main covenants are described below:

COMPANY	TYPE OF CREDIT LINE		RATIO	AMOUNT
ERAMET S.A.	Revolving credit facility	Net debt/ Shareholder's equity	< 1	€981 million
	Deutsche Bank (Schuldschein) Ioan	Restated net debt/ Shareholder's equity—Attributable to Group	< 1	€60 million
	Euro private placement	Net debt/ Shareholder's equity	< 1	€100 million
	European Investment Bank	Net debt/ Shareholder's equity	< 1	€80 million
COMILOG S.A.	ICBC/BNP Paribas/BGFI borrowings	Net debt/ Shareholder's equity	< 1.15	\$217 million
		Net cash flow/ Debt servicing	> 2	
		Sales to ERAMET Norway A/S / Debt servicing	> 150%	(1)

<sup>(1)</sup> Covenant applicable only to one of the two \$30 million borrowings subscribed by COMILOG.

ERAMET's covenants are determined on the basis of the published consolidated financial statements. COMILOG's covenants are determined on the basis of COMILOG's separate and consolidated financial statements.

At 31 December 2015, the covenants showed no circumstances of acceleration.

## **CREDIT OR COUNTERPARTY RISKS**

The Group may be exposed to credit risk owing to default by a counterparty—customers and financial partners—because of its cash sur-

pluses invested by its dedicated entity, Metal Securities. The Group has several means to limit this risk—gathering information ahead of transactions (from rating agencies, published financial statements, etc.), credit insurance

and the arrangement of letters of credit and documentary credits. Specifically for trade receivables, there is a dedicated credit manager for each Division of the Group.

The age of the Group's trade receivables and overdue receivables is shown below:

		31/12/2015		31/12/2014		
(€ MILLION)	GROSS AMOUNT	IMPAIRMENT	NET AMOUNT	GROSS AMOUNT	IMPAIRMENT	NET AMOUNT
On-time or not due	231	-	231	305	(2)	303
Delays:						
<ul> <li>less than one month</li> </ul>	37	(1)	36	63	(1)	62
<ul> <li>one to three months</li> </ul>	10	-	10	13	-	13
<ul> <li>three to six months</li> </ul>	9	(2)	7	7	(2)	5
six to nine months	4	(4)	_	3	(1)	2
<ul> <li>nine to twelve months</li> </ul>	6	(2)	4	1	(1)	-
over one year	5	(5)	-	3	(3)	-
TOTAL TRADE RECEIVABLES	302	(14)	288	395	(10)	385

No material unpaid or impaired receivables have been renegotiated.

### **EQUITY RISKS**

ERAMET and its subsidiaries do not speculate in the stock markets; the investments held relate to unlisted controlled companies entirely in line with the Group's activities.

## **NOTE 8 WORKING CAPITAL REQUIREMENT**

## **8.1 TABLE OF PRESENTATION OF WCR**

TOTAL WCR	863	(131)	(4)	17	745
Other items of WCR	(123)	50	(4)	3	(74)
Simplified WCR	986	(181)	-	14	819
Suppliers	(418)	21		(9)	(406)
Clients	385	(108)		11	288
Inventories	1,019	(94)		12	937
(€ MILLION)	31/12/2014	CHANGE IN WCR STATEMENT OF FLOWS	CHANGE IN PAYABLES ON ASSET DISPOSALS	TRANSLATION ADJUST- MENTS AND OTHER	31/12/2015

## **8.2 INVENTORIES**

Inventories are mainly composed of the products of the three Divisions of the Group—ERAMET Nickel, ERAMET Manganese and ERAMET Alloys—at different stages of the production process, and are shown at the lower of the cost and the net liquidation value.

ACCOUNTING METHOD	JUDGEMENTS
Inventories are measured using the weighted average unit cost for the industrial operations in the Alloys Division, and on a first-in-first-out (FIFO) basis for the industrial and mining operations in the Nickel and Manganese Divisions.  Inventories are assessed at cost price and only include production costs, while not exceeding the realisable value. Costs stemming from sub-normal capacity usage are eliminated from inventory measurement at the end of the reporting period.  Impairment losses for raw materials are recognised when the net realisable value falls below the cost of entry into storage. Consumables are fully impaired where the quantities are in storage over a much longer period than their estimated use. The impairment of spare parts that do not qualify for capitalisation is calculated on the basis of their use during the year. Spare parts inventory in excess of one year's use is fully impaired. For work-in-process, intermediate and finished products in inventory for over a year, the forward-looking approach is applied on the basis of the order book and market validation of achievements within one year; the quantities beyond one year of consumption are fully impaired. Fixed production costs relating to recognised or planned sub-normal capacity usage are not incorporated in inventory measurement, and are recognised as ordinary operating expenses for the period in which they are incurred. Sub-normal capacity usage is taken into account when the actual production volume is considerably lower than the normal production volume (or normative capacity).	Judgement is exercised to estimate the net realisable value, as well as to allocate the fixed and variable production overheads attributable directly to inventories.

(€ MILLION)	NET AMOUNT 31/12/2015	NET AMOUNT 31/12/2014
At beginning of period	1,019	965
Change in gross inventories	(74)	16
(Impairment)/net reversals for the period	(20)	27
Increase/(decrease) in net inventories—cash flows	(94)	43
Translation adjustments and other movements	12	11
At period end	937	1,019
Raw materials	234	277
Merchandise and finished products	282	397
Work-in-progress and semi-finished goods	323	298
Consumables and spare parts	98	47
Breakdown of impairment losses:		
At beginning of period	(125)	(151)
• (Impairment)/net reversals for the period	(20)	27
Translation adjustments and other movements	(2)	(1)
· At period end	(147)	(125)

Impairment provisions mainly relate to raw materials and merchandise and finished products.

#### 8.3 TRADE AND OTHER RECEIVABLES

Trade and other receivables are amounts that the ERAMET group expects to collect from third parties.

#### ACCOUNTING METHOD

Receivables are booked at transaction value upon first-time recognition and are subsequently measured at each reporting date at amortised cost. Foreign currency receivables and debts are re-measured at the rate prevailing at the period-end date. The resulting translation adjustments are recognised in Current operating profit (loss) or in Net financial income (Other financial income and expenses) depending on the type of receivable or debt (Note 4).

Impairment losses are recognised for receivables where they are more than likely not to be recovered and it is possible to reasonably measure the amount of the loss based on past experience of losses on receivables, ageing and a risk assessment. This impairment, offset in Current operating profit (loss), reduces the gross value of the receivable.

Receivables disposed of under a securitisation contract are removed from the balance sheet where the ERAMET group has transferred the contractual rights to collect cash flows, and where substantially all the risks and rewards attached to these assets have been transferred to the transferee. Where the risks remain without prejudicing the removal of the receivables from the balance sheet, they are recognised under Other operating receivables together with the related security deposits (Note 8).

Disposals with recourse against the ERAMET group in the event of default on payment by the client means that these transferred receivables must be retained in the balance sheet.

#### ESTIMATES AND JUDGEMENTS

Judgement must be exercised to determine when the ERAMET group would reasonably not recover the receivables. The impairment loss is calculated based on historical losses on receivables, the age of the receivable and the estimated risks.

(€ MILLION)	GROSS AMOUNT	IMPAIRMENT	NET AMOUNT 31/12/2015	NET AMOUNT 31/12/2014
At beginning of period	779	(95)	684	587
Change in gross amount	(49)		(49)	84
Impairment losses for the period		(37)	(37)	(4)
Changes in working capital requirement—cash flows	# * * * * * * * * * * * * * * * * * * *		(86)	80
Translation adjustments and other movements	9	1	10	17
At period end	739	(131)	608	684
Trade receivables	302	(14)	288	385
Tax and payroll receivables	129	(2)	127	113
Security deposit—securitisation agreement	17	-	17	18
Other operating receivables	221	(115)	106	129
Receivables on the SETRAG concession agreement—non-current asset	6	-	6	4
TiZir shareholder current account—non-current asset	55	-	55	35
UKAD shareholder current account—non-current asset	9	-	9	-
TOTAL	739	(131)	608	684
Non-current assets	70	-	70	39
Current assets	669	(131)	538	645

The bulk of trade and other receivables are due in less than one year.

## SECURITISATION OF CUSTOMER RECEIVABLES

The ERAMET group uses factoring or securitization as a funding source for its receivables. Under these programmes, certain subsidiaries in France and in the United States have committed to banking institutions to transfer their trade receivables totalling €155 million

at 31 December 2015 ( $\in$ 116 million at 31 December 2014). The analysis of the transfer of risks and rewards resulted in either full deconsolidation or partial deconsolidation. Non-deconsolidated receivables amounted to  $\in$ 12 million at 31 December 2015 (compared to  $\in$ 9 million at 31 December 2014).

A security deposit may be required to cover the commitments given by the transferor subsidiaries to the finance company and will be returned upon the settlement of the operation. It comprises reserves to hedge against credit risk, delayed payment risk and dilution risk. This deposit amounted to €17 million at 31 December 2015 (€18 million at 31 December 2014).

(€ MILLION)	31/12/2015	31/12/2014
Trade receivables—Invoices assigned	(155)	(116)
Trade receivables—Invoices not deconsolidated	12	9
Other operating receivables—Security deposit	17	18

## **8.4 TRADE AND OTHER PAYABLES**

Trade and other payables mainly comprise the amounts owed to suppliers and tax authorities that have already been billed or are already due.

(€ MILLION)	31/12/2015	31/12/2014
At beginning of period	810	750
Changes in working capital requirement	(37)	(47)
Change in payables on non-current assets	(4)	(11)
Translation adjustments and other movements	10	118
At period end	779	810
Non-current liabilities	31	29
Current liabilities	748	781
Trade payables	406	418
Tax and payroll liabilities	198	208
Other operating payables	77	93
Payables on non-current assets	57	54
Unearned income	10	8
SETRAG debt for the purchase of own property and inventory—non-current	4	5
Strand debt for Weda Bay project expenses—non-current	27	24

Most of the trade and other payables are due in less than one year.

Foreign-currency denominated debt is translated at the closing rate.

The debts recognised under non-current liabilities include:

- SETRAG S.A.'s 25-year debt to the Gabonese Republic for the purchase of own property and for a portion of the spare parts inventory;
- the \$29 million debt recognised following the sale of 33.4% of Strand Minerals Pte Ltd shares to Mitsubishi Corporation, in connection with mining project expenses.

## **NOTE 9 INVESTMENTS**

The ERAMET group groups its investments into two categories:

- industrial investments that are assets relating to extraction or production equipment; these are intangible assets as well as property, plant and equipment;
- financial investments that mainly relate to interest held in joint ventures and non-consolidated companies as well as other non-current financial assets

#### 9.1 PAYMENTS FOR NON-CURRENT ASSETS

TOTAL ACQUISITION OF NON-CURRENT ASSETS—STATEMENT OF CASH FLOWS	249	316
Acquisition of investment securities	3	-
Change in payables for the acquisition of non-current assets	4	11
Total industrial capital expenditure	242	305
Capital expenditure on intangible assets for the period	15	32
Capital expenditure on property, plant & equipment for the period	227	273
(€ MILLION)	FY 2015	FY 2014

#### 9.2 INDUSTRIAL INVESTMENTS

### PROPERTY, PLANT AND EQUIPMENT

### ACCOUNTING METHOD

Property, plant and equipment are shown in the balance sheet at their carrying amount, which is the acquisition or manufacturing cost less depreciations and impairment of losses incurred.

Land is not depreciated.

Spare parts deemed to be items of property, plant and equipment are capitalised and depreciated on the basis of their actual use.

Tooling specifically manufactured for certain customers is capitalised and depreciated over its likely useful life.

Major repairs are deemed to be components of items of property, plant and equipment.

The costs of borrowing that is directly linked to the acquisition or production of an asset are incorporated in that asset's cost.

A provision is recognised upon starting up operations for the restoration of mining sites, offset by an environmental and dismantling asset depreciated on a straight-line basis during the operation of the mine.

Finance leases transferring the risks and benefits inherent in ownership to the ERAMET group are recognised as items of property, plant and equipment, offset by a debt (Note 6). These are amortised over their expected useful life on the same basis as the items of property, plant and equipment held or, if shorter, the term of the corresponding lease. Similarly, other agreements, and primarily sub-contracting, involving the use of a specific asset and the right to use it, are reclassified where necessary as leases.

The Trans-Gabon railway concession was recognised as follows—property owned by the ERAMET group is recognised as a balance sheet asset and depreciated over the shorter of its useful life or the remaining period of the concession.

Returnable assets representing the assets contributed to the concession by the Gabonese Republic that must be returned in the same state upon expiry of the agreement are not recognised in the balance sheet. Assets acquired by the ERAMET group following the signing of the concession agreement that must be turned over to the Gabonese Republic at the end of the concession are recognised as property, plant and equipment and depreciated over the term of the concession. A provision is made to cover the risk of non-renewal of the concession in line with investment assumptions.

### ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

Judgement is exercised to determine all the expenses directly associated (for example, labour, overheads) with the acquisition, the building, the improvement or the development of a non-current asset, including the costs of bringing it to the location and in the state that is required for its use as planned by Management.

Expenses for non-current assets are no longer capitalised once the non-current asset is practically completed and is capable of functioning as intended. To determine whether these conditions are met, a review must be carried out on the considerations applied in the same industries, predetermined by the Management's judgement by reference to the factors affecting the expected production capacity. Where an non-current asset comprises individual components which call for different methods or depreciation rates, judgement is exercised to determine how best to split the asset. Distinguishing between inspections and major revisions for repair and maintenance, and determining the appropriate period for amortising these costs, are a matter of judgement.

## Property, plant and equipment by category

(€ MILLION)	GROSS AMOUNT	DEPRECIATION & AMORTISATION	IMPAIRMENT LOSS	NET AMOUNT 31/12/2015	NET AMOUNT 31/12/2014
Land and buildings	1,115	(564)	(60)	491	518
Industrial and mining facilities (1)	3,625	(2,285)	(195)	1,145	1,275
Other Property, plant & equipment	878	(535)	(6)	337	295
Work-in-progress, down-payments	151		(8)	143	208
TOTAL	5,769	(3,384)	(269)	2,116	2,296
(1) of which:					
– Assets funded by finance leases				92	100
- Dismantling assets-site restoration				89	104

## Change over the period

(€ MILLION)	FY 2015	FY 2014
At beginning of period	2,296	2,248
Capital expenditure for the period	227	273
Disposals for the period	(3)	(6)
Amortisation and depreciation in the period	(270)	(251)
Impairment losses for the period	(147)	(14)
Reversal of write-downs for the period	_	15
Change in the gross amount of dismantling assets	(4)	10
Translation adjustments and other movements	17	21
At period end	2,116	2,296
Gross amount	5,769	5,486
Depreciation & amortisation	(3,384)	(3,070)
Impairment loss	(269)	(120)

#### **INTANGIBLE ASSETS**

#### ACCOUNTING METHOD

Intangible assets are shown in the balance sheet at their carrying amount, which is the acquisition cost less depreciations and impairment of losses incurred.

#### Goodwill

Goodwill is the difference between the acquisition price of an entity and the ERAMET group's share in the fair value of the asset or the liability that are identifiable (including possible liabilities) of the acquired entity at the acquisition date. It is recognised at cost, less accumulated depreciation. Goodwill in associates and joint ventures is recognised under investments in associates and in joint ventures (Note 9).

#### Mining reserves

Amounts capitalised with respect to mineral deposits relate to partial asset contributions or permits acquired since 1974. Depending on operating specificities, mining deposits are amortised on the basis of the ratio of annual production to the estimated reserves or the length of the concession.

#### Geology, prospecting and research expenses

Geology, exploration, prospecting and mining research expenses incurred prior to operation are recognised as intangible assets, in compliance with IFRS 6—Exploration for and Evaluation of Mineral Resources.

The royalties paid for mining prospecting and exploration are also recognised under intangible assets.

#### ESTIMATES AND JUDGEMENTS

Judgement must be used to determine whether the expenditure on intangibles can be recognised as an intangible asset. If its useful life is limited in time, the intangible asset is depreciated on a straight-line basis over the estimated useful life. The goodwill is allocated to the production site from where it arose, for the purposes of impairment testing.

### Intangible assets by category

TOTAL	1,260	(230)	(660)	370	593
Work-in-progress, down-payments	34	-	(19)	15	30
Other intangible assets	77	(59)	(2)	16	17
Software	94	(72)	(2)	20	22
Other geology, prospecting and research expenses	25	(24)	-	1	3
Geology, prospecting and research expenses	482	-	(482)	-	83
New Caledonia mining reserves	54	(41)	-	13	13
Gabon mining reserves	61	(34)	-	27	29
Indonesia mining reserves	261	-	(137)	124	234
Goodwill	172	-	(18)	154	162
(€ MILLION)	GROSS AMOUNT	DEPRECIATION & AMORTISATION	IMPAIRMENT LOSS	NET AMOUNT 31/12/2015	NET AMOUNT 31/12/2014

## Change over the period

(€ MILLION)	FY 2015	FY 2014
At beginning of period	593	557
Capital expenditure for the period	15	32
Disposals for the period	(1)	-
Amortisation and depreciation in the period	(21)	(21)
Impairment losses for the period	(247)	-
Translation adjustments and other movements	31	25
At period end	370	593
• Gross amount	1,260	1,174
Depreciation & amortisation	(230)	(213)
Impairment loss	(660)	(368)

#### MINING PROJECTS

## Weda Bay project in Indonesia

On 2 May 2006, the ERAMET group acquired Weda Bay Minerals Inc., a company that is listed on the Toronto stock exchange, whose subsidiary Pt Weda Bay Nickel holds a world-class nickel deposit in Halmahera island, Indonesia under a Contract of work (COW) concession. Following this acquisition, the ERAMET group has carried out studies to mine that deposit.

Capitalised project expenditure mainly consists of the geology, exploration and prospecting costs, and the costs of technical and economic studies.

The nickel market conditions took a turn for the worse in the financial year 2015 causing uncertainty in the short- and medium term outlook. The ERAMET group also decided to put all major projects on hold (see Key events in the reporting period).

Negotiations with Indonesia regarding the adjustment of the terms of the COW to the new Indonesian mining law were pursued concomitantly to clarify certain aspects of the regulatory and taxation framework applicable to the project.

The ERAMET group's partners on the project are the Mitsubishi Corporation and Pacific

Metals Co Ltd groups, respectively holding 30% and 3.4% of the Strand Minerals Pte Ltd holding company and the Pt Antam group which owns 10% of the Pt Weda Bay Nickel, the owner of the deposit.

Pt Antam has several call options allowing it to increase its interest, the terms and conditions of exercise of which are given in Note 14. The ERAMET group also granted put options when Mitsubishi Corporation acquired an interest in Strand Minerals Pte Ltd. These options can be exercised on the basis of the final investment decision, under certain conditions detailed in Note 12.

#### IMPAIRMENT OF ASSETS AND IMPAIRMENT LOSSES

#### ACCOUNTING METHOD

Impairment tests are performed regularly, systematically at least once a year at the annual reporting date for goodwill and intangible assets with indefinite lives, and where there are indications of impairment. For intangible assets and items of property, plant and equipment with finite lives, impairment tests are carried out where there are indications of impairment.

Impairment testing consists in comparing the carrying amount of assets with their recoverable amount, which is defined as the higher of the value in use (or recoverable amount through use) or the fair value (or recoverable amount through sale), less selling costs. Impairment losses are calculated as the difference between the recoverable and net book value and recognised in the income for the period under Other operating income and expenses (Note 5).

Impairment loss recognised on goodwill is not reversible. For the other assets, previously-recognised impairment losses are measured at each reporting date to search for an indication that the losses have decreased or no longer exist. An impairment loss is reversed only if the carrying amount of the asset does not exceed its net book value, as it would have been determined had no impairment been recognised.

## **ESTIMATES, ASSUMPTIONS AND JUDGEMENTS**

Cash generating units (CGUs) are homogeneous groups of assets whose continuous use generates independent cash flows. The ERAMET group has defined its CGUs by reference to the various production sites, ERAMET Nickel, ERAMET Manganese and ERAMET Alloys.

Impairment tests are performed for each CGU. All intangible assets, including goodwill, and all items of property, plant and equipment are allocated to CGUs.

As at 31 December 2015, the ERAMET group is divided into 18 CGUs, distributed as follows:

- · 3 CGUs in ERAMET Nickel;
- 13 CGUs in ERAMET Manganese;
- 2 CGUs in ERAMET Alloys.

The existence of events calling for impairment loss testing is determined following the opinion of the ERAMET group's General Management, based on several criteria. Impairment loss indicators correspond mainly to the changes and fluctuations in:

- · raw material prices and selling price of finished goods;
- · economic and regulatory environment and market conditions;
- · interest rates;
- technological level;
- asset obsolescence and performance.

An impairment loss test is carried out on the CGUs or on the individual assets concerned when these indicators show an adverse change. In order to determine the value in use, the ERAMET group uses the method of discounted future cash flows generated from the use of the assets. The data used to calculate the discounted forecast cash flows is taken from the annual budgets and multiyear plans prepared by Management of the CGUs concerned. These plans are created on the basis of 5- to 10-year projections, in keeping with mining and industrial cycles, plus a final value corresponding to the capitalisation to infinity of normative cash flows. Plans for certain CGUs are prepared for longer periods that correspond to the operating period of the sites without assigning a terminal value.

The growth rates used are the same as those used in budgets; the growth rates to infinity used for the terminal values are generally between 1% and 3%, depending on the CGU.

The discount rate applied to calculate the value in use is the weighted average cost of capital, which is:

- 10% for mining activities (10% in 2014);
- 9% for metallurgical activities (9% in 2014);
- 11% for the Weda Bay project in Indonesia (11% in 2014);
- 11.5% for the Grande Côte CGU (compared to 11.0% in 2014).

The gearing applied is the average gearing for the segment. Country risk was factored in for the ERAMET group's mining activity in Gabon, New Caledonia and Indonesia in the same proportion.

The ERAMET group may measure the recoverable amount using other methods that it deems relevant in the context of the CGU's concerned. Whatever the method used, the assumptions used are the best estimates of Management. The ERAMET group regularly reviews its estimates and assessments to take account of past experience and other factors that are deemed relevant with regard to economic conditions.

The change in impairment of assets and other impairment losses break down as follows:

(€ MILLION)	31/12/2014	IMPAIRMENT LOSS FY 2015	TRANSLATION ADJUSTMENTS AND OTHER	31/12/2015
ERAMET Nickel	(353)	(256)	(45)	(654)
ERAMET Alloys	(58)	(12)	(1)	(71)
ERAMET Manganese	(77)	(154)	(1)	(232)
TOTAL	(488)	(422)	(47)	(957)
TOTAL Goodwill	<b>(488)</b> (12)	<b>(422)</b> (6)	(47)	<b>(957)</b> (18)
	ļ		(47) - (45)	
Goodwill	(12)	(6)	-	(18)

Given the heavily degraded market conditions, the deep crisis in the global metal market and notably the all-time low manganese and nickel prices, the ERAMET group recognised impairment of assets and impairment losses of €422 million.

The main assets concerned belong to ERAMET Nickel representing a total of €256 million (notably the Weda Bay project in Indonesia) and to ERAMET Manganese totalling €154 million, particularly in the manganese alloys and recycling business.

#### Sensitivity

Sensitivity is determined by reference to changes in future cash flows and discount rates.

The ERAMET group's cash projections for its mining and metallurgical business are highly dependent on the sale price assumptions, notably that of ores (nickel, manganese, zircon, etc.), on the euro-dollar parity, and the world demand for the products sold by the Group.

The concerned cash-generating units are as follows:

- CGUs involving sizeable goodwill;
- CGUs whose test result is negative, or positive to a non-significant extent.

As for the SLN-ERAMET Nickel CGU, the value in use is extremely sensitive to changes in nickel prices. The main assumptions made for the impairment test are based on the best assessment of developments in the Nickel market, based on the consensus of the various industry specialists and experts. Impairment would not be recognised for a fall in nickel prices by \$0.5/lb or for a 0.5% increase in the discount rate or a 0.5% decrease in long-term growth rate in like operating conditions.

At the Aubert & Duval CGU, the business plan expects increased profitability in this activity based on productivity plans, reduced structural costs and improved sales. The plans to reduce costs and improve productivity were initiated as from end-2012. A 0.5% increase

in the discount rate, a 0.5% decrease in the long-term growth rate or a fall in the EBITDA margin by 1% in the final year would not call for impairment to be recognised.

At the Gabon CGU, a 0.5% increase in the discount rate, a 0.5% decrease in the long-term growth rate or a fall in the EBITDA margin by 1% in the final year would not call for impairment to be recognised.

At the Erasteel CGU, a fall in the EBITDA margin by 1% would call for additional impairment of €13 million to be recognised.

At the Manganese alloys CGU for which impairment was recognised, a fall in the EBITDA margin by 1% would call for additional impairment of €10 million to be recognised.

## 9.3 FINANCIAL INVESTMENTS

#### INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

## ACCOUNTING METHOD

Joint ventures are companies over which ERAMET has joint control, meaning that the decisions concerning the relevant activities require the unanimous consent of all the parties sharing the control.

Associates are companies over which the ERAMET group has significant influence. Joint ventures and associates are accounted under the equity consolidation method and initially recognised at cost. Their carrying amount includes the goodwill that was determined at their acquisition less accumulated impairment.

The consolidated financial statements include ERAMET's share in earnings and the equity changes of equity-consolidated companies, after adjustments to bring the accounting rules of those companies in line with those of the ERAMET group.

The dividends received from joint ventures and associates are deducted from their balance sheet value. An impairment loss test is carried out when there are indicators such as a significant change in the environment in which the equity-consolidated company operates that may cause its measured recoverable amount to fall below its carrying amount (Note 9).

## ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

There is significant influence where ERAMET has the powers to take part in financial and operating decisions of the company but not exercise control or joint control on these policies. ERAMET has significant influence if it holds 20% to 50% of the voting rights of a company.

The existence of events calling for impairment loss testing is determined following the opinion of the ERAMET group's General Management, under the same conditions are those given in the section on Impairment of assets.

Breakdown by entity						
			SHAR	E OF	SHAR	E OF
(€ MILLION)			PROFIT (LOSS)	SHAREHOLD- ERS' EQUITY	PROFIT (LOSS)	SHAREHOLD- ERS' EQUITY
COMPANIES	COUNTRY	% INTEREST	2015	31/12/2015	2014	31/12/2014
TiZir subgroup	United Kingdom	50%	(77)	155	(43)	217
Ukad	France	50%	-	5	(1)	5
Joint ventures contribution			(77)	160	(44)	222
HeYe Erasteel Innovative Materials Ltd	China	49%	(1)	9	-	9
Total associates			(1)	9	-	9
TOTAL			(78)	169	(44)	231

## TiZir subgroup

On 27 July 2011, the ERAMET group and Mineral Deposits Ltd (MDL) entered into an agreement to create a joint venture, the British company TiZir Ltd, bringing together the Norwegian company TiZir Titanium & Iron A/S and the Grande Côte Opérations S.A. mineral sands project in Senegal. The final agreements were completed on 25 October 2011. The ramp-up began in July 2014 and continued over the 2015 reporting period.

The fully contributory balance sheet of the TiZir subgroup is as shown below:

Share of shareholders' equity	155	217
Equity, attributable to Group	310	434
Non-controlling interests	19	4
Net debt	(461)	(270)
Liabilities excluding gross financial payables	(59)	(104)
Non-cash current assets	89	78
Non-current assets	722	726
(€ MILLION)	31/12/2015	31/12/2014

The investments made for TiZir in Senegal (Grande Côte) and Norway (TTI) totalled €48 million in 2015 (€79 million in 2014).

The fully contributory income statement of the TiZir subgroup is as follows:

Share of profit	(77)	(43)
Consolidated net profit, Group share	(154)	(86)
Non-controlling interests	(13)	(8)
Current operating profit (loss)	(35)	(18)
EBITDA	(6)	(2)
Sales	152	122
(€ MILLION)	FY 2015	FY 2014

Translation adjustments of €29 million for the financial year 2015 and -€36 million for the financial year 2014 were posted to items recyclable to profit or loss in the Group's Statement of comprehensive income.

An impairment loss of the investment value of €52 million (Group share) was recognised at 31 December 2015 given the expected decline in zircon sale prices (€28 million at 31 December 2014). The selling price assumptions were determined using the medium- and long-term consensus of market experts.

A 0.5% increase in the discount rate would have an impact of about €12 million (Group share) on the impairment loss amount. A 10% decline in the long-term zircon prices would have an impact of about €17 million (Group share).

## **NON-CURRENT FINANCIAL ASSETS**

ACCOUNTING METHOD

Other non-current financial assets include the other long-term financial assets and non-consolidated subsidiaries.

Other long-term investments relate to loans or current accounts extended to non-consolidated companies or companies under joint control. They are initially recognised at fair value plus the acquisition expense and measured on each reporting date at amortised cost using the effective interest rate (EIR), less any impairment losses, offset in income for the period in Net financial income (Other financial income and expenses, see Note 6).

Non-consolidated subsidiaries are recognised in the balance sheet at their acquisition cost or at their value on the date of their deconsolidation, less any provision for impairment losses, offset in income for the period in Net financial income (Other financial income and expenses, see Note 6).

#### **JUDGEMENTS**

The ERAMET group has divided its non-consolidated subsidiaries into two categories:

- controlled companies that are not consolidated owing to their low impact on the ERAMET group's financial statements;
- non-controlled companies that are interests in companies over which the ERAMET group has no control or significant influence.

## By category

Deposits and guarantees Shareholders' loan—TiZir Other non-current financial assets	46	(8)	46 35	39 17
Total excluding non-consolidated subsidiaries	127	(24)	103	93
Non-consolidated subsidiaries	87	(37)	50	48
TOTAL	214	(61)	153	141

The shareholders' loan to TiZir accounts for the loan amount granted by ERAMET.

Other non-current financial assets chiefly relate to financial current accounts or loans granted to non-consolidated companies.

## Change

(€ MILLION)	31/12/2015	31/12/2014
At beginning of period	141	137
Net change in non-current financial assets—statement of flows	29	5
Acquisition/Disposal of investment securities	2	(2)
Impairment	(23)	-
Other movements	4	1
At period end	153	141

## By currency

TOTAL	103	93
Other currencies	2	3
CFP franc	6	7
US dollar	56	62
Euro	39	21
(€ MILLION)	31/12/2015	31/12/2014

# By interest rate type (€ MILLION) 31/12/2015 31/12/2014 Interest-free 16 31 Fixed interest rates 23 8 Variable interest rates 64 54

Interest-free items mainly relate to deposits and guarantees and certain loans to employees.

## Non-consolidated subsidiaries

**TOTAL** 

Non-consolidated subsidiaries mainly comprise the companies HeYe Special Steel Ltd

( $\in$ 14 million), Brown Europe ( $\in$ 8 million) and Maboumine ( $\in$ 26 million, that is fully provided for).

Controlled but non-consolidated companies are mainly sales and research & development entities, the services of which are wholly for the ERAMET group, and the industrial subsid-

iaries of ERAMET Holding Alliages (shaping, wire-drawing and drawing of metallurgical products).

93

103

Investments in controlled companies are not consolidated since they have no material impact on the Group's consolidated financial statements.

## **NOTE 10 TAXES**

This note explains the income tax expense and related tax amounts shown in the income statement and in the balance sheet. The section on deferred tax provides information on expected future tax payments.

## ACCOUNTING METHOD

Income tax includes both current and deferred tax. The income tax expense is recognised in the income statement, except where it relates to a business acquisition or items recognised directly in equity or in Other comprehensive income.

Current income tax comprises taxes that the ERAMET group expects to pay on its taxable income for the reporting period at the prevailing tax rates or rates substantively enacted by the reporting date, as well as any adjustments for tax relating to prior reporting periods.

Deferred tax is recognised as temporary differences between the carrying amount of the assets and liabilities measured for the purposes of financial disclosure and the tax basis of those assets and liabilities measured at the income tax rate and tax laws substantively enacted by the reporting date and effective in the period in which these temporary differences should be used. Deferred tax assets, including those related to loss carry-forwards, which are determined by fiscal entity, are recognised whenever it can be shown that they are likely to be realised.

The deferred tax assets and liabilities are classified in the balance sheet as non-current items and are offset if the entity has a legally enforceable right of set-off as is the case with the France tax consolidation group.

Deferred tax liabilities on investments in subsidiaries, associates and joint ventures are recognised unless where the ERAMET group can determine the timetable for the reversal of the related temporary differences, and where it is likely that such differences will not reverse in the foreseeable future. Provisions are made for non-recoverable levies on dividends planned in the foreseeable future.

#### ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The ERAMET group operates in several countries. Its income is therefore taxed at various income tax rates. Given the magnitude of the operations and the complexity of tax regulations, the ERAMET group must assess uncertainties and exercise judgement to estimate the tax amount that it will eventually pay. The tax amount finally paid depends on various factors that include negotiations with tax authorities and the outcome of tax audits. The ERAMET group estimates deferred tax based on the temporary differences between the assets and liabilities shown in its consolidated financial statements and the tax bases of these assets and liabilities that are determined under the applicable tax laws. The deferred tax asset amount is generally recognised insofar as a probable taxable profit will be available in the future against which deductible temporary differences can be used. The deferred tax asset that is recognised and considered as realisable can be reduced if the projected profit cannot be obtained

To assess the likelihood that these assets will be realised, the ERAMET group reviews the following information in particular:

- projected future profitability:
- · extraordinary losses not expected to recur in the future;
- past taxable profits; and
- tax strategies.

Effective tax rate before dividend payout	-1%	-64%
Actual tax income/(expense)	(9)	(48)
miscellaneous items	6	4
unrecognised or limited deferred tax assets	(282)	(67)
• tax credits	4	5
standard tax rate differences in foreign countries	(4)	(6)
• impairment of assets	(87)	-
permanent differences between accounting and taxable profit	72	(10)
Impact on theoretical tax of:		
Theoretical tax income/(expense)	282	26
Standard taxation rate in France (%)	34.43%	34.43%
Pre-tax profit (loss) of consolidated companies	(818)	(75)
Operating profit (loss) Net financial income	(744)	(15) (60)
(€ MILLION)	FY 2015	FY 2014
EFFECTIVE TAX RATE		
Tax income/(expense)	(9)	(48)
Deferred tax	20	65
Current tax	(29)	(113)
(€ MILLION)	FY 2015	FY 2014
10.1 CORPORATE INCOME TAX		

Permanent differences in the 2015 reporting period mainly relate to the reversal of deferred tax liabilities.

Unrecognised or limited deferred tax assets mostly relate to deferred tax assets on tax loss carry-forwards of Le Nickel-SLN totalling €194 million at 31 December 2015, of which €97 million concerned prior periods. The balance concerns the unrecognised deferred tax assets on losses in the France tax consolidation group (€35 million) and other limited or unrecognised deferred tax assets in certain subsidiaries totalling €53 million (Guilin, GCMC, SETRAG, COMILOG-CMM).

## MAIN STANDARD TAX RATES IN FOREIGN COUNTRIES

(%)	FY 2015	FY 2014
China	12.5%-25.0%	12.5%-25.0%
United States	35.0%	35.0%
Gabon	35.0%	35.0%
Norway	27.0%	27.0%
New Caledonia	35.0%	35.0%
Sweden	22.0%	22.0%

## CHANGE IN TAX RECEIVABLES AND TAX PAYABLES

(€ MILLION)	31/12/2015	31/12/2014
At beginning of period	(3)	(25)
Current tax—income statement	(29)	(113)
Tax paid	71	59
Translation adjustments and other movements	(12)	76
At period end	27	(3)
Tax receivables	58	61
Tax payables	31	64

## 10.2 DEFERRED TAXES IN THE BALANCE SHEET

## **DETAIL BY CATEGORY**

(€ MILLION)	31/12/2015	31/12/2014
Tax loss carry-forwards (1)	38	131
Non-current assets—valuation difference	9	10
Non-current assets—useful life	41	41
Financial instruments	35	35
Inventory valuation	48	49
Employee-related liabilities	78	70
Other provisions for contingencies and losses	50	29
Other items	28	37
Deferred tax assets before netting	327	402
Deferred tax netting by tax entity	(319)	(294)
Deferred tax assets	8	108
Regulated provisions and special amortisation and depreciation	(168)	(190)
Non-current assets—valuation difference	(57)	(88)
Non-current assets—useful life	(128)	(121)
Financial instruments	(14)	(4)
Inventory valuation	(37)	(42)
Employee-related liabilities	(18)	(13)
Other provisions for contingencies and losses	(20)	(74)
Other items	(13)	(4)
Deferred tax liabilities before netting	(455)	(536)
Deferred tax netting by tax entity	319	294
Deferred tax liabilities	(136)	(242)
Net deferred tax liabilities	(128)	(134)
(1) Limited deferred tax assets for tax loss carry-forwards	531	209

## CHANGE IN DEFERRED TAXES IN THE BALANCE SHEET

(€ MILLION)	ASSETS	LIABILITIES	NET FY 2015	NET FY 2014
At beginning of period	108	(242)	(134)	(204)
Deferred tax offset in shareholders' equity	(12)	15	3	16
Deferred tax on profit (loss)	(67)	87	20	65
Deferred tax netting by tax entity	(25)	25	_	-
Translation adjustments and other movements	4	(21)	(17)	(11)
At period end	8	(136)	(128)	(134)

Deferred tax assets and liabilities have been presented separately in the balance sheet after offsetting within each tax entity. Except for tax consolidation in France, every company is an independent tax entity.

## **10.3 TAX CONSOLIDATION IN FRANCE**

Tax losses of €344 million (€219 million at 31 December 2014) mainly arose during the past three reporting periods and have not been capitalised as deferred tax assets.

## **NOTE 11 PERSONNEL COSTS AND EMPLOYEE BENEFITS**

## 11.1 WORKFORCE AND PERSONNEL COSTS

## AVERAGE WORKFORCE AND WORKFORCE BY DIVISION AT END OF PERIOD

The average workforce and workforce at the end of period include all fully-consolidated companies at 31 December of each year.

TOTAL	12,933	12,874	12,891	12,946
ERAMET Holding company and miscellaneous	198	200	202	196
ERAMET Alloys	4,564	4,555	4,476	4,462
ERAMET Manganese	5,374	5,342	5,354	5,479
ERAMET Nickel	2,797	2,777	2,859	2,809
	AVERAGE WORKFORCE	WORKFORCE AT YEAR-END	AVERAGE WORKFORCE	WORKFORCE AT YEAR-END
	FY 2015	31/12/2015	FY 2014	31/12/2014

The total workforce managed in the HR reporting implemented by the Group, which includes non-consolidated companies and equity-consolidated companies, totalled 13,938 employees at 31 December 2015 (13,992 employees at 31 December 2014).

## PERSONNEL COSTS BY CATEGORY

(€ MILLION)	FY 2015	FY 2014
Wages and salaries	(480)	(465)
Social security contributions and other personnel costs	(184)	(188)
Profit sharing	(13)	(16)
Share-based payment	(5)	(5)
Subtotal personnel costs	(682)	(674)
Personnel costs—temporary staff	(28)	(27)
TOTAL PERSONNEL COSTS INCLUDING TEMPORARY STAFF	(710)	(701)
Personnel costs (including temporary staff) as % of sales	24%	23%
CICE (shown deducted from personnel costs)	7	6

#### 11.2 EMPLOYEE-RELATED LIABILITIES

The ERAMET group offers its employees several long-term benefits such as retirement packages, pension plans, healthcare plans and long-service bonuses. The characteristics of these benefits vary in line with the governing laws and regulations in each country and the agreements in force in each company.

## ACCOUNTING METHOD

Employee-related liabilities are either defined benefit plans or defined contribution plans. Defined benefit plans specify the amount that an employee will receive at the time of retirement whereas defined contribution plans specify how the contributions are calculated.

### **Defined contribution plans**

For these plans, the ERAMET group makes payments to a fund manager and is under no obligation to make supplementary payments if the fund manager lacks sufficient assets to pay the employee benefits due for the current period and prior periods. As a result, these plans do not show any deficit or surplus and are not included in the balance sheet. The contributions are expensed when paid.

## Defined benefit plans and other long-term benefits

A defined benefit plan is a post-employment benefit plan that is distinct from the defined contribution plan. The cost of the retirement benefits and other benefits accrued to employees is established actuarially for each plan using the projected unit credit cost method. They are assessed annually by independent actuaries. The obligations of the ERAMET group are recognised as balance sheet liabilities and correspond to the difference between the present value of the obligation in respect of defined benefits and the fair value of plan assets at the reporting date. Plan assets comprise assets held through a pension fund or insurance policies.

The costs of services are recognised in the Current operating profit (loss) in the period in which they are incurred. The costs of past services resulting from plan amendments and curtailments as well as the gains and losses upon plan settlement are recognised in Other operating income and expenses. The interest expense for net obligations is included in Other financial income and expenses.

The actuarial gains (losses) (including the foreign currency effect) on plan assets and the obligation in respect of defined benefits are recognised directly in Other comprehensive income for the period in which they arise. They are recognised immediately in income in the case of long-term benefits.

## ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

The cost of employee benefits and the value of the obligation are calculated using assumptions such as discount rates, salary increases, retirement age, life expectancy, inflation, and cost of healthcare. These assumptions are determined annually by the ERAMET group Management.

The discount rates used are mostly calculated for each zone or country based on the average rates of private issuers observed in those zones or countries at each reporting date.

The rates vary from country to country:

- in the Euro zone and in the United States, the discount rates were determined on the basis of AA10+ corporate bonds;
- in Norway, the discount rate is determined based on secured bonds such as mortgage-backed bonds;
- in New Caledonia, given that the corporate bond market is not liquid, as also the State bonds market, the approach used to determine the rates applies a method to replace returns from State bonds, i.e. the expected long-term return of inflation in consumer prices plus the expected long-term return of growth in GDP on a multiplicative basis.

#### MAIN ACTUARIAL ASSUMPTIONS AND RELATED SENSITIVITY

The actuarial assumptions used vary according to the economic and demographic conditions existing in the country in which the plan is in force. The main actuarial assumptions used for measuring these liabilities are as follows:

	31 DECEMB	ER 2015	31 DECEMI	BER 2014	CHANGE		
	RATES		RAT	ES	RATES		
	DISCOUNT	INFLATION	DISCOUNT	INFLATION	DISCOUNT	INFLATION	
Euro zone	2.00%	1.90%	2.20%	1.80%	-0.20%	0.10%	
Norway	2.50%	2.30%	3.00%	1.90%	-0.50%	0.40%	
United States	4.00%-4.20%	2.20%	3.75%-3.90%	2.20%	+0.25%/+0.30%	0.00%	
New Caledonia	3.20%	1.00%	3.50%	1.30%	-0.30%	-0.30%	

## SENSITIVITY

An increase or decrease in the discount rate or inflation rate by 0.5 percentage point will have the following impact, with other actuarial assumptions remaining constant:

		DISCOUN	T RATE		INFLATION RATE				
	INCREASE	INCREASE BY 0.5% DECREASE BY 0.5%		INCREASE	BY 0.5%	DECREASE BY 0.5%			
IMPACT ON COMMITMENT	€ MILLION	%	€ MILLION	%	€ MILLION	%	€ MILLION	%	
France	(8)	-4.59%	9	+4.98%	4	+2.16%	(3)	-2.01%	
United States	(9)	-5.45%	8	+5.87%	-	+0.09%	-	-0.09%	
Norway	(5)	-8.17%	6	+9.08%	-	+0.05%	-	-0.34%	
New Caledonia	(2)	-4.43%	1	+4.65%	1	+4.45%	(2)	-4.24%	
Other countries	(2)	-4.14%	2	+4.42%	1	+2.05%	(1)	-1.93%	
TOTAL	(26)	-5.31%	26	+5.76%	. 5	+1.36%	(7)	-1.31%	

## DESCRIPTION OF THE MAIN DEFINED BENEFIT PLANS AND ASSOCIATED RISKS

The ERAMET group's main defined benefit plans are offered in France, United States, Norway and New Caledonia. The main plan assets are therefore located in these countries. The fundamental characteristics of the plans described below relate to these four countries.

Retirement packages are generally paid as a lump sum or as annuities determined on the basis of the employee's length of service, final salary or average final remuneration. Pre-retirement and additional healthcare benefits as well as life insurance are also provided under the pension plan, along with long-service bonuses that are awarded through the payment of a lump sum that varies according to the completed service year brackets.

In the United States and Norway, most defined benefit plans are no longer accessible to new employees. They participate in defined contribution plans.

In New Caledonia, the commitments also include the payment of a loyalty bonus awarded after 10 years of service and then every five years, calculated as a percentage of the basic salary, as well as the granting of plane tickets whose number, price and frequency depends on the employee's professional category.

#### RISKS ASSOCIATED WITH THE PLANS

The ERAMET group is exposed to the standard risks inherent to defined benefit plans, such as higher-than-expected salary increases, increased inflation rates or lower-than-expected returns, as well as actuarial risks, notably investment risk, interest rate risk and longevity risk. The plans are also exposed to the risk of negotiation to reach a more favourable internal agreement, and the risk of increase in taxes or in annuities for supplementary pension plans.

## **GOVERNANCE POLICY**

Under the laws governing defined benefit plans, it is the ERAMET group's duty to manage the plan assets and design investment policies that define, for each prefinanced plan, the investment objectives, the asset allocation target, risk mitigation strategies, and other components required by law for pension plans.

## INVESTMENT POLICIES AND RISK MANAGEMENT INITIATIVES

The investment policies are designed to obtain long-term return on investment that, combined with contributions, will enable the plans to have sufficient assets to be able to pay the promised benefits while keeping risk at an acceptable level.

The asset allocation target is determined on the basis of the expected market conditions and climate, the maturity profile of plan liabilities, the level of cover of the respective plans, and the risk tolerance of the plans' beneficiaries.

In France, the plans are funded by insurers through Group life insurance contracts. The investments are made by the insurers in their respective Euro funds. These funds, of which over 80% is invested in buy and hold rate products, suffered from the deterioration of bond returns for some years now and are still exposed to the default risk on returns in a protracted low interest rate period.

In the United States, the financial management of funds is entrusted to various asset managers among the key players in the business; index-based management is used for the most part and active management for the rest. Half of the asset allocation is in State bonds and American companies, denominated in USD, with the objective of backing the liability duration. The other half is invested through funds in American equities, world equities, and emerging market equities and bonds. The risks inherent to these financial assets are therefore curve risk, duration risk, credit risk and inflation risk as concerns bonds, and market risk and

capital risk for equities. However, in 2015, the markets in which the assets are invested performed poorly.

In Norway, the Group chooses the investment portfolio type from a set of options proposed by two leading insurance firms (DNB and Storebrand)—as is customary market practice

in that country. The ERAMET group's funded plans include moderate profile investment portfolios with slight differences in asset allocations depending on the asset allocation strategy of the insurance company. In the Storebrand moderate profile portfolio, approximately 5% is invested in equities, 70% in

bonds, 10% in liquid assets, 10% in real estate and 5% in other securities, whereas in the DNB moderate profile portfolio, approximately 10% is invested in equities, 50% in bonds, 25% in liquid assets and 15% in real estate.

## **OVERALL COST OF EMPLOYEE-RELATED LIABILITIES**

The cost of employee-related liabilities is recognised in consolidated earnings and in the Statement of comprehensive income below:

	PE	NSION	I PLAN	S	RET	IREMEN	T PACK	AGE	ОТ	HER B	ENEFIT	S	TOTAL	EMPLO LIABIL	YEE-REI ITIES	_ATED
(€ MILLION)	2	2015		2014		2015		2014		2015		2014		2015		2014
Service cost		6		6		6		5		1		4		13		15
Past service cost (1)		-		-		(5)		(5)		2		(1)		(3)		(6)
Net interest expense		2		2		3		3		1		2		6		7
Cost recognised in income		8		8		4		3		4		5		16		16
Impact of revaluation on commitments		9		31		1		1		(1)		(5)		9		27
Experience	7		(1)		(2)		(3)		(1)		(2)		4		(6)	
<ul> <li>Demographic assumptions</li> </ul>	(2)		8		(1)		-		-		-		(3)		8	
<ul> <li>Financial assumptions</li> </ul>	4		24		4		4		_		(3)		8		25	
Impact of revaluation on pension plan assets		3		(9)		(2)		-		-		-		1		(9)
Cost recognised in other comprehensive income		12		22		(1)		1		(1)		(5)		10		18
TOTAL COST RECOGNISED IN COMPREHENSIVE INCOME		20		30		3		4		3		-		26		34

<sup>(1)</sup> Pension plan changes and curtailments.

## CHANGE IN OBLIGATIONS AND PLAN ASSETS

The table below illustrates the change in obligation by plan type, distribution by beneficiaries and based on whether or not pre-financing is used, as well as the change in the fair value of the plan assets and its differentiation by category (listed and unlisted assets).

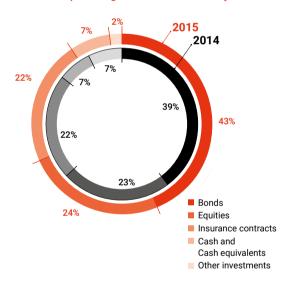
	PI	ENSION	I PLANS		RETI	REMEN <sup>-</sup>	Т РАСКА	GE	(	OTHER BE	ENEFITS		TOTAL	EMPLO LIABIL	YEE-REL ITIES	.ATED
(€ MILLION)	<u> </u>	2015		2014	<u> </u>	2015		2014		2015	<del>-</del>	2014		2015		2014
Change in obligation	•		-		•						-				•	
Obligation at beginning of period	299		254		101		101		43		46		443		401	
Cost recognised in income	16		15		4		4		4		5		24		24	
<ul> <li>Impact of revaluation</li> </ul>	9		31		1		1		(1)		(5)		9		27	
<ul> <li>Contributions and benefits paid</li> </ul>	(14)		(13)		(4)		(3)		(4)		(4)		(22)		(20)	
Translation differences and other movements	12		12		-		(2)		1		1		13		11	_
Obligation at period end	322		299		102		101		43		43		467		443	
Obligation attributable to					-											
Working beneficiaries	134		136		99		100		35		35		268		271	
Beneficiaries entitled to deferred benefits	48		36		-		-		-		-		48		36	
• Pensioners	140		127		3		1		7	1	8		150		136	
	322		299		102		101		42		43		466		443	
Obligation																
<ul> <li>Prefinanced</li> </ul>	291	90%	271	91%	60	59%	63	62%	-	-	-	-	351	75%	334	75%
<ul> <li>Not financed</li> </ul>	31	10%	28	9%	42	41%	38	38%	42	100%	43	100%	115	25%	109	25%
	322		299		102		101		42		43		466		443	
Change in plan assets			_													•
Fair value of plan assets at beginning of period	207		184		34		34		<u>-</u>		-		241		218	4
<ul> <li>Interest income recognised in income</li> </ul>	7		7		1		1		-		-		8		8	
<ul> <li>Impact of revaluation</li> </ul>	(3)		9		2		-		-		-		(1)		9	
<ul> <li>Contributions paid</li> </ul>	4		7		1		1		-		-		5		8	
<ul> <li>Benefits paid</li> </ul>	(13)		(11)		-		(2)		-		-		(13)		(13)	
Translation differences and other movements	13		11		(1)		-		_		-		12		11	
Fair value of plan assets at period end (II)	215		207		37		34		-		-		252		241	
Plan assets																
<ul> <li>Listed on an active market</li> </ul>	159	74%	152	73%	37	100%	34	100%	-	-	-	-	196	78%	186	77%
<ul> <li>Unlisted</li> </ul>	56	26%	55	27%	-	-	-	-	-	-	-	-	56	22%	55	23%
	215		207		37		34		_		-		252		241	
Net liabilities in the balance sheet (I) - (II)	107		92		65		67		43		43		215		202	

The table below shows the breakdown between the main countries, the obligations in connection with employee-related liabilities, plan assets, net liability and financial cover ratio.

TOTAL	467	(252)	215	54.0%	443	(241)	202	54.4%
Other countries	40	(10)	30	25.0%	39	(10)	29	25.6%
New Caledonia	35	(11)	24	31.4%	34	(10)	24	29.4%
Norway	64	(37)	27	57.8%	59	(37)	22	62.7%
United States	152	(126)	26	82.9%	146	(121)	25	82.9%
France	176	(68)	108	38.6%	165	(63)	102	38.2%
(€ MILLION)	(A)	(B)	(A) + (B)	- (B) / (A)	(A)	(B)	(A) + (B)	- (B) / (A)
	CURRENT VALUE OF OBLIGATIONS	FAIR VALUE OF PLAN ASSETS	NET LIABILITIES IN THE BALANCE SHEET	FINANCIAL COVER RATIO	CURRENT VALUE OF OBLIGATIONS	FAIR VALUE OF PLAN ASSETS	NET LIABILITIES IN THE BALANCE SHEET	FINANCIAL COVER RATIO
		31 DECE	MBER 2015			31 DECEM	MBER 2014	

The chart below illustrates how the funds are invested.

#### Distribution as a percentage of fund investments by asset class



#### PROJECTED CASH OUTFLOWS

The global average term was 13.8 years at 31 December 2015 (13.6 years at 31 December 2014).

For the year 2016, the contributions that will be paid in respect of employee-related liabilities are estimated at €5 million. Future benefits that will be taken from investments or paid directly by the ERAMET group, are estimated at €22 million.

#### 11.3 BONUS SHARE PLAN AND SHARE-BASED PAYMENTS

## ACCOUNTING METHOD

The ERAMET group has established various share award plans that are all equity-settled plans: "democratic" plans open to all employees that are not subject to performance criteria and "selective" plans open to certain employees and corporate officers subject to performance requirements.

The fair value of the services received in consideration for the granting of these options is definitively measured with reference to the fair value of the options on the grant date and to the number of options that will have vested by the end of the vesting period. The total fair value thereby determined is apportioned on a straight-line basis over the full vesting period for the plans, with the number of vested exercisable options assumed at the beginning of the vesting period being reviewed at every reporting date. This fair value is recognised in Current operating profit (loss) as Administrative and selling expenses, offset by an increase in shareholders' equity.

## ESTIMATES, ASSUMPTIONS AND JUDGEMENTS

Judgement must be exercised to determine the fair value of share award plans at the award date.

The fair value of democratic plans is estimated using the Black-Scholes-Merton model.

Selective plans are subject to two performance conditions—one intrinsic condition based on the ERAMET group's financial performance and one external condition based on the ERAMET stock performance. The fair value of these plans is measured using the Monte Carlo model. The assumptions used to measure the plans are based on:

- expected volatility determined on the basis of an observation of the stock's historic performance;
- · a risk-free zero coupon rate over the term of the plan;
- a future distribution rate based on the average for the past five years.

The bonus share awards to employees who are tax-domiciled in France fully vest after a two-year vesting period for democratic plans, and after three years for selective plans, on the understanding that the beneficiaries must retain the shares awarded to them for an additional two years.

The bonus share awards to employees who are tax-domiciled outside France fully vest and are freely transferable after a four-year period.

Share-based payments relate only to bonus share plans for the benefit of employees and settled in the form of shares. They represented an expense of €5 million for the 2014 and 2015 reporting periods.

Shares were allocated under two new bonus share plans on 19 February 2015:

- one plan for all employees for an initial total of 27,268 shares;
- one plan open to certain employees and corporate officers, where:
  - one part of the shares is subject to two performance conditions—an internal

condition and an external condition—for an initial total of 95.204 shares, and

 one part of the shares is not subject to performance criteria, for an initial total of 37.624 shares.

The criteria for share awards and the assessment of the accounting expense are the same as those described above.

The characteristics of the two new bonus share award plans for the financial year 2015 are as follows:

		NUMBER OF SHARES	EXERCISE PRICE (€)	MATURITY (YEARS) (1)	RISK-FREE RATE	AVERAGE DIVIDEND YIELD	FAIR VALUE OF OPTION (€) (2)
Dian open to all employees	France	9,780	free	2 + 2	-0.07%	1.00%	66.96
Plan open to all employees	World	17,488	free	4+0	0.06%	1.00%	77.19
Plan open to certain employees	France	106,285	free	3 + 2	-0.02%	1.00%	68.44 / 43.46
and corporate officers	World	26,543	free	4+0	0.06%	1.00%	77.19 / 49.02

<sup>(1)</sup> Maturity = vesting period + lock-in period.

<sup>(2)</sup> Bonus share award plans whose share awards are subject to two performance conditions have two fair values: the first being the intrinsic condition and the second being the external condition.

The change in the number of bonus share awards was as follows in the 2014 and 2015 reporting periods:

NUMBER OF BONUS SHARES	31/12/2015	31/12/2014
At beginning of period	409,940	361,005
New plans 2015/2014	160,096	170,212
Fully vested	(45,393)	(37,459)
Lapsed shares	(5,544)	(10,072)
Expired shares	(77,908)	(73,746)
At period end	441,191	409,940
Distribution by year of vesting		
2015	-	73,326
2016	109,683	248,435
2017	141,650	74,621
2018	145,974	13,558
2019	43,884	-

## **NOTE 12 PROVISIONS**

A provision is a liability recognised in the balance sheet. It is an estimated value owing to the uncertainty as to the time of payment and the amount to be paid. The main provisions set aside by the ERAMET group relate to site restoration and environmental risks.

#### ACCOUNTING METHOD

The ERAMET group sets aside a provision where its amount can be reliably estimated, to cover all liabilities arising from past events that are known at the reporting date and the settlement of which is likely to result in an outflow of resources to settle the liability.

#### Provisions for site restoration and dismantling, provisions for environmental risks

The provisions for mining site restoration are recognised when mining sites are opened and as and when they show degradation, and are then remeasured and accreted at each reporting date. Where there is a legal or contractual obligation to restore mining or industrial sites, a restoration provision is made, offset by an environmental and dismantling asset. The provision is based on site-by-site estimates of the cost of this work. The asset is amortised over the life of the operation of the mine or the industrial site. Restoration costs are discounted over the period remaining until the expected end of operation of the mine or site, and the effects attributable to the passage of time (accretion expenses) are recognised in Net income for the period under Other financial income and expenses (Note 6). Provisions are made for any other environmental contingencies on the basis of estimated future costs without, however, making any allowance for insurance indemnities receivable. For industrial sites in which there are no plans to discontinue operations, no provision is made for site restoration. Depending on the governing laws in each country, an environmental bond issued by a banking or financial institution to the benefit of local authorities may need to be set up for the rehabilitation of mining and industrial sites.

## Restructuring and redundancy plans

Provisions are made for restructuring and redundancy costs where such measures have been planned in detail and announced before the reporting date or whose implementation has begun.

## ESTIMATES. ASSUMPTIONS AND JUDGEMENTS

## Provisions for site restoration and dismantling

The ERAMET group must meet regulatory and constructive obligations with regard to the restoration of certain mining sites at the end of operation. Provisions for site restoration and dismantling of industrial sites are estimated on the basis of forecast cash flows by maturity and discounted using an inflation rate and a discount rate determined in accordance with local economic conditions.

The remaining term to the planned end date of operation of the mines or industrial sites is defined over a maximum period not extending beyond the year 2060 in New Caledonia, the years 2032 and 2042 in Gabon and the year 2074 for the industrial sites in the United States. The ERAMET group measures its provision for site restoration and dismantling at each reporting date or as new information becomes available. The final costs of site restoration are uncertain. These uncertainties may lead to actual expenditure in the future whose amount may differ from the current provision amount. Major adjustments may be made to the provisions recognised, which may impact future income.

At 31 December 2015, the provision for site restoration reflected the best estimate of the discounted value of the future costs to bear.

(€ MILLION)	FY 2015		FY 2014
At beginning of period	530	<u>-</u>	471
Provisions (reversals) for the period	(5)	***************************************	27
Provisions for the period	44	54	
(Reversals) in the period	(49)	(27)	
Accretion expenses	9		12
Dismantling assets	2		10
Translation adjustments and other movements	61		10
At period end	597		530
Long-term portion	564	**************************************	488
Short-term portion	33		42
Environmental contingencies and site restoration	377		369
Personnel	41		41
Other contingencies and losses	179		120

## 12.1 ENVIRONMENTAL CONTINGENCIES AND SITE RESTORATION

(€ MILLION)	31/12/2015	31/12/2014
Site restoration (1)	349	344
Environmental contingencies	28	25
TOTAL	377	369
(1) of which provisions offsetting a dismantling asset	284	313
Long-term portion	370	358
Short-term portion	7	11

## SITE RESTORATION

(€ MILLION)	FY 2015		FY 2014
At beginning of period	344		322
Provisions (reversals) for the period	(1)		9
Provisions for the period	2	1	
• (Reversals) in the period	(12)	(4)	
Accretion expenses	9	12	
Dismantling assets	2		10
Translation adjustments and other movements	4		3
At period end	349		344
Le Nickel-SLN (New Caledonia)—ERAMET Nickel	263		263
COMILOG (Gabon)—ERAMET Manganese	30		29
ERAMET Marietta (United States)—ERAMET Manganese	28		26
COMILOG France—ERAMET Manganese	16		16
GCMC (United States)—ERAMET Manganese	6		6
Other companies	6		4

	31/12/2	2015	31/12/2014		
	DISCOUNT RATE	INFLATION RATE	DISCOUNT RATE	INFLATION RATE	
United States	3.75%-4.00%	2.20%-2.30%	3.75%	2.20%	
New Caledonia	3.20%	1.00%	3.50%	1.50%	
Gabon	8.00%	2.50%	8.00%	2.50%	

An increase or decrease by 0.25% in the discount rate would result in an increase or decrease by about €13 million in provisions at 31 December 2015.

## **ENVIRONMENTAL CONTINGENCIES**

The provision relates to ERAMET Manganese for €15 million (€16 million at 31 December 2014), ERAMET Alloys for €7 million (€6 million at 31 December 2014) and ERAMET Nickel for €3 million (€3 million at 31 December 2014).

## 12.2 PERSONNEL

TOTAL	41	41
Other labour contingencies and losses	7	5
Restructuring and redundancy plans	34	36
Restructuring and redundancy plans—ERAMET Holding	7	7
Restructuring and redundancy plans—ERAMET Manganese	5	14
Restructuring and redundancy plans—ERAMET Alloys	22	15
(€ MILLION)	31/12/2015	31/12/2014

## 12.3 OTHER CONTINGENCIES AND LOSSES

(€ MILLION)	FY 2015		FY 2014
At beginning of period	120		102
Provisions (reversals) for the period	4		10
Provisions for the period	24	17	
(Reversals) in the period	(20)	(7)	
Translation adjustments and other movements	55		8
At period end	179		120
Financial risks associated with the put options granted by ERAMET to Mitsubishi	109		49
Provision for free return—Concession	23		20
Provisions for tax contingencies	17		26
Commercial disputes	6		11
Other provisions for contingencies and losses	24		14

The ERAMET group's financial risks on Mitsubishi put options correspond to the valuation of the put options granted by the ERAMET group to Mitsubishi Corporation (33.4% of Strand Minerals Pte Ltd shares). The exercising of

these options by Mitsubishi is uncertain both in terms of the time frame and the amount.

In parallel with the sale agreements, the ERAMET group granted Mitsubishi Corporation put options in respect of the shares acquired. These options may be exercised under

certain conditions, which are mainly linked to the success of the mining project. They may also be exercised during specific windows. In particular, the deadline for one of these options was deferred from end-September 2015 to end-March 2016. The exercise price is an agreed price that varies in line with the circumstances provided for in the contracts plus the proceeds from the resale of the receivable owed by Strand Minerals Pte Ltd. In addition, Mitsubishi Corporation

has an open-ended option to sell its interest to the ERAMET group at fair value in the event of a change in control at ERAMET. In return, the ERAMET group has an open-ended option to buy Mitsubishi Corporation's interest in Strand Minerals Pte Ltd at fair value in the event of a change in control at Mitsubishi Corporation.

The put option amount was estimated at \$118 million (€109 million) at 31 December 2015.

## **NOTE 13 RELATED-PARTY TRANSACTIONS**

## ACCOUNTING METHOD

Transactions with related parties comprise the following:

- · ordinary transactions with non-consolidated companies and associates;
- gross compensation and benefits to Directors and members of the Executive Committee.

## 13.1 ORDINARY TRANSACTIONS WITH NON-CONSOLIDATED COMPANIES AND ASSOCIATES

## **INCOME STATEMENT**

(€ MILLION)	FY 2015	FY 2014
Sales		
Non-consolidated controlled subsidiaries	29	29
Associates and joint ventures	6	4
Cost of sales, administrative and selling expenses		
Non-consolidated controlled subsidiaries	(14)	(6)
Associates and joint ventures	(38)	(26)
Net debt cost		
Non-consolidated controlled subsidiaries	-	-
Associates and joint ventures	2	3

## **BALANCE SHEET**

(€ MILLION)	FY 2015	FY 2014
Trade and other receivables		
Non-consolidated controlled subsidiaries	11	11
Associates and joint ventures	22	25
Trade and other payables		
Non-consolidated controlled subsidiaries	18	13
Associates and joint ventures	5	5
Net financial assets (liabilities)		
Non-consolidated controlled subsidiaries	(2)	15
Associates and joint ventures	47	35

(€THOUSAND)	FY 2015	FY 2014
Short-term benefits		
Fixed compensation	2,727	2,893
Variable compensation	954	2,262
Directors' fees	833	793
Other benefits		
Post-employment benefits	82	642
Retirement package	-	-
Compensation paid in shares	2,390	1,824
TOTAL	6.986	8.414

## NOTE 14 OFF-BALANCE SHEET COMMITMENTS, OTHER COMMITMENTS, CONTINGENT LIABILITIES AND OTHER DISCLOSURES

The ERAMET group reached agreements with third parties to cover the good performance of its obligations. These obligations are dependent upon subsequent events that may result in the ERAMET group's making or receiving a payment. They are not recognised in the balance sheet if they are not likely to increase the obligations that are already reported in the balance sheet.

## 14.1 OFF-BALANCE SHEET COMMITMENTS

(€ MILLION)	31/12/2015	31/1	2/2014 (1)
Commitments given	310		209
Operating activities	120	124	
Financing activities	190	85	
Commitments received	9		14
Operating activities	9	14	
Financing activities	_	-	
Available credit facilities	981		1,088

(1) Restatements of commitments given to third parties by fully-consolidated subsidiaries, as they do not increase the Group's commitment beyond the liability recognised in the balance sheet.

These commitments mostly relate to:

- operating activities: client and environmental bank guarantees, other endorsements and bank guarantees (customs, leases), letters of credit;
- financing activities: guarantees, pledges, collateral and mortgage for external financing of equity-consolidated and non-consolidated companies.

## FUNCTIONAL GUARANTEES FOR THE PERFORMANCE OF BUSINESS CONTRACTS

Functional guarantees are any commitments relating to business contracts, given by ERAMET and its subsidiaries to clients.

These commitments mainly comprise advance payment bonds and product guarantees post-delivery of goods.

To finance the performance of the contract, the Group collects advance payments from the client. To guarantee their refund in case of a breach of its contractual obligations, the Group may, at the client's request, establish an advance payment bond. These bank guaran-

tees amounted to €20 million at 31 December 2015 (compared to €25 million at 31 December 2014).

Product warranties fall under the Group's limited liability defined contractually for each business contract. The Group does not recognise provisions for guarantee given that there has been no warranty claim from its clients.

The Group considers its financial risk relative to all the above guarantees to be low, based on historical data and on the existence of Civil liability policies that would limit the financial consequences on the Group's consolidated financial statements.

## 14.2 OTHER COMMITMENTS

## INVESTMENT IN SENEGAL THROUGH THE TIZIR LTD JOINT VENTURE

The ERAMET group, together with its partner Mineral Deposit Ltd (MDL), has expanded an investment in mineral sands operation in Senegal.

In addition to the initial contribution, each partner contributed USD 137.5 million as capital the full amount of which was paid out in the financial year 2013. Also, the ERAMET group (via ERAMET S.A.) had committed to granting a shareholders' loan of \$45 million to TiZir Ltd, the full amount of which was paid out in the financial year 2013.

The partners were also party to a mutual USD 25 million guarantee covering certain specific contingencies.

The two partners contributed equally to financing the joint venture through a subordinated loan of USD 105 million of which the last tranche was paid out in September 2015.

As an additional commitment to TiZir Ltd, the ERAMET group and MDL agreed in Q4 2015 to grant a subordinated loan of USD 60 million.

The ERAMET group has committed to granting a loan to MDL as the latter will not be able to honour some of the calls for funds. If the loan is not repaid at 31 December 2016, the ERAMET group's interest in TiZir Ltd's capital will be increased by the remaining amount due on the loan to MDL.

At 31 December 2015, the ERAMET group (via Eralloys Holding, a wholly-owned subsidiary of ERAMET S.A.) granted a loan of USD 2.5 million to MDL to allow this company to make its contribution following the call for funds on 22 December 2015.

## TRANS-GABON RAILWAY CONCESSION—SETRAG

Under the terms of the November 2005 agreement, signed for an initial period of 30 years, SETRAG, the concession holder, is required to meet operating capacity targets (volume of goods and number of passengers).

The concession holder is free to set prices. Its main shareholder, COMILOG, is committed to ensuring that the necessary funding is made available for the capital expenditure required to achieve the operating capacity targets.

On 16 October 2015, SETRAG and the Gabonese Republic signed a rider to the concession agreement for the management and operation of the Trans-Gabon railway. This rider provides for a Upgrade programme with investments shared by SETRAG and the Gabonese Republic. The execution of these investments, as regards SETRAG's portion, is conditional to obtaining specific funding for which negotiation were underway at 31 December 2015.

## CALL OPTIONS ON PT WEDA BAY NICKEL IN FAVOUR OF PT ANTAM

The Indonesian State company Pt Antam, which owns 10% of Pt Weda Bay Nickel, has a call option exercisable between the submission date of a feasibility study by an independent banking institution and 30 days later. This option, which relates to 15% of Pt Weda Bay Nickel's share capital, will be priced at 150% of the expenses incurred at the time of the decision to begin construction. Pt Antam also has an additional call option exercisable during the first 60 days of the 14th year of production on an interest of between at least an additional 5% and the percentage required to hold a maximum interest of 40%. If Pt Weda Bay Nickel's shares are listed, the price of the shareholding will be calculated from the average market price for the 60 days preceding and 60 days

following the option exercise. If Pt Weda Bay Nickel is not listed, the shareholding value will be assigned by independent experts.

## AGREEMENT TO INCREASE THE GABONESE REPUBLIC'S INTEREST IN COMILOG

On 20 October 2010, ERAMET and the Gabonese Republic concluded an agreement to step up Gabon's interest in the COMILOG's capital. Under this agreement, from 2010 to 2015, ERAMET was required to transfer in stages to the Gabonese Republic an additional interest of up to 10% of COMILOG's capital, which would have increased the Gabonese Republic's shareholding in COMILOG S.A. from 25.4% to 35.4%.

The first transfer stage (2010-2011) involved the sale of a 3.54% interest in COMILOG's capital; 2.17% of the capital was transferred in December 2010 and 1.37% in June 2011.

At 31 December 2015, the interest owned by Société Équatoriale des Mines (SEM, a Gabonese company) and the Caisse des Dépôts du Gabon on the one hand, and by ERAMET on the other hand, in COMILOG's capital represented 28.94% and 63.71% respectively.

This agreement has been partially performed at present. No binding deadline has been fixed for the continued increase in interest. ERAMET is in regular contact with the Gabonese Republic on this subject.

## **14.3 CONTINGENT LIABILITIES**

Contingent liabilities arise from past events that, by nature, can be solved only if one or more unpredictable future events occur or do not occur. To measure their potential impact, the ERAMET group exercises judgement to a great extent and may rely on estimated outcomes of future events.

#### ASBESTOS CLASSIFICATION OF ANCIZES

In its decision of 17 November 2015, the Administrative appellate court of Lyon (contradictory to the court's ruling in May 2013) ruled that it was not necessary to add Les Ancizes to the list of sites where employees are entitled to the measure for the period after 31 December 1992. The dispute regarding this point is closed, unless a further appeal is filed by the appellants.

## FORMER EMPLOYEES OF COMILOG IN CONGO

Before the Trans-Gabon railway started operating, COMILOG exported its manganese ore via Congo, where it then employed nearly 1,000 people. Following a very serious rail accident on 5 September 1991 in the Republic of Congo, COMILOG's rail shipments of ore through this country were suspended. This situation showed no sign of coming to an end, and led to the discontinuation of COMILOG's operations in the Congo and the severance of its Congolese employees.

According to the memorandum of understanding of 19 July 2003, COMILOG and the Republic of Congo had settled all past and future disputes, and COMILOG had paid the Republic of Congo the sum of one billion two hundred million FCFA to compensate the employees who were dismissed. This sum was in addition to the real and movable assets transferred free of charge by COMILOG.

Considering that the terms of this agreement were unsatisfactory, 867 former employees of COMILOG in Congo summoned three French subsidiaries of COMILOG to appear on 9 October 2008 before the Conciliation Board of the Industrial Tribunal of Paris.

After many years of proceedings, six applications were examined by the Paris appellate court which delivered six judgements on 10 September 2015. Two of them were brought before the French courts to rule on the claims against COMILOG. COMILOG filed a further appeal in the Cassation court against these two rulings.

At this stage in the proceedings, the ERAMET group has not set aside any provision.

#### 14.4 OTHER INFORMATION

## CARLO TASSARA FRANCE QUESTIONS THE TERMS OF THE SIMA SHARE CONTRIBUTION TO ERAMET IN 1999

Carlo Tassara France (or CTF, a part of the Romain Zaleski group) is an ERAMET shareholder owning 3,394,146 shares (namely 12.87% of the capital at 31 December 2009), according to an estimate based on the most recent threshold crossing declaration by this company (No. 207C0134 of 17 January 2007).

Since 17 December 2009, CTF has questioned the terms of the SIMA share contribution to FRAMET in 1999.

CTF is seeking the cancellation of the resolutions of the ERAMET General Shareholders' Meeting on 21 July 1999 approving the contribution of SIMA's shares to ERAMET, the cancellation of the ERAMET shares issued in consideration for said contribution and the reduction of ERAMET's share capital by the amount of the cancelled shares, the return by the holders of those shares of the dividends earned since 1999 and estimated by CTF at €201 million, and the return by ERAMET to said contributors of the SIMA shares and of the dividends received from SIMA since 1999.

Though the summons is not directed against ERAMET or against its past or current corporate bodies, it is however likely that, were it to prevail, it would have serious implications for ERAMET as, in particular, it would lead to a significant reduction in its share capital and the exit of SIMA (and hence of Aubert & Duval) from the Group's scope of consolidation.

CTF's claims were ruled inadmissible in several rulings in the period from 2010 to 2015, owing to the statutes of limitation.

In the most recent ruling on 29 September 2015, the appellate court dismissed CTF's application for review.

## ICPE (FACILITIES CLASSIFIED FOR ENVIRONMENTAL PROTECTION) REGULATION APPLICABLE TO THE DONIAMBO ELECTRIC POWER PLANT

By order of the President of the Assembly of South Province, New Caledonia on 12 November 2009, new, more stringent technical directives regarding airborne emissions were declared applicable at the latest by 1 September 2013 in the present electric power plant at Doniambo. This deadline was then extended four times. By order of 30 December 2015, the President of the Assembly of South Province further extended the deadline for the application of the new limits for airborne emissions up to 30 June 2016. In the first half-year of 2016, Le Nickel-SLN and the South Province will examine the measures that can be taken as from 1 July 2016.

## NOTE 15 FEES PAID TO THE STATUTORY AUDITORS

	ERNST 8	2 YOUNG	KPN	ИG	DELOITTE 8	& ASSOCIÉS	OTH	HER	ТО	TAL
(€ THOUSAND)	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
Statutory audit, certification, examination of individual and consolidated financial statements										
ERAMET S.A.	175	192	218	N/A	N/A	192	_	-	393	384
Fully consolidated subsidiaries	1,116	1,092	849	N/A	N/A	936	133	126	2,098	2,154
Sub-total	1,291	1,284	1,067	-	-	1,128	133	126	2,491	2,538
	87%	92%	80%			59%	96%	73%	85%	73%
Other work and services directly relating to the statutory audit					•				h-	
ERAMET S.A.	13	-	37	N/A	N/A	330	-	-	50	330
Fully consolidated subsidiaries	45	9	11	N/A	N/A	20	-	-	56	29
Sub-total	58	9	48	-	_	350	_	-	106	359
	4%	1%	4%			18%	0%	0%	4%	10%
Other services provided by the Statutory Auditors firms to fully consolidated subsidiaries										
Legal, tax and employee-related	127	101	208	N/A	N/A	403	2	5	337	509
Other	_	_	3	N/A	N/A	27	4	42	7	69
Sub-total	127	101	211	-	-	430	6	47	344	578
	9%	7%	16%			23%	4%	27%	12%	17%
TOTAL	1,476	1,394	1,326	-	_	1,908	139	173	2,941	3,475

As of the reporting period ended 31 December 2015, KPMG replaced Deloitte & Associés in the Board of Statutory Auditors for ERAMET S.A. and its subsidiaries.

# NOTE 16 EVENTS AFTER THE REPORTING DATE

In early January 2016, ERAMET had drawn down €980 million on the available credit facility under the Multicurrency Revolving Credit Facility Agreement, RCF.

To the best of the Company's knowledge, no other events have occurred since the reporting date.

# NOTE 17 BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS

## 17.1 GENERAL PRINCIPLES AND DECLARATION OF COMPLIANCE

Pursuant to European Regulation 1606/2002 of 19 July 2002 on the application of international accounting standards, the consolidated financial statements of the ERAMET group for the financial year ended 31 December 2015 have been prepared in euros rounded to the nearest million unless instructed otherwise, in accordance with IFRS (International Financial Reporting Standards) as adopted by the European Union at 31 December 2015.

The accounting principles applied for the preparation of the annual consolidated

financial statements are in line with IFRS and the related interpretations as adopted by the European Union at 31 December 2015 and available on the website: http://ec.europa.eu/ finance/accounting/ias/index\_en.htm.

The accounting principles and methods adopted for the consolidated financial statements at 31 December 2015 are those that were used for the consolidated financial statements at 31 December 2014, except for the IFRS interpretations, standards and amendments adopted by the European Union and IASB whose application is mandatory for reporting periods opened as from 1 January 2015 (and for which the ERAMET group had not opted for early application).

These standards and amendments have had no impact on the ERAMET group's consolidated financial statements except for the IFRIC 21 interpretation.

The first-time adoption of this interpretation had an impact of €1 million on ERAMET group equity at 1 January 2015.

The ERAMET group did not adopt the standards, interpretations and amendments published respectively by IASB and IFRS IC (IFRS Interpretations Committee) whose application was not mandatory for the reporting periods opened as of 1 January 2015. These are currently being studied to be able to estimate their potential impact.

## 17.2 CONSOLIDATION PRINCIPLES AND SCOPE

## CONSOLIDATION PRINCIPLES

The consolidated financial statements comprise the financial statements of ERAMET and those of its fully-consolidated and equity-consolidated subsidiaries.

The subsidiaries are fully consolidated if ERAMET holds exclusive control directly or indirectly. ERAMET has exclusive control over a subsidiary when it is exposed to variable returns from its involvement with that subsidiary and has the ability to affect those returns through its power over the subsidiary. ERAMET reassesses its control over a subsidiary if facts

and circumstances indicate a change in any of the elements of control.

The subsidiaries are equity-consolidated if ERAMET exercises joint control or has significant influence (Note 9). Consolidation under the equity method consists in replacing the carrying amount of the shares owned in a joint venture or an associate by the acquisition cost of these shares adjusted for ERAMET's share in the equity at the reporting date.

## Translation of foreign currency-denominated transactions and financial statements

Foreign currency transactions are translated at the applicable exchange rate at the time of the transaction. Foreign currency debts and receivables are measured at the closing rate. Translation adjustments resulting from this translation are recognised in the income for the period, except those involving loans and borrowings between the ERAMET group companies considered an integral part of the net investment in a foreign subsidiary. These are recognised directly in shareholders' equity under Translation adjustments and linked to the foreign subsidiary.

The financial statements of foreign entities with functional currencies other than the euro were translated using the official exchange

rates at 31 December 2015 for balance sheet items, except for shareholders' equity, for which historical rates were applied. Income statement items and Statement of cash flows items are translated at the average rate over the period. Translation adjustments stemming from currency fluctuations used to translate shareholders' equity and profit (loss) for the period are allocated to reserves. Translation adjustments are carried as a change to shareholders' equity and broken down between Group and non-controlling interests. Where a foreign subsidiary ceases to be consolidated, the cumulative amount of translation adjustments is recognised in Net income for the period under Other financial income and expenses.

The main currencies used preparing the consolidated financial statements for the 2015 reporting period are as follows (conversion into euro):

CURRENCY/ CONVERSION RATE FOR €1	CLOSING RATE	AVERAGE RATE
Yuan renminbi	7,0608	6,9801
Norwegian krone	9,603	8,93646
US dollar	1,0887	1,11143
CFA franc	655,957	655,957
CFP franc	119,33174	119,33174

SCOPE OF CONSOLIDATION		
(NUMBER OF COMPANIES)	31/12/2015	31/12/2014
Fully-consolidated companies	54	56
Equity-consolidated companies	6	6

Number of consolidated companies 60 62

Valdi, a company affiliated in 2014 to ERAMET Manganese, was sold by ERAMET Holding Manganese to Erasteel in 2015, and is affiliated to ERAMET

Alloys as regards operations as from 1 January 2015.

The companies without operations—COMILOG Lausanne and Guangxi COMILOG Ferro Alloys—were wound up in the 2015 reporting period without

All companies within the scope of consolidation share the same reporting date of 31 December.

material impact on the ERAMET group's consolidated financial statements.

			PERCENTAGE (%)		
COMPANY	COUNTRY	CONSOLIDATION METHOD	CONTROL	INTEREST	
ERAMET	France	Consolidating entity	-	-	
Nickel	A				
Le Nickel-SLN	New Caledonia	Fully consolidated	56	56	
Cominc	New Caledonia	Fully consolidated	100	56	
Poum	New Caledonia	Fully consolidated	100	56	
Weda Bay Minerals Inc.	Canada	Fully consolidated	100	100	
Weda Bay Mineral Singapore Pte Ltd	Singapore	Fully consolidated	100	100	
Strand Minerals Pte Ltd	Singapore	Fully consolidated	66.6	66.6	
Pt Weda Nickel Ltd	Indonesia	Fully consolidated	90	59.94	
ERAMET Holding Nickel	France	Fully consolidated	100	100	
Eurotungstène Poudres	France	Fully consolidated	100	100	
Manganese					
ERAMET Holding Manganese	France	Fully consolidated	100	100	
ERAMET COMILOG Manganese	France	Fully consolidated	100	81.86	
ERAMET Marietta Inc.	United States	Fully consolidated	100	100	
ERAMET Norway A/S	Norway	Fully consolidated	100	100	
Eralloys Holding A/S	Norway	Fully consolidated	100	100	
DNN Industrier A/S	Norway	Fully consolidated	100	100	
COMILOG S.A.	Gabon	Fully consolidated	63.71	63.71	
SETRAG S.A.	Gabon	Fully consolidated	100	63.71	
Somivab	Gabon	Fully consolidated	82.98	52.86	
COMILOG Holding	France	Fully consolidated	100	63.71	
COMILOG International	France	Fully consolidated	100	63.71	
Port Minéralier d'Owendo S.A.	Gabon	Fully consolidated	97.24	61.95	
ERACHEM COMILOG S.A.	Belgium	Fully consolidated	100	63.71	
COMILOG US	United States	Fully consolidated	100	63.71	
Gulf Chemical & Metallurgical Corp.	United States	Fully consolidated	100	63.71	
Bear Metallurgical Corp.	United States	Fully consolidated	100	63.71	
ERACHEM COMILOG Inc.	United States	Fully consolidated	100	63.71	
COMILOG France	France	Fully consolidated	100	63.71	
COMILOG Dunkerque	France	Fully consolidated	100	63.71	
ERACHEM Mexico S.A.	Mexico	Fully consolidated	100	63.71	
TiZir Ltd	United Kingdom	Equity method	50	50	
TiZir Titanium & Iron A/S	Norway	Equity method	50	50	

	Table 1	CONSOLIDATION	PERCENTA	GE (%)
COMPANY	COUNTRY	METHOD	CONTROL	INTEREST
TiZir Mauritius Ltd	Mauritius	Equity method	50	50
Grande Côte Opérations S.A.	Senegal	Equity method	45	45
COMILOG Asia Ltd	Hong Kong	Fully consolidated	100	92.74
COMILOG Asia Ferro Alloys Ltd	Hong Kong	Fully consolidated	100	92.74
Guilin COMILOG Ferro Alloys Ltd	China	Fully consolidated	100	92.74
Guangxi ERAMET COMILOG Chemicals Ltd	China	Fully consolidated	100	92.74
COMILOG Far East Development Ltd	Hong Kong	Fully consolidated	100	92.74
ERAMET COMILOG Shanghai Trading Co. Ltd.	China	Fully consolidated	100	92.74
ERAMET COMILOG Shangai Consultancy Services Co. Ltd	China	Fully consolidated	100	92.74
Alloys				
Erasteel SAS	France	Fully consolidated	100	100
Erasteel Champagnole	France	Fully consolidated	100	100
Valdi	France	Fully consolidated	100	100
Erasteel Kloster AB	Sweden	Fully consolidated	100	100
Erasteel Stubs Ltd	United Kingdom	Fully consolidated	100	100
Erasteel Inc.	United States	Fully consolidated	100	100
Erasteel Trading Ltd	China	Fully consolidated	100	100
HeYe Erasteel Innovative Materials Co Ltd	China	Equity method	49	49
ERAMET Holding Alliages	France	Fully consolidated	100	100
ERAMET Alliages	France	Fully consolidated	100	100
Aubert & Duval	France	Fully consolidated	100	100
Interforge	France	Fully consolidated	94	94
UKAD	France	Equity method	50	50
Holding co. and miscellaneous				
Eras S.A.	Luxembourg	Fully consolidated	100	100
Metal Securities	France	Fully consolidated	100	100
Metal Currencies	France	Fully consolidated	100	100
Eramine	France	Fully consolidated	100	100
Bolera Minera S.A.	Argentina	Fully consolidated	82.43	82.43
Eramine Sudamerica S.A.	Argentina	Fully consolidated	100	100

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# NOTE 18 CROSS-REFERENCES BETWEEN THE NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR 2015 AND 2014

2015 NOTES		ACCOUNTING METHOD	ESTIMATES, ASSUMPTIONS AND JUDGEMENTS	2014 NOTES
Note 1	Description of the ERAMET group's business			N/A
Note 2	Key events in the reporting period			N/A
Note 3	Operational performance of Divisions and the Group—segment reporting	x	x	Note 2
Note 4	Current operating profit (loss)			
	Sales	X		Note 25
	Cost of sales and other income	×	X	N/A
	Administrative and selling expenses	×		N/A
	Research & development expenditure—expenses during the period	×		Note 6.3
	Amortisation and depreciation of non-current assets and provisions for contingencies and losses	X		Note 26
Note 5	Net profit (loss) Group share and Non-controlling interest			
	Current operating profit (loss)—Net profit (loss) Group share cross-reference table			N/A
	Other operating income and expenses	×		Note 27
	Net earnings per share	×		Note 30
	Non-controlling interest share in earnings—minority interest			Note 17
Note 6	Net financial debt and Shareholder's equity			
	Net financial debt			Note 22.7
	Borrowings	X		Note 22.1-22.6
	Cash and cash equivalents	X		Note 15.2
	Current financial assets	X		Note 15.1
	Net financial income	X		Note 28
	Shareholders' equity			Note 16.1
Note 7	Financial instruments and risk management	x	х	Note 24
Note 8	Working capital requirement			
	WCR presentation table			N/A
	Inventories	×	X	Note 13
	Trade and other receivables	×	X	Note 14
	Trade and other payables			Note 23
Note 9	Investments			Note 24
	Industrial capital expenditure			
	Payments for non-current assets			Note 7.3
	Property, plant & equipment	X	X	Note 7
	Intangible assets (including goodwill)	X	X	Note 5–6
	Mining projects			Note 8
	Impairment of assets	X	X	Note 9
	Financial investments			
	Investments in joint ventures and associates	X	X	Note 10
	Non-current financial assets	X	X	Note 11-12
Note 10	Taxes	x	х	Note 29
Note 11	Personnel costs and employee benefits	1		
	Workforce and personnel costs			Note 34
	Employee-related liabilities	×	X	Note 18
	Bonus share plan and share-based payments	X	X	Note 16.2

2015 NOTES		ACCOUNTING METHOD	ESTIMATES, ASSUMPTIONS AND JUDGEMENTS	2014 NOTES
Note 12	Provisions	x	X	Note 19
Note 13	Related-party transactions	x		Note 33
Note 14	Off-balance sheet commitments, other commitments, contingent liabilities and other disclosures			
	Off-balance sheet commitments	x		Note 31
	Other commitments	h		Note 32
	Contingent liabilities	X	x	Note 20
	Other information			Note 36
Note 15	Fees paid to the Statutory Auditors			Note 35
Note 16	Events after the reporting date			Note 37
Note 17	Basis of preparation of consolidated financial statements	A		
	General principles and declaration of compliance	X	x	Note 1
	Consolidation principles and scope	X	x	Note 1-3
Note 18	Cross-references between the Notes to the consolidated financial statements for 2015 and 2014			N/A

## **NOTE 19 GLOSSARY**

## **EBITDA**

Earnings before financial income and expenses and other operating income and expenses, income tax, provisions for contingencies and losses, and depreciation and amortisation of property, plant and equipment as well as intangible assets.

## Current operating profit (loss)

Groups together EBITDA, amortisation of property, plant and equipment and of intangible assets as well as provisions for contingencies and losses. The current operating profit (loss) excludes material transactions that are considered to be unusual in nature, notably events relating to restructuring and impairment losses, shown in Other operating income and expenses.

## Net profit (loss), Group share

Net income for the period after tax, attributable to ERAMET shareholders, after accounting for the non-controlling interest in each of the ERAMET group's companies.

## **OCI (Other Comprehensive Income)**

Operations for which the change in the value of an asset or a liability is recognised directly in equity without transiting through the income statement. This is the case, for example, for unrealised gains or losses on hedging financial instruments, for actuarial gains (losses) on employee benefits, and for certain translation differences.

## Industrial capital expenditure

Groups together payments for PP&E and intangible assets.

## **Group reporting**

Financial disclosures prepared for the Executive Committee—the main operating decision-maker—in which the operating performances of joint ventures, the TiZir Ltd sub-group and Ukad, are recognised according to the proportional consolidation method. This information that is reconciled with the published data, is used to measure the performance of the Divisions and the ERAMET group (segment-based disclosures). It is also used

for the financial disclosure of the ERAMET group's performance.

### Net financial debt

Represents the gross financial debt (long- and short-term borrowings) less cash and cash equivalents, and current financial assets. These components include the valuation of hedging derivatives (currency and rate hedges) for debt and investments.

## Gearing

Ratio of Net financial debt to total equity (Group and non-controlling interest).

## Financial liquidity

It includes cash and cash equivalents, current financial assets and the available amount in the credit lines provided to the ERAMET group's companies.

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## 6.1.7 STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

## REPORTING PERIOD ENDED 31 DECEMBER 2015

Dear Shareholders,

In accordance with the tasks assigned to us by the General Meeting, we hereby present our report for the year ended 31 December 2015, on:

- the audit of the accompanying consolidated financial statements of ERAMET S.A.;
- the justification of our assessments; and
- the specific verifications required by law.

The consolidated financial statements have been approved by the Board of Directors. Our responsibility is to express an opinion on these financial statements based on our audit.

## I. OPINION ON THE CONSOLIDATED FINANCIAL STATEMENTS

We conducted our audit in accordance with the professional standards applicable in France. These standards require us to plan and perform our audit so as to obtain reasonable assurance that the consolidated financial statements are free of material misstatement. An audit consists of examining, by sampling or using other selection methods, the evidence supporting the amounts and disclosures contained in these consolidated financial statements. It also involves an assessment of the accounting principles and significant estimates used and an evaluation of the overall presentation of the financial statements. We believe that our audit provides a sufficient and reasonable basis for our opinion.

We certify that in respect of the IFRS system adopted by the European Union, the consol-

idated financial statements for the financial year are appropriate, accurate and give a true and fair view of the net assets, financial situation and results of all persons and entities within the scope of consolidation.

Without qualifying our opinion expressed above, we draw your attention to the section on the "reinforcement of the SLN savings and financing plan" in Note 2—Key events in the reporting period, regarding the risks inherent to the continuity of operations of the subsidiary Le Nickel-SLN and the financing of those operations.

## II. JUSTIFICATION OF ASSESSMENTS

Pursuant to Article L. 823-9 of the Commercial Code governing the justification of our assessments, we draw your attention to the following matters:

## **Business continuity of Le Nickel-SLN**

As described in the first part of this report, Note 2—Key events in the reporting period in the notes to the consolidated financial statements details the measures implemented by the Group to ensure the continuity and financing of Le Nickel-SLN operations. We studied the planned measures and reviewed the Company's liquidity position. We also took note of the assumptions used so as to assess the continuity of Le Nickel-SLN's operations.

On the basis of our audit and the information given to us to date, and following our assessments of the accounting principles followed by your Company, we believe that the notes to the financial statements adequately disclose the financial position of the Company.

## Intangible assets and PP&E

As stated in Note 2—Key events in the reporting period and Note 9—Investments, having outlined the impact of the deterioration in market conditions, your Group accordingly revised the recoverable value of certain assets on which impairment losses had been recognised. This note also specifies the indeterminate nature of the assumptions made, and as a result, the future outcomes may differ from these estimates.

We also reviewed the methods and procedures for implementing impairment testing on goodwill and other long-term assets described in Note 9, as well as the projected cash flows and the consistency with the forward-looking data in the assumptions used by your Group. We ascertained that the information contained therein provides adequate disclosure and verified the reasonable nature of these methods and procedures.

## **Provisions**

As stated in Note 12—Provisions in the notes to the financial statements, your Group required to perform estimates and to make assumptions regarding provisions for contingencies and losses and in particular regarding the provisions for the restoration of mining sites and for dismantling. This note outlines the sensitivity to the assumptions used and to the discount rates.

Our work consisted in appraising the assessment methods and procedures used and the documentation provided. It was on that basis that we appraised the reasonable nature of the estimates and re-examined the methods and procedures described in this Note.

The assessments we made are part of our audit of the consolidated financial statements as a whole and have therefore contributed to our opinion expressed in the first part of this report.

## III. SPECIFIC VERIFICATION

In accordance with professional standards applicable in France, we also performed the specific verifications required by law of the disclosures relating to Group given in the management report.

Except for the probable impact of the facts outlined in the first part of this report, we have no qualification to make regarding their accuracy or consistency with the consolidated financial statements.

KPMG Audit Division of KPMG S.A. Denis Marangé Partner Paris La Défense, 18 February 2016

Ernst & Young Audit

Jean-Roch Varon Partner

# 6.2 2015 SEPARATE FINANCIAL STATEMENTS

## **6.2.1 INCOME STATEMENT**

(€ THOUSAND)	NOTES	FY 2015	FY 2014
Operating income			
Sales of goods and merchandise		553,245	708,468
Income from ancillary activities		72,987	71,424
Sales	5.1	626,232	779,892
Change in inventories of finished products and work in-progress		952	885
Capitalised production		54	603
Operating subsidies		294	4
Reversal of provisions, excess depreciation & amortisation, expense transfers		16,966	12,741
Other income		1	36
Other income		18,267	14,267
TOTAL INCOME		644,499	794,159
Operating expenses			
Purchases of goods		421,809	564,421
Change in inventory (merchandise)		12,835	(7,598)
Raw materials and other supplies purchased		69,857	121,995
Change in inventory (raw materials and supplies)		1,064	(10,106)
External purchases and expenses		96,658	96,072
Taxes other than on income		3,487	4,093
Wages and salaries		32,600	31,655
Payroll charges		11,054	25,177
Depreciation and amortisation charges		13,952	9,468
Provisions for losses on current assets		14,450	4,841
Provisions for contingencies and losses		16,833	12,310
Other expenses		1,967	2,319
TOTAL EXPENSES		696,568	854,647
Operating profit (loss)		(52,069)	(60,498)
Net financial income	5.4	(265,623)	12,271
Profit (loss) before tax and extraordinary items		(317,692)	(48,227)
Extraordinary items	5.5	(13,164)	(23,744)
Employee profit-sharing & incentives			(1,475)
Income tax	5.2	(659)	2,897
PROFIT (LOSS) FOR THE PERIOD		(331,516)	(70,550)

## **6.2.2 BALANCE SHEET**

## **ASSETS**

		GROSS	DEPRECIATION, AMORTISATION AND	31/12/2015	31/12/2014
(€THOUSAND)	NOTES	AMOUNT	PROVISIONS	NET AMOUNT	NET AMOUNT
Intangible assets					
Patents, rights and similar assets		19,662	16,140	3,522	1,806
Assets under construction		19,217	18,555	663	21,965
Intangible assets		38,879	34,695	4,185	23,772
Property, plant & equipment					
Land	1	1,131		1,131	1,131
Buildings		26,592	21,844	4,748	6,089
Technical installations, machinery and equipment		71,835	64,639	7,197	14,121
Other		13,172	10,689	2,483	3,364
Assets under construction		2,129		2,129	468
Down payments		11		11	0
Property, plant & equipment		114,870	97,172	17,698	25,173
Non-current financial assets					
Investments in associates		1,638,589	537,598	1,100,991	1,106,711
Receivables on investments in associates	4.2	1,501,736	476,051	1,025,685	1,263,804
Other capitalised investments		23,475	20,154	3,320	6,968
Other		9,106		9,106	11,440
Non-current financial assets		3,172,906	1,033,803	2,139,103	2,388,923
Non-current assets	4.1	3,326,655	1,165,670	2,160,985	2,437,867
Inventories and work-in-progress					
Raw materials and other supplies		27,444	19,010	8,434	39,905
Work-in-progress		9,083		9,083	10,622
Semi-finished and finished products		15,312	90	15,221	12,821
Merchandise		27,179		27,179	28,370
Inventories and work-in-progress	4.7	79,018	19,100	59,917	91,718
Down payments made on orders		2,156		2,156	336
Operating receivables				<b>P</b>	
Trade receivables		65,471	835	64,636	73,471
Other receivables		91,969	20,179	71,790	75,734
Operating receivables	4.2 & 4.7	157,440	21,014	136,426	149,205
Inter-company current accounts				0	0
Cash & cash equivalents	4.3	39,705		39,705	60,594
Accruals	4.4	10,619	<b>,</b>	10,619	13,427
Prepaid expenses		5,427		5,427	5,588
Deferred debt issue costs		5,193		5,193	7,839
Bond redemption premiums		-		0	0
Translation adjustment losses				0	0
Current assets		288,938	40,114	248,823	315,280
		1 -	·	1	1

TOTAL LIABILITIES		2,409,809	2,753,148
Liabilities	4.10&4.11	1,138,595	1,132,420
Miscellaneous liabilities		53,649	27,804
Other liabilities		53,366	26,140
Liabilities on non-current assets and related payables		283	1,664
Operating payables		80,947	113,019
Tax and payroll liabilities		17,632	17,219
Trade payables		63,315	95,800
Down payments received on current orders		99	7,140
Long-term borrowings		1,003,900	984,457
Inter-company current accounts		137,183	96,228
Miscellaneous borrowings			460
Borrowings from and payables to credit institutions		234,442	255,515
Bond issues		632,275	632,254
Provisions for contingencies and losses	4.8	29,374	30,935
Provisions for losses		18,370	16,467
Provisions for contingencies		11,004	14,467
Shareholders' equity		1,241,840	1,589,793
Regulated provisions	4.8	31,718	48,155
Net equity	4.5	1,210,122	1,541,638
Profit (loss) for the period		(331,516)	(70,550)
Retained earnings		825,410	895,960
Other reserves		253,839	253,839
Legal reserve		8.096	8,096
Issue, merger and contribution premiums		373,337	373,337
Share capital		80,957	80,957
(€THOUSAND)	NOTES [	31/12/2015	31/12/2014

## **6.2.3 STATEMENT OF CASH FLOWS**

(€THOUSAND)	FY 2015	FY 2014	
Operating activities			
Profit (loss) for the period	(331,516)	(70,550)	
Elimination of non-cash and non-operating income and expenses	279,497	76,289	
Cash generated from operations	(52,019)	5,739	
Change in operating working capital requirement	39,895	(38,362)	
Net cash generated by operating activities	(12,124)	(32,623)	
Cash flows from investing activities			
Net payments for non-current financial assets	(82,152)	(7,146)	
Payments for non-current intangible assets, PP&E	(5,202)	(8,811)	
Proceeds from non-current asset disposals	1,248	36,030	
Debt repayments			
Change in other receivables and debts	(10,240)	(4,606)	
Net cash used in investing activities	(96,346)	15,467	
Cash flows from financing activities			
Dividends paid to ERAMET S.A. shareholders	-	-	
Share capital increases	-	-	
Change in working capital requirement from financing activities	_	-	
Net cash used in financing activities	-	-	
Increase (decrease) in net cash	(108,470)	(17,156)	
Net cash (borrowings) at beginning of period	646,009	663,166	
Net cash (borrowings) at period-end	537,539	646,009	

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## 6.2.4 NOTES TO THE SEPARATE FINANCIAL STATEMENTS

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# NOTE 1 DESCRIPTION OF BUSINESS

The ERAMET group is one of the world's largest producers of:

- alloy metals, especially manganese and nickel, which are employed to boost the properties of steel;
- high-performance special steels and alloys used by industries such as the aeronautical sector, the energy production sector and the tooling industry.

The parent company ERAMET S.A. operationally groups together two main functions:

- a pure holding company called ERAMET
   Holding bringing together the various support departments such as General Management, Administration & Finance,
   Human Resources, Communications and Sustainable Development, Legal Affairs,
   Purchasing, Information Systems, and the Strategy, Development and Innovation Department; and
- a section of the Nickel Division (General Management, and the Sales and Marketing Departments).

The costs of these various departments are billed back to the three Divisions under management fee contracts. The other operating costs relating to Nickel are directly allocated to the Nickel Division.

ERAMET also has directly-owned subsidiaries, acting on behalf of the various entities or of the parent company. These are:

- ERAMET Services: company that groups together the payroll accounting and IT support functions of the Group's French companies;
- ERAMET Research: ERAMET's research centre that handles research and development;
- ERAMET Ingénierie: project and technologies engineering company;
- ERAMET International: a company that groups together the ERAMET sales network for certain activities of the three Divisions.
   ERAMET International has subsidiaries or branches across the globe. ERAMET International is generally paid for its work under agency agreements;
- Metal Securities: the Group's treasury management company which pools the surplus cash and short-term funding requirements of the Group as a whole;
- Metal Currencies: the Group's foreign exchange management company, which handles the currency hedging operations for the Group as a whole;
- ERAS: a reinsurance company;
- ERAMINE: a company engaged in lithium development;
- SialeO: a company engaged in the development of sea-floor metals.

# NOTE 2 KEY EVENTS IN THE REPORTING PERIOD

## Worsening of market conditions—Group's major projects suspended

Given the global environment in which metals are at a 15-year low, the ERAMET group is particularly affected by the nickel and manganese prices that simultaneously hit their all-time low.

The Group's Board of Directors of 14 October 2015 decided to reinforce the operational action plan to improve cash flow:

- limit capital investments to only safety concerns and maintenance of equipment;
- suspend major Group projects;
- continue to implement the ongoing asset disposal programme;
- continue to strictly follow the 2014-2017 plan to cut costs and improve productivity.

# Sharp decline in net financial income following the write-down of shares and impairment of attached receivables

The highly negative net financial income stood at -€266 million after the write-down of shares to reflect the decrease in the value of investments in subsidiaries to account for the difficult market conditions, notably Erasteel and Eralloys, as well as the impairment of attached receivables relating notably to the subsidiary Strand (Nickel project in Indonesia) following the decision to suspend the project.

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## Arrangement of a loan to SLN

On 23 December 2015, ERAMET granted SLN a loan of €120 million, expiring on 31 May 2016. €45 million of this loan had been utilised at 31 December 2015. The total loan amount was raised from €120 million to €150 million following the decision of the ERAMET Board of Directors on 17 February 2016.

As nickel prices remained low right from the beginning of the year 2016, SLN stepped up its savings plan and will put before its Board of Directors in end-April 2016, a plan to adapt to the economic climate in order to ensure its business continuity and the financing of its operations under that plan. ERAMET's Board of Directors will also give its opinion on the plan at that date.

## Continuation of the Optimum project

In 2015, the Optimum project aimed at stepping up the productivity of support functions was pursued. An initial plan, provided for since 2014, is being implemented at present.

The shared services centre based in Clermont Ferrand that groups together the payroll accounting and IT support functions is operational as of 04 2015.

# NOTE 3 ACCOUNTING PRINCIPLES, METHODS AND RULES

ERAMET S.A.'s financial statements at 31 December 2015 were approved by the Board of Directors on 17 February 2016.

### 3.1 OVERVIEW OF THE PRINCIPLES

The financial statements were prepared in accordance with the stipulations of Regulation 2014-09 of ANC, the accounting standards authority, approved by the ministerial order of 8 September 2014 in the General Chart of Accounts.

Generally accepted accounting principles were applied, while complying with the principle of prudence based on the underlying assumptions, i.e. going concern, consistency of accounting methods from one period to another, application of the matching principle, and in line with the rules for preparing and presenting separate financial statements.

The historical cost method is the basic method used to measure accounting items.

### 3.2 CHANGE IN METHODS

There has been no change in method compared to 31 December 2014.

# 3.3 RULES AND METHODS APPLIED TO THE VARIOUS BALANCE SHEET AND INCOME STATEMENT LINE ITEMS

## PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

The gross amount of non-current assets is the amount at which the items were first recognised in the Company's balance sheet and includes any expenses required to make them operational. Unused assets or assets whose fair market value is lower than the carrying amount are generally impaired through non-recurring depreciation expense or by charging to provisions.

Economically justified depreciation is calculated using the straight-line method. This depreciation is calculated over the anticipated life of the assets.

The useful lives in depreciation periods for property, plant and equipment are as follows, apart from exceptional cases:

- Buildings: 20-30 years;
- Technical installations: 12-20 years;
- Machinery, equipment and tooling: 3-10 years;
- General installations, fittings and fixtures: 5-10 years;
- Transportation equipment: 5-8 years;
- Office furniture and equipment, computer hardware: 3-8 years.

The impact of any difference between the straight-line and declining balance depreciation methods is recognised via excess depreciation.

## NON-CURRENT FINANCIAL ASSETS

As from 1 January 2006, the gross amount of non-current financial assets includes the purchase cost less incidental expenses. Borrowings are recognised at their nominal value. At the end of the reporting period, securities are estimated at their value in use, which takes account of both their net asset value and the likely returns. If the value in use is lower than the gross amount, an impairment loss is recognised for the difference between the two values.

#### **DEVELOPMENT PROJECTS IN PROGRESS**

As a rule, development projects are initiated by ERAMET as the holding company. The costs incurred on these projects are recognised either as Non-current financial assets or as assets if they are to be billed back to the Divisions or the Group's subsidiaries, or are expensed. For acquisitions, those costs are included in the value of the shares. If the development projects are not successful, their costs are impaired or booked under non-recurring losses.

## **INVENTORIES**

Inventories of nickeliferous products are measured at cost, calculated on a first-in-first-out (FIFO) basis. If the value thereby obtained is greater than the net realisable value (i.e. selling price less selling expenses), a provision is recognised for the difference.

Consumables are measured at cost, which is calculated using the weighted average price method.

Spare parts inventories are fully impaired for any item whose quantity exceeds one year's supply.

#### RECEIVABLES AND PAYABLES

Foreign currency receivables and payables are remeasured at the closing rate or at the forward hedging rate, as appropriate.

Unrealised losses or gains on foreign exchange arising from re-measurement at the forward hedging rate or, where unhedged, at the closing rate, are recognised as exchange losses or gains in the income statement.

Impairment losses on trade receivables are measured for each customer individually, based on the estimated risk.

#### INVESTMENT SECURITIES

Investment securities are measured at acquisition cost, with an impairment loss recognised if their net asset value (closing price) is lower. Unrealised capital gains are not recognised.

## PROVISIONS FOR CONTINGENCIES AND LOSSES

Provisions are recorded, where their amount can be reliably estimated, to cover all liabilities arising from past events that are known at the reporting date and the settlement of which is likely to result in an outflow of resources representing economic benefits in order to settle the liability.

## **EMPLOYEE INDEMNITIES AND BENEFITS**

ERAMET offers its employees various longterm benefits such as retirement packages and other additional post-employment benefits and long-service bonuses.

Some liabilities are wholly or partly covered by contracts taken out with insurance companies. In this case, the liabilities and hedging assets

are measured independently. A provision is then made on the basis of the amount of financial assets and liabilities.

ERAMET's liabilities are appraised by independent actuaries. The actuarial assumptions used (likelihood of working employees staying with ERAMET, mortality tables, retirement age, salary trends, etc.) vary according to the prevailing demographic and economic conditions in the country. The discount rates used are based on the rate of government bonds or bonds of blue-chip companies with a maturity equivalent to that of the liabilities on the measurement date.

The expected long-term return on assets was calculated by taking the structure of the investment portfolio into account.

The following actuarial assumptions are used for measurement:

	2015	2014
Discount rate	2.00%	2.20%
Inflation rate	1.90%	1.80%
Rate of increase in salaries	Inflation + 1.00%	3.00%- 3.75%
Return on plan financial assets	2.00%	2.20%

## **EMPLOYEE BONUS SHARE PLAN**

The Company has eight ongoing bonus share plans:

- two plans approved by the Board of Directors' meeting of 15 February 2012 for 28,620 and 89,720 shares;
- two plans approved by the Board of Directors' meeting of 21 March 2013 for 28,706 and 144,840 shares;

- two plans approved by the Board of Directors' meeting of 20 February 2014 for 27,218 and 143,510 shares;
- two plans approved by the Board of Directors' meeting of 20 February 2015 for 27,178 and 132,828 shares;

The corresponding provision was measured on the basis of the value of treasury shares (95,057 shares) and the stock price on 31 December 2015 (for 346,134 shares).

The provision was staggered over the vesting period (two or four years depending on the plan) for the ERAMET S.A. staff. For the other beneficiaries (outside ERAMET S.A.), the provision is made as of the plan award date.

Shares under the democratic plan of 21 March 2013 and the selective plan of 15 February 2012 issued to the employees of French companies in March 2015 respectively were fully vested.

## SALES

Sales consist of the following:

- ferro-nickel sales (purchase and sale of SLN products);
- nickel salts (produced at the Sandouville plant);
- provision of services and re-invoicing of shared expenses.

Income is recognised as revenue once the Company has transferred to the buyer the main risks and benefits inherent to ownership of the goods.

#### NOTE 4 NOTES TO THE BALANCE SHEET

#### **4.1 NON-CURRENT ASSETS AND DEPRECIATION**

#### INTANGIBLE ASSETS

TOTAL	36,771	8,538	(6,429)	38,879
Non-current assets in progress (1)	21,965	2,845	(5,593)	19,217
Patents, rights and similar assets	14,805	5,693	(836)	19,662
(€THOUSAND)	ACQUISITION VALUES 31/12/2014	ACQUISITIONS	DISPOSALS, RETIREMENTS AND ADJUSTMENTS	ACQUISITION VALUES 31/12/2015

The increase in patents and licences is mainly due to the deployment of the new management software (ERP) as of 1 January 2015 amounting to €3.18 million.

(€ THOUSAND)	DEPRECIATION, AMORTISATION AND PROVISIONS AT 31/12/2014	DEPRECIATION, AMORTISATION AND PROVISIONS	REVERSALS OF DEPRECIATION, AMORTISATION AND PROVISIONS	DISPOSALS, RETIREMENTS AND ADJUSTMENTS	DEPRECIATION, AMORTISATION AND PROVISIONS AT 31/12/2015	CARRYING AMOUNTS AT 31/12/2015
Concessions, patents, licences, trademarks, processes, rights and similar assets	12,999	3,141			16,140	3,522
Assets under construction	0	18,555			18,555	663
TOTAL	12,999	21,696	0	0	34,695	4,185

The assets under construction relating to the development of hydrometallurgical technology ( $\leq$ 18.5 million at 31 December 2015) were fully impaired following the decision to put the Weda Bay project in Indonesia on hold, for  $\leq$ 18.5 million.

#### PROPERTY, PLANT AND EQUIPMENT

TOTAL	114,271	2,841	(2,242)	114,870
Assets under construction	468	2,256	(584)	2,139
Other	14,321	509	(1,658)	13,172
Technical installations, machinery $^{\mbox{\tiny (2)}}$ and equipment	71,759	76		71,835
Buildings	26,592			26,592
Land	1,131			1,131
(€ THOUSAND)	ACQUISITION VALUES 31/12/2014	ACQUISITIONS	DISPOSALS, RETIREMENTS AND ADJUSTMENTS	ACQUISITION VALUES 31/12/2015

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TOTAL	89,098	9,403	(85)	(1,245)	97,172	17,698
Assets under construction	-				0	2,139
Other	10,957	977		(1,245)	10,689	2,483
Technical installations, machinery and equipment	57,638	7,086	(85)		64,639	7,197
Buildings	20,503	1,341			21,844	4,748
(€ THOUSAND) Land	AT 31/12/2014	AND PROVISIONS	AND PROVISIONS	ADJUSTMENTS	AT 31/12/2015	AT 31/12/2015 1,131
4	DEPRECIATION, AMORTISATION AND PROVISIONS	DEPRECIATION, AMORTISATION	REVERSALS OF DEPRECIATION, AMORTISATION	DISPOSALS, RETIREMENTS AND	DEPRECIATION, AMORTISATION AND PROVISIONS	CARRYING AMOUNTS

Old computer hardware amounting to  $\leq$ 1.2 million was scrapped.

#### **NON-CURRENT FINANCIAL ASSETS**

TOTAL	3,171,681	221,551	(220,326)	3,172,906
Other	11.440	612	(2,945)	9,107
Other capitalised investments (3)	33,319	1,307	(11,152)	23,474
Receivables on investments in associates	1,569,873	138,092	(206,229)	1,501,736
Investments in associates	1,557,049	81,540		1,638,589
(€ THOUSAND)	ACQUISITION VALUES 31/12/2014	ACQUISITIONS	DISPOSALS, RETIREMENTS AND ADJUSTMENTS	ACQUISITION VALUES 31/12/2015

The increase in "Investments in associates" is mainly due to the capital increase of €80 million in Erasteel to offset a claim on that company.

The change in Receivables on investments in associates is mainly due to the increase in the loan to COMILOG Far East Development amounting to €46 million, the new €45 million

loan granted to Société Le Nickel, and the increase in the TiZir loan including capitalised interest totalling €15.3 million.

The "Other capitalised investments" line item relates to treasury shares. The increase relates to the acquisition of shares under the price support agreement for €1.3 million. The decrease results from the bonus share

awards to employees in the French and foreign companies under the 2011 and 2012 selective plans and the 2012, 2013 and 2014 democratic plans.

The shares acquired as part of the buyback instructions (balance of 95,057 shares at 31 December 2015) are intended to be distributed under bonus share plans.

TOTAL	782,758	262,197	(79)	(11,073)	1,033,803	2,139,103
Other	0		0		0	9,107
Other capitalised investments	26,352	4,955	(79)	(11,073)	20,155	3,319
Receivables on investments in associates	306,068	169,982	0		476,050	1,025,686
Investments in associates	450,338	87,260	0		537,598	1,100,991
(€ THOUSAND)	DEPRECIATION, AMORTISATION AND PROVISIONS AT 31/12/2014	DEPRECIATION, AMORTISATION AND PROVISIONS	REVERSALS OF DEPRECIATION, AMORTISATION AND PROVISIONS	DISPOSALS, RETIREMENTS AND ADJUSTMENTS	DEPRECIATION, AMORTISATION AND PROVISIONS AT 31/12/2015	CARRYING AMOUNTS AT 31/12/2015

Provisions were set aside for the impairment losses on equity investments for Erasteel shares ( $\notin$ 39.7 million) and Eralloys Holding shares ( $\notin$ 47.6 million).

Provisions for impairment of receivables attached to equity investments were set aside for the Strand Minerals Pte. Ltd loan representing -699.1 million, for the COMILOG Far East Development loan -65.2 million and the Eramine loan -65.6 million to take the financial situation of those companies into consideration.

The shares held in connection with the price support agreement, amounting to €10.6 million were written down €7.4 million based on the closing price.

#### 4.2 SCHEDULE OF RECEIVABLES

Pension plan assets <sup>(2)</sup> Other long-term investments Trade receivables	536 8,570 65,471	8,570 63,918	1.553	1,638 9,802 74,306
Other receivables (3)	91,969	91,969	,	90,992
Prepaid expenses  TOTAL	5,427 <b>1,673,709</b>	5,399 <b>697,968</b>	975,741	5,588 <b>1,752,198</b>

(1) Receivables on investments in companies: loans to Group companies:

TOTAL	1,501,736	1,569,873
SLN	45,000	0
TiZir	98,602	73,936
Metal Securities	457,915	615,691
Eramine SAS	10,197	4,569
ERAMET Research	0	30
CFED	108,297	58,976
Erasteel SAS	80,000	128,423
EHA (2014)—Aubert&Duval (2015) <sup>(4)</sup>	253,000	251,970
Strand Minerals Ltd/Weda Bay Minerals Singapore	448,724	436,278
(€THOUSAND)	31/12/2015	31/12/2014

<sup>(2)</sup> Excess contribution to defined benefit supplementary pension plan.

#### **4.3 CASH & CASH EQUIVALENTS**

Cash & cash equivalents comprise marketable securities amounting to €38.2 million and debit bank accounts totalling €1.5 million.

#### 4.4 PREPAID EXPENSES AND ACCRUED INCOME

(€THOUSAND)	31/12/2015	31/12/2014
Prepaid expenses (1)	5,426	5,588
Deferred debt issue costs (2)	5,193	7,839
TOTAL	10,619	13,427

<sup>(1)</sup> Prepaid insurance premiums totalled €2.7 million (compared with €2.4 million at 31 December 2014) with interest on bank borrowings.

<sup>(3)</sup> Other receivables include, among others, a receivable net of tax from the companies of €48.4 million connected with tax consolidation, and profit-sharing based on the performance of Metal Currencies amounting to €8.3 million.

<sup>(4)</sup> The claim held by ERAMET Holding Alliages (EHA) was transferred to Aubert & Duval (within the Alloys Division) under an agreement signed on 27 October 2015.

<sup>(2)</sup> Debt issue costs (syndicated loan, bond issue, Schuldschein, borrowing base) staggered over the repayment period of the borrowing.

#### **4.5 NET EQUITY**

The share capital breaks down as follows:

	FY 2015				FY 2014				
	SHAR	RE CAPITAL	VOTI	NG RIGHTS	SHAR	SHARE CAPITAL VOTIN		NG RIGHTS	
BREAKDOWN	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES	%	NUMBER OF SHARES	
Registered shares									
SORAME and Compagnie d'Études Industrielles du Rouvray (CEIR)	37.06	9,835,834	44.17	19,671,668	37.06	9,835,834	44.18	19,671,668	
FSI Equation (subsidiary of Bpifrance)	25.66	6,810,317	30.58	13,620,634	25.66	6,810,317	30.59	13,620,634	
S.T.C.P.I.	4.03	1,070,587	4.81	2,141,173	4.03	1,070,587	4.81	2,141,173	
ERAMET S.A.	0.82	218,276	_	_	0.87	230,051	-	-	
Share fund ERAMET S.A.	0.20	52,373	0.24	104,746	0.20	52,373	0.24	104,746	
Other	32.23	8,555,831	20.20	8,995,747	32.19	8,544,056	20.18	8,985,301	
TOTAL NUMBER OF SHARES	100.00	26,543,218	100.00	44,533,968	100.00	26,543,218	100.00	44,523,522	
of which, registered shares	69.27	18,387,508	82.03	36,531,116	69.51	18,449,298	82.02	36,519,203	
of which, bearer shares	30.73	8,155,710	17.97	8,002,852	30.49	8,093,920	17.98	8,004,319	

Pursuant to a shareholders' agreement signed on 16 March 2012, which entered into force on 16 May 2012 and will expire on 31 December 2016, subject of the AMF decision and notification No. 212C0647, the Company, as of 16 May 2012, is under the majority control of a declared concert party of shareholders comprising:

 a concert sub-group comprised of SORAME and CEIR, companies controlled by the Duval family, pursuant to a simultaneous shareholders' agreement of 19 July 1999, that came into effect on 21 July 1999, and was amended by a rider on 13 July 2009;

 Bpifrance (public investment bank), via its subsidiary FSI Equation.

The provisions of the above shareholders' agreement and of the concert sub-group can be found in the main extracts of the texts of the

AMF decision and notification No. 212C0647 and No. 209C1013 (rider of 13 July 2009).

Since 1 January 2002, registered shares meeting the required conditions have qualified for double voting rights.

ERAMET's distributable reserves amounted to €1,452 million prior to the allocation of 2015 earnings (€1,523 million at 31 December 2014).

Net equity at 31 December 2015	26,543,218	80,957	1,664,238	(535,072)	1,210,123
Profit (Loss) for the 2015 financial year				(331,516)	(331,516)
Net equity at 31 December 2014	26,543,218	80,957	1,664,238	(203,556)	1,541,638
Profit (Loss) for the 2014 financial year				(70,550)	(70,550)
Net equity at 31 December 2013	26,543,218	80,957	1,664,238	(133,006)	1,612,188
(€ THOUSAND)	NUMBER OF SHARES	SHARE CAPITAL	PREMIUMS, RESERVES AND RETAINED EARNINGS	PROFIT (LOSS) FOR THE PERIOD	TOTAL

The share capital is comprised of 26,543,218 fully paid-up ordinary shares (26,543,218 ordinary shares at 31 December 2015) with a par value of  $\leq$  3.05.

#### **4.6 TREASURY SHARES**

The table below summarises the treasury share transactions:

		PRICE SUPPORT	AWARDS TO EMPLOYEES	TOTAL
Position at 31 December 2013		106,952	177,909	284,861
As a percentage of share capital	26,543,218	0.40%	0.67%	1.07%
Bonus share awards				
Bonus share grants			(37,459)	(37,459)
Purchases		232,759		232,759
Sales		(250,110)		(250,110)
Position at 31 December 2014		89,601	140,450	230,051
As a percentage of share capital	26,543,218	0.34%	0.53%	0.87%
Bonus share awards				
Bonus share grants			(45,393)	(45,393)
Purchases		218,088		218,088
Sales		(184,470)		(184,470)
Position at 31 December 2015		123,219	95,057	218,276
As a percentage of share capital	26,543,218	0.46%	0.36%	0.82%

The balance of 218,276 shares corresponds to:

#### 4.7 PROVISIONS FOR IMPAIRMENT OF CURRENT ASSETS

(€THOUSAND)	31/12/2014	ADDITIONS	REVERSALS	31/12/2015
Raw materials and other supplies (1)	4,840	14,360	(190)	19,010
Trade receivables	835			835
Miscellaneous receivables (2)	15,257	4,921		20,179
TOTAL	20,933	19,281	(190)	40,023

<sup>(1)</sup> Full provisions are made for items in spare parts inventories whose rotation exceeds one year's supply. Reversals of provisions relate to the end of the treatment works for the Sandouville plant channel.

<sup>-</sup> the shares purchased under the share price support agreement with Exane BNP Paribas and not yet registered at the date of drawing up the table;

<sup>-</sup> shares intended to be awarded under the bonus share plans.

A provision of €14.3 million was set aside for impairment losses on inventory.

<sup>(2)</sup> The additions to provisions are recognised mainly in the expenses recorded under Other receivables on the Lithium exploration and operation project.

#### 4.8 PROVISIONS IN LIABILITIES

	31/12/2014	ADDITIONS	REVERSALS		RECLASSIFICA- TION	31/12/2015
(€ THOUSAND)			USED IN PERIOD	UNUSED IN PERIOD		
Provisions for price increases	32,836		(16,336)			16,500
Extraordinary amortisation and depreciation (2)	15,319	137	(238)			15,218
Total regulated provisions	48,155	137	(16,574)	0	0	31,718
Foreign currency losses						
Employees (1)	15,613	8,762	(5,012)		(1,102)	18,261
Environment (2)	804	9	(804)			9
Segment-based contingencies	0					0
Taxes	0		P			0
Other provisions for contingencies (3)	636	1,066				1,702
Other provisions for losses (4)	13,882	2,000	(17,553)		11,073	9,402
Total provisions for contingencies and charges	30,935	11,837	(23,369)	0	9,971	29,374
Provisions for liabilities	79,090	11,974	(39,943)	0	9,971	61,092

<sup>(1)</sup> ERAMET makes provisions for pension and related liabilities on the basis of the actuarial appraisal by an outside firm. Detailed calculations were carried out at

The €11.091 million balance breaks down into a -€11.627 million provision for contingencies and losses, and pension plan assets of €536 thousand in ERAMET S.A.'s balance sheet at 31 December 2015.

#### **4.9 EMPLOYEE-RELATED LIABILITIES**

#### **RETIREMENT LIABILITIES**

#### As of 31/12/2015

(€ THOUSAND)	OF LIABILITIES	ASSETS	SURPLUS/ (DEFICIT)
Retirement benefits	85,398	(55,673)	29,725
Retirement package	6,236	(2,447)	3,789
Long-service bonuses and awards	3,339	-	3,339
Healthcare plans	5,625	-	5,625
TOTAL	100,598	(58,120)	42,478
(€)	UNRECOGNISED ACTUARIAL (GAINS)/ LOSSES	UNRECOGNISED PAST SERVICES	BALANCE SHEET PROVISION (ASSETS)/ LIABILITIES
Retirement benefits	(22,636)	(4,062)	3,027
Retirement package	(2,338)	(858)	593
Long-service bonuses and awards	-	-	3,339
Healthcare plans	(539)	(954)	4,132
TOTAL	(25,513)	(5,874)	11,091

ACTUARIAL VALUE | FAIR VALUE OF PLAN | FINANCIAL POSITION

The pension and related liabilities belance stood at €11.6 million at 31 December 2015. The excess payment of defined benefit supplementary pension plan contributions was reclassified under other non-current financial assets.

The pension and related liabilities balance stood at €11.6 million at 31 December 2015. This balance also includes a provision for restructuring amounting to €6.6 million.

<sup>(2)</sup> Reversal of the provision to clear the drainage channel at the Sandouville plant before its sale back to Port autonome du Havre (Le Havre Port Authority). (3) The provision for financial contingencies mainly relates to the potential loss on the Metal Securities bond portfolio secured by ERAMET.

<sup>(4)</sup> A provision of €2 million was set aside for expenses relating to the discontinuation of the pilot developed for the Maboumine project.

The reversals and reclassifications relate to the Bonus share award plans.

#### **Actuarial assumptions**

(€)	UNRECOGNISED ACTUARIAL (GAINS)/ LOSSES	UNRECOGNISED PAST SERVICES	BALANCE SHEET PROVISION (ASSETS)/ LIABILITIES
Discount rate			2.00%
Inflation rate			1.90%
Salary increase rate			3%
Return on plan financial assets			2.00%

#### Breakdown of pension fund investments

	INSURANCE	OTHER	
(€)	CONTRACT	INVESTMENTS	TOTAL
Amount	55,673	2,447	58,120
Percentage	95.8%	4.2%	100%

#### Change in pension liabilities

$(\in)$		FY 2015
At beginning of period		7,061
Expenses recognised		4,927
service cost	3,498	
amortisation of actuarial gains (losses) and past service cost	1,506	
interest expenses	1,681	
return on plan assets	(1,758)	
Contributions and benefits paid		(897)
At period end		11,091

#### 4.10 BREAKDOWN OF LIABILITIES AND MATURITY SCHEDULE

TOTAL	1,138,496	339,452	34,044	765,000
Unearned income	0	0		
Other miscellaneous liabilities (5)	53,366	53,366		
Liabilities on non-current assets and related payables	283	283		
Tax and payroll liabilities	17,632	17,632		
Trade payables (4)	63,315	63,315		
Miscellaneous long-term borrowings (3)	137,183	137,183		
Borrowings with credit institutions (2)	234,442	60,398	34,044	140,000
Other bond issues (1)	632,275	7,275		625,000
NET AMOUNT (€ THOUSAND)	31/12/2015	1 YEAR OR LESS	OVER 1 YEAR TO UNDER 5 YEARS	OVER 5 YEARS

<sup>(1)</sup> Other debt issues include the various bond issues by ERAMET S.A. in 2013 totalling €400 million and in the first half-year of 2014 amounting to €225 million.

<sup>(2)</sup> Bank borrowings include €2 million in commercial paper issues by ERAMET, assignment of trade receivables of €73 million, Borrowing Base amounting to €57 million, assignment of tax credit of €34 million, a Schuldschein loan of €60 million, and a loan of €80 million with the European Investment Bank.
(3) ERAMET is financed by Metal Securities, its 87.92%-owned subsidiary. The amount stood at €134 million at 31 December 2015 (compared to €94 million at 31 December 2015)

<sup>(3)</sup> EKAMET IS TINANCED by Metal Securities, its 87.92%-owned subsidiary. The amount stood at €134 million at 31 December 2015 (compared to €94 million at 31 December 2014).

<sup>(4)</sup> The Company's supplier payables outstanding from more than 60 days as of the invoice date amount to €368 thousand.

<sup>(5)</sup> In 2015, the tax-consolidated French subsidiaries paid corporate income-tax instalments to ERAMET S.A. exceeding the corporation tax payable by €23.5 million.

MISCELLANEOUS BORROWINGS		
NET AMOUNT (€ THOUSAND)	31/12/2015	31/12/2014
Current accounts with Metal Securities	134,252	94,299
Borrowing from Weda Bay Minerals, Inc.	1,795	1,929
Deposits received	460	460
Syndicated credit non-utilisation fee	676	0
TOTAL	137,183	96,688
4.11 BREAKDOWN OF LIABILITIES AND ACCRUED EXPENSES		
GROSS AMOUNT (€ THOUSAND)	31/12/2015	31/12/2014
Miscellaneous borrowings	137,183	96,688
Trade payables	63,315	95,800
Tax and payroll liabilities	17,632	17,219
Liabilities on non-current assets	283	1,664
Other miscellaneous liabilities	53,366	26,140
Unearned income	0	0
TOTAL	271,779	237,511
4.12 INFORMATION ON RELATED COMPANIES		
BALANCE SHEET		
	[ 31/12/2015 [	31/12/2014
(€ THOUSAND)	31/12/2015   1,638,589	
(€ THOUSAND)  Investments in associates		1,556,584
(€ THOUSAND)  Investments in associates  Financial receivables	1,638,589	1,556,584 1,569,873
(€ THOUSAND) Investments in associates Financial receivables Trade receivables	1,638,589 1,501,736	1,556,584 1,569,873 8,779
(€ THOUSAND)  Investments in associates  Financial receivables  Trade receivables  Miscellaneous receivables	1,638,589 1,501,736 19,774	1,556,584 1,569,873 8,779 496
(€ THOUSAND)  Investments in associates  Financial receivables  Trade receivables  Miscellaneous receivables  Miscellaneous financial borrowings	1,638,589 1,501,736 19,774 15,648	1,556,584 1,569,873 8,779 496 (96,228)
Investments in associates Financial receivables Trade receivables Miscellaneous receivables Miscellaneous financial borrowings Trade payables	1,638,589 1,501,736 19,774 15,648 (136,048)	1,556,584 1,569,873 8,779 496 (96,228) (74,089)
BALANCE SHEET  (€ THOUSAND)  Investments in associates Financial receivables Trade receivables Miscellaneous receivables Miscellaneous financial borrowings Trade payables Other liabilities  INCOME STATEMENT	1,638,589 1,501,736 19,774 15,648 (136,048) (38,555)	31/12/2014 1,556,584 1,569,873 8,779 496 (96,228) (74,089) (25,142)
Investments in associates Financial receivables Trade receivables Miscellaneous receivables Miscellaneous financial borrowings Trade payables Other liabilities  INCOME STATEMENT	1,638,589 1,501,736 19,774 15,648 (136,048) (38,555)	1,556,584 1,569,873 8,779 496 (96,228) (74,089)
Investments in associates Financial receivables Trade receivables Miscellaneous receivables Miscellaneous financial borrowings Trade payables Other liabilities  INCOME STATEMENT (€ THOUSAND)	1,638,589 1,501,736 19,774 15,648 (136,048) (38,555) (36,926)	1,556,584 1,569,873 8,779 496 (96,228) (74,089) (25,142)
Investments in associates Financial receivables Trade receivables Miscellaneous receivables Miscellaneous financial borrowings Trade payables Other liabilities  INCOME STATEMENT  (€ THOUSAND) Operating income	1,638,589 1,501,736 19,774 15,648 (136,048) (38,555) (36,926)	1,556,584 1,569,873 8,779 496 (96,228) (74,089) (25,142) 31/12/2014 71,477
Investments in associates Financial receivables Trade receivables Miscellaneous receivables Miscellaneous financial borrowings Trade payables Other liabilities	1,638,589 1,501,736 19,774 15,648 (136,048) (38,555) (36,926)	1,556,584 1,569,873 8,779 496 (96,228) (74,089) (25,142)

#### NOTE 5 NOTES TO THE INCOME STATEMENT

#### 5.1 SALES

Sales	626.232	36.085	590.147
Income from ancillary activities	72,987	27,164	45,822
Sales of goods and merchandise (1)	553,245	8,920	544,325
(€ THOUSAND)	TOTAL	FRANCE	INTERNATIONAL

<sup>(1)</sup> Sales include a foreign currency loss of €45.6 million resulting primarily from USD hedging.

#### 5.2 INCREASES AND REDUCTIONS IN FUTURE TAX LIABILITIES

Increase in future taxation	<b>(462,424)</b> 34%	<b>(327,426)</b> 34%
Reductions in taxable base	(1,343,084)	(950,991)
Tax loss carry-forwards	(344,371)	(230,328)
Unrealised financial income		
Translation adjustment gains at close		
Accrued expenses	(224)	(270)
Provisions not deductible during the financial period	(1,030,207)	(768,548)
Reductions in taxable base		
Deferred expenses		
Translation adjustment losses at close		
Regulated provisions	31,718	48,155
Increases in taxable base		
(€ THOUSAND)	31/12/2015	31/12/2014

TOTAL	(330,856)	(659)	(331,516)
Impact of tax consolidation and research tax credit		(659)	(659)
Employee profit-sharing and incentives	0		0
Extraordinary items	(13,164)		(13,164)
Current profit (loss)	(317,692)		(317,692)
(€ THOUSAND)	GROSS AMOUNT	TAX OWED	PROFIT (LOSS) FOR THE PERIOD

#### Corporation tax

The tax consolidation agreement signed by ERAMET and its subsidiaries complies with the principle of neutrality and places the subsidiaries in the situation in which they would have been in the absence of such consolidation. Each subsidiary calculates its tax as if it did not form part of a consolidated tax group and pays its corporation tax contribution to ERAMET as Group parent company. The subsidiaries retain

their losses to determine the amount of the corporation tax contribution they should pay ERAMET.

As a result of tax consolidation, the corporation tax line item breaks down as follows: An income tax revenue of  $\[ \in \]$ 9 million for the tax consolidation group (of which  $\[ \in \]$ 7.7 million in tax credits for 2015,  $\[ \in \]$ 1.3 million in adjustments to the 2011 and 2014 Group tax credits),  $\[ \in \]$ 2.1 million in income from tax consolidation

(of which €1.4 million in 2015 corporation tax for consolidated subsidiaries, €0.7 million in 2013 corporation tax for the subsidiaries following tax audit and -€4.2 million in 2011, 2012 and 2013 corporation tax refund for subsidiaries) and -€7.6 million in tax consolidation expenses [including tax credits passed back to the subsidiaries: -€0.9 million in adjustments for 2014 and -€6.7 million in research tax credit for 2015].

#### **5.3 TAX CONSOLIDATION**

All French subsidiaries in which ERAMET holds at least a 95% interest are consolidated for tax purposes, ERAMET being the Group parent.

The tax consolidation scope in France comprises the following companies:

TAX-CONSOLIDATED COMPANIES	31/12/2015	31/12/2014	31/12/2013	31/12/2012
Consolidated companies				
ERAMET	X	X	X	X
Metal Securities	X	X	X	X
ERAMET Holding Nickel (EHN)	X	X	x	X
Eramine	X	X	x	X
Eurotungstène Poudres	X	X	X	X
ERAMET Holding Manganèse (EHM)	X	X	x	X
ERAMET Holding Alliages (formerly SIMA)	X	X	x	X
ERAMET Alliages	X	X	X	X
Aubert & Duval (AD)	X	X	x	X
Airforge			X	X
Erasteel	X	X	X	X
Erasteel Champagnole	X	X	x	X
Valdi	X	X	X	X
Non-consolidated companies				
ERAMET International	X	X	X	Х
ERAMET Ingénierie (formerly TEC)	X	X	X	Х
ERAMET Research (formerly CRT)	X	X	X	X
Forges de Montplaisir	X	X	X	Х
Supa	X	X	X	Х
Metal Currencies	X	X	X	Х
Brown Europe	X	X	X	Х
ERAMET Services	X	X	x	x
AD TAF	X	X	X	X
Campus Alliages	X	X	X	

Eligible Group losses from tax consolidation at 31 December 2015 amounted to €344.37 million.

Net financial income	(265,623)	12,271
Financial expenses	(384,353)	(116,348)
Foreign currency gains (3)	(74,195)	(10,254)
Interest and similar expenses (5)	(46,661)	(36,512)
Depreciation and amortisation expense and addition to provisions (4)	(263,496)	(69,582)
Financial income	118,729	128,619
Net gains on disposal of marketable securities	247	105
Foreign currency gains (3)	68,586	18,502
Reversals of provisions (2)	360	36,329
Other dividends and interest	3,659	879
Interest from associates (1)	45,840	32,225
Dividends from associates	37	40,579
(€THOUSAND)	31/12/2015	31/12/2014

- (1) Interest income on Group current-account loans (€45.84 million).
- (2) Reversal of pension hedging assets.
- (3) Net exchange loss of -€5.6 million resulting mainly from the remeasurement of the Group's loans and borrowings in foreign currencies.
- (4) Provisions for pensions and retirement schemes (€1.3 million), provisions for write-down of subsidiaries' shares (€87.3 million) and treasury stock owned (€4.9 million), provision for the impairment of receivables from equity interests (€170 million).
- (5) Interest expenses on debt (syndicated credit facility, Metal Securities, bond issue, Schuldschein).

#### **5.5 EXTRAORDINARY ITEMS**

Extraordinary items	(13,164)	(23,744)
Extraordinary expenses	(45,241)	(91,797)
Extraordinary depreciation and amortisation expense and addition to provisions (5)	(29,629)	(10,467)
Expenses on share capital transactions (4)	(12,405)	(58,923)
Hedging losses (3)	(3,207)	(22,408)
Non-recurring income	32,077	68,053
Reversal of provisions and expense transfer (2)	30,829	31,990
Gains on share capital transactions (1)	1,248	36,032
Hedging gains	0	30
(€THOUSAND)	31/12/2015	31/12/2014

- (1) Income from disposals of long-term computer assets.
- (2) Reversal of provisions for price hikes in 2009 amounting to €16.3 million, reversal of provisions for the bonus share award plan totalling €13.7 million, and reversal of provisions for the initial plan to the extent of the expenses incurred.
- (3) Extraordinary expense of costs of the 2015 initial plan amounting to -€2.6 million recognised.
  (4) Net book value of capitalised asset disposals and impact of the disposal of free shares under the plan vested in 2015.
- (5) Additions to regulated provisions totalling -€0.6 million, depreciation and amortisation for the Maboumine pilot totalling -€1.2 million, additions to provisions for restructuring amounting to -€2.3 million, additions to provisions for the discontinuation of the Maboumine project pilot for -€2 million, additions to provisions for impairment losses on hydrometallurgical technology assets under construction -€18.6 million and additions to provisions for sundry receivables totalling -€4.9 million for the Lithium exploration and operation project.

#### **5.6 HEADCOUNT**

	FY 2015	FY 2014
Management	177	185
Supervisory staff	171	176
Workers	41	40
Workforce at period-end	389	401
Average No. of employees	388	418

#### NOTE 6 OFF-BALANCE SHEET COMMITMENTS

(€ THOUSAND)	31/12/2015	31/12/2014
Commitments given		
Endorsements, guarantees and deposits	100,681	121,936
Collateral security	_	-
Forward/future sales in USD	_	-
Commitments received		
Endorsements, guarantees and deposits	_	-
Collateral security	_	-
Credit facilities	1,038,000	1,061,000
Reciprocal commitments		
Currency hedge via Metal Currencies	52,747	105,428

The above table does not include current business orders or liabilities stemming from orders for non-current assets under capital expenditure programmes.

#### **NOTE 7 RISK MANAGEMENT**

#### 7.1 FOREIGN EXCHANGE RISK

ERAMET has two levels of exposure to currency risk:

– All Nickel earnings are invoiced in currency (for the most part in US dollars), whereas its costs are mainly denominated in euros (Sandouville plant expenses and purchases of nickel and matte from SLN). Accordingly, hedging transactions are performed on the basis of multi-year budgets and forecasts, within a maximum 36-month horizon.

Under the technical support arrangements between ERAMET and its subsidiary SLN, all commercial hedging is performed on behalf of SLN and billed back directly to SLN under the marketing agreement.

 For all other currency transactions, particularly long-term loans to Group companies, ERAMET may be required to set up currency hedges according to the loan repayment schedules. At 31 December 2015, there was no currency hedging on long-term loans.

#### 7.2 COMMODITY RISK

ERAMET is exposed to commodity price volatility, impacting its sales. ERAMET hedges part of its nickel sales on the basis of one- or two-year budget forecasts. The hedges in question are contracted on behalf of SLN, which produces ferronickel and matte. Under the technical support agreement, the profit or loss on these hedges is passed on in the monthly invoicing to SLN. At 31 December 2015, 443 tonnes were hedged for a fair value of (€1,566) thousand (for the record, in 2014: 151 tonnes for a fair value of (\$249 thousand). ERAMET mainly uses forward purchases and sales, combined call and put options, and call options.

# 7.3 CREDIT OR COUNTERPARTY RISKS

ERAMET's counterparty risks mainly relate to its commercial transactions and, by extension, to trade receivables. ERAMET may thus be exposed to credit risk in the event of default by a counterparty. ERAMET has various means at its disposal to limit this risk, for which the maximum exposure is equal to the net amount of receivables recognised in the

balance sheet—gathering information ahead of financial transactions (from rating agencies, published financial statements, etc.), credit insurance and the arrangement of letters of credit and documentary credits to hedge certain specific inherent risks, such as the geographic location of its customers. In any event, ERAMET's customer base is primarily composed of leading international metallurgy groups for which insolvency risks are limited.

#### 7.4 INTEREST RATE RISK

At 31 December 2015, ERAMET had no interest rate hedges in place on its debt. Its surpluses invested with Metal Securities are remunerated at (floating) market rates.

#### 7.5 LIQUIDITY RISK

ERAMET's financial situation renders it relatively immune to liquidity risk. In fact, ERAMET S.A.'s net cash position at 31 December 2015 stood at €537.54 million (as opposed to net cash of €646.01 million at 31 December 2014). All of its debt is towards Metal Securities, the Group's special-purpose company in charge of pooling and managing Group surpluses.

Furthermore, the Company may if necessary resort to the following two additional sources of financing:

#### Revolving credit facilities

- In 2012, ERAMET signed the extension of its credit facility as provided for in the multicurrency revolving facility agreement up to 2017, for €800 million. In early 2013, ERAMET signed an amendment to this agreement raising its amount from €800 million to €981 million, and extending it by another year, from January 2017 to January 2018. The credit line intended to finance the operations and investments in assets was entered into on terms congruent with market conditions at the time of its signature. This facility is governed by a single covenant.

 In 2015, ERAMET had drawn down €80 million on the credit facility with the European Investment Bank.

#### Commercial paper

- In 2005, ERAMET set up a €400 million commercial paper programme, of which

€2 million had been raised at 31 December 2015 (€81 million was raised in 2014).

#### NOTE 8 CONSOLIDATION OF THE SEPARATE FINANCIAL STATEMENTS

The Company is consolidated within the ERAMET group, of which it is the parent company.

#### NOTE 9 COMPENSATION OF MANAGEMENT AND SUPERVISORY BODIES

TOTAL	4,463	6,397
Post-employment benefits	82	642
Other benefits		
Directors' fees	700	600
Variable compensation	954	2,262
Fixed compensation	2,727	2,893
Short-term benefits		
(€ THOUSAND)	FY 2015	FY 2014

The ten highest paid individuals received a total of €5.9 million in 2015.

#### **NOTE 10 BONUS SHARE AWARD PLAN**

Shares were allocated under two new bonus share plans on 19 February 2015 to all the employees of the ERAMET group:

- one plan for all employees for an initial total of 27,268 shares;
- one plan open to certain employees and corporate officers, where:
- one part of the shares is subject to two performance conditions—an internal condition and an external condition—for an initial total of 95,204 shares, and
- one part of the shares is not subject to performance criteria, for an initial total of 37,624 shares.

The change in the number of bonus share awards was as follows in the 2014 and 2015 reporting periods:

(NUMBER OF BONUS SHARES)	31/12/2015	31/12/2014
At beginning of period	409,940	361,005
New plans 2015/2014	160,096	170,212
Fully vested	(45,393)	(37,459)
Lapsed shares	(5,544)	(10,072)
Expired shares	(77,908)	(73,746)
At period end	441,191	409,940
Distribution by year of vesting		
2015	-	73,326
2016	109,683	248,435
2017	141,650	74,621
2018	145,974	13,558
2019	43,884	-

# NOTE 11 OTHER DISCLOSURES

Carlo Tassara France (or CTF, a part of the Romain Zaleski group) is an ERAMET shareholder owning 3,394,146 shares (namely 12.87% of the capital at 31 December 2009), according to an estimate based on the most recent threshold crossing declaration by this company (No. 207C0134 of 17 January 2007).

Since 17 December 2009, CTF has questioned the terms of the SIMA share contribution to ERAMET in 1999.

CTF is seeking the cancellation of the resolutions of the ERAMET General Shareholders' Meeting on 21 July 1999 approving the contribution of SIMA's shares to ERAMET, the cancellation of the ERAMET shares issued in consideration for said contribution and the reduction of ERAMET's share capital by the amount of the cancelled shares, the return by the holders of those shares of the dividends earned since 1999 and estimated by CTF at €201 million, and the return by ERAMET to said contributors of the SIMA shares and of the dividends received from SIMA since 1999.

Though the summons is not directed against ERAMET or against its past or current corporate bodies, it is however likely that, were it to prevail, it would have serious implications for ERAMET as, in particular, it would lead to a significant reduction in its share capital and the exit of SIMA (and hence of Aubert & Duval) from the Group's scope of consolidation.

CTF's claims were ruled inadmissible in several rulings in the period from 2010 to 2015, owing to the statutes of limitation.

In the most recent ruling on 29 September 2015, the appellate court dismissed CTF's application for review.

# NOTE 12 EVENTS AFTER THE REPORTING DATE

In early January 2016, ERAMET S.A. had fully drawn down its multicurrency revolving credit facility for €980 million.

To the best of the Company's knowledge, no other events have occurred since the reporting date.

#### NOTE 13 TABLE OF SUBSIDIARIES AND EQUITY INVESTMENTS

At 31 December 2015

At 31 December 2013	ſ	1	1	ı	ſ	ſ	1	ENI	ſ	ı	PROFIT
(THOUSAND EUROS OR FOREIGN CURRENCY		SHARE CAPITAL	OWN FUNDS OTHER THAN CAPITAL	SHARE OF CAP- ITAL HELD	GROSS CARRYING AMOUNT OF SHARES HELD	NET CARRYING AMOUNT OF SHARES HELD	LOANS AND ADVANCES GRANTED AND NOT REPAID	EN- DORSE- MENTS AND GUAR- ANTEES GIVEN	DIVI- DENDS RE- CEIVED IN THE PERIOD	TOTAL SALES OF PAST FINAN- CIAL YEAR	(LOSS) IN LAST FINAN- CIAL YEAR CLOSING
UNITS EXCEPT XAF IN MILLIONS)		CUR- RENCY	CURREN- CY	%	EUR	EUR	EUR	EUR	EUR	CUR- RENCY	CUR- RENCY
I. Detailed information on each stock (gross amount exceeding 1% of the Company's share capital)											
Subsidiaries (at least 50% of share capital owned)		A	***************************************				A			J	
Eras	EUR	2,000	0	100.00	1,986	1,986				0	0
ERAMET Ingénierie	EUR	525	2,796	100.00	838	838				8,964	280
ERAMET Research	EUR	1,410	28,607	100.00	1,161	1,161				26,616	1,564
ERAMET International	EUR	160	2,346	100.00	892	892				8,150	87
ERAMET Holding Nickel	EUR	227,104	16,946	100.00	229,652	229,652				0	(7,199)
Weda Bay Mineral Inc.	USD	35,505	682	100.00	3,616	0				0	0
Weda Bay Mineral Singapore Ltd	USD	347,743	(347,795)	19.75	52,570	0				0	(8)
ERAMET Holding Manganese	EUR	310,156	121,521	100.00	310,156	310,156				0	(66,236)
Eralloys Holding	NOK	12,800	1,412,926	100.00	419,445	155,346				487	(80,049)
ERAMET Holding Alliages (formerly SIMA)	EUR	148,000	23,643	100.00	329,584	305,100				4,746	2,584
Erasteel	EUR	75,661	8,704	100.00	223,169	40,339	80,000			146,555	(18,522)
					1,573,069	1,045,471					
Investments in companies (between 10% and 50% owned)											
COMILOG	XAF	40,812	240,213	23.22	53,407	53,407				308,183	(42,803)
					53,407	53,407					
II. General information on other stock (gross amount not exceeding 1% of the Company's share capital)											
French subsidiaries	EUR				11,657	1,657	468,112				
	EUR										
Foreign subsidiaries						7	7	T.	7		1
Foreign subsidiaries Investments in associates	EUR				456	456		17,356	37		

	SIREN BUSINESS IDENTIFIER	ADDRESS OF REGISTERED OFFICE
Detailed information on each stock (gross amount exceeding 1% of the Company's share capital)		
Subsidiaries (at least 50% of share capital owned)		
Eras	N/A	6B, route de Trèves L—2633 Senningerberg R. C. Luxembourg B 35.721
ERAMET Ingénierie	301 570 214	1, avenue Albert Einstein 78190 Trappes, France
ERAMET Research	301 608 634	1, avenue Albert Einstein BP 120 78193 Trappes, France
ERAMET International	398 932 939	Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France
ERAMET Holding Nickel	335 120 515	Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France
Weda Bay Mineral Inc.	N/A	14th Floor, 220 Bay Street Toronto Ontario, M5J2W4 Canada
Weda Bay Mineral Singapore Ltd	N/A	8 Marina Boulevard #05-02—Marina Bay Financial Centre— Singapore 018981
ERAMET Holding Manganese	414 947 275	Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France
Eralloys Holding	N/A	Eralloys Holding AS Strandv 50 1366 Lysaker Norway
ERAMET Holding Alliages (formerly SIMA)	562 013 995	Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France
Erasteel	352 849 137	Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France
Investments in companies (between 10% and 50% owned)		
COMILOG	N/A	Compagnie Minière de l'Ogooué Z.I. de Moanda BP 27-28 Gabon

#### 6.2.5 STATUTORY AUDITORS' REPORT ON THE ANNUAL FINANCIAL STATEMENTS

#### YEAR ENDED 31 DECEMBER 2015

Dear Shareholders,

In compliance with the assignment entrusted to us by your General Meeting of Shareholders, we hereby report to you, for the year ended 31 December 2015, on:

- the audit of the accompanying annual financial statements of ERAMET S.A.;
- the justification of our assessments; and
- the specific verifications and disclosures required by law.

The annual financial statements were approved by the Board of Directors. Our responsibility is to express an opinion on these financial statements based on our audit.

### I. OPINION ON THE ANNUAL FINANCIAL STATEMENTS

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance that the annual financial statements are free of material misstatement. An audit consists of examining, by sampling or using other selection methods, the evidence supporting the amounts and disclosures given in these annual financial statements. It also involves an assessment of the accounting principles and significant estimates used and an evaluation of the overall presentation of the financial statements. We believe that our audit provides

a sufficient and reasonable basis for our opinion.

In our opinion, the annual financial statements are appropriate, accurate and give a true and fair view of the income from the Company's operations in the period elapsed as well as its financial position and net assets at the end of this period in accordance with French accounting principles and standards.

Without qualifying our opinion expressed above, we draw your attention to the section on the "Arrangement of a loan to SLN" in Note 2— Key events in the reporting period in the notes to the financial statements, regarding the risks inherent to the continuity of operations of the subsidiary Le Nickel-SLN and the financing of those operations.

#### II. JUSTIFICATION OF ASSESSMENTS

Pursuant to Article L. 823-9 of the Commercial Code governing the justification of our assessments, we draw your attention to the following matters:

#### **Business continuity of Le Nickel-SLN**

As described in the first part of this report, Note 2—Key events in the reporting period in the notes to the annual financial statements details the measures implemented to ensure the continuity and financing of Le Nickel-SLN operations. We studied the planned measures and reviewed the Company's liquidity position. We also took note of the assumptions used so

as to assess the continuity of Le Nickel-SLN's operations.

On the basis of our audit and the information given to us to date, and following our assessments of the accounting principles followed by your Company, we believe that the notes to the financial statements adequately disclose the financial position of the Company.

#### Investments in subsidiaries

Investments in subsidiaries are measured at their acquisition cost and impaired on the basis of their value in use using the methods and procedures set out in Note 3.2. Our work consisted in appraising the data that provides the basis for these values in use, in particular the likely returns estimated by the operational divisions of the Company, and in re-examining the calculations made by the Company. During our audit, we satisfied ourselves as to the reasonable nature of those estimates.

The assessments we made are part of our audit of the annual financial statements as a whole and have therefore contributed to our opinion expressed in the first part of this report.

## III. SPECIFIC VERIFICATIONS AND DISCLOSURES

In accordance with professional standards of practice applicable in France, we also performed the specific verifications required by law.

We have no qualification to make regarding the accuracy or consistency with the annual finan-

cial statements of the disclosures made in the Board of Directors' management report or in the documents addressed to the shareholders with regard to the financial position and annual financial statements.

Regarding the disclosures made in accordance with Article L. 225-102-1 of the Commercial Code on the compensation and benefits paid

to the corporate officers and the commitments granted in their favour, we verified their consistency with the financial statements or with the data used for preparing these financial statements and, where appropriate, with the information gathered by your Company from the companies controlling your Company or controlled by it. On the basis of our audit, we

certify that this information is accurate and fairly presented.

In accordance with the law, we obtained reasonable assurance that the management report contains the appropriate disclosures as to the identity of the owners of the capital or voting rights.

Paris-La Défense, 18 February 2016

KPMG Audit

Division of KPMG S.A.

Denis Marangé

Partner

Ernst & Young Audit

Jean-Roch Varon Partner

# 6.2.6 REPORT OF THE STATUTORY AUDITORS ON REGULATED AGREEMENTS AND COMMITMENTS

#### YEAR ENDED 31 DECEMBER 2015

This is a free translation into English of the "Report of the Statutory Auditors on regulated agreements and commitments" issued in French and provided solely for the convenience of English speaking users. This report includes information specifically required by French law in such reports, and should be read in conjunction and construed in accordance with French law and professional standards applicable in France.

To the Shareholders.

In our capacity as Statutory Auditors of your Company, we hereby report to you on regulated agreements and commitments.

The terms of our engagement require us to communicate to you, based on information provided to us, the principal terms, conditions and the reasons for the Company's interest of those agreements and commitments brought to our attention or which we may have discovered during the course of our audit, without expressing an opinion on their usefulness and appropriateness or identifying such other commitments and agreements, if any. It is your responsibility, pursuant to Article R. 225-31 of the French Commercial Code (Code de commerce), to assess the interest involved in respect of the conclusion of these agreements and commitments for the purpose of approving them.

Our role is also to provide you with the information stipulated in Article R. 225-31 of the French Commercial Code (*Code de commerce*) relating to the implementation during the past year of agreements and commitments previously approved by the Shareholders' Meeting, if any.

We conducted the procedures we deemed necessary in accordance with the professional guidelines of the French National Institute of Statutory Auditors (Compagnie nationale des commissaires aux comptes) relating to this engagement.

These procedures consisted in agreeing the information provided to us with the relevant source documents.

#### AGREEMENTS AND COMMITMENTS SUBMITTED TO THE APPROVAL OF THE SHAREHOLDERS' MEETING

#### Agreements and commitments authorized during the year

Pursuant to Article L. 225-40 of the French Commercial Code (Code de commerce), we have been advised of the agreement described below which was subject to prior authorization by the Board of Directors.

With	Société Le Nickel-SLN.
Nature and purpose	Intercompany loan of an initial amount of €120 million and increased to €150 million.
Persons concerned	Persons holding a directorship or a General Management position in both companies: Messrs. Patrick Buffet, Édouard
	Duval.
	With effect from 23 December 2015.
Terms and conditions	Maturity: 31 May 2016.
	Interest charges for the fiscal year 2015 amounted to €55,479.
	The Board notes that the conclusion and implementation of the above-mentioned transactions are compliant with the
hand Canadaa	corporate interests of ERAMET: since these transactions allow the Société Le Nickel-SLN to cope with the sharp deterio-
Justification	ration of cash and, with the increased finding requirements for operational activity, they correspond to common economic
	interests of the both entities.

#### AGREEMENTS AND COMMITMENTS PREVIOUSLY APPROVED BY THE SHAREHOLDERS' MEETING

#### Agreements and commitments approved in prior years

#### a) which remained in force during the year

Pursuant to Article R. 225-30 of the French Commercial Code (Code de commerce), we have been informed that the following agreements and commitments, previously approved by the Shareholders' Meetings of prior years, have remained in force during the year.

#### With Le Nickel-SLN

#### 1/ Technical assistance contract

Nature and purpose	Pursuant to the technical assistance contract signed in 1999, ERAMET provides strategic, industrial, financial, tax and human resource management assistance to Le Nickel-SLN.
	This agreement was amended with retroactive effect from 1 January 2010.
Persons concerned	Persons holding a directorship or a General Management position in both companies: Messrs. Patrick Buffet, Édouard Duval
reisons concerned	and Bertrand Madelin.
	These services are remunerated based on actual costs incurred by ERAMET to perform such services, plus an 8% margin.
Terms and conditions	In 2015, the amount invoiced totaled €7,896,322 compared to €8,120,450 in 2014.

#### 2/ Marketing agreement

Nature and purpose	The marketing agreement entered into between ERAMET and Le Nickel-SLN in 1985 pursuant to which ERAMET ensures the marketing of Le Nickel-SLN products (excluding ore) was also amended with retroactive effect from 1 January 2010.
Persons concerned	Persons holding a directorship or a General Management position in both companies: Messrs. Patrick Buffet, Édouard Duval and Bertrand Madelin.
	Pursuant to this agreement, ERAMET purchased nickel and ferronickel matte from Le Nickel-SLN at a selling price that allowed ERAMET to make a 3% margin, plus a premium the calculation methods and trigger price of which have been redefined.
Terms and conditions	The total amount invoiced by Le Nickel-SLN to ERAMET was €472,730,620 in 2015 compared to €674,072,507 in 2014.  Under this same agreement, ERAMET invoiced to Le Nickel-SLN a contribution to other costs instead of a flat rate fee, intended to cover standard nickel matte transformation costs incurred by ERAMET prior to the marketing of the finished products. The total amount invoiced to Le Nickel-SLN was €17,965,798 in 2015, compared to €22,330,281 in 2014.

#### With Messrs. Patrick Buffet, Georges Duval, Bertrand Madelin and Philippe Vecten

#### Membership of the ERAMET corporate officers in an ERAMET group complementary health, disability and death benefit plan

	The Board of Directors Meeting of 17 February 2010 and Shareholders' Meeting authorized and approved Messrs. Pat-
Nature and purpose	rick Buffet, Georges Duval, Bertrand Madelin and Philippe Vecten, corporate officers, to join the Group's complementary
	health, disability and death plan.
	According to the law, we inform you that the Board did not conduct the annual review of the agreements and commit-
Terms and conditions	ments entered into and authorized over the prior years which was continued during the last year required by Article
	L. 225-40-1 of the French Commercial Code.

#### b) which have not been enforced during the year

Moreover, we have been informed that the following agreements and commitments, previously approved by Shareholders' Meetings of prior years, have not been enforced during the year.

#### With Messrs. Patrick Buffet, Georges Duval, Bertrand Madelin and Philippe Vecten, corporate officers

#### Defined benefits retirement plan

Nature and purpose	Defined benefit retirement plan. This plan is applicable to all ERAMET group corporate officers.
Terms and conditions /	This plan has been authorized by the Board of Directors on 30 July 2008 and approved by the Shareholders' Meeting on 13 May 2009 (third resolution), on proposal of the Remuneration Committee, to reflect regulatory changes to pension
justification	plans with defined benefits, called "Article 39".

#### With Mr. Patrick Buffet, CEO

#### Termination benefits

Pursuant to Article L. 225-42-1 of the French Commercial Code, the termination benefits were authorized by the Board of Directors on 20 February 2008 and approved by the Shareholders' Meeting on 16 April 2008 (4th resolution), then following the renewal of the term of office of the Chairman and CEO, they were authorized by the Board of Directors on 27 July 2011 and approved by the Shareholders' Meeting on 15 May 2012 (4th resolution). Following the reappointment of the CEO decided by the Governing Council of 29 May 2015, and on recommendation of the Remuneration Committee, the Board of Directors on 29 May 2015 decided, unanimously, the CEO abstaining, to keep all the elements of his remuneration and all the provisions of its corporate officer contract of 20 February 2008 (taking into account all changes since decided by the Board of Directors of the Company on the proposal of the Remuneration Committee). However, two changes were made to the benefit of end of term of the CEO due in case of departure of CEO (following dismissal or resignation caused, non-reappointment or changing conditions consideration of which he joined the ERAMET group):

- The amount of compensation that may be payable is equal to two times—instead of three as before—the last gross annual fixed remuneration to which will be added an amount equal to twice—instead of three the average received gross variable annual remuneration over the last three full financial years preceding the departure.

- The benefit of severance pay provided for his corporate officer contract is subject to performance conditions to respect: the sum of gross variable compensation (themselves subject to specific performance conditions) received during the last three years full mandate must be greater or equal to 35% of the sum of gross fixed annual remuneration received during the same years—instead of 20% as before. This device thus excludes the payment of such compensation in the event of failure situation.

Pursuant to Article L. 225-42-1 of the French Commercial Code, this modified device will be a resolution presented to shareholders at the Annual General Meeting of 29 May 2016.

#### Agreements and commitments approved during the year

We have also been informed of the execution, during the past year of agreements and commitments already approved by the General Meeting of 29 May 2015 on the report of the Auditors of 20 February 2015.

#### Amendment to the marketing agreement between ERAMET and Société Le Nickel-SLN with effect from 1 January 2015

	The amendment to the marketing agreement between ERAMET and Société Le Nickel-SLN in 1985 covers the terms under
Nature and purpose	which ERAMET provides support to the marketing of minerals with low or intermediate grade or laundry-products produced
	by the Société Le Nickel-SLN with effect from 1 January 2015.
	Pursuant to this amendment, ERAMET realizes marketing of minerals with low or intermediate grade or laundry-products
Terms and conditions	as an agent of Société Le Nickel-SLN at a rate of 1.5% commission of the turnover sold ores.
	The amount charged as such amounted to €374,204 in 2015.
	This amendment allows the Société Le Nickel-SLN to use the expertise of the sales teams and the international ERAMET
Justification	network to optimize and better promote sales of ores and thus derive additional financial profit after deduction of the
	commission of ERAMET paid agent of 1.5% in line with market practices for this type of service.

Paris-La Défense, 22 February 2016 The Statutory Auditors French original signed by:

KPMG Audit
Division of KPMG S.A.
Denis Marangé
Partner

Ernst & Young Audit

Jean Roch Varon Partner

#### 6.2.7 SEPARATE FINANCIAL RESULTS OVER THE PAST FIVE FINANCIAL YEARS

	2011	2012	2013	2014	2015
Share capital at financial year-end					
a) Share capital $(\in)$	80,883,304	80,956,815	80,956,815	80,956,815	80,956,815
b) Number of shares issued	26,519,116	26,543,218	26,543,218	26,543,218	26,543,218
Transactions and profit (loss) for the financial year ( $\in$ thousand)					
a) Sales excl. tax	1,043,590	880,306	707,732	779,892	626,232
b) Profit (loss) before tax, employee profit-sharing, depreciation, amortisation and provisions	608,704	278,523	243,083	(40,061)	(43,866)
c) Income tax	(9,641)	(27,790)	(9,594)	(2,897)	659
d) Employee profit-sharing	0	0	0	0	0
e) Profit (loss) after tax, employee profit-sharing, depreciation, amortisation and provisions	340,942	321,062	(133,006)	(70,550)	(331,516)
f) Proposed dividend amount	59,668	34,506	0	0	0
Earnings per share $(\in)$					
a) Profit (loss) after tax, employee profit-sharing, but before depreciation, amortisation and provisions	23.32	11.54	9.52	-1.40	-1.68
b) Profit (loss) after tax, employee profit-sharing, depreciation, amortisation and provisions	12.86	12.10	(5.01)	(2.66)	(12.49)
c) Proposed dividend per share	2.25	1.30	0	0	0
Personnel					
a) Average number of employees	402	432	439	418	388
b) Total wage bill (€ thousand)	32,573	33,259	34,373	33,141	32,600
c) Amount paid out in employee benefits ( $\in$ thousand)	50,189	27,845	23,716	25,177	11,054

#### SUPPLIER PAYMENT TIMES

The Company's Supplier payables outstanding from more than 60 days as of the invoice date amount to €368 thousand.

#### ADD-BACK OF OVERHEADS AND LUXURY EXPENSES

Not applicable.

# 6.3 CONSOLIDATED

FINANCIAL STATEMENTS FOR 2014 AND 2013

Pursuant to Article 28 of EC Regulation No. 809/2004 of the Commission, the following information is included by reference in this Registration Document:

a) the 2014 consolidated financial statements, the related audit report and the overview of the items included respectively in Sections 6.1, 6.1.3 and 2 of the 2014 Registration Document filed with the AMF on 25 March 2015:

b)the 2013 consolidated financial statements, the related audit report and the overview of the items included respectively in Sections 6.1, 6.1.3 and 2 of the 2013 Registration Document filed with the AMF on 26 March 2014.

The sections of the 2014 and 2013 Registration Documents not included are therefore either of no relevance to investors or covered elsewhere in this Registration Document.

The two Registration Documents mentioned above can be found on the Company's website (www.eramet.com) and on that of AMF (www.amf-france.org).

# 6.4 **DIVIDEND**

# 6.4.1 DIVIDEND PAYOUT ARRANGEMENTS

Dividends are paid annually at the times and in the places specified by the General Share-holders' Meeting, or failing that by the Board of Directors, within nine months of the end of the financial year. Dividends paid under normal conditions cannot be repeated.

Interim dividend payments may be made prior to the date of the Meeting setting the amount thereof, at the initiative of the Board of Directors pursuant to the provisions of sub-paragraph 2 of Article L. 232-12 of the French Commercial Code

Shareholders may be given the option of payment wholly or partly in new Company shares, pursuant to the provisions of paragraph 1 of Article L. 232-18 of the French Commercial Code.

In accordance with applicable provisions in France, unclaimed dividends lapse five years from the date of payment. Unclaimed amounts are paid over to the French State in keeping with the applicable provisions.

# 6.4.2 ALLOCATION AND DISTRIBUTION OF EARNINGS (ARTICLE 24 OF THE ARTICLES OF ASSOCIATION)

"5% of earnings, as defined by law, less any past losses, where applicable, are withheld to make up the legal reserve, until such time as the reserve is equal to 10% of the share capital.

Distributable earnings consist of earnings for the financial year, less any past losses and the abovementioned withheld amount, plus any retained earnings. Out of the distributable earnings, the Ordinary General Shareholders' Meeting may deduct any sum it deems appropriate, either to be carried forward to the following financial year or to be added to one or more special or general reserves, of which it determines the allocation or use.

Any surplus is divided equally between all shares.

The General Shareholders' Meeting may grant each shareholder, for all or part of the dividend being distributed, the option to be paid in shares in the legally established manner, or in cash."

# 6.4.3 BREAKDOWN OF 2015 EARNINGS ALLOCATION

The proposed allocation of the 2015 earnings can be found in Resolution 2 of the upcoming General Shareholders' Meeting, in Chapter 8 of this document.

#### **6.4.4 DIVIDEND POLICY**

#### **PAYMENT ARRANGEMENTS**

As the Company does not usually make interim payments, dividends are paid annually after the General Shareholders' Meeting called to approve the management activities and financial statements for the past financial year. Mixed payments, in cash and shares, may sometimes be offered at the shareholder's option.

#### **AMOUNT OF DIVIDEND**

The Company endeavours to pay a regular and substantial dividend. No proposal for dividend payout has been made to the General Meeting of May 2016.

#### Dividends paid out over the last three years

	2015	2014	2013	2012
Number of shares receiving dividends	26,543,218	26,543,218	26,543,218	26,543,218
Consolidated net profit, Group share	-€714 million	-€159 million	-€370 million	€8 million
Dividends per share	€0	€0	€0	€1.30
TOTAL PAYOUT	€0 million	€0 million	€0 million	€34.5 million

# **6.5 FEES** PAID TO THE STATUTORY AUDITORS

Full details of the fees paid for the past two years to the various audit firms, with the breakdown by type of service, can be found in Note 15 to the consolidated financial statements.



# Chapter 7

# CORPORATE AND SHARE CAPITAL INFORMATION

#### 280 7.1 MARKET IN THE COMPANY'S SHARES

- 280 7.1.1 MARKET ON WHICH SHARES ARE LISTED
- 280 7.1.2 SHARE PRICE PERFORMANCE
- 282 7.1.3 SECURITIES SERVICES

#### 282 7.2 SHARE CAPITAL

- 282 7.2.1 SUBSCRIBED CAPITAL
- 282 7.2.2 SECURITIES NOT REPRESENTING SHARE CAPITAL
- 282 7.2.3 CHANGES IN SHARE CAPITAL AND BREAKDOWN OVER THE PAST THREE YEARS
- 283 724 SHARE OWNERSHIE
- 286 7.2.5 STOCK OPTION PLAN AND BONUS SHARES
- 287 7.2.6 SUMMARY TABLE OF FINANCIAL AUTHORISATIONS
- 288 7.2.7 DESCRIPTION OF THE SHARE BUYBACK PROGRAMME

#### 290 7.3 COMPANY INFORMATION

- 290 7.3.1 COMPANY NAME (ARTICLE 2 OF THE ARTICLES OF ASSOCIATION)
- 290 7.3.2 COMPANY REGISTRATION NUMBER

- 290 7.3.3 DATE OF INCORPORATION AND TERM OF THE COMPANY (ARTICLE 5 OF THE ARTICLES OF ASSOCIATION)
- 290 7.3.4 REGISTERED OFFICE (ARTICLE 4 OF THE ARTICLES OF ASSOCIATION)
- 290 7.3.5 LEGAL FORM AND APPLICABLE LEGISLATION
- 290 7.3.6 STATUTORY AUDITING OF THE COMPANY (ARTICLE 19 OF THE ARTICLES OF ASSOCIATION)
- 290 7.3.7 CORPORATE OBJECT (ARTICLE 3 OF THE ARTICLES OF ASSOCIATION)
- 290 7.3.8 FINANCIAL YEAR (ARTICLE 23 OF THE ARTICLES OF ASSOCIATION)
- 291 7.3.9 GENERAL SHAREHOLDERS' MEETING
- 292 7.3.10 TRANSFER OF SHARES
- 292 7.3.11 IDENTIFICATION OF SHAREHOLDERS
- 293 7.3.12 FACTORS LIKELY TO INFLUENCE A PUBLIC OFFER

#### 294 7.4 SHAREHOLDERS' AGREEMENTS

- 294 7.4.1 DECISION AND NOTIFICATION NO. 212C0486 OF 12 APRIL 2012
- 295 7.4.2 DECISION AND NOTIFICATION NO. 209C1013 OF 21 JULY 2009

# 7.1 MARKET IN THE COMPANY'S SHARES

# 7.1.1 MARKET ON WHICH SHARES ARE LISTED

The Company's shares are traded on the Euronext Paris market (ISIN code: FR0000131757).

No securities of any other Group company are traded on any other stock exchange.

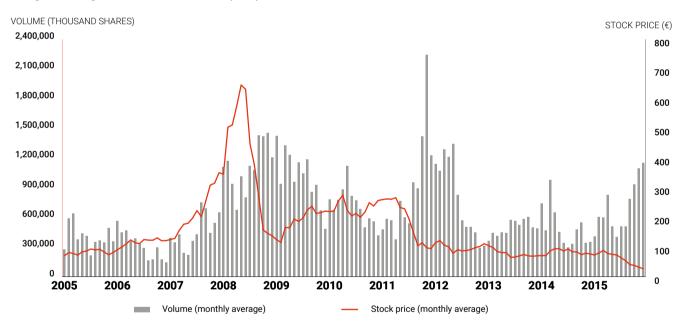
# 7.1.2 SHARE PRICE PERFORMANCE

ERAMET shares closed the year 2015 at €29.5 per share, down 65% over the year. Share performance was particularly affected by the commodities markets dropping to their lowest in over 15 years. This was due to a slowdown in industrial production in China and the persistence of sluggish world growth. The ERAMET group metals were particularly

and simultaneously impacted. The price of nickel and manganese ore prices fell by 42% and 49% respectively from December 2014 to December 2015.

After a relatively stable spell until June 2015, ERAMET shares bore the full brunt of the sharp deterioration in the metals sector crisis during the summer of 2015. As a result of the bearish trend in the share price, the volumes processed increased from 5,859,835 shares in 2014 to 8,234,536 shares in 2015, representing approximately 32,000 shares traded per session (compared to 23,000 shares per session reported in 2014).

#### Changes in trading volumes and ERAMET share price performance



#### Stock market data

	PRICE (€)	) [			
	EXTREMES FOR TH	HE PERIOD	YEAR ENDED 31/12	STOCK-MARKET CAPITALISATION AT 31/12	NUMBER OF SHARES TRADED
	HIGH	LOW		(€ MILLION)	(DAILY AVERAGE)
2004	72.90	36.70	66.20	1,704	15,953
2005	94.90	66.10	81.00	2,089	19,319
2006	147.40	79.00	121.40	3,142	14,806
2007	391.26	114.00	350.00	9,067	24,022
2008	669.98	96.06	138.00	3,618	52,945
2009	272.30	108.00	220.75	5,821	47,589
2010	298.40	193.70	256.50	6,801	33,419
2011	276.65	80.05	94.50	2,505	46,402
2012	139.90	75.95	110.95	2,944	36,742
2013	116.00	63.76	70.29	1,866	22,927
2014	102.00	65.85	76.50	2,031	22,980
2015	94.390	23.05	29.50	583.7	32,166

		PRICE (€)		VOLUME (X 1000)
	LOW	HIGH	AVERAGE (YEAR-END)	(MONTHLY AVERAGE)
2015				
December	23.05	32.60	26.93	1,139.9
November	28.75	37.48	31.81	1,087.8
October	32.06	44.44	37.88	925.9
September	32.97	50.89	40.47	780.4
August	45.08	60.70	53.89	501.8
July	59.76	70.44	63.24	499.0
June	69.48	76.36	72.80	395.0
May	73.00	79.00	75.08	498.0
April	73.06	86.15	78.62	820.7
March	84.75	94.25	88.87	590.7
February	71.40	94.39	81.78	594.6
January	69.06	80.1	72.99	400.6
2014				
December	69.75	83.57	77.75	345.0
November	71.55	82.50	76.09	334.7
October	69.00	83.52	74.55	543.2
September	79.63	90.42	84.63	449.2
August	80.00	93.00	86.39	323.5
July	85.14	98.00	89.92	287.9
June	86.52	99.00	93.67	332.5
May	89.15	102.00	94.60	444.1
April	87.71	100.50	94.14	639.3
March	68.82	89.00	76.34	967.8
February	65.85	72.10	69.88	462.1
January	67.60	77.49	71.89	731.1
Source: NYSE Euronext.				

#### 7.1.3 SECURITIES SERVICES

The Company's share register is maintained by:

**BNP Paribas Securities Services** 

GCT-Issuer Services

Grands Moulins de Pantin-9, rue du Débarcadère-93761 Pantin Cedex, France

Exane BNP Paribas was commissioned to implement the liquidity contract.

# 7.2 SHARE

#### 7.2.1 SUBSCRIBED CAPITAL

#### 7.2.1.1 AMOUNT AND SHARES

At 31 December 2015, share capital amounted to  $\in$ 80,956,814.90 in the form of 26,543,218 fully paid-up shares in the same class, with a par value of  $\in$ 3.05 each.

## 7.2.1.2 RIGHTS ATTACHED TO THE SHARES

Every share provides entitlement to ownership in the Company's assets and a share of its earnings, in an amount proportional to the percentage of the share capital it represents, taking into account, as appropriate, the redeemed and unredeemed share capital, paid-up and unpaid share capital, and the par value and rights of the various share classes.

Every share provides entitlement, whether as a going concern or in the event of liquidation, to payment of the same net sum for any distribution or redemption, in such a way that any tax exemptions or tax to which the Company may be entitled or liable shall be applied to all shares.

## 7.2.1.3 SUBSCRIBED UNPAID CAPITAL

None

# 7.2.2 SECURITIES NOT REPRESENTING SHARE CAPITAL

# 7.2.2.1 FOUNDERS' SHARES, VOTING RIGHT CERTIFICATES

None.

#### 7.2.2.2 OTHER SECURITIES

The Company has not issued any other currently valid financial instruments that do not represent share capital but which may provide entitlement to the share capital in the future or by way of options. However, authorisations exist for such issues, upon a decision of the Board. No use has yet been made of such authorisations.

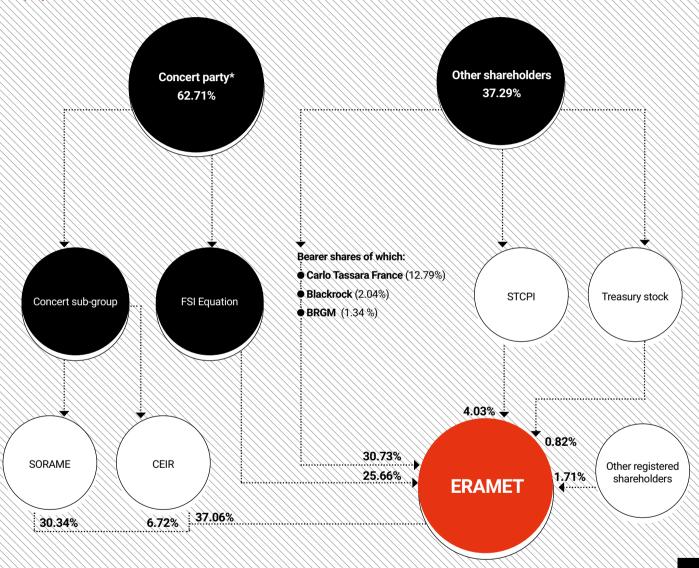
#### 7.2.3 CHANGES IN SHARE CAPITAL AND BREAKDOWN OVER THE PAST THREE YEARS

Details of share capital are given in Note 16.1 to the consolidated financial statements in Chapter 6 of this document. The Company has not been notified of any material change in shareholdings since the end of the year.

#### 7.2.4 SHARE OWNERSHIP

#### 7.2.4.1 OWNERSHIP STRUCTURE

Company shareholders as at 31 December 2015 (% OF SHARES)



<sup>\*</sup>Pursuant to a shareholders agreement, subject of the AMF decision and notification No. 212C0486 published on 12 April 2012.

# 7.2.4.2 AT 31 DECEMBER 2015 (INCLUDING SHAREHOLDERS HOLDING—OR POTENTIALLY HOLDING—AT LEAST 1% OF THE SHARE CAPITAL OR VOTING RIGHTS AND OF WHICH THE COMPANY IS AWARE)

MAIN SHAREHOLDERS	EQUITIES	PERCENTAGE OF CAPITAL	THEORETICAL VOTING RIGHTS	PERCENTAGE OF THEORETICAL VOTING RIGHTS	VOTING RIGHTS EXERCISABLE AT GSM	PERCENTAGE OF VOTING RIGHTS EXERCISABLE AT GSM
SORAME (1)	8,051,838	30.33%	16,103,676	35.98%	16,103,676	36.16%
CEIR (1)	1,783,996	6.72%	3,567,992	7.97%	3,567,992 <sup>(a)</sup>	8.01%
Total for the SORAME/CEIR (1) concert sub-group	9,835,834	37.06%	19,671,668	43.96%	19,671,668	44.17%
FSI Equation (Bpifrance subsidiary) (1)	6,810,317	25.66%	13,620,634	30.44%	13,620,634 <sup>(b)</sup>	30.58%
Total concert party (SORAME/ CEIR/Bpifrance) (1)	16,646,151	62.71%	33,292,302	74.39%	33,292,302 <sup>(c)</sup>	74.76%
Carlo Tassara France (Romain Zaleski group company) (2)	3,394,146	12.79%	3,394,146	7.58%	3,394,146	7.62%
STCPI	1,070,587	4.03%	2,141,173	4.78%	2,141,173	4.81%
BRGM (3)	356,044	1.34%	356,044	0.80%	356,044	0.80%
BlackRock Investment Management UK Ltd <sup>(3)</sup>	541,866	2.04%	541,866	1.21%	541,866	1.22%
Employees (ERAMET share fund)	52,373	0.20%	104,746	0.23%	104,746	0.24%
Corporate officers	27,504	Not significant	44,536	Not significant	44,536	Not significant
ERAMET treasury shares	218,276	0.82%	218,276	0.49%	0	0.00%
Others	4,236,271	16.06%	4,659,155	10.51%	4,659,155	10.56%
TOTAL SHARES	26,543,218	100.00%	44,752,244	100.00%	44,533,968	100.00%
TOTAL REGISTERED SHARES	18,387,508	69.27%	36,596,534	81.78%	36,501,477	81.96%
TOTAL BEARER SHARES	8,155,710	30.73%	8,155,710	18.22%	8,032,491	18.04%

<sup>(1)</sup> SORAME, CEIR and FSI Equation are party to a Shareholders' Agreement constituting a concert party, subject of the AMF decision and notification No. 212C0486.

<sup>(2)</sup> Since the latest declaration by Carlo Tassara France of its crossing a significant-shareholding threshold, No. 207C0134 of 17 January 2007.

<sup>(3)</sup> Estimate on the basis of the most recent Thomson Reuters survey.

<sup>(4)</sup> yIn keeping with the redrafted version of Article L. 225-102 of the Commercial Code, as stipulated in Article 135 of law No. 2015-990 of 6 August 2015 (Macron Law), the portion of the share capital held by employees at the reporting date includes not only the shares allotted to an employee savings plan or employee shareholding funds (FCPE) but also registered bonus shares and bonus shares awarded under the authorisation of the General Meeting of Shareholders after the law came into force on 8 August 2015. At 31 December 2015, there were no bonus shares that fit this definition. The portion of the share capital held by employees at 31 December 2015 totalled 52,373 shares representing 0.20% of the capital.

<sup>(</sup>a) Of which, 720,866 voting rights cannot be exercised until 21 July 2016 (see AMF Decision 214C1461 of 21 July 2014).

<sup>(</sup>b) Of which, 2,751,872 voting rights cannot be exercised until 21 July 2016 (see AMF Decision 214C1461 of 21 July 2014).

<sup>(</sup>c) Of which, 3,472,738 voting rights cannot be exercised until 21 July 2016 (see AMF Decision 214C1461 of 21 July 2014).

#### 7.2.4.3 AT 31 DECEMBER 2014 (INCLUDING SHAREHOLDERS HOLDING-OR POTENTIALLY HOLDING-AT LEAST 1% OF THE SHARE CAPITAL OR VOTING RIGHTS AND OF WHICH THE COMPANY IS AWARE)

MAIN CHARFHOLDERO	FOURTIES	PERCENTAGE OF	THEORETICAL	PERCENTAGE OF THEORETICAL	VOTING RIGHTS EXERCISABLE	PERCENTAGE OF VOTING RIGHTS EXERCISABLE
MAIN SHAREHOLDERS	EQUITIES	CAPITAL	VOTING RIGHTS	VOTING RIGHTS	AT GSM	AT GSM
SORAME (1)	8,051,838	30.33%	16,103,676	35.98%	16,103,676	36.17%
CEIR (1)	1,783,996	6.72%	3,567,992	7.97%	3,567,992	8.01%
Total for the SORAME/CEIR (1) concert sub-group	9,835,834	37.06%	19,671,668	43.96%	19,671,668	44.18%
FSI Equation (Bpifrance subsidiary) (1)	6,810,317	25.66%	13,620,634	30.43%	13,620,634	30.59%
Total concert party (SORAME/ CEIR/Bpifrance) (1)	16,646,151	62.71%	33,292,302	74.39%	33,292,302	74.77%
Carlo Tassara France (Romain Zaleski group company) (2)	3,394,146	12.79%	3,394,146	7.58%	3,394,146	7.62%
STCPI	1,070,587	4.03%	2,141,173	4.78%	2,141,173	4.81%
BRGM (3)	356,044	1.34%	356,044	0.80%	356,044	0.80%
BlackRock Investment Management UK Ltd <sup>(3)</sup>	1,165,441	4.39%	1,165,441	2.60%	1,165,441	2.62%
Employees (ERAMET share fund)	52,373	0.20%	104,746	0.23%	104,746	0.24%
Corporate officers	23,127	Not significant	36,603	Not significant	36,603	Not significant
ERAMET treasury shares	230,051	0.87%	230,051	0.51%	0	0.00%
Others	3,605,298	13.67%	4,033,067	9.09%	4,033,067	9.14%
TOTAL SHARES	26,543,218	100.00%	44,753,573	100.00%	44,523,522	100.00%
TOTAL REGISTERED SHARES	18,449,298	69.51%	36,659,653	81.91%	36,519,203	82.02%
TOTAL BEARER SHARES	8,093,920	30.49%	8,093,920	18.09%	8,004,319	17.98%

<sup>(1)</sup> SORAME, CEIR and FSI Equation are party to a Shareholders' Agreement constituting a concert party, subject of the AMF decision and notification No. 212C0486.

<sup>(2)</sup> Since the latest declaration by Carlo Tassara France of its crossing a significant-shareholding threshold, No. 207C0134 of 17 January 2007.

(3) Estimate on the basis of the most recent Thomson Reuters survey. BlackRock Investment Management (UK) Ltd stated that BlackRock Global Funds controlled 1,303,888 shares (4.92% of the capital) as from 13 March 2012.

# 7.2.4.4 AT 31 DECEMBER 2013 (INCLUDING SHAREHOLDERS HOLDING—OR POTENTIALLY HOLDING—AT LEAST 1% OF THE SHARE CAPITAL OR VOTING RIGHTS AND OF WHICH THE COMPANY IS AWARE)

		PERCENTAGE OF	THEORETICAL	PERCENTAGE OF THEORETICAL	VOTING RIGHTS EXERCISABLE	PERCENTAGE OF VOTING RIGHTS EXERCISABLE
MAIN SHAREHOLDERS	EQUITIES	CAPITAL	VOTING RIGHTS	VOTING RIGHTS	AT GSM	AT GSM
SORAME (1)	8,051,838	30.33%	13,558,933	40.46%	13,558,933	40.81%
CEIR (1)	1,783,996	6.72%	1,783,996	5.32%	1,783,996	5.37%
Total for the SORAME/CEIR (1) concert sub-group	9,835,834	37.06%	15,342,929	45.79%	15,342,929	46.18%
FSI Equation (Bpifrance subsidiary) (1)	6,810,317	25.66%	6,810,317	20.32%	6,810,317	20.50%
Total concert party (SORAME/ CEIR/Bpifrance) (1)	16,646,151	62.71%	22,153,246	66.11%	22,153,246	66.68%
Carlo Tassara France (Romain Zaleski group company) (2)	3,394,146	12.79%	3,394,146	10.13%	3,394,146	10.22%
STCPI	1,070,586	4.03%	2,141,172	6.39%	2,141,172	6.44%
BRGM (3)	356,044	1.34%	356,044	1.06%	356,044	1.07%
BlackRock Investment Management UK Ltd <sup>(3)</sup>	987,240	3.72%	987,240	2.95%	987,240	2.97%
Employees (ERAMET share fund)	52,373	0.20%	86,227	0.26%	86,227	0.26%
Corporate officers	21,855	Not significant	35,667	Not significant	35,667	Not significant
ERAMET treasury shares	284,861	1.07%	284,861	0.85%	0	0.00%
Other	3,729,962	14.13%	4,069,261	12.25%	4,069,261	12.36%
TOTAL SHARES	26,543,218	100.00%	33,507,864	100.00%	33,223,003	100.00%
TOTAL REGISTERED SHARES	18,457,986	69.54%	25,529,626	76.19%	25,244,765	75.99%
TOTAL BEARER SHARES	8,085,232	30.46%	7,978,238	23.81%	7,978,238	24.01%

- (1) SORAME, CEIR and FSI Equation are party to a Shareholders' Agreement constituting a concert party, subject of the AMF decision and notification No. 212C0486.
- (2) Since the latest declaration by Carlo Tassara France of its crossing a significant-shareholding threshold, No. 207C0134 of 17 January 2007.
- (3) Estimate on the basis of the most recent Thomson Reuters survey. BlackRock Investment Management (UK) Ltd stated that BlackRock Global Funds controlled 1,303,888 shares (4.92% of the capital) as from 13 March 2012.

To the best of the Company's knowledge, no other shareholders directly or indirectly hold more than 1% of the share capital or voting rights in the Company and there are no pledged shares. Apart from the treasury shares referred to in the above table, the Company does not own any other of its own shares. The shareholdings of corporate officers are detailed in the chapter on Corporate Governance.

# 7.2.4.5 FORESEEABLE CHANGES IN VOTING RIGHTS

At 31 December 2015, a total of 83,425 registered shares, registered for less than two years, did not enjoy double voting rights. If those shares were to enjoy double voting rights, the total of double voting rights would be increased to 36,585,000 plus the single voting rights of bearer shares, making 8,032,491 additional rights at 31 December 2015.

# 7.2.5 STOCK OPTION PLAN AND BONUS SHARES

At the time this registration document was submitted, the Company had issued no dilutive instrument (no convertible or exchangeable security or security with warrants).

The bonus shares granted and still open at 31 December 2015, whose plan details are given in Note 16.2 to the ERAMET consolidated financial statements set out in Chapter 6 of this document, are shares in existence. There are no current stock options.

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#### 7.2.6 SUMMARY TABLE OF FINANCIAL AUTHORISATIONS

Share capital increases authorised	
A. By issuing shares, various transferable securities and/or subscription warrants, with shareholders'	
preferential subscription rights. Art. L. 225-129 of the French Commercial Code	
By the EGM for an amount of €24,000,000	29 May 2015 (Resolution 27)
Term of delegation	26 months until 28/07/2017
Use of the authorisation	None
B. By issuing shares, various transferable securities and/or subscription warrants, with waiver of	
shareholders' preferential subscription rights, through a public offer.	
By the EGM for an amount of €16,000,000	29 May 2015 (Resolution 28)
Term of delegation	26 months until 28/07/2017
Use of the authorisation	None
C. By issuing shares, various transferable securities and/or subscription warrants, with waiver of shareholders' preferential subscription rights, in connection with an offer specified in section II of Article L. 411-2 of the French Monetary and Financial Code.	
By the EGM for an amount of €16,000,000	29 May 2015 (Resolution 29)
Term of delegation	26 months until 28/07/2017
Use of the authorisation	None
D. By issuing shares, with waiver of preferential shareholder rights, resulting from the issue, by subsidiaries, of marketable securities granting access to the Company's share capital.	
By the EGM for an amount of €16,000,000	29 May 2015 (Resolution 30)
Term of delegation	26 months until 28/07/2017
Use of the authorisation	None
E. By capitalising reserves, earnings, premiums or other capitalisable items.	
By the EGM for an amount of €24,000,000	29 May 2015 (Resolution 26)
Term of delegation	26 months until 28/07/2017
Use of the authorisation	None
F. By issuing shares or miscellaneous marketable securities, in consideration of non-cash transfers of	
assets to the Company, without shareholders' preferential subscription rights. Art. L. 225-147, sub-paragraph 6 of the French Commercial Code	
By the EGM for 10% of the share capital, in an amount of €8,086,607.	29 May 2015 (Resolution 31)
Term of delegation	26 months until 28/07/2017
Terrifor delegation	None
Use of the authorisation	INOILE
Use of the authorisation	
Total issues limit (total A+B+C+D+F)	
Total issues limit (total A+B+C+D+F) By the EGM	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount	29 May 2015 (Resolution 32) €24,000,000
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount  Use of the authorisations	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount Use of the authorisations  Share capital increase reserved for employees	29 May 2015 (Resolution 32) €24,000,000 None
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount  Use of the authorisations  Share capital increase reserved for employees  G. By the EGM	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33)
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount  Use of the authorisations  Share capital increase reserved for employees  G. By the EGM  Term of delegation	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount Use of the authorisations  Share capital increase reserved for employees  G. By the EGM  Term of delegation  Maximum amount	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017 €500,000
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount Use of the authorisations  Share capital increase reserved for employees  G. By the EGM  Term of delegation  Maximum amount Use of the authorisation	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount Use of the authorisations  Share capital increase reserved for employees  G. By the EGM  Term of delegation  Maximum amount Use of the authorisation  Share capital reduction	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017 €500,000 None
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount Use of the authorisations  Share capital increase reserved for employees  G. By the EGM  Term of delegation  Maximum amount Use of the authorisation  Share capital reduction  H. By the EGM	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017 €500,000 None 29 May 2015 (Resolution 34)
Total issues limit (total A+B+C+D+F)  By the EGM  Maximum amount Use of the authorisations  Share capital increase reserved for employees  G. By the EGM  Term of delegation  Maximum amount Use of the authorisation  Share capital reduction  H. By the EGM  Term of delegation	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017 €500,000 None 29 May 2015 (Resolution 34) 26 months until 28/07/2017
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation	29 May 2015 (Resolution 32) €24,000,000 None 29 May 2015 (Resolution 33) 26 months until 28/07/2017 €500,000 None 29 May 2015 (Resolution 34) 26 months until 28/07/2017
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Bonus share awards (Art. L. 225-197-1 and L. 225-197-2 of the French Commercial Code)	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Bonus share awards (Art. L. 225-197-1 and L. 225-197-2 of the French Commercial Code) By the EGM	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Bonus share awards (Art. L. 225-197-1 and L. 225-197-2 of the French Commercial Code) By the EGM Maximum total number	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Bonus share awards (Art. L. 225-197-1 and L. 225-197-2 of the French Commercial Code) By the EGM Maximum total number Length of authorisation	29 May 2015 (Resolution 32)
Total issues limit (total A+B+C+D+F) By the EGM Maximum amount Use of the authorisations Share capital increase reserved for employees G. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Share capital reduction H. By the EGM Term of delegation Maximum amount Use of the authorisation Bonus share awards (Art. L. 225-197-1 and L. 225-197-2 of the French Commercial Code) By the EGM Maximum total number	29 May 2015 (Resolution 32)

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#### 7.2.7 DESCRIPTION OF THE SHARE BUYBACK PROGRAMME

# 7.2.7.1 REPORT ON THE 2015 BUYBACK PROGRAMME

The Combined Ordinary and Extraordinary General Meeting of Shareholders on 29 May 2015 authorised the Company to buy back its own shares representing up to 10% of the share capital, for a maximum purchase price of €300 per share, thereby authorising a maximum total expenditure of €796,296,300 by the Company. This authorisation expires at the Ordinary General Shareholders' Meeting called to approve the financial statements for

the 2015 financial year and was granted for the following purposes:

- support the share price via a liquidity contract with an investment services provider, in accordance with the AMAFI code of conduct recognised by the AMF;
- retain or deliver them (by way of exchange, in payment or otherwise) in connection with external-growth transactions;
- deliver shares upon the exercise of rights attached to marketable securities giving access to capital by redemption, conversion, exchange or otherwise;
- implement any purchase options plan concerning the Company's shares under the

- terms of Articles L. 225-177 *et seq.* of the French Commercial Code:
- award bonus shares under the terms of Articles L. 225-197-1 et seq. of the French Commercial Code;
- grant or transfer shares to employees as their share in the profits of the business or for the purpose of implementing any employee savings plan under the statutory provisions, with particular reference to Articles L. 3332-1 et seq. of the French Labour Code;
- cancel them, in accordance with the 34<sup>th</sup> resolution put to the Shareholders' General Meeting of 29 May 2015 authorising a reduction in the Company's capital for a period of 26 months.

#### 7.2.7.2 DETAILS OF TREASURY SHARES TRADED OVER THE YEAR (ARTICLE L. 225-211 OF THE FRENCH COMMERCIAL CODE)

The following table summarises treasury share transactions carried out by the Company between 1 January and 31 December 2015.

		PRICE SUPPORT	AWARDS TO EMPLOYEES	TOTAL
Position at 31 December 2013		106,952	177,909	284,861
As a percentage of share capital	26,543,218	0.40%	0.67%	1.07%
Bonus share grants			(37,459)	(37,459)
Purchases		232,759		232,759
Sales		(250,110)		(250,110)
Position at 31 December 2014		89,601	140,450	230,051
As a percentage of share capital	26,543,218	0.34%	0.53%	0.87%
Bonus share grants			(45,393)	(45,393)
Purchases		218,088		218,088
Sales		(184,470)		(184,470)
Position at 31 December 2015		123,219	95,057	218,276
As a percentage of share capital	26,543,218	0.46%	0.36%	0.82%

Over the course of the year, 218,088 shares were purchased at an average share price of €58.08 and 184,470 shares were sold at an average price of €61.58.

The carrying amount of the portfolio of 218,276 shares with a par value of €3.05 each, held at 31 December 2015, was €23.5 million, with a market value of €29.50 per share at that same date, representing a total of €6.4 million.

The Company did not use any derivatives during the year.

#### 7.2.7.3 LIQUIDITY CONTRACT

In order to ensure minimum liquidity levels for its stock at all times, the Company implements a liquidity contract with EXANE BNP PARIBAS as of 18 July 2003. This liquidity contract

complies with the AMAFI charter. A summary of share price support transactions can be found in the details of trading set out above. At the settlement date of 31 December 2015, the following resources were available on the liquidity account: 125,469 ERAMET shares and €2,024,743.

#### 7.2.7.4 DESCRIPTION OF THE 2016 SHARE BUYBACK PROGRAMME

#### **LEGAL FRAMEWORK**

In accordance with the provisions of Article 241-2 of the general regulations of the AMF and European Regulation No. 2273/2003 of 22 December 2003, the purpose of this section is to describe the terms and goals of the Company's share buyback programme. This programme, which falls within the scope of Article L. 225-209 of the French Commercial Code, shall be put to the Shareholders' General Meeting of 27 May 2016, voting under the quorum and majority conditions for shareholders' ordinary general meetings.

#### NUMBER OF SHARES AND PROPORTION OF CAPITAL HELD BY THE COMPANY

At 31 December 2015, the Company's capital comprised 26,543,218 shares.

On that date, the Company held 218,276 treasury shares, equivalent to 0.82% of the share capital.

#### BREAKDOWN BY PURPOSE OF THE EQUITY SECURITIES HELD BY THE COMPANY

As at 31 December 2015, the 218,276 treasury shares held by the Company were allocated as follows, by purpose:

- share price support (liquidity contract):
   123,219 shares;
- grants to employees: 95,057 shares.

#### GOALS OF THE NEW BUYBACK PROGRAMME

The intended goals of this programme are to:

- support the share price via a liquidity contract with an investment services provider, in accordance with the AMAFI code of conduct recognised by the AMF;
- retain or deliver them (by way of exchange, in payment or otherwise) in connection with external-growth transactions;
- deliver shares upon the exercise of rights attached to marketable securities giving access to capital by redemption, conversion, exchange or otherwise;
- implement any purchase options plan concerning the Company's shares under the terms of Articles L. 225-177 et seq. of the French Commercial Code;
- award bonus shares under the terms of Articles L. 225-197-1 et seq. of the French Commercial Code;
- grant or transfer shares to employees as their share in the profits of the business or for the purpose of implementing any employee savings plan under the statutory provisions, with particular reference to Articles L. 3332-1 et seq. of the French Labour Code;
- cancel them, in accordance with the 34th resolution put to the Shareholders' General Meeting of 29 May 2015 authorising a reduction in the Company's capital for a period of 26 months.

# MAXIMUM PORTION OF THE CAPITAL, MAXIMUM NUMBER AND CHARACTERISTICS OF THE EQUITY SECURITIES

10% of the registered capital at 31 December 2015, representing 2,654,321 shares, before

deduction of the treasury shares held by the Company.

ERAMET shares are traded on Euronext Paris (ISIN code: FR0000131757).

The intended maximum purchase price is €300 per share.

The intended maximum total amount to be used in these purchases is €796,296,300 for 2,654,321 shares representing 10% of the Company's share capital.

#### **BUYBACK TERMS**

Share purchases, sales and transfers may be carried out by any means in the market or over the counter, including share block transactions or via derivatives, on the understanding that the resolution put to shareholders does not limit the portion of the programme that can be carried out via share block purchases.

The Company notes that if derivatives are used, the Company's goal would be to cover the option positions taken by the issuer (share purchase or subscription options granted to Group employees, debt instruments granting equity rights). More specifically, the use of derivatives shall consist of buying call options and the Company should not have occasion to sell put options.

#### LENGTH OF THE BUYBACK PROGRAMME

The validity of the programme is limited to a period that will end at the Shareholders' General Meeting approving the financial statements for the 2016 financial year.

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# 7.3 COMPANY INFORMATION

# 7.3.1 COMPANY NAME (ARTICLE 2 OF THE ARTICLES OF ASSOCIATION)

ERAMET. In this document, the company is referred to as "the Company" or "the Issuer"; the group formed by ERAMET and its subsidiaries is referred to as "the Group".

### 7.3.2 COMPANY REGISTRATION NUMBER

The Company is registered in the Paris trade register under number 632 045 381 and under SIRET business identification number 632 045 381 000 27. Its business consists in exploring for and operating mining deposits of any kind, metallurgy of all metals and alloys, and trading in them.

# 7.3.3 DATE OF INCORPORATION AND TERM OF THE COMPANY (ARTICLE 5 OF THE ARTICLES OF ASSOCIATION)

The Company was incorporated for a term of 99 years from 23 September 1963, expiring on 23 September 2062, except in the event of early dissolution or extension.

# 7.3.4 REGISTERED OFFICE (ARTICLE 4 OF THE ARTICLES OF ASSOCIATION)

Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris, France Telephone: +33 (0)1 45 38 42 42 Fax: +33 (0)1 45 38 41 28 Website: www.eramet.com

### 7.3.5 LEGAL FORM AND APPLICABLE LEGISLATION

ERAMET is a French public limited company with a Board of Directors, governed by the provisions of Articles L. 224-1 et seq. of the French Commercial Code (legislative and regulatory part) as well as by the provisions of its Articles of Association.

# 7.3.6 STATUTORY AUDITING OF THE COMPANY (ARTICLE 19 OF THE ARTICLES OF ASSOCIATION)

As required by law, the Company is audited by two Incumbent Statutory Auditors and two Alternate Statutory Auditors.

Pursuant to Article 19 of the Articles of Association, the statutory auditors must be nationals of one of the Member States of the European Union.

# 7.3.7 CORPORATE OBJECT (ARTICLE 3 OF THE ARTICLES OF ASSOCIATION)

"The object of the Company, in all countries, is exploring for and operating mining deposits of all kinds, the metallurgy of all metals and alloys and trading in them.

For this purpose, it is involved in the following activities, whether directly, or indirectly through investments:

- the uncovering, acquisition, farmout, disposal, concession and exploitation of all mines and quarries of any kind whatsoever;
- the processing, transformation of and trading in all ores, mineral and metal substances and their by-products, alloys and any derivatives;

- the manufacture and marketing of any products of which the above-mentioned materials or substances are components;
- more generally, any transactions directly or indirectly related to the above objects or that may be conducive to developing the Company's business.

To achieve this object, the Company may, in particular:

- create, acquire, sell, exchange, take on lease or lease-out, with or without a purchase undertaking, manage and operate directly or indirectly any industrial or commercial companies, plant, construction sites and premises whatsoever, and any movable and tangible objects;
- obtain or acquire any patents, licences, processes and trademarks, exploit, transfer or contribute them as capital, and grant all manner of operating licences in any country;
- and, in general, carry out any commercial, industrial, financial, property or chattel transactions that may directly or indirectly relate or contribute to the corporate object or that may facilitate the achievement thereof. It may directly or indirectly act on its own behalf or on behalf of third parties, whether alone or via a partnership, joint venture or company, with any other company or person, and carry out, directly or indirectly, in France or abroad, in any form whatsoever, all transactions or other operations that are within the scope of its corporate object. It may take any interest or stake, in any form and in any French or foreign company that may aid the development of its own business."

# 7.3.8 FINANCIAL YEAR (ARTICLE 23 OF THE ARTICLES OF ASSOCIATION)

The financial year runs for 12 months, beginning on 1 January and ending on 31 December of each year.

### 7.3.9 GENERAL SHAREHOLDERS' MEETING

#### 7.3.9.1 CALLING OF MEETINGS AND TERMS OF ADMISSION (ARTICLES 20 TO 22 OF THE ARTICLES OF ASSOCIATION)

#### COMPOSITION

Shareholders' General Meetings comprise all shareholders in the Company, regardless of the number of shares they hold.

#### MEETING NOTICE

Shareholders' General Meetings are called and held pursuant to the provisions of the French Commercial Code and Articles 20 to 22 of the Articles of Association.

Meetings are held either at the registered office or at any other venue in the same French region specified in the meeting notice.

#### TERMS OF ADMISSION

All shareholders are entitled to take part in Shareholders' General Meetings, subject to proof of their identity, either in person or by proxy through another shareholder or their spouse, the partner with whom they have concluded a civil-union pact or by any other individual or legal entity they choose under the conditions prescribed by current regulations.

Holders of registered shares and holders of bearer shares must carry out the formalities provided for in the applicable regulations. These formalities must be completed by midnight, Paris time, at least two business days prior to the Meeting. Shareholders may also vote by correspondence pursuant to the provisions of Article L. 225-107 and R. 225-75 et seq. of the French Commercial Code, using a form that must reach the Company at least three days prior to the date of the Meeting.

Where the Board of Directors so resolves when calling the Meeting, shareholders may participate in the Meeting using video-conferencing

or any other means of telecommunications or remote transmission, including the Internet, in accordance with the provisions of applicable regulations. Where applicable, mention of this decision is included in the meeting notice published in the BALO (Bulletin des annonces légales obligatoires—French official bulletin of legal notices).

#### SHARES THAT ARE JOINTLY-OWNED, SPLIT, PLEDGED OR UNDER ESCROW

In the absence of specific provisions of the Articles of Association, and pursuant to the provisions of Article L. 225-110 of the French Commercial Code, any holder of a jointly owned share, a split share—bare ownership and usufruct, a pledged share or a share under escrow, is invited to the Meeting and may attend, subject to compliance with the following legal provisions or provisions of the Articles of Association with regard to the exercise of voting rights.

# 7.3.9.2 TERMS OF EXERCISE OF VOTING RIGHTS (ARTICLES 8 AND 20 OF THE ARTICLES OF ASSOCIATION)

Shareholders have the same number of voting rights as the shares they own or represent, subject to the double voting rights attached to some shares. The Extraordinary General Shareholders' Meeting of 21 July 1999 granted a double voting right, with effect from 1 January 2002, to every fully paid-up share for which it can be demonstrated that it has been registered in the name of the same shareholder for more than two years.

Bonus shares granted through the incorporation of reserves, earnings or issue premiums on the basis of old shares benefiting from double voting rights, also gain such rights after two years.

Double voting rights cease for any shares that are converted to bearer shares or transferred, except, in accordance with the law, any transfer by succession, settlement of communal property between spouses or family gift, or through the merger or demerger of the shareholder company.

In accordance with the law, double voting rights may be cancelled only by a decision of the Shareholders' Extraordinary General Meeting and following approval by the Special Meeting of Beneficiary Shareholders.

#### **ELECTRONIC VOTING**

Shareholders may also, where the Board of Directors so resolves when calling the Meeting, vote by correspondence or appoint a proxy using any means of remote transmission, including the Internet, in accordance with the regulatory provisions applicable when used.

Where an electronic form is used, the shareholder's signature may take the form of either a secure digital signature or a reliable identification process that provides a failsafe link with the instrument in question, possibly consisting of a username and a password. Where applicable, mention of this decision is included in the meeting notice published in the BALO (Bulletin des annonces légales obligatoires—French official bulletin of legal notices).

The proxy given or vote cast electronically prior to the meeting, as well as the acknowledgement of receipt given, shall be deemed irrevocable written instruments that are binding on all parties, it being noted that where the shares are sold at least two business days prior to midnight (00:00) on the date of the meeting, Paris time, the Company shall cancel or, as the case may be, amend accordingly the proxy given or vote cast prior to that date and time.

#### SHARES THAT ARE JOINTLY-OWNED, SPLIT, PLEDGED OR UNDER ESCROW

In the absence of specific provisions of the Articles of Association and pursuant to Article L. 225-110 of the French Commercial Code, the voting right is exercised by the usufructuary at ordinary shareholders' general meetings, by the bare owner at extraordinary general shareholders' meetings, by one of the joint owners or by a sole proxy in the case of shares jointly owned in indivisum, and by the owner of pledged shares or shares under escrow.

### 7.3.10 TRANSFER OF SHARES

Since the removal of the approval clause by the General Meeting of 15 June 1994, shares may be traded freely, subject to compliance with the rules applicable to companies whose shares are admitted to trading on a regulated market.

### 7.3.11 IDENTIFICATION OF SHAREHOLDERS

#### 7.3.11.1 CROSSING SIGNIFICANT-SHAREHOLDING THRESHOLDS/ DECLARATION OF INTENT

#### LEGAL DECLARATIONS

Pursuant to Articles L. 233-7 to L. 233-11 of the French Commercial Code, any individual or legal entity, whether acting alone or in concert, acquiring ownership of a number of shares representing more than one-twentieth, one-tenth, three-twentieths, one-fifth, one-quarter, three-tenths, one-third, one-half, two-thirds, eighteen-twentieths or nineteen-twentieths

of the Company's share capital and/or voting rights, must inform the AMF and the Company within the prescribed period, by registered letter with acknowledgement of receipt, of the total number of shares and/or voting rights owned. The same persons or entities are also required to inform the Company whenever their interest falls below any of the above-mentioned thresholds.

Finally, in addition to this legal duty of disclosure, any person crossing above or below the abovementioned thresholds of one-tenth, three-twentieths, one-fifth or one-quarter of the share capital is legally required to declare within the prescribed period, their intentions for the coming six months.

In the event of non-compliance with these disclosure obligations, the provisions of Article L. 233-14 of the said Commercial Code shall apply.

# ADDITIONAL DISCLOSURES IN ACCORDANCE WITH THE ARTICLES OF ASSOCIATION

Since the amendment of Article 9 of the Articles of Association by the General Meeting

of 15 June 1994, any individual or legal entity, whether acting alone or in concert, acquiring or ceasing to own a fraction equal to 1% of the share capital and/or voting rights, or any multiple of that percentage, must inform the Company within ten days, by registered letter with acknowledgement of receipt, sent to the Company's registered office, stating the number of shares and voting rights held.

Failure to make this disclosure shall result in a loss of voting rights for the shares or voting rights in excess of the fraction that should have been disclosed, for a period of two years from the date when the situation is rectified and upon the mere request of one or more shareholders holding 5% of the share capital or voting rights, at a General Meeting.

#### 7.3.11.2 IDENTIFIABLE BEARER SHARES

Pursuant to Article L. 228-2 of the French Commercial Code and Article 9 of the Articles of Association, the Company may at any time ask Euroclear S.A. to carry out the "identifiable bearer share" (IBS) procedure to identify the holders of such shares.

DATE	AMF DECISION NO.	OBJECT
03/08/1999	199C1045	Declaration of the crossing of a significant-shareholding threshold (ERAP-CEIR-SORAME). Declaration of intent.  Appointment of five qualified persons as directors. Reminder: dispensation from obligation to file an intended public offer.
29/12/1999	199C2064	Declaration of the crossing of a significant-shareholding threshold. COGEMA substituted for ERAP.
30/12/1999	199C2068	Declaration of the crossing of a significant-shareholding threshold. AFD substituted for ERAP.
25/07/2001	199C0921	Proposed amendment to shareholders' agreement: assigning ERAMET shares held by COGEMA to CEA Industrie.
12/09/2001	201C1140	Declaration of the crossing of a significant-shareholding threshold. Amendment to the shareholders' agreement following the substitution of AREVA for COGEMA.
20/12/2004	204C1559	Declaration of the crossing of a significant-shareholding threshold and declaration of intent. Substitution of Carlo Tassara International for Maaldrift BV.
14/02/2006	206C0296	Declaration of crossing above a significant-shareholding threshold by M&G Investment Management Limited to 5.0034% of the share capital and 2.98% of the voting rights.
17/01/2007	207C0134	Declaration of crossing above a significant-shareholding threshold, to 13.16% of the share capital and 7.74% of the voting rights, and declaration of intent by Carlo Tassara France.
18/01/2007	207C0137	Declaration of crossing below a significant-shareholding threshold (0%) by Carlo Tassara France.
24/07/2007	207C1569	Declaration of crossing below a significant-shareholding threshold to 4.14% of the share capital and 4.81% of the voting rights by STCPI.
30/05/2008	208C1042	Amendment to the (CEIR-SORAME-AREVA) shareholders' agreement of 17 June 1999
03/06/2008	208C1083	Declaration of crossing below a significant-shareholding threshold by M&G Investment Management Limited to 4.95% of the share capital and 2.93% of the voting rights.
21/07/2009	209C1013	Amendment to the SORAME-CEIR shareholders' agreement of 19 July 1999.
20/03/2012	212C0416	Declaration of crossing above a significant-shareholding threshold and then below, by BlackRock Inc. (4.92% of the share capital and 2.94% of the voting rights).
12/04/2012	212C0486	Advertisement of the SORAME-CEIR-FSI shareholders' agreement clauses.
21/05/2012	212C0634	Declaration of crossing below a significant-shareholding threshold by AREVA—End of the SO-RAME-CEIR-AREVA shareholders' agreement.
23/05/2012	212C0647	Declaration of crossing above a significant-shareholding threshold by FSI.
22/07/2013	213C1027	Declaration of crossing above a significant-shareholding threshold by BPI Groupe via Bpifrance Participations (formerly FSI)
22/07/2013	213C1028	Statement of shareholding by Caisse des Dépôts et Consignations via BPI Groupe
21/07/2014	214C1461	Declaration of crossing above a significant-shareholding threshold by Caisse des Dépôts et Consignations and BPI Groupe, via Bpifrance Participations, as a result of the double voting rights granted.

# 7.3.12 FACTORS LIKELY TO INFLUENCE A PUBLIC OFFER

In addition to the information relating to significant-shareholding threshold crossing, double voting rights, shareholders' agreements and undertakings detailed in this Chapter, the following factors should be noted.

# POSSIBILITY OF USING CAPITAL INCREASE AUTHORISATIONS DURING A PUBLIC OFFER

In accordance with the new wording of article L. 233-32 of the French Commercial Code, pursuant to law No. 2014-384 of 29 March 2014, the capital increase authorisations set out in resolutions 27 to 31 put forward for voting at the General Meeting of May 2015, namely, the authorisation of a capital increase with preferential subscription rights (27th), with no

subscription rights by a public offer (28th), by a private placement (29th), by subsidiaries (30th) or by contributions in kind (31st), within a limit on the total nominal amount of €24 million for resolutions 27 to 31, (that is, slightly less than one third of the share capital), may be used by the Board of Directors during a public offer for purchase or share swap, subject to the powers expressly granted to general shareholders' meetings and insofar as such action is in the interests of the Company.

#### 7.4 Shareholders' Agreements

Pursuant to a shareholders' agreement signed on 16 March 2012, which entered into force on 16 May 2012 and will expire on 31 December 2016, subject of the AMF decision and notification No. 212C0647, the Company, as of 16 May 2012, is under the majority control of a declared concert party of shareholders comprising:

- a concert sub-group comprised of SORAME and CEIR, companies controlled by the Duval family, pursuant to a simultaneous shareholders' agreement of 19 July 1999, that came into effect on 21 July 1999, and was amended by a rider on 13 July 2009;
- Bpifrance Participations (formerly FSI), via its subsidiary FSI Equation.

In a rider dated 21 March 2013, the parties to the shareholders' agreement agreed that as from the 2013 General Shareholders' Meeting, the Board of Directors shall comprise five directors proposed by SORAME/ CEIR, three directors proposed by Bpifrance Participations, five directors who must be individuals, of whom three are proposed by the SORAME-CEIR concert sub-group and two are proposed by Bpifrance Participations on the grounds of their competence and their independence, two directors proposed by Société Territoriale Calédonienne de Participation Industrielle (STCPI), one director nominated jointly by SORAME/CEIR and Bpifrance Participations, and one director to chair the ERAMET Board of Directors.

The provisions of the aforementioned shareholders' agreement and those of the concert sub-group are contained in the main

extracts of the texts of the AMF decision and notification No. 212C0486 and No. 209C1013 (amendment of 13 July 2009) given below (the full version of these texts is available on the AMF website).

# 7.4.1 DECISION AND NOTIFICATION NO. 212C0486 OF 12 APRIL 2012

The main clauses of the shareholders' agreement are as follows:

#### **Composition of the ERAMET Board of Directors**

The Board of Directors shall comprise five directors proposed by SORAME/CEIR, three directors proposed by FSI, four directors who must be individuals, of whom two are proposed by the SORAME-CEIR concert sub-group and two are proposed by FSI on the grounds of their competence and their independence, two directors proposed by Société Territoriale Calédonienne de Participation Industrielle (STCPI), and one director to chair the ERAMET Board of Directors.

This composition shall be maintained except in the event of (i) a change by more than 10% in ERAMET's share capital or in the interests held at the time of the signing of the shareholders' agreement, either by SORAME and CEIR, or by FSI, or (ii) a material change in the capital interest held by STCPI in ERAMET, resulting in a reduction to under 635,372 ERAMET shares.

#### Chairmanship, Board of Directors committees

The parties (namely SORAME, CEIR and FSI) intend to consult each other before the appointment of a Chairman of the Board of Directors, a Chief Executive Officer, or a Deputy CEO, or the appointment of the Division managers of each of the ERAMET group's three business divisions. The membership and workings of the Board of Directors' committees are also set out, namely the Selection

Committee, the Remuneration Committee and the Audit Committee. If the consultation were to be unsuccessful, the rules of ordinary law shall apply.

#### **CONCERT STABILITY**

#### Covenant to consult

The parties undertake to consult each other prior to the Board of Directors' meeting and the ERAMET General Shareholders' meeting, to ensure the concordant exercise of their voting rights and to implement a joint policy with respect to the Company, and lays down that if it fails to reach an agreement on any matter brought before the Board of Directors, it shall ensure that its decision is deferred to the very next meeting (1).

#### Commitment to hold

SORAME and CEIR undertake to hold, at least 70% for the former and up to 30% for the latter, of the overall interest in ERAMET, and so long as FSI does not increase its overall interest in ERAMET, to hold 2% more of ERAMET's capital than FSI, so that the overall concert party holds 51% of voting rights in ERAMET, provided that FSI's stake in ERAMET remains equal to 25.68% of the capital. The SORAME-CEIR concert sub-group however remains free to transfer at least 80% of its interest in ERAMET, and its commitment to hold shall lapse if FSI were to exercise its option to purchase ERAMET shares from SORAME.

#### Obligations in the event of a public bid or offer

Each party undertakes to file the reports or perform the obligations required of it within the prescribed period, to solely bear any sanctions arising from the failure to do so, and to file and singly undertake the public bid or offer that would have become mandatory owing to its acquisition, if any, of ERAMET shares, or any of its actions, or the failure to fulfil any of its obligations.

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#### ERAMET stock options granted by SORAME and CEIR

SORAME grants FSI a stock purchase option on its ERAMET shares which shall be indivisible, exercisable in the event of a transfer of shares or of one or more general partner shares or any transaction involving SORAME that would result in the Duval family losing its control over SORAME. CEIR grants FSI a stock purchase option of all of its ERAMET shares which will be indivisible, and FSI grants CEIR a stock sale option of all of its ERAMET shares, which shall be indivisible. These two options can be exercised in the event that FSI exercises its purchase option on the ERAMET shares held by SORAME.

#### Reciprocal pre-emptive right

The parties agree to a reciprocal right of first refusal, (i) in the event of a firm intention to sell a specified number of ERAMET shares on the market to unidentified third parties, piecemeal or by accelerated bookbuilding (ABB) or through a fully marketed offering (FMO); (ii) in the event of a proposed sale of one or more blocks of ERAMET shares to one or more identified third parties, by matched bids or off-market; and in the event of an intended contribution as capital of all or part of its interest in ERAMET, in consideration for shares in the transferee company.

The right of first refusal does not apply to:

- transfers under the agreement: for SORAME and CEIR as long as they comply with their commitment to hold, and for FSI provided that it retains 20% of ERAMET capital;
- transfers to one or more identified third parties or for an intended contribution as capital: for SORAME and CEIR, as long as they comply with their commitment to hold, and that no block of shares representing over 5% of the capital is transferred to any one investor group, and for FSI, provided that it retains 20% of ERAMET capital and that no block of shares representing over 5% of the capital is transferred to any one investor group.

The notification requirements and rights of refusal generally do not apply to (i) transfer without charge to natural persons, mortis causae or inter vivos; (ii) transfers within the SORAME-CEIR concert sub-group, subject to the former's holding at least 70% and the latter's holding not more than 30% of their overall interest in ERAMET; (iii) in the event of a merger between SORAME and CEIR, if SO-RAME is the acquiring company and remains under the Duval family's control; and (iv) in the event of transfer of its ERAMET shares by FSI to one of its subsidiaries, or by way of a capital contribution in one of its subsidiaries, provided that the transferee enters the shareholders' agreement and takes over FSI's rights and duties resulting from the transfer.

#### Term

The shareholders' agreement shall enter into force when the transfer by AREVA to FSI of its interest in ERAMET takes effect. It is entered into for a fixed term expiring on 31 December 2016, and may be extended thereafter by tacit renewal for one year periods, unless terminated by means of a notice served by any party to the other no less than one month before the expiration of the current period. The agreement shall cease immediately and as of right in the event of (i) a change of predominance within the overall concert party owing to acquisitions or share subscriptions by FSI; (ii) the disposal or contribution or transfer by any of the parties of over 80% of its interest in ERAMET; or (iii) FSI's direct or indirect interest in ERAMET capital falls below 15%.

SORAME and CEIR therefore decided to sign the amendment No. 2 on 16 March 2012 to the term clause of the shareholders' agreement signed on 17 June 1999 and amended earlier by amendment No. 1 on 13 July 2009.

It is noteworthy that SORAME and CEIR have given a commitment to FSI to convert the required number of ERAMET shares into bearer shares so that the SORAME-CEIR concert sub-group's current interest is not accretive by more than 2% owing to the loss of double voting rights attached to the ERAMET shares transferred to FSI. Once the ERAMET shares

have been transferred, SORAME, CEIR and FSI shall request ERAMET to re-enter all of their ERAMET shares as registered shares in order to recover their double voting rights two years later.

# 7.4.2 DECISION AND NOTIFICATION NO. 209C1013 OF 21 JULY 2009

Under cover of a letter dated 16 July 2009, the AMF (French Financial Markets Authority) was sent a shareholders' agreement entitled "Amendment No. 1 to the agreement of 19 July 1999 among the shareholders in ERAMET between SORAME and CEIR", concluded on 13 July 2009 between SORAME being a partnership limited by shares and the simplified joint-stock corporation, CEIR.

A/It is hereby recalled that on 19 July 1999, SORAME and CEIR (being companies controlled by the Duval family) concluded a shareholders' agreement instituting a concert party between them for a term of 10 years as from 21 July 1999.

This shareholders' agreement provided notably for the following:

- the non-transferability of their ERAMET shares for five years, except within a maximum 1.5% of ERAMET's share capital for each of them:
- full freedom for them to transfer their ERAMET shares among themselves provided SORAME continues to hold not less than 70% of the ERAMET shares held by their concert party, and CEIR continues to hold a maximum of 30%, with the undertaking to maintain this distribution among them in the event that their interests increase;
- reciprocal rights of pre-emption over their ERAMET shares;
- an undertaking to consult before any Shareholders' General Meeting, to ensure concordant exercise of their voting rights for the implementation of a common policy as regards ERAMET.

B/It must be noted that SORAME and CEIR, certain members of the Duval family and AREVA are joined in a concert party visà-vis ERAMET, pursuant to a private deed dated 17 June 1999 as amended on 27 July 2001 substituting AREVA for COGEMA, itself previously substituted for ERAP on 1 December 1999 under the terms of the aforesaid shareholders' agreement.

A second rider to the private deed of 17 June 1999 was signed on 29 May 2008, in which the parties extended their concert agreement until 31 December 2008 with various amendments, accordingly substituting as from 29 May 2008 a redrafted version for the earlier version of their shareholders' agreement of 17 June 1999.

In the absence of renunciation by the parties by 15 December 2008, and again by 15 June 2009, this new shareholders' agreement was tacitly extended twice. The last renewal was for six months from 1 July 2009 to 31 December 2009.

On 16 July 2009, the parties to the shareholders' agreement, as a concert party, held 61.57% of the capital and 73.57% of the voting rights of ERAMET, which broke down as follows:

TOTAL CONCERT PARTY	16,390,192	61.57	32,720,384	73.57
AREVA	6.787.277	25.39	13.514.554	30.63
Sub-total SORAME/CEIR	9,602,915	36.07	19,205,830	43.18
CEIR	1,783,996	6.70	3,567,992	8.02
SORAME	7,818,919	29.37	15,637,838	35.16
	EQUITIES	PERCENTAGE OF CAPITAL	VOTING RIGHTS	% VOTING RIGHTS

C/On 13 July 2009, SORAME and CEIR signed an amendment to the shareholders' agreement of 19 July 1999 described in point A above, extending their concert agreement until 21 July 2014 with various amendments, accordingly substituting as from 13 July 2009 a redrafted version for the earlier version of their shareholders' agreement of 19 July 1999.

The following are the main terms of the amendment concluded between SORAME and CEIR:

 stability of the SORAME-CEIR concert party: except in the event of a disposal of not less than 80% of the interest of their concert party in ERAMET, and for as long as AREVA does not increase its interest in ERAMET by more than 2%, the parties undertake to maintain the number of shares and voting rights in ERAMET required for the concert sub-group to remain predominant in the overall concert party;

- transfer of ERAMET shares between SORAME and CEIR: the parties may freely transfer ERAMET shares among themselves, provided SORAME continues to hold not less than 70% of the ERAMET shares held by the concert sub-group and CEIR continues to hold a maximum of 30%;
- increase of SORAME and CEIR shareholdings in ERAMET: the parties may freely increase their interest in ERAMET, provided they do not increase the interest by more than 2% of the capital or voting rights within less than twelve months;
- an undertaking to consult before any Shareholders' General Meeting, to ensure concordant exercise of their voting rights for the implementation of a common policy as regards ERAMET.

This agreement supersedes the shareholders' agreement of 19 July 1999. It is concluded for a term expiring on 21 July 2014, renewable thereafter by tacit extension for successive two-year periods, unless denounced by either party serving notice one month before the expiry of the current period.

It shall cease, as shall the concert party between the parties, in the event that either party disposes of more than 80% of its interest in ERAMET.

The distribution of the directors on the Board of Directors and on the committees is further detailed in Chapter 4 of this document, entitled Corporate Governance.

To the best of ERAMET's knowledge, there are no other shareholders' agreements.



# Chapter 8

# GENERAL SHAREHOLDERS' MEETING— WORDING OF DRAFT RESOLUTIONS

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# 8.1 EXPLANATORY

We have set out below, for your attention, an explanatory note regarding the resolutions proposed for voting at the General Meeting:

The 1st and 2nd resolutions concern the approval of the individual and consolidated financial statements. The financial statements are set out in detail in the documents submitted to shareholders and are also commented on in the management report.

In the **3**<sup>rd</sup> **resolution**, you are asked to approve the special report prepared by the Company's Statutory Auditors concerning the agreements referred to in Articles L. 225-38 *et seq.* of the French Commercial Code.

This report provides an account of related-party agreements previously authorised by a General Shareholders' Meeting which were ongoing in 2015. Having already received approval from a General Shareholders' Meeting, those agreements will not be submitted to a vote at this Meeting.

The purpose of the  $4^{\text{th}}$  resolution is to propose that the losses for the 2015 financial year be carried forward to retained earnings.

In the 5<sup>th</sup> resolution, pursuant to Article L. 225-42-1 of the French Commercial Code, you are asked to approve the arrangements for severance pay falling due or which may fall due to Patrick Buffet in the event of termination of his term of office as Chairman and CEO, as approved by the Board of Directors at its meeting of 29 May 2015.

Following the reappointment of the Chairman and CEO to that role, decided by the Board of Directors on 29 May 2015, and at the recommendation of the Remuneration Committee, on 29 May 2015 the Board of Directors voted unanimously, with the abstention of the Chairman and CEO, to retain all elements of the remuneration of the Chairman and CEO

and all the provisions of his corporate officer's contract dated 20 February 2008 (incorporating all the amendments decided since then by the Company's Board of Directors at the recommendation of the Remuneration Committee). However, two changes were made to the severance pay falling due to the Chairman and CEO in the event of his departure from the Company (as a result of forced resignation, cancellation or non-renewal of his term of office or modification of the conditions under which he originally joined the ERAMET group):

- The amount of severance pay which may fall due is equal to twice—instead of three times, as it was previously—the last gross annual fixed remuneration, plus twice—instead of three times—the average gross annual variable remuneration received in the last three complete years prior to his departure.
- The severance pay benefit specified in his corporate officer contract is conditional upon the fulfilment of performance conditions: the total gross variable remuneration (itself subject to specific performance conditions) received over the final three full financial years of his term of office must be 35% or more of the total gross annual fixed remuneration received during the same three-year period—instead of 20% as it was previously. Consequently, these arrangements rule out payment of such a benefit should the Chairman and CEO fail to achieve his targets.

In addition, in accordance with AFEP/MEDEF Code recommendations, Patrick Buffet does not hold a contract of employment binding him with the Company.

The Statutory Auditors have drawn up a special report concerning this undertaking.

The **6**<sup>th</sup> **resolution** concerns ratification of the co-option of Catherine Ronge, who was proposed by Bpifrance, as a member of the Board of Directors, in line with the decision taken by the Board of Directors on 17 February 2016.

Ms. Ronge is Chairperson of Weave Air, a strategic consultancy firm.

In the **7**th, **8**th, **9**th and **10**th **resolutions** you are asked to approve the remuneration items falling due or granted to each Executive Corporate Officer of the Company for the financial year ended 31 December 2015.

Pursuant to recommendation 24.3 of the AFEP/ MEDEF code dated June 2013 as amended in November 2015, which, in accordance with article L. 225-37 of the French Commercial Code is the code of reference applicable to the Company, remuneration items falling due or granted to each Executive Corporate Officer of the Company for the financial year ended, set out in detail in Chapter 4 "Corporate Governance" of this registration document, are subject to shareholder approval.

Consequently, in the **7**<sup>th</sup> **resolution** you are asked to approve the remuneration items falling due or granted in the past financial year to Patrick Buffet, Chairman and CEO.

Furthermore, in the **8**<sup>th</sup> **resolution** you are asked to approve the remuneration items falling due or granted in the past financial year to Georges Duval, Deputy CEO.

In the **9**th **resolution** you are asked to approve the remuneration items falling due or granted in the past financial year to Bertrand Madelin, Deputy CEO, whose term of office came to an end on 27 November 2015.

In the **10**<sup>th</sup> **resolution** you are asked to approve the remuneration items falling due or granted in the past financial year to Philippe Vecten, Deputy CEO.

Pursuant to the provisions of Article L. 225-209 of the French Commercial Code, the 11th resolution requests the General Shareholders' Meeting to authorise the Board to renew the Company's share buyback programme, in accordance with all legal and regulatory conditions, allowing the repurchase of shares, by any means, including during a public offer period. The maximum amount of the share buyback is 10% of the share capital and the maximum purchase price is €300 per share. What is at issue here is the annual renewal of that authorisation. The purpose of this authorisation is to allow the existing liquidity contract

to continue and to implement bonus share awards to employees through the allocation of existing shares.

Pursuant to the new provisions of the French Law on economic growth, activity and equal opportunities, Law No. 2015-990 dated 6 August 2015, the purpose of the **12**th **resolution** is to authorise the Board of Directors of ERAMET to grant a number of existing shares, not exceeding 550,000, as bonus shares, over a three-year period (2016, 2017 and 2018) in accordance with the following conditions:

- all Group employees (provided the applicable local legal, accounting and tax provisions so permit), to be granted bonus shares that are not contingent upon performance conditions;
- all key executives of the Group, that is, around 280 individuals (provided the applicable local legal, accounting and tax provisions so permit), to be granted bonus shares that are, for the most part, contingent upon performance conditions:
- executive Committee members (including those who are corporate officers) to be granted bonus shares that are fully contingent upon performance conditions.

The maximum portion of the overall amount of bonus shares that may be received by executive corporate officers is one third.

The performance conditions for the first year of utilisation (2016) of this authorisation to implement a selective performance share plan shall be as follows:

- relative performance of the ERAMET share price for one third of the share grant. This involves comparing the change in total shareholder return over a three-year period with that of a panel of comparable companies on the Euromoney Global Mining Index for Diversified Metals & Mining in the Steel segment, with the performance conditions being fully achieved if the ERAMET performance ranks among the top 15% of the panel);
- intrinsic performance according to the following financial indicators, for two-thirds of the share grant (the performance conditions only being fully achieved when these targets are significantly out-performed):
  - 50%: current operating income to sales, fully achieved if the ratio is positive,
  - 50%: operating cash-flow, calculated according to the budget.

The 550,000 bonus shares represent 2% of the share capital at 31 December 2015.

The purpose of resolutions 13 and 14 is to update the Company's articles of association to include the applicable legal provisions. The 13th resolution proposes amendment of Article 17 of the articles of association related to regulated agreements, in line with the wording of Ordinance No.°2014-863 dated 31 July 2014. The 14th resolution proposes modification of Article 20.4 of the articles of association with regard to voting procedures prior to the General Shareholders' Meeting (in line with Article R. 225-77 of the French Commercial Code amended by Decree No.°2011-1473 dated 9 November 2011) and the procedures for drawing up the list of persons authorised to take part in general shareholders' meetings (in accordance with Article R. 225-85 of the French Commercial Code amended by Decree No.°2014-1466 dated 8 December 2014).

The 15<sup>th</sup> resolution authorises fulfilment of the formalities involved in implementing the other resolutions passed by the combined Ordinary and Extraordinary General Shareholders' Meeting.

The Board of Directors

#### 8.2 WORDING OF DRAFT RESOLUTIONS

#### WITHIN THE REMIT OF THE ORDINARY GENERAL SHAREHOLDERS' MEETING

#### **FIRST RESOLUTION**

#### (2015 ANNUAL FINANCIAL STATEMENTS)

Having heard the Report from the Board of Directors and the Report from the Statutory Auditors on the financial statements for the year ended 31 December 2015, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, approves the financial statements for said financial year as presented to it and the transactions reflected in those financial statements or summarised in those reports.

#### SECOND RESOLUTION

#### (2015 CONSOLIDATED FINANCIAL STATEMENTS)

Having heard the Report from the Board of Directors and the Report from the Statutory Auditors on the consolidated financial statements for the year ended 31 December 2015, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, approves the consolidated financial statements as presented to it and the transactions reflected in those financial statements or summarised in those reports.

#### THIRD RESOLUTION

#### (RELATED-PARTY AGREEMENTS)

Having heard the special report of the Statutory Auditors on the agreements covered by Articles L. 225-38 et seq. of the French Commercial Code, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, approves that report and the agreements listed therein.

#### **FIFTH RESOLUTION**

# (UNDERTAKINGS PURSUANT TO ARTICLE L. 225-42-1 OF THE FRENCH COMMERCIAL CODE)

Having reviewed the special report prepared by the Statutory Auditors concerning the agreements referred to in Articles L. 225-38 et seq., of the French Commercial Code and in accordance with the provisions of Article L. 225-42-1 of the aforesaid Code, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, approves the aforesaid report, and all provisions referred to therein, related to the severance pay that may fall due to Patrick Buffet, Chairman and CEO.

#### **SIXTH RESOLUTION**

#### (RATIFICATION OF THE CO-OPTION OF A DIRECTOR)

The General Shareholders' Meeting ratifies the co-option of Catherine Ronge as director, approved by the Board of Directors at its meeting of 17 February 2016. Ms. Ronge replaces Thierry Le Hénaff, who resigned with effect from 17 February 2016, for the remaining term of office of the latter, specifically, until the end of the General Shareholders' Meeting called to approve the financial statements for the 2016 financial year.

#### **FOURTH RESOLUTION**

#### (ALLOCATION OF EARNINGS-SETTING THE DIVIDEND)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, resolves to allocate the losses for the past financial year, amounting to €331,515,590.34, to retained earnings, thus increasing the amount set aside in that account from €825,409,780.31 to €493,894,189.97.

The General Shareholders' Meeting, acting as an Ordinary General Shareholders' Meeting, notes that the dividends per share paid out with respect to the past financial year and the three previous financial years, were as follows:

	2012	2013	2014	2015
Number of shares subject to dividends	26,543,218	26,543,218	26,543,218	26,543,218
Dividend	€1.30	€0	€0	€0

#### **SEVENTH RESOLUTION**

(APPROVAL OF REMUNERATION ITEMS FALLING DUE OR GRANTED TO PATRICK BUFFET, CHAIRMAN AND CEO, FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2015)

Adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, the General Shareholders' Meeting, consulted pursuant to recommendation 24.3 of the June 2013 AFEP/

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MEDEF Code, as amended in November 2015, which, in accordance with article L. 225-37 of the French Commercial Code, is the code of reference applicable to the Company, approves the remuneration items falling due or granted for the financial year ended 31 December 2015 to Patrick Buffet, Chairman and CEO, as set out in the 2015 registration document in Section 4 "Corporate Governance", under the paragraph heading "remuneration of corporate officers", on pages 106 to 108.

#### **EIGHTH RESOLUTION**

(APPROVAL OF REMUNERATION ITEMS FALLING DUE OR GRANTED TO GEORGES DUVAL, DEPUTY CHIEF EXECUTIVE OFFICER, FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2015)

Adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, the General Shareholders' Meeting, consulted pursuant to recommendation 24.3 of the June 2013 AFEP/ MEDEF Code, as amended in November 2015, which, in accordance with article L. 225-37 of the French Commercial Code, is the code of reference applicable to the Company, approves the remuneration items falling due or granted for the financial year ended 31 December 2015 to Georges Duval, Deputy CEO, as set out in the 2015 registration document in Section 4 "Corporate Governance", under the paragraph heading "remuneration of corporate officers", on pages 109 to 111.

#### NINTH RESOLUTION

(APPROVAL OF REMUNERATION ITEMS FALLING DUE OR GRANTED TO BERTRAND MADELIN, DEPUTY CHIEF EXECUTIVE OFFICER, FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2015)

Adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, the General Shareholders' Meeting, consulted pursuant to recommendation 24.3 of the June 2013 AFEP/ MEDEF Code, as amended in November 2015, which, in accordance with article L. 225-37 of the French Commercial Code, is the code of

reference applicable to the Company, approves the remuneration items falling due or granted for the financial year ended 31 December 2015 to Bertrand Madelin, Deputy CEO, as set out in the 2015 registration document in Section 4 "Corporate Governance", under the paragraph heading "remuneration of corporate officers", on pages 112 to 114.

#### **TENTH RESOLUTION**

(APPROVAL OF REMUNERATION ITEMS FALLING DUE OR GRANTED TO PHILIPPE VECTEN, DEPUTY CHIEF EXECUTIVE OFFICER, FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2015)

Adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings, the General Shareholders' Meeting, consulted pursuant to recommendation 24.3 of the June 2013 AFEP/ MEDEF Code, as amended in November 2015. which, in accordance with article L. 225-37 of the French Commercial Code, is the code of reference applicable to the Company, approves the remuneration items falling due or granted for the financial year ended 31 December 2015 to Philippe Vecten, Deputy CEO, as set out in the 2015 registration document in Section 4 "Corporate Governance", under the paragraph heading "remuneration of corporate officers", on pages 115 to 117.

#### **ELEVENTH RESOLUTION**

#### (AUTHORISATION TO TRADE IN THE COMPANY'S SHARES)

Having familiarised itself with the report from the Board of Directors and the description of the Company's share buyback programme, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for ordinary general shareholders' meetings and making use of the powers provided by Article L. 225-209 of the French Commercial Code, authorises the Board of Directors to buy, or to arrange the purchase of, the Company's shares up to a limit of 10% of the share capital, in order to:

- support the share price via a liquidity contract with a market maker, in accordance with the AMAFI code of conduct recognised by the AMF;
- retain or contribute them (by way of a stock swap, against payment, or otherwise) in connection with acquisition transactions:
- provide shares upon the exercise of rights attached to marketable securities granting access to the share capital by redemption, conversion, stock swap or by any other manner;
- implement any share purchase option plan concerning the Company's shares within the terms of Articles L. 225-177 et seq. of the French Commercial Code;
- allocate bonus shares pursuant to the provisions of Articles L. 225-197-1 et seq. of the French Commercial Code;
- allocate or transfer shares to employees as their share in the profits of the business or for the purpose of implementing any employee savings plan under the statutory provisions, with particular reference to Articles L. 3332-1 et seq. of the French Labour Code;
- cancel those shares, in accordance with the 34<sup>th</sup> resolution of the General Shareholders' Meeting of 29 May 2015, authorising a reduction in the Company's share capital for a period of 26 months.

Such shares may be purchased, sold, transferred or swapped, by any means, in the market or over the counter, including, where appropriate, by means of derivatives and the whole of the authorised share buyback programme may be acquired or transferred in the form of share blocks.

Such transactions may also be carried out during a public offer period if the purchase offer for the Company's shares is fully paid in cash.

Payment may be made by any means.

The maximum purchase price may not exceed €300 per share.

This authorisation is granted for a period that will end at the General Shareholders' Meeting called to approve the financial statements for the 2016 financial year.

Based on the number of shares comprising the share capital at **31 December 2015**, assuming a price of €300 per share, the maximum theoretical investment would amount to €796,296,300.

For the purposes of implementing this resolution, the Board of Directors is granted full powers and may, in turn, delegate those powers, in order to:

- place any stock market orders, entering into any agreements particularly with regard to the keeping of share purchase and sale records;
- make all relevant filings with the AMF;
- assign or reassign the acquired shares to various objectives in line with the applicable legal or regulatory provisions;
- carry out all other formalities and generally do as necessary.

# WITHIN THE REMIT OF THE EXTRAORDINARY GENERAL SHAREHOLDERS' MEETING

#### **TWELFTH RESOLUTION**

#### (ALLOCATION OF BONUS SHARES)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for extraordinary general shareholders' meetings, authorises the Board of Directors to grant, on one or more occasions, existing shares as bonus shares to employees and executive corporate officers of the Company and of its related companies, within the meaning of article L. 225-197-2 of

the French Commercial Code, in accordance with articles L. 225-197-1 *et seq.* of the French Commercial Code.

The General Shareholders' Meeting decides that the total number of bonus shares that may be granted under this authorisation may not exceed 550,000 shares.

In accordance with regulations, this upper limit does not include additional shares to be issued or granted in order to preserve the rights of beneficiaries in the event of transactions involving the Company's share capital.

Share grants carried out pursuant to this authorisation may be awarded, under the conditions prescribed in law, to eligible executive corporate officers of the Company, provided that the vesting of these shares is conditional upon the attainment of one or more performance conditions, established by the Board of Directors, when the share grant is decided, and provided that the number of shares granted does not represent more than **one third** of the upper limit specified above.

The allocation of shares to beneficiaries shall be definitive at the end of a vesting period of at least two years.

In addition, beneficiaries may not sell the shares granted to them under this authorisation for a minimum of two years from the definitive share grant.

However, given that the vesting period for all or part of one or several share grants is at least four years, the General Shareholders' Meeting authorises the Board of Directors to refrain from imposing any holding period for the shares in question, such that the aforesaid shares shall be freely transferable once vested.

As an exception to the foregoing, the aforesaid shares may be vested by beneficiaries prior to the end of the vesting period specified here above in the event that the beneficiary sustains a disability classified as category 2 or 3 under Articles L. 341-4 et seq. of the French Social Security Code; the aforesaid shares shall also be freely transferable in the event that the

beneficiary sustains a disability corresponding to the above-mentioned categories under the French Social Security Code.

Bonus shares granted shall consist of existing shares.

As the decision to grant bonus shares falls to the Board of Directors, it shall determine the identity of the share grant beneficiaries and shall establish the terms and, where appropriate, the share grant criteria.

The Board of Directors may make use of this authorisation, on one or more occasions, for a period of thirty-eight months from this meeting.

#### THIRTEENTH RESOLUTION

#### (AMENDMENT OF ARTICLE 17 OF THE ARTICLES OF ASSOCIATION-REGULATED AGREEMENTS)

Having noted the report from the Board of Directors and the provisions of Article L. 225-38 of the French Commercial Code as amended by Ordinance No. 2014-863 dated 31 July 2014, modifying the arrangements for the prior authorisation of regulated agreements by the Board of Directors of a limited company (société anonyme) and those of Article L. 225-39 of the French Commercial Code as amended by Law No. 2011-525 dated 17 May 2011, modifying the arrangements for providing information concerning current agreements concluded under normal conditions, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for extraordinary general shareholders' meetings, decides to modify Article 17 of the articles of association related to regulated agreements, by adopting the following text:

#### **CURRENT VERSION**

#### Article 17: agreements between the Company and one of its directors or shareholders, CEO or deputy CEO

All agreements entered into under the conditions set forth in Articles L. 225-38 or L. 225-39 of the French Commercial Code are subject to the information, authorisation and/or approval procedures stipulated by law.

The Chairman of the Board of Directors must notify the Statutory Auditors of any authorised agreements. The Statutory Auditors then present a special report on those agreements to the General Shareholders' Meeting and the latter approves that report.

Agreements concerning current operations concluded under normal conditions are notified, by the person concerned, to the Chairman of the Board of Directors who passes on a list of such agreements and their purposes to the Statutory Auditors and the Board of Directors.

#### **NEW VERSION**

Article 17: Regulated agreements

All agreements entered into under the conditions set forth in Articles L. 225-38 of the French Commercial Code are subject to the procedures stipulated by law and in the regulations.

The Chairman of the Board of Directors must notify the Statutory Auditors of any authorised agreements. The Statutory Auditors then present a special report on those agreements to the General Shareholders' Meeting and the latter approves that report.

#### **FOURTEENTH RESOLUTION**

#### (MODIFICATION OF ARTICLE 20.4 OF THE ARTICLES OF ASSOCIATION—COMMON RULES FOR GENERAL SHAREHOLDERS' MEETINGS)

Having noted the report from the Board of Directors and the provisions of Article R. 225-77 of the French Commercial Code as amended by Decree No. 2014-1473 dated 9 November 2011, modifying the voting arrangements prior to a General Shareholders' Meeting, and those of Article R. 225-85 of the French Commercial Code as amended by Decree No. 2014-1466 dated 8 December 2014, modifying the date and procedures for drawing up the list of persons authorised to participate at shareholders' meetings of commercial companies, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for extraordinary general shareholders' meetings, decides to modify Article 20.4 of the articles of association related to general shareholders' meetings, by adopting the following text:

#### CURRENT VERSION

4. The General Shareholders' Meeting is open to all Shareholders, regardless of the number of shares they hold. A shareholder may be represented at the General Shareholders' Meeting under the applicable legal and regulatory conditions.

The right to participate at Shareholders' meetings is conditional upon the shareholder's registration in the register of shares, no less than five days prior to the date of the Shareholders' meeting.

To have the right to attend a Shareholders' meeting, owners of shares must fulfil the formalities laid down by the applicable regulations in force.

All Shareholders may vote by mail using a form for that purpose which must be received by the Company no less than three days prior to the date of the Shareholders' meeting.

Where the Board of Directors so resolves when calling the Meeting, shareholders may participate in the Meeting using video-conferencing or any other means of telecommunications or remote transmission, including the Internet, in accordance with the provisions of applicable regulations. Where applicable, mention of this decision is included in the meeting notice published in the BALO (*Bulletin des annonces légales obligatoires*—French official bulletin of legal notices).

Shareholders may also, where the Board of Directors so resolves when calling the Meeting, vote by correspondence or appoint a proxy using any means of remote transmission, including the Internet, in accordance with the regulatory provisions applicable when used.

Where an electronic form is used, the shareholder's signature may take the form of either a secure digital signature or a reliable identification process that provides a fail-safe link with the instrument in question, possibly consisting of a user name and a password. Where applicable, mention of this decision is included in the meeting notice published in the BALO (*Bulletin des annonces légales obligatoires*—French official bulletin of legal notices).

The proxy given or vote cast electronically prior to the meeting, as well as the acknowledgement of receipt given, shall be deemed irrevocable written instruments that are binding on all parties, it being noted that where the shares are sold at least three business days prior to midnight (00:00) on the date of the meeting, Paris time, the Company shall cancel or, as the case may be, amend accordingly the proxy given or vote cast prior to that date and time.

#### NEW VERSION

4. The General Shareholders' Meeting is open to all shareholders, regardless of the number of shares they hold. A shareholder may be represented at the General Shareholders' Meeting under the applicable legal and regulatory conditions.

To have the right to attend a Shareholders' meeting, owners of shares must fulfil the formalities laid down by the applicable regulations in force

All Shareholders may vote remotely using a form for that purpose, under the conditions stipulated by law and by the applicable regulations in force.

Where the Board of Directors so resolves when calling the Meeting, shareholders may participate in the Meeting using video-conferencing or any other means of telecommunications or remote transmission, including the Internet, in accordance with the provisions of applicable regulations. Where applicable, mention of this decision is included in the meeting notice published in the BALO (*Bulletin des annonces légales obligatoires*—French official bulletin of legal notices).

Shareholders may also, where the Board of Directors so resolves when calling the Meeting, vote by correspondence or appoint a proxy using any means of remote transmission, including the Internet, in accordance with the regulatory provisions applicable when used.

Where an electronic form is used, the shareholder's signature may be derived from a reliable identification process that provides a fail-safe link with the instrument in question, possibly consisting of a user name and a password. Where applicable, mention of this decision is included in the meeting notice published in the BALO (*Bulletin des annonces légales obligatoires*—French official bulletin of legal notices).

The proxy given or vote cast electronically prior to the meeting, as well as the acknowledgement of receipt given, shall be deemed irrevocable written instruments that are binding on all parties, it being noted that where share ownership is transferred before the second business day prior to midnight (00:00) on the date of the meeting, Paris time, the Company shall cancel or amend, as the case may be, in accordance with the legal conditions, the proxy given or vote cast, prior to that date and time.

The rest of Article 20 of the articles of association remains unchanged.

#### **FIFTEENTH RESOLUTION**

#### (POWERS)

The Combined Ordinary and Extraordinary General Shareholders' Meeting fully empowers the bearer of an original, an extract or a copy of the minutes of this meeting to carry out any filing or formality that may be necessary.

# 8.3 STATUTORY AUDITORS' REPORTS ON THE RESOLUTIONS PRESENTED TO THE GENERAL SHAREHOLDERS' MEETING

# STATUTORY AUDITORS' REPORT ON THE AUTHORISATION TO GRANT EXISTING SHARES AS BONUS SHARES

GENERAL SHAREHOLDERS' MEETING OF 27 MAY 2016-12TH RESOLUTION

To the Shareholders.

In our capacity as statutory auditors of your Company and in compliance with article L. 225-197-1 of the French Commercial Code

(Code de commerce), we hereby report on the proposed free allocation of existing shares, reserved for employees and directors of your Company, an operation upon which you are called to vote.

Your Board of Directors proposes that on the basis of its report it be authorised for a period of 36 months to allocate, for free, existing shares. It is the responsibility of the Board of Directors to prepare a report on the proposed operation. Our role is to report on any matters relating to the information regarding the proposed operation.

We have performed those procedures which we considered necessary to comply with the professional guidance issued by the French national auditing body (Compagnie nationale des commissaires aux comptes) for this type of engagement. These procedures consisted mainly in verifying that the proposed methods described in the Board of Directors' report comply with the legal provisions governing such operations.

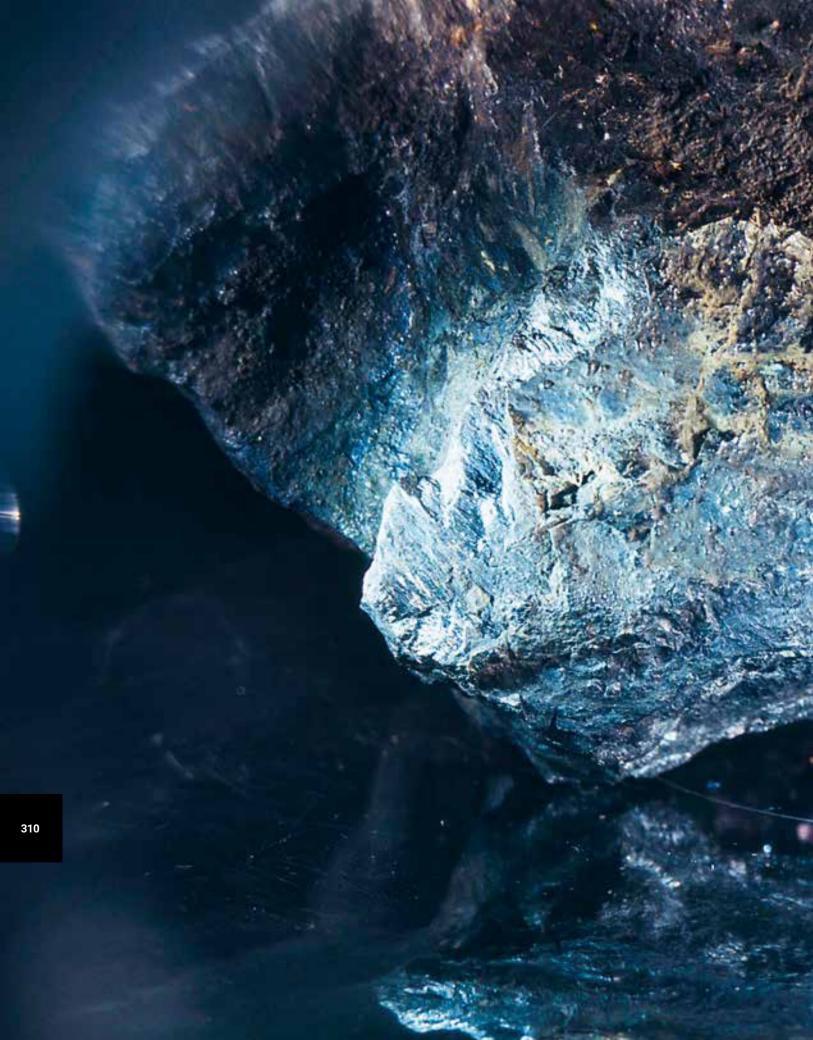
We have no matters to report as to the information provided in the Board of Directors' report relating to the proposed free allocation of shares.

Paris-La Défense, 22 February 2016

The statutory auditors

French original signed by

KPMG S.A. Denis Marangé Ernst & Young Audit Jean-Roch Varon



# Chapter 9

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# 9.1 PERSONS RESPONSIBLE FOR THE REGISTRATION DOCUMENT

# 9.1.1 NAME AND POSITIONS OF PERSONS RESPONSIBLE

Mr. Patrick Buffet

Chairman and CEO of ERAMET

Mr. Thomas Devedjian

Chief Financial Officer

# 9.1.2 DECLARATION BY THE PERSONS RESPONSIBLE FOR THE REGISTRATION DOCUMENT

We declare that to the best of our knowledge, having taken all reasonable measures in this

regard, the information in this Registration Document is accurate and does not contain any omission that could affect its scope.

We declare that to our knowledge the financial statements were drawn up in accordance with applicable accounting standards and give a true and fair view of the assets and liabilities, financial position and earnings of the Company and of all the companies within the scope of consolidation, and that the Management Report (as set out in Chapters 1-Group overview, 2-Activities, 3-Risk factors, 4-Corporate governance, 5-Sustainable development and 7-Corporate and share capital information) presents a true and fair image of business developments, earnings and the financial position of the Company and of all companies within the scope of consolidation, and a description of the main risks and uncertainties they face.

The Auditors have provided us with a letter of completion of assignment in which they state that they checked the information concerning the financial position and the financial statements presented in this Registration Document, and that they read the document in its entirety.

The auditors have drawn up a report on the 2015 consolidated financial statements presented in the registration document, on page 244 of the document, with an observation concerning the risk of continued operation of Le Nickel-SLN and the financing of this subsidiary set out in Note 2 to the annex to the consolidated financial statements.

The auditors have drawn up a report on the 2014 consolidated financial statements presented in the registration document, on page 244 of the document, with an observation concerning the effects of application as of 1 January 2014 of IFRS 11—Joint arrangements, in Note 4 on restated 2013 financial statements in the annex to the consolidated financial statements.

The auditors have drawn up a report on the 2013 consolidated financial statements presented in the registration document registered with the AMF finance markets regulator, on page 260 of the document, with an observation concerning the effects of application as of 1 January 2013 of IAS 19—Employee benefits, in Note 4 on restated 2012 financial statements in the annex.

Paris, 7 April 2016

Thomas Devedjian
Chief Financial Officer

Patrick Buffet Chairman and CEO

#### 9.2 AUDITORS

The Company's individual and consolidated financial statements are audited by the Auditors listed below:

## 9.2.1 STATUTORY AUDITORS

#### 9.2.1.1 ERNST & YOUNG AUDIT

Address: Tour First—1, place des Saisons, 92400 Courbevoie, No. 344 366 315 in the Nanterre trade and corporate register (RCS).

Partner responsible for the audit: Jean-Roch Varon.

Date of appointment: General Shareholders' Meeting of 29 May 2015, replacing Ernst & Young et Autres.

Term expiry date: General Shareholders' Meeting called in 2021 to approve the 2020 financial statements.

#### 9.2.1.2 KPMG

Address: Immeuble Le Palatin—3, cours du Triangle, 92800 Puteaux, No. 775 726 417 in the Nanterre trade and corporate register (RCS).

Partner responsible for the audit: Denis Marangé.

Date of appointment: General Shareholders' Meeting of 29 May 2015.

Term expiry date: General Shareholders' Meeting called in 2021 to rule on the 2020 financial statements.

### 9.2.2 SUBSTITUTE AUDITORS

#### **9.2.2.1 AUDITEX**

Address: Tour First—1, place des Saisons 92400 Courbevoie, No. 377 652 938 in the Nanterre trade and corporate register (RCS).

Date of appointment: General Shareholders' Meeting of 13 May 2009, renewed at the General Shareholders' Meeting of 29 May 2015.

Term expiry date: General Shareholders' Meeting called in 2021 to rule on the 2020 financial statements.

#### 9.2.2.2 SALUSTRO REYDEL

Address: Immeuble Le Palatin—3, cours du Triangle 92800 Puteaux, No. 652 044 371 in the Nanterre trade and corporate register (RCS).

Date of appointment: General Shareholders' Meeting of 29 May 2015.

Term expiry date: General Shareholders' Meeting called in 2021 to rule on the 2020 financial statements.

# 9.3

# FINANCIAL INFORMATION

#### 9.3.1 NAME OF THE PERSON RESPONSIBLE FOR INFORMATION RELEASE

Person responsible:

Position: Address: Mr. Philippe Gundermann

Strategy and Financial Communications Manager **ERAMET** 

Tour Maine-Montparnasse 33. avenue du Maine 75755 Paris Cedex 15 Telephone: +33 (0)1 45 38 42 78

#### 9.3.2 COMMUNICATION **PROCEDURES**

Frequency: in accordance with regulations, ERAMET publishes its annual and interim results and releases quarterly sales figures.

Information release: in addition to legal publication in financial publications, press releases and all regulated financial information are made available to the public on the Company's website (http://www.eramet.fr-in the Investors section), and released in accordance with AMF regulations.

The Articles of Association, minutes of AGMs, Company and consolidated financial statements, reports by the auditors and all documents made available to shareholders can be consulted at the Company's registered office.

All data indicated in this document for which no source is specifically indicated are from the Company's internal reporting and data.

All copies of documents included in this Reference Document may be viewed on the ERAMET website (http://www.eramet.com) or consulted on request to the Company's Director of Legal Affairs at its registered office: Tour Maine-Montparnasse-33, avenue du Maine, 75015 Paris.

#### 9.3.3 LIST OF FINANCIAL-INFORMATION RELEASES. **INCLUDING PRESS RELEASES**

19 February 2016: 2015 annual results

7 December 2015: Official denial of rumours of a shutdown of nickel production

27 November 2015: Rearrangement of delegate CEOs at mining branches

29 October 2015: Sales in third guarter of 2015

14 October 2015: Press release following the Board meeting on 14 October 2015

15 September 2015: Thomas Devedjian joins the ERAMET group

29 July 2015: 2015 interim financial report

29 July 2015: Results for first half of 2015

16 June 2015: MKAD: Aubert & Duval and Mécachrome set up the MKAD joint venture

15 June 2015: Inauguration of the Moanda Metallurgy Complex (Gabon)

29 May 2015: General Shareholders' Meeting

13 May 2015: Information concerning the 2015 General Shareholders' Meeting

29 April 2015: Sales in first guarter of 2015

27 April 2015: Ecotitanium project: first stone

26 March 2015: 2014 registration document

20 February 2015: 2014 annual results

#### Publications in the "BALO" mandatory legal notice bulletin

Announcement of General 13 April 2015 Shareholders' Meeting: Notice calling the General 13 May 2015 Shareholders' Meeting: Notice of approval of 10 June 2015 financial statements without amendment:

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#### 9.4 CONCORDANCE TABLE FOR THE ANNUAL FINANCIAL REPORT

This Registration Document contains all the information required in annual financial reports pursuant to Article L. 451-1-2 of the French Monetary and Financial Code and Article 222-3 of the General Regulations of the AMF.

In order to facilitate the reading of this annual financial report, the concordance table below identifies the sections contained herein.

N°	INFORMATION IN THE ANNUAL FINANCIAL REPORT	REGISTRATION DOCUMENT
1	Declaration by corporate officers attesting to the truthfulness of information	Section 9.1
2	Consolidated financial statements	Section 6.1
3	Auditors' Report on the consolidated financial statements	Section 6.1.3
4	Parent's financial statements	Section 6.2
5	Auditors' report on the financial statements	Sections 6.2.4 and 6.2.5
6	Management report:	See management report concordance table
7	Fees paid to the Auditors	Section 6.1
8	Report by the Chairman of the ERAMET Board—Report by the Auditors drawn up pursuant to Article L. 225-235 of the French Commercial Code on the report of the Chairman of the ERAMET Board	Chapter 4

The concordance table below identifies the main sections required by the French Commercial Code, the French Monetary and Financial Code, the French General Tax Code and the AMF's General Regulations.

1. Carrier of the fact of the transfer of the	
ACTIVITY	REGISTRATION DOCUMENT
Analysis of business developments, results and the financial position of the Group in the course of the year	Chapter 1
Major events after the reporting date	Chapter 1
Foreseeable outlook	Chapter 1
Results of subsidiaries and companies controlled, by areas of activity	Chapter 2—Chapter 6
Research and development	Chapter 2
Description of main risks and uncertainties	Chapter 6
Group policy concerning management of financial risks, exposure to price, credit, liquidity and cash risk	Chapter 6
Analysis of business developments, results and the financial position of the Company in the course of the year	Chapter 6
Stakes or controlling interests in companies based in France	Chapter 6
Information on supplier payment periods	Chapter 6
Table of Company results over the last five financial years	Chapter 6
Reincorporation of general costs and sumptuary expenses	Chapter 6
Legal and information and information concerning shareholder structure	
Sum of dividends paid out over the last three financial years	Chapter 6
Identity of shareholders with more than 5% of equity	Chapter 7
Employee shares held on the last day of the year	Chapter 7
Information on share buybacks during the year—treasury shares	Chapter 7
Table summarising valid authorisations granted to the Board by the General Meeting concerning share capital increases, and the use made of these authorisations during the year	Chapter 7
Factors likely to influence a public offer	Chapter 7
Information concerning corporate officers	
Terms and functions of members of the Board of Directors and General Management	Chapter 4
Total remuneration and any benefits granted to each corporate officer—Decree n° 2016-182 (article R.225-104-1)	Chapter 4
Internal Company information	
Employment	
Total headcount (distribution of employees by sex, age and geographic area)	5.7.2.1 to 5.7.2.5 and 5.7.7.1
Staff engaged	5.7.2.6
Redundancies	5.7.2.7
Remuneration and developments in pay	5.7.4
Organisation of work	
Organisation of working hours	5.7.3
Absenteeism	5.7.3.3
Company relations	
Organisation of social dialogue (procedures for information, consultation and negotiation vis-à-vis staff)	5.7.5
List of collective Company agreements	5.7.5
Health and safety	
Occupational health and safety conditions	5.6.1 and 5.6.2

ACTIVITY	REGISTRATION DOCUMENT
Agreements signed with trade union organisations or employee representatives in connection with occupational health and safety	5.7.4.2
Frequency and seriousness of occupational accidents and accounting for professional illnesses  Training	5.6.3
Total number of training hours	5.7.6.4
Training policies implemented	5.7.6.4
Diversity and equality (policy implemented and measures taken to boost both)	
Equality between men and women	5.7.7.1
Employment and integration of the disabled	5.7.7.3
Anti-discrimination Anti-discrimination	5.7.7
Prevention and compliance with the provisions of basic ILO agreements	5.7.7.5
Environmental information	
General environmental policy	
Organisation of the Company and procedures for assessment or certification	5.1 / 5.2.1 / 5.2.2
Staff training and information concerning protection of the environment	5.2.1
Resources allocated to prevention of environmental contingencies and pollution	5.2.1
Provisions and cover to guard against environmental contingencies	6.1
Pollution and waste management	F 0 0
Prevention, reduction or rectification of waste in air, water or soil with a serious impact on the environment  Prevention of waste production, waste recycling and disposal	5.2.3 5.2.3
Consideration of noise pollution and any other kind of pollution specifically related to a certain activity	5.2.3
Sustainable use of resources	J.Z. I
Water consumption and supply in accordance with local constraints	5.2.4
Consumption of raw materials and measures taken to boost efficiency of consumption	5.2.4 and 5. 2.6
Energy consumption, measures taken to boost energy efficiency and use of renewable energies	5.2.5
Usage of soil	5.2.6 and 5.2.7
Contribution to adaptation and prevention of global warming	
Greenhouse gas emissions	5.2.5
Adaptation to the consequences of climate change	5.2.5
Protection of biodiversity	
Measures taken to preserve or develop biodiversity	5.2.7
Information concerning corporate commitments	
Territorial, social and economic impact of the business	
Impact of the business on employment and regional development	5.3.1
Impact of the business on neighbouring and local populations	5.3.1
Relations with stakeholders	
Conditions of dialogue with stakeholders	5.3.2
Solidarity, partnerships and sponsorships	5.3.2
Subcontracting and suppliers	
Consideration of social and environmental factors in purchasing policy	5.3.4
Importance of subcontracting	5.3.4
Social and environmental responsibility in relations with suppliers and subcontractors	5.3.4
Solidarity in corporate practices	F
Action taken to prevent all forms of corruption	5.3.3
Measures taken to protect health and safety of consumers	5.5 and 5.3.3
Other action taken to protect human rights	5.7.7.5

# 9.6 TABLE OF CONCORDANCE WITH EUROPEAN REGULATION 809-2004

The following correspondence table identifies the main sections required under European Regulation No. 809-2004, implementing the "Prospectus" directive.

CHAPTER	INFORMATION	REGISTRATION DOCUMENT
1	Persons responsible	9.1
1.1	Persons responsible	9.1
1.2	Declaration by the persons responsible	9.1
2	Auditors	9.2
2.1	Information concerning the auditors	9.2
2.2	Changes	9.2
3	Selected financial information	1
3.1	Selected financial information	1
3.2	Interim periods	Not applicable
4	Risk factors	3
5	Information concerning the issuer	
5.1	History and development of the Company	1.3
5.2	Capital expenditure	1.2.3
6	Business overview	
6.1	Main activities	2
6.2	Main markets	2
6.3	Exceptional events, if any, likely to affect activities and markets	2
6.4	Likely dependence	2
6.5	Competitive position	2
7	Organisational structure	
7.1	Group	2.12.1
7.2	Major subsidiaries	
8	Real estate, production sites and equipment	
8.1	Major property, plant and equipment	2.6
8.2	Environmental aspects of the equipment	5.4
9	Examination of financial position and earnings	
9.1	Financial position	1.2
9.2	Operating profit	1.2
10	Cash and capital	
10.1	Capital	1.2
10.2	Cash flows	1.2
10.3	Financing structure	1.2
10.4	Any restrictions on the use of capital	1.2
10.5	Sources of finance	1.2
11	Research and development—Patents and licences	2.7

CHAPTER	INFORMATION	REGISTRATION DOCUMENT
12	Information on trends	
12.1	Trends	1
12.2	Any likely influence	1
13	Profit forecasts or estimates	
13.1	Assumptions	Not applicable
13.2	Report	Not applicable
13.3	Comparison	Not applicable
13.4	Updating	Not applicable
14	Administrative, managerial and supervisory bodies, and General Management	
14.1	Information on members	4
14.2	Conflicts of interest	4
15	Remuneration and benefits	
15.1	Remuneration	4
15.2	Pensions and other retirement schemes, other benefits	4
16	Functioning of administrative and management bodies	4
16.1	Term of office expiry date	4
16.2	Service contracts	4
16.3	Committees	4
16.4	Corporate governance declaration	4
17	Employees	
17.1	Employee information	5.7
17.2	Profit-sharing and share options	5.7
17.3	Employee profit-sharing	5.7
18	Main shareholders	
18.1	Shareholders	7.2
18.2	Voting rights	7.2
18.3	Shareholdings and control	7.2
18.4	Control-related agreements	7.4
19	Related-party transactions	6.2
20	Financial information concerning the issuer's net assets, financial position and results	
20.1	Historic financial information	6
20.2	Pro forma financial information	Not applicable
20.3	Financial statements	6
20.4	Checking of historic financial information	6
20.5	Date of latest financial information	6
20.6	Interim and other financial information	Not applicable
20.7	Dividend distribution policy	6.4
20.8	Judicial and arbitration proceedings	3 and 6
20.9	Significant changes in the issuer's financial or commercial situation	Not applicable

CHAPTER	INFORMATION	REGISTRATION DOCUMENT
21	Additional information	
21.1	Share capital	7.2
21.1.1	Subscribed capital	7.2
21.1.2	Other non-equity shares	7.2
21.1.3	Treasury shares	7.2
21.1.4	Convertible or exchangeable securities, or securities with subscription warrants	7.2
21.1.5	Acquisition conditions	7.2
21.1.6	Options or agreements	4.5
21.1.7	Record of changes in share capital	Note 6 Consolidated financial statements
21.2	Certificate of incorporation and articles of association	7.3
21.2.1	Corporate purpose	7.3
21.2.2	Regulations of management and control bodies	4.2
21.2.3	Rights and privileges attached to shares	7.2
21.2.4	Changes to the rights of shareholders	7.3
21.2.5	General Meetings	7.3
21.2.6	Change of control	7.3
21.2.7	Shareholding thresholds	7.3
21.2.8	Conditions governing amendments to the articles of association	7.3
22	Significant contracts	3
23	Third-party information, statements by experts and declarations of interests	
23.1	Declarations of interests	Not applicable
23.2	Certificate	Not applicable
24	Public documents	9
25	Information on equity investments	2 and 6

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