
TRANSFORMING MUCH MORE THAN ORE

REGISTRATION DOCUMENT 2012



ERAMET

DES ALLIAGES,
DES MINERAIS ET DES HOMMES.

CONTENTS

1	Group overview	5		
1.1.	Group profile	6		
1.2.	Key figures/Comments on the financial year	7		
1.3.	History and development of the Company	13		
2	Activities	15		
2.1.	Group structure	16		
2.2.	ERAMET Nickel	16		
2.3.	The Manganese Division	26		
2.4.	ERAMET Alloys	40		
2.5.	Organisational Structure of ERAMET S.A./ ERAMET Holding company	49		
2.6.	Activity of the Divisions in 2012	49		
2.7.	Production sites, plant and equipment	52		
2.8.	Research & Development/Reserves & Resources	53		
3	Risk factors	67		
3.1.	Commodity risk	68		
3.2.	Special relationships with Group partners	68		
3.3.	Mining and industrial risks	70		
3.4.	Legal and tax risks/Disputes	73		
3.5.	Liquidity, market and counterparty risks	76		
3.6.	Insurance/ coverage of risks likely to be incurred by the Issuer	77		
4	Corporate Governance	79		
4.1.	Presentation of Company and Group management and administrative bodies	80		
4.2.	Report from the Chairman of the Board of Directors	81		
4.3.	Summary of differences between the Company's corporate governance procedures and Afep/Medef code recommendations	91		
4.4.	Statutory Auditors' report, prepared in accordance with article L. 225-235 of the French Commercial Code (<i>Code de commerce</i>), on the report prepared by the Chairman of the Board of Directors of ERAMET	92		
4.5.	Remuneration of corporate officers	93		
4.6.	List of other offices held by members of the Board of Directors and General Management	100		
4.7.	Securities held by members of the Board of Directors and by General Management	105		
4.8.	Special report on share subscription and purchase options—2012	106		
4.9.	Special report on bonus share grants	107		
5	Sustainable Development	109		
5.1.	Introduction	110		
5.2.	Sustainable Development Policy	111		
5.3.	Environmental information	114		
5.4.	Environmental Data	117		
5.5.	Information on societal commitments in favour of sustainable development	131		
5.6.	Major projects	136		
5.7.	Responsibility for chemicals	139		
5.8.	Health and Safety	143		
5.9.	Human Resources	149		
5.10.	Attestation of completeness and limited assurance report of one of the Statutory Auditors on selected social and environmental information	160		
6	Financial statements	163		
6.1.	2012 Consolidated financial statements	164		
6.2.	2012 separate financial statements	244		
6.3.	Consolidated financial statements for 2011 and 2010	273		
6.4.	Dividend policy	273		
6.5.	Fees paid to the Statutory Auditors	274		
7	Corporate and share-capital information	275		
7.1.	Market in the Company's shares	276		
7.2.	Share capital	280		
7.3.	Company information	287		
7.4.	Shareholders' agreements	291		
8	General Shareholders' Meeting—Wording of draft resolutions	295		
8.1.	Explanatory Note	296		
8.2.	Wording of draft resolutions—within the remit of the Ordinary General Shareholders' Meeting	298		
8.3.	Wording of the draft resolutions—within the remit of the Extraordinary General Shareholders' Meeting	301		
8.4.	Statutory Auditors' reports on the resolutions presented to the General Shareholders' Meeting	308		
9	Additional Information	313		
9.1.	Persons responsible for the Reference Document	314		
9.2.	Statutory Auditors	315		
9.3.	Financial information	315		
9.4.	List of reports	317		
9.5.	Table of correspondence with the annual financial report	318		
9.6.	Table of concordance with European Regulation 809-2004	319		
9.7.	Glossary	322		
9.8.	Addresses of the consolidated subsidiaries	323		



ERAMET

Société anonyme
(French public limited company)
with registered capital of €80,956,814.90.

Registered office:
Tour Maine Montparnasse,
33, avenue du Maine, 75015 Paris,
France.

Registration number 632 045 381 in the
Paris trade and corporate register.

REGISTRATION DOCUMENT

2012

This document, prepared on the basis of the 2012 financial statements, includes the material information subsequent to the approval of those financial statements, as obtaining at the date of its filing.



This Registration Document was filed with the AMF on 27 March 2013, pursuant to Article 212-13 of the AMF General Regulations. It may be used in support of a financial transaction if it is accompanied by a prospectus approved by the AMF. This document was drawn up by the Issuer on the liability of the persons signing it.



1

GROUP OVERVIEW

1.1. Group profile	6
1.2. Key figures/Comments on the financial year	7
1.2.1. Key business figures.....	7
1.2.2. Consolidated net cash position	9
1.2.3. Financing and credit facilities	9
1.2.4. Capital expenditure.....	9
1.2.5. Recent trends and outlook	12
1.3. History and development of the Company	13

1.1. GROUP PROFILE

The ERAMET group is a French mining and metallurgical group with leading global positions in each of its businesses. The Group, which employed close to 14,000 people in 2012 in some 20 countries, generated sales of €3,447 million.

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

- The Manganese Division is the world's second-largest producer of high-grade manganese ore at its mine in Moanda (Gabon), the world's second-largest producer of manganese alloys—but the leading producer of very high value added alloys “refined alloys”—and the world's leading producer of manganese chemical derivatives.

Within ERAMET Manganèse, the Group is developing an integrated activity in mineral sands, with the construction in Senegal of the Grande Côte operation in 2013, complementing the pyrometallurgy titanium-ore beneficiation activity at the Norwegian Tyssedal site.

- The Nickel Division has nickel mines in New Caledonia and processes virtually all its ore itself. ERAMET is the world's seventh-largest nickel producer, the second largest ferronickel producer, one of the three leading high-grade nickel producers and the global leader in nickel chloride. ERAMET is studying the development of its Weda Bay nickel deposit located on the island of Halmahera in Indonesia. This deposit, of significance on the world market, could ultimately double the Group's nickel production. The final investment decision is expected in 2014 for the first phase (35,000 tonnes).
- The Alloys Division is the world's second-largest producer of closed die-forged parts for aeronautics and energy generation, and ranks second world-wide in the production of high-speed steels, while it is the world leader in powder metallurgy.

The Group has major competitive advantages:

- ore reserves of the highest quality in terms of both grade and lifespan;
- highly-developed technological skills in mining, metallurgy, closed die-forging and metal chemistry.

The Group is implementing a growth strategy designed to strengthen and diversify its present positions along the following lines of development:

- widening its world leadership positions in alloys (in present and new metals);
- strengthening its positions in top-of-the range metallurgy;
- diversifying its portfolio towards special metals with high growth potential (e.g. zirconium and titanium dioxide, rare-earth metals, lithium, etc.);
- increasing its geographical diversification;
- pursuing growth in metal recycling.

These policy thrusts should enable the ERAMET group to scale up its geographical diversification and the diversification of its metals portfolio, in the aim of improving its risk profile and strengthening its financial resilience. For some major projects, ERAMET also works with partners in industry.

The Group's development aim is long-term. The Group acts responsibly towards its environment, employees and shareholders in accordance with the principles of its Code of Conduct and its sustainable development policy.

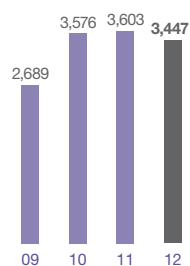
1.2. KEY FIGURES/COMMENTS ON THE FINANCIAL YEAR

1.2.1. Key business figures

1.2.1.1. Business highlights (€ million)

Sales

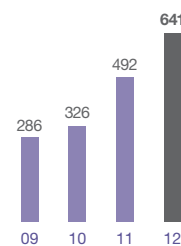
(€ million)



Sales in 2012 were 4% down from 2011, to €3,447 million.

Industrial capital expenditure

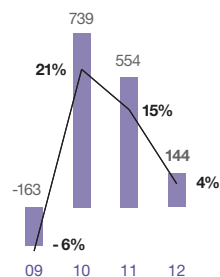
(€ million)



Sizeable industrial capital investment, up by more than 30%.

Current operating profit

(€ million)



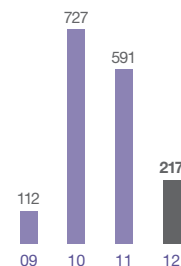
A current operating margin of 4%.

Current operating profit was lower, mainly due to the falls in nickel and manganese prices.

— Current operating margin as a percentage of sales

Net cash generated by operating activities

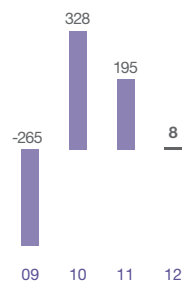
(€ million)



€217 million of net cash flows from operating activities, compared with €591 million in 2011.

Profit for period, Group share

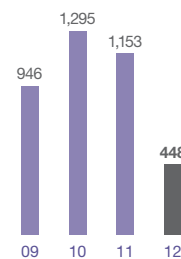
(€ million)



Net profit fell more sharply than ROC, particularly owing to the cost of development projects and a dividend-related tax charge.

Consolidated net cash

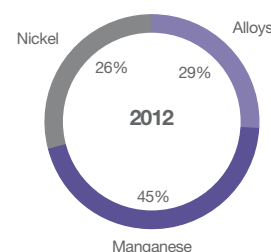
(€ million)



A sound cash position after carrying out capital expenditure.

Breakdown of sales by business segment in 2012

(€ million)



Nickel €898 million
-9.2% change

Alloys €997 million
+ 9.3% change

Manganese €1,560 million
-8.9% change

	2012	2011	2010
Sales by Division			
Nickel	898	989	965
Manganese	1,560	1,713	1,858
Alloys	997	910	764
Holding co. and miscellaneous	(8)	(9)	(11)
TOTAL	3,447	3,603	3,576
Sales breakdown by geographic area			
Europe	1,598	1,598	1,598
North America	686	676	642
Asia	992	1,193	1,201
Other regions	171	136	135
TOTAL	3,447	3,603	3,576

1.2.1.2. Summary of Consolidated financial statements

(to IFRS, € million)	2012	2011	2010
Sales	3,447	3,603	3,576
Current operating profit (loss)	144	554	739
Operating profit (loss)	70	491	721
Profit (loss) for the period	42	303	454
Profit (loss) for the period, Group share	8	195	328
Net cash generated by operating activities	217	591	727
Capital employed*	3,009	2,699	2,554
Industrial capital expenditure	641	492	326
Average workforce	14,167	14,202	14,156

* Excluding the impact of current projects, mainly Weda Bay.

Income statement

Sales

ERAMET group sales fell slightly in 2012 from 2011, to €3,447 million. This decrease is mainly due to the activities of ERAMET Nickel and ERAMET Manganese which sustained the impact of falls in nickel and manganese respectively, of 23% on the LME and 9% for ore prices.

Current operating profit (loss)

Group current operating profit came to €144 million, compared with €554 million in 2011. This sharp fall is mainly due to falls in nickel and manganese prices.

Operating profit (loss)

Operating profit, at €70 million, was a significant €421 million down from 2011. This figure includes new-project development costs (€46 million compared with €29 million in 2011) and exceptional restructuring and dispute expenses of €28 million.

Profit (loss) for period

Profit for 2012 was €42 million compared with €303 million in 2011, after the effect of:

- the €8 million positive net borrowing cost resulting from €1 billion invested at some 2.36% and average debt of €330 million at 5.2%;
- other financial income and expenses, registering a loss of €8 million mainly attributable to €11 million of accretion expenses;
- a tax charge of €28 million, at an effective rate of 40%, compared with 42% in 2011 and 42% at 30 June 2012. The 2012 rate takes account of €43 million in withholding tax on an additional Le Nickel-SLN dividend payment in 2012 and on dividend payments planned for 2013 in accordance with applicable accounting principles.

Consolidated balance sheet

The Group consolidated balance sheet total at 31 December 2012 was €6,319 million compared with €6,301 million at 31 December 2011.

The €18 million increase in this total chiefly results from the following:

- the increase in intangible assets and in property, plant & equipment, particularly due to capital expenditure (of €403 million), the decrease in inventories (€55 million), the increase in trade receivables (€26 million) and the fall in cash assets (€395 million);
- on the liabilities side, the fall in equity capital (by €228 million), mainly due to the fall in non-controlling shareholders' interests following significant dividend payments in the Comilog and Le Nickel-SLN subsidiaries and the €310 million increase in borrowing.

Contingent liabilities connected with disputes are detailed in Notes 18 and 34 to the consolidated financial statements.

1.2.2. Consolidated net cash position

The Group's net cash position⁽¹⁾ was €448 million at 31 December 2012 compared with €1,153 million at 31 December 2011. This decrease results from the following flows:

- €217 million in net cash flows from operating activities (€591 million in 2011);
- -€636 million of net cash flows from capital expenditure operations, chiefly -€641 million in industrial capital expenditure and -€19 million expended on the acquisition of financial investments including €14.3 million on the HeYe investment;
- -€285 million of cash flows from equity-capital transactions, of which -€287 million in dividend payments (of which €59 million to ERAMET shareholders and €228 million to non-controlling shareholders of consolidated companies);
- a negative (€1 million) impact from currency fluctuations.

1.2.3. Financing and credit facilities

The ERAMET group is not currently rated by a financial rating agency.

The Group may, if necessary, draw on the following sources of finance, also detailed in the Notes to the consolidated financial statements (Part 6 of this document).

1.2.4. Capital expenditure

1.2.4.1. Goals

The ultimate aim is both to improve competitiveness and to grow the business of the three strategic Divisions (Nickel, Manganese and Alloys). The policy is based on product differentiation with a focus on markets with structural medium- to long-term growth.

1.2.4.2. Main capital expenditure

Total amount of capital expenditure

Capital expenditure on property, plant and equipment recognised at Group level came to €231 million in 2005, €309 million in 2006, €319 million in 2007, €419 million in 2008, €286 million in 2009, €326 million in 2010 and €492 million in 2011 and €641 million in 2012.

Each major project may be differently financed (particularly from own resources, bank borrowings and finance leasing). The Nickel Division programme was funded from own resources and, in part, by a tax exemption granted under the French Paul Act. Further information is given in Notes 4 and 5 to the consolidated financial statements.

Current capital expenditure is generally funded from own resources.

(1) Net cash comprises cash and cash equivalents and other financial assets less short and long-term borrowings.

Breakdown of capital expenditure by Division and description of major projects

ERAMET Nickel

	2009	2010	2011	2012
Investments recognised (€ million)	107	124	141	146

Improving production equipment

The search for higher performance from production equipment relies on progress in three complementary areas:

- improving operating conditions, which calls for the upgrading of personal-safety standards, and the enhancement of environmental-protection measures;
- reducing production costs, particularly the energy bill;
- modernising older plant by introducing the best technology available in the mining, logistics and metallurgical-process aspects of our business.

For purposes of this systematic search for improved performance, all the mines worked by SLN are included in a multi-year modernisation plan covering renewal of both fixed plant and mobile equipment. These renewals will yield immediate improvements in the three progress areas described. As an example, the new-generation mining lorries incorporate de facto the latest technology as regards power units, particle emission, plant weight, etc. The end-result of all these improvements is enhanced safety and environmental preservation, while also reducing fuel consumption.

Similarly, the investments in the Doniambo, Le Havre-Sandouville and Eurotungstène production sites are being initiated with improved performance constantly in mind along the three lines already described:

- The largest 2012 investment in the Nickel Division production sites is a smoke treatment plant for the ore pre-drying workshop at Doniambo, itself recently revamped;
- Alongside this development, Eurotungstène and Le Havre-Sandouville launched projects to improve the commercial offer and to reinforce the vitally-important industrial safety of these sites which have Seveso lower and upper threshold classification respectively.

- Lastly, 2012 saw the launch of the world's first ore-carrier designed to counteract the free-surface effect. The construction of this innovative vessel for SLN under a long-term use contract represents a major stride forward in the sea shipment of nickel ore.

Expenditure in 2013 will seek the same broad aims as in 2012, with each investment project rigorously scrutinised in the light of the unfavourable economic climate.

Electricity generating station for Le Nickel

In the light of the preliminary project studies for the two fuel alternatives, namely Liquefied Natural Gas and Powdered Coal, the SLN Board of Directors unanimously opted for a generating station powered by Powdered Coal. A partnership is being negotiated with a power asset developer for the Scheduling, Coordination and Steering of the project. Administrative, technical and financial studies are being prepared with the objective to reach a final investment decision in 2014. This renewal of the generating plant will enable SLN to return to production costs within the average for its main competitors.

Weda Bay project

The first part of the feasibility study was completed in early 2012. A project optimisation phase was launched in mid-year and completed in late 2012. This phase factored in a major capital-cost reduction programme, as well as catering for a change in the nickel-bearing end-product for which a pre-feasibility study was performed on a downstream unit. Applications for administrative authorisation were made in accordance with Indonesian regulations. The environmental impact study has been completed, except for the downstream unit. The risk analysis was launched, and risk-mitigation plans were being drawn up at end 2012. Negotiations continued with the Indonesian government. The final investment decision could be made in 2014.

ERAMET Manganese

	2009	2010	2011	2012
Investments recognised (€ million)	110	130	245	399

In 2012, notwithstanding conditions less favourable than in 2011, the Manganese Division maintained a firm pace in its strategically-important investment expenditure.

- Metallurgy complex at Moanda (Gabon);
- New Guilin plant (China);
- 4-million-tonne capacity consolidation at Comilog (Gabon);
- Renovation of the Setrag railway (Gabon).

The Metallurgy Complex project at Moanda

Construction began late last year. Work is proceeding according to plan for a start-up early 2014.

Alongside the work on the production unit, the personnel and social aspects including recruiting and training personnel, or building new housing, are now well under way.

New Guilin project

The new production unit was started up in mid-2012. The four electric furnaces are now operating, while the refined alloys production workshop will be started in the first half of 2013.

Production-capacity consolidation at Comilog

Production-capacity consolidation investment focused on two main points:

- the sands beneficiation workshop, which will generate a better return from the Mouilli sediment, and hence increase the capacity by 100,000 tonnes per year. Fine-tuning of this workshop met unforeseen difficulties, and the expected performance has not yet been reached. A multidisciplinary team of experts, both within and outside the Group, has been set up to solve the complex problems encountered;

- Delivery of 25 wagons and 5 locomotives. A sixth locomotive destroyed following a handling incident experienced by our supplier during unloading at the port of Owendo will be replaced in 2013. Further wagon deliveries (75) are expected in 2013 to better meet our requirement for wagons.

Renovation of the Setrag railway line

The six new locomotives and the complete passenger carriage set, all delivered in late 2011, were commissioned, significantly improving accommodation of Transgabonais railway passengers. At the same time, major works were conducted at the stations, with the same aim of improving passenger accommodation.

Renovation of the track will continue at an annual pace of 30 km of rail and 65,000 sleepers. In parallel with this, an ambitious programme of reconditioning the main unstable stretches of railway track is under study. Work on this programme could begin in late 2013.

Besides the pursuit of these major projects, necessary investment was carried out for maintaining the production capacity of the alloy production units.

Note that no furnace renovation had been programmed at any of the alloy production units in 2012. In 2013, procurement of supplies and preparatory work for the renovation of the Sauda 12 furnace are expected to start, with renovation itself programmed for 2014.

In the recycling activity, efforts focused on significantly improving sulphur-oxide environmental performance at the Freeport plant and on redeploing the Valdi disposable-battery recycling plant.

ERAMET Alloys

	2009	2010	2011	2012
Investments recognised (€ million)	67	69	100	84

In 2012, the Alloys Division completed its strategic investments:

- vacuum processing furnace at the Aubert & Duval Les Ancizes plant (Auvergne);
- UKAD subsidiary (titanium ingot processing) at Saint-Georges (Auvergne);
- atomisation furnace at Erasteel Kloster (Sweden).

ERAMET Alloys has embarked on a significant project for two new heat treatment workshops at its Aubert & Duval site at Les Ancizes (Auvergne) and Erasteel Champagnole (Franche-Comté) in line with

the forthcoming closure of its Aubert & Duval site at Gennevilliers scheduled for late 2013.

To match these efforts, ERAMET Alloys renovated and increased the capacity of its various sites, particularly in the areas of forging and heat treatment, machining and vacuum re-melting, to cater for increasing demand from the aerospace market. Sizeable investments were also made in the Environment, Safety/Security, and Information Systems.

1.2.5. Recent trends and outlook

1.2.5.1. Information at the date of the Board of Directors Meeting on 21 February 2013

No other material events occurred up to the date of the Board Meeting.

1.2.5.2. Outlook for 2013

The world economic environment remains unstable overall, despite some positive short-term signals from the United States and China. The Group's different markets show a contrasting pattern: ERAMET Manganèse should benefit in 2013 from the approximately 20% increase expected in its manganese-ore and sinter

production. Moreover, the relatively low levels of ore stocks in Chinese ports, and a slight increase in physical demand from customers, have driven a gradual increase in ore spot prices CIF China (CRU) in the early months of 2013 to return to levels currently above USD5/DMTU.

Nickel prices recently turned slightly upwards from the very low levels in the second half of 2012, in a market expected to remain in surplus. New projects are expected to continue gathering speed. Uncertainty surrounds the volume of nickel smelting production in China; this will depend first, on these products' processing costs and secondly, on future flows of unprocessed-ore exports to that country.

Similarly, market growth prospects for ERAMET Alloys show a contrasting pattern: the demand trend in aeronautics remains healthy, whereas business prospects in the tooling and high-steel sectors worsened at the year-end.

1.3. HISTORY AND DEVELOPMENT OF THE COMPANY

The Company was incorporated in 1880 under the name Le Nickel, originally to operate nickel mines in New Caledonia.

Under the majority control of the Rothschild family since the end of the 19th century, in the late 1960s it became the parent company of all the Rothschild group's mining subsidiaries (Le Nickel-Peñarroya-Mokta group). Later milestones in the life of the Company and Group are as follows:

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 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 Société Métallurgique Le Nickel-SLN's share capital. Imétal and Elf Aquitaine's interests were reduced to 15% each.

1985: Société Métallurgique Le Nickel-SLN, which owns the mining assets located in New Caledonia, became a wholly-owned subsidiary of a new parent company called ERAMET-SLN, in which the shareholders continue 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 into complementary business activities, with the goal of holding strong global positions in its main markets.

1989-1991: Acquisition of the French company La Commentryenne and the Swedish company Kloster Speedsteel, respectively the world's third-largest and largest producers of high-speed steels. These two companies were merged in 1992 into a new company called Erasteel, wholly owned by ERAMET-SLN, making it the sector's global leader with over 25% market share.

1991: A long-term commercial and financial partnership with Nisshin Steel (a major Japanese stainless steel producer) resulted in the phased acquisition of a stake in Société Métallurgique Le Nickel-SLN. Nisshin Steel's interest reached its definitive 10% level at the end of October 1994.

1992: Société Métallurgique Le Nickel-SLN and ERAMET-SLN took on their current names of Le Nickel-SLN and ERAMET, respectively.

1994: A 51% stake was acquired in Eurotungstène, a cobalt and tungsten powder producer.

A private placement was followed by 30% of ERAMET's share capital becoming listed on the Paris Stock Exchange Second Marché through disposals by ERAP, Elf and Imétal.

1994: The BRGM group (*Bureau de recherches géologiques et minières*, a French state-owned company) contributed its Cofremmi subsidiary, owning nickel ore reserves in New Caledonia, in return

for a grant of shares representing 2.34% of ERAMET's new share capital.

1995: The ERAMET stock was transferred to the Paris Stock Exchange Premier Marché (Monthly Settlement compartment).

1995-1996: ERAMET acquired a 46% stake in Comilog (Gabon), the world's second-largest producer of high-grade manganese ore and also a leading global producer of ferromanganese for the steel industry and manganese-based chemicals.

1997: Under an agreement with GenGabon, this Gencor group company sold ERAMET a 15% interest in Comilog. ERAMET now holds 61% of Comilog.

1998: Agreement to swap Poum/Koniambo mining rights in New Caledonia.

1999: Several major transactions were carried out, resulting in the current capital structure and the Group's current business configuration:

- the Group consolidated SIMA (Duval family), a leading global producer and processor of high-performance special steels and nickel alloys;
- a 30% interest in Le Nickel-SLN was sold to ERAP in exchange for ERAMET shares; ERAP then transferred that interest to a New-Caledonian State-owned entity, Société Territoriale Calédonienne de Participation Industrielle (STCPI). The French State transferred the remaining stake in ERAP to Cogema, which was subsequently absorbed into the AREVA group;
- acquisition of the manganese business of the Norwegian group Elkem, making ERAMET the world's foremost producer of manganese alloys and broadening its product range with high value-added refined alloys.

Following these transactions, the ERAMET group was dramatically transformed. Its businesses are now organised into three Divisions—Nickel, Manganese and Alloys—and the Group's capital is mostly in the hands of private shareholders, with the French state retaining a non-controlling interest.

2000: Acquisition of the Mexican company Sulfamex, producing manganese-based agrochemicals.

Inauguration of the Moanda industrial complex (Gabon), a manganese ore beneficiation and sintering plant that strengthens Comilog's product range and extends the lifespan of its reserves.

2001:

Launch of a capital investment project for a new forging and closed die-forging plant in France with a 40,000-tonne press.

Closure of a ferromanganese blast furnace in Boulogne-sur-Mer (France) and a silicomanganese electric furnace in Italy.

Impairment of Special Metals Corporation.

2002: Acquisition of the Guilin manganese alloy plant (China).

Erasteel acquired a controlling interest (78%) in Peter Stubs (UK).

2003: Launch of a restructuring programme in the Alloys and Manganese Divisions, following heavy losses:

- closure of the Boulogne-sur-Mer ferromanganese plant and the Shaoxing (China) manganese alloys plant;
- disposal by Comilog of Sadaci (molybdenum roasting) and the carbon black business, both based in Belgium;
- launch of a capital expenditure programme in a new high-speed steel plant in China, as a joint venture with the Chinese company Tiangong.

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

2004: New Caledonia: commissioning of the new furnace.

Launch of a capital expenditure programme for a 50% expansion in manganese ore production by Comilog.

Launch of a capital expenditure programme in China for a new manganese derivatives plant serving the alkaline (disposable) battery market.

Buyout of the AREVA group's non-controlling interest in the Manganese Division.

Purchase from Comilog of an 80% interest in Comilog Asia, the company holding the Guilin and Guangxi joint ventures in China.

2005: Decision to expand Comilog's ore production capacity to 3.5 million tonnes by 2008. Oil catalyst recycling business strengthened through two projects by ERAMET's Gulf Chemical and Metallurgical Corporation subsidiary. (GCMC): acquisition of a 100% interest in Bear Metallurgical and launch to the construction of a new oil catalyst recycling unit in Canada.

In November 2005, ERAMET was granted a 30-year concession to operate the Transgabonais railway.

Erasteel: Joint venture with the Chinese company Tiangong called off.

2006: Aubert & Duval: Opening of the tool steels distribution centre in Wuxi (China).

Acquisition of Weda Bay Nickel.

Manganese ore production reached 3 million tonnes.

Opening of the new closed die-forging plant in Pamiers, France (40,000-tonne press).

2007: EMD (electrolytic manganese dioxide) plant in China: the Chongzuo plant started up in the south of the country.

Tiébaghi (New Caledonia): opening of the nickel ore beneficiation plant in the second half of the year, at reduced operating levels.

Erasteel in China: construction of a wire-drawing workshop in Tianjin. The first deliveries took place in November 2007.

July 2007: shares in ERAMET were swapped for those in SLN for STCPI as part of the SLN shareholders' agreement.

New Caledonia: end 2007, opening of Pourm mine.

2008: July: acquisition of a 58.93% controlling interest in the Norwegian group Tinfos (55.78% economic interest).

2009: February: Weda Bay project: partnership and agreement for the sale of 33.4% of Strand Minerals (Indonesia) to Mitsubishi Corporation.

March: Tinfos: New agreement allowing ERAMET to raise its stake in Eralloys from 56 to 94.3% while reducing its interest in Notodden from 56 to 34% (Eralloys brings together the business lines of the former Tinfos excluding the Notodden electric power plant).

April: Construction started on the Moanda metallurgy complex (Gabon). Aubert & Duval established a new titanium processing unit (UKAD) in Auvergne (France).

May: Completion of the second phase in the acquisition of Eralloys (ex-Tinfos) (Norway).

June: ERAMET raised its stake in Eralloys to 100% after acquiring the non-controlling interests.

December: agreement for the sale of Nizi, an international trading business acquired in 2008 with Tinfos.

Agreement to acquire Valdi (France), engaged in recycling non-ferrous metals.

2010: February: ERAMET and Bolloré signed an agreement to explore lithium deposits.

October: Agreement with the Gabonese Republic for a phased increase (until 2015) of its interest in the capital of Comilog.

2011: Commissioning of four strategic capital-expenditure projects by ERAMET Alloys.

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

2012: Transfer of the AREVA shareholding to the Fonds Stratégique d'Investissements (French Strategic Investment Fund) – The IV30 unit at Aubert & Duval is inaugurated.

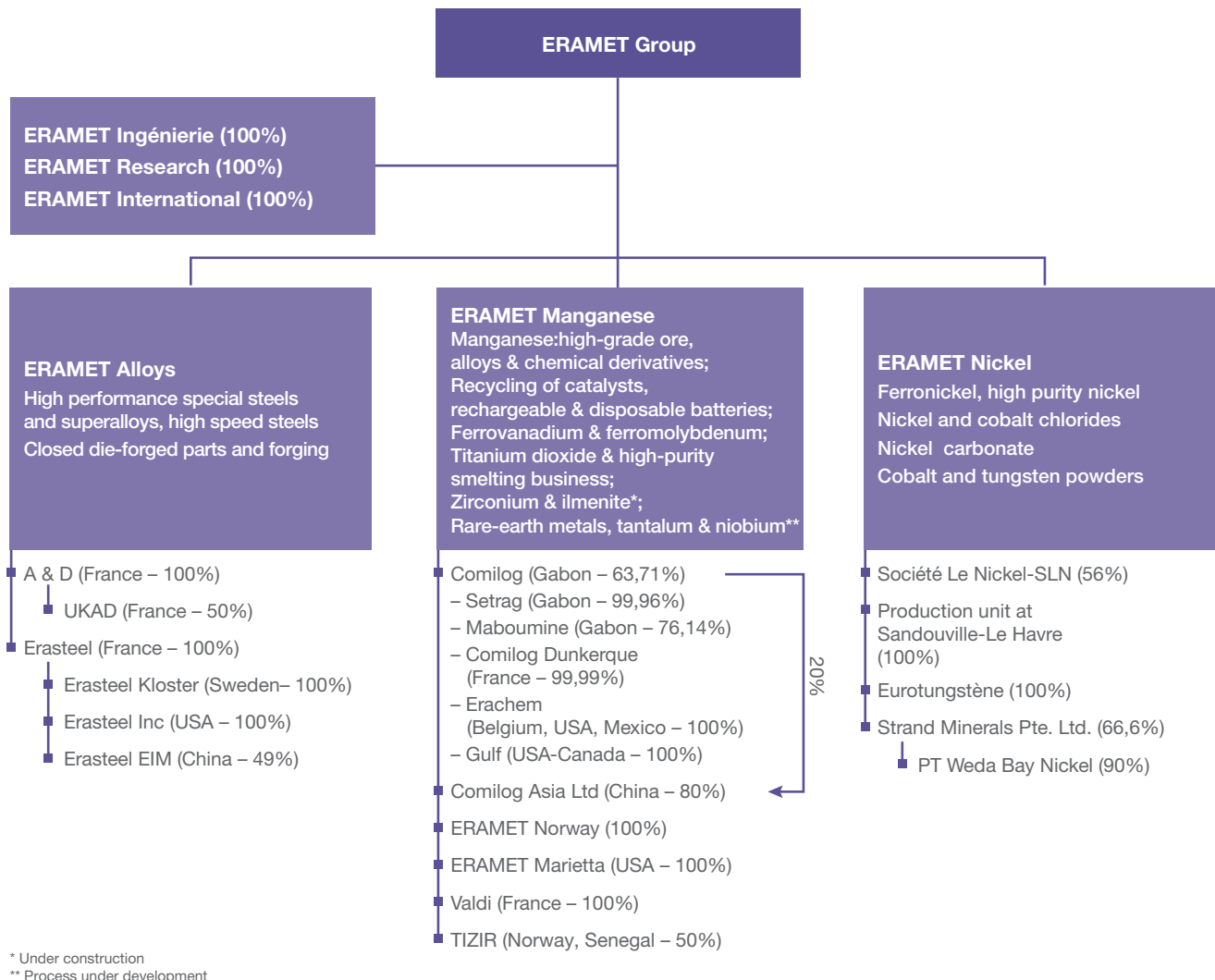


2

ACTIVITIES

2.1. Group structure	16
2.2. ERAMET Nickel.....	16
2.2.1. The nickel market.....	16
2.2.2. Overview of ERAMET Nickel.....	21
2.3. The Manganese Division.....	26
2.3.1. The manganese market	26
2.3.2. Overview of ERAMET Manganèse.....	31
2.4. ERAMET Alloys	40
2.4.1. The ERAMET Alloys businesses	40
2.4.2. The ERAMET Alloys markets	40
2.4.3. Production processes for steels with highly advanced characteristics and superalloys....	42
2.4.4. ERAMET Alloys competitors.....	43
2.4.5. Structure of ERAMET Alloys	44
2.5. Organisational Structure of ERAMET S.A./ERAMET Holding company	49
2.6. Activity of the Divisions in 2012	49
2.6.1. ERAMET Nickel in 2012	49
2.6.2. ERAMET Manganèse in 2012	50
2.6.3. ERAMET Alloys in 2012	51
2.7. Production sites, plant and equipment	52
2.8. Research & Development/Reserves & Resources	53
2.8.1. Research and development: an organisational structure in keeping with Group ambitions, with steadily expanding activity	53
2.8.2. Mineral reserves and resources	56

2.1. GROUP STRUCTURE



2.2. ERAMET NICKEL

2.2.1. The nickel market

2.2.1.1. Nickel applications

Properties of nickel

Nickel is a metal that is little-known to the general public, as it is ordinarily used with other products in alloys. Nevertheless, nickel's rich array of properties makes it a key material for modern living especially given the fact that it can be recycled.

Nickel is an essential alloying element that, depending on the steel grade, can provide:

- resistance to atmospheric corrosion, when combined with chromium;
- resistance to high temperatures without losing its good mechanical properties;
- ductility (ease of working);
- mechanical strength;
- electrical resistance;
- magnetic properties.

Nickel can be electrochemically deposited in a thin layer, and is used in rechargeable batteries. Lastly, it possesses catalytic properties.

The symbol for nickel in the periodic table of the elements, “Ni”, is a commonly-used abbreviation.

Uses of nickel

Stainless steel is by far the world's largest-consuming sector for nickel. World nickel consumption in 2012 broken down as follows:

Stainless steel (8-12% nickel)*	65%
Nickel-based alloys (25-100% nickel)	12%
Electroplating (nickel plating)	9%
Casting and alloy steels (less than 4% nickel)	7%
Rechargeable batteries	3%
Coins	1%
Other uses (including catalysis)	3%

* Austenitic grades, including low-nickel “200 series” grade.

Sources: ERAMET estimates.

End uses of nickel

End uses of nickel, for which, in most of its applications it is hard to find substitutes, are widely varied and essential to modern life.

Stainless steel

Food safety and hygiene

This is one of the major uses of stainless steel, which exhibits excellent hygienic properties, essential to safeguarding consumers, particularly in the following forms: household equipment (sinks, cutlery, saucepans, dishes, etc.); domestic appliances (washing machines, microwave ovens, catering kitchen ranges); food industry and pharmaceutical production tools; surgical equipment, etc. Its properties often make stainless steel legally prescribed in developed countries.

Basic industries

Chemicals, petrochemicals, paper, energy production.

Building and construction

Lifts, ramps, street furniture, water cisterns, building decoration and accessories. Stainless steel is used for its aesthetic qualities, its low maintenance costs and its durability.

Transport

Trains (bodywork and interior fittings), ships, tanker trucks, aerospace, automotive catalytic exhausts.

Nickel alloys

Superalloys

The growth of modern aviation (jet engines) was largely reliant on superalloys, which have high nickel content (over 45%) combined with other metals (particularly cobalt and chromium). Superalloys can ensure good mechanical performance despite the increasingly high operating temperatures of jet engines. They are also used

in gas turbines for energy generation and for some oil industry applications.

Nickel/iron alloys

The production and transportation of industrial gases and liquid natural gas at very low temperatures require the use of certain nickel/iron alloys. Other nickel/iron alloys are used in measuring equipment, TV screens and semiconductors.

Corrosion-resistant nickel alloys

These alloys are used in the chemical industries and in environmental-protection plant (smoke and gas treatment, water treatment, etc.).

Electroplating (coating with pure metal)

Nickel provides a glossy appearance and resistance to atmospheric corrosion (taps, hardware, tubes, etc.).

Casting and alloy steels

Automotive industry and mechanical engineering.

Rechargeable batteries

Back-up batteries, telephones, laptop computers, electric and hybrid automobiles.

Coinage

In many countries, coins are made from pure nickel (such as the French franc until the introduction of the Euro) or using copper alloys containing nickel (the one- and two-Euro coins).

Elsewhere

Catalysis (petrochemicals, margarine production, dyes, etc.).

Nickel and sustainable development

In all its applications, nickel imparts durability to the components containing it. In addition to Nickel's intrinsic qualities, analysis of the component life cycles clearly points to the economic rationale for using nickel in preference to other materials.

Nickel can be recycled indefinitely and its high economic value makes it worthwhile to collect as waste and recycle. The structure of the nickel recycling industry has been firmly established for many years. Products are usually collected for recycling (industrial scrap and products from the destruction of appliances and equipment) by small businesses that sell them on to the major companies in the nickel recycling industry. These firms put together the various alloys containing nickel (stainless steel, superalloys, alloy steels, etc.) in carefully defined proportions to make a new product that is suitable for use by their customers: stainless-steel producers. In 2012, recycled nickel accounted for approximately 45% of the nickel used in producing stainless steel worldwide.

Nickel is used in a great many environmental-protection applications (gas and effluent treatment, etc.).

The nickel market

Thanks to a high and growing number of applications, nickel has historically enjoyed average annual growth of 4% since 1950, which compares very favourably with the market for other industrial products. Stainless steel, the leading use of nickel, has averaged growth of 5% *per annum*.

As a growing share of the population in newly industrialised countries achieves higher living standards, the nickel demand in these countries is accelerating sharply. Historically, Japan, and later the Asian “tigers” bear witness to this. The current focus of development is China, where a middle class of several hundred million people is emerging.

In 2012, nickel consumption in China accounted for over 44% of world consumption. This boom is set to continue for the next decade, while other countries such as India or Brazil also possess enormous growth potential.

More recently, substitution has begun between stainless steel grades. The rise in nickel prices from 2002 to 2007 and the increasing significance of China, which has less firmly-established quality standards, gave rise to the development of ferritic (nickel-free) grades and low-nickel “200 series” grades with 1% to 4% of nickel content, while at the same time, austenitic “300 series” stainless steel, with approximately 8% to 10% of nickel content, lost some 17 percentage points of world market share from 2002 to 2007. This trend towards substitution slowed sharply in 2008, with the “300 series” actually stabilising around 58-60%. In addition, the properties of these different stainless-steel families differ widely and a number of industrial applications rule out any substitution for austenitic stainless steel.

2.2.1.2. Nickel supply

The three types of nickel ore

Access to high-quality ore reserves (ore richness, chemical properties, deposit size) is a key factor in the nickel industry. The nickel content of ores mined today typically varies from 1% to 3% for the richest grades.

There are three types of ore:

- sulphide ore;
- lateritic oxide ore (limonite);
- garnieritic oxide ore (saprolite).

The different ore types have specific characteristics that determine the method of mining them and their production cost structure.

Sulphide ore

Sulphide ore mines are generally underground. Geographically they are mainly located to the North (Canada, Siberia, etc.) or the South (South Africa, Australia, etc.). In these ores, nickel is found with several other metals: copper, cobalt, gold, silver and often platinoids.

The ore can be concentrated physically, increasing its nickel content to roughly 10%-20%. The resulting concentrate goes through pyrometallurgical treatment in a furnace to obtain an intermediate product called matte. Complex chemical refining techniques are used to recover and make use of the various metals in the matte. The process usually ends with a reduction phase (production of powder and briquettes) or with electrolysis (sheet nickel). The carbonyl process (vapour metallurgy) is also used to produce metallic nickel (nickel powders and pellets).

Oxide ores: limonites, from the upper mining levels

The mines are opencast. They are generally located in tropical zones (New Caledonia, Indonesia, Philippines, Cuba, and elsewhere). Nickel content is low, usually at around 1%. The oxide ores contain cobalt and do not usually lend themselves to beneficiation. They are put through hydrometallurgical processes (dissolving in ammonia or sulphuric acid) to separate out the nickel and recover the cobalt.

Oxide ores: garnierites, from the lower mining levels

The mines are opencast, generally in tropical zones (New Caledonia, Indonesia, Philippines, Colombia, Dominican Republic and elsewhere). Garnierites are located under limonites. They have higher nickel grades (approx. 1.5-3%). They cannot be substantially beneficiated.

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

The hydrometallurgical process developed by ERAMET under the Weda Bay Nickel project has the advantage of processing simultaneously the limonites and the lower-grade portion of the garnierites.

Mining production in 2012, broken down by country

Mining production in 2012	Nickel content (thousands tonnes)	% of production
Indonesia	335	17%
Philippines	305	15%
Russia	270	13%
Australia	239	12%
Canada	203	10%
New Caledonia	132	7%
Brazil	109	5%
China	93	5%
Colombia	84	4%
Cuba	68	3%
Elsewhere	192	9%
WORLD	2,029	100%

Sources: INSG (International Nickel Study Group).

2.2.1.3. The main nickel-producing countries

In 2012, ERAMET was the world's 7th-largest producer of refined nickel (the finished product). The country breakdown for refined nickel production was as follows:

2012 (nickel content, thousands tonnes)	Metallurgical production	Finished products
China	462	27%
Russia	257	15%
Japan	167	10%
Canada	140	8%
Australia	131	8%
Norway	92	5%
Brazil	59	4%
Colombia	52	3%
Finland	46	3%
New Caledonia	45	3%
United Kingdom	39	2%
South Africa	33	2%
Elsewhere	173	10%
TOTAL	1,696	100%

Sources: INSG (International Nickel Study Group); Producers; ERAMET estimate.

2.2.1.4. State of the nickel market

In 2012, stainless steel production reached a new annual record at close upon 34 Mt, 2% up on 2011.

With almost 15 million tonnes, China remained the principal driver of stainless steel production growth. For despite a distinct slowing in 2012, actual stainless steel consumption in China remained high.

Stainless steel production in the rest of the world dipped slightly, despite positive contributions from India (+7%), where new production units are under development, and South Africa (+12%). Macroeconomic difficulties impacted European production (-1%) and the Asiatic producers were unable to offset the loss of export opportunities by turning to their saturated domestic markets (-3%). Despite positive demand, US production also fell (-5%).

Demand for primary nickel in stainless steel rose 3% in 2012 (by 29,000 tonnes), slightly exceeding world stainless steel production growth (of +2%). This is because the proportion of austenitic grades in stainless steel production increased slightly whereas the proportion of scrap in nickel consumption retreated.

Demand for primary nickel in non stainless steel sectors (nickel alloys and superalloys, electroplating, batteries, etc.) continued to grow in 2012 (+2%; 13 kt). Nickel alloys and superalloys benefited from strong demand in aerospace and energy, growing by some 7%, whereas the electroplating sector slowed, particularly in China.

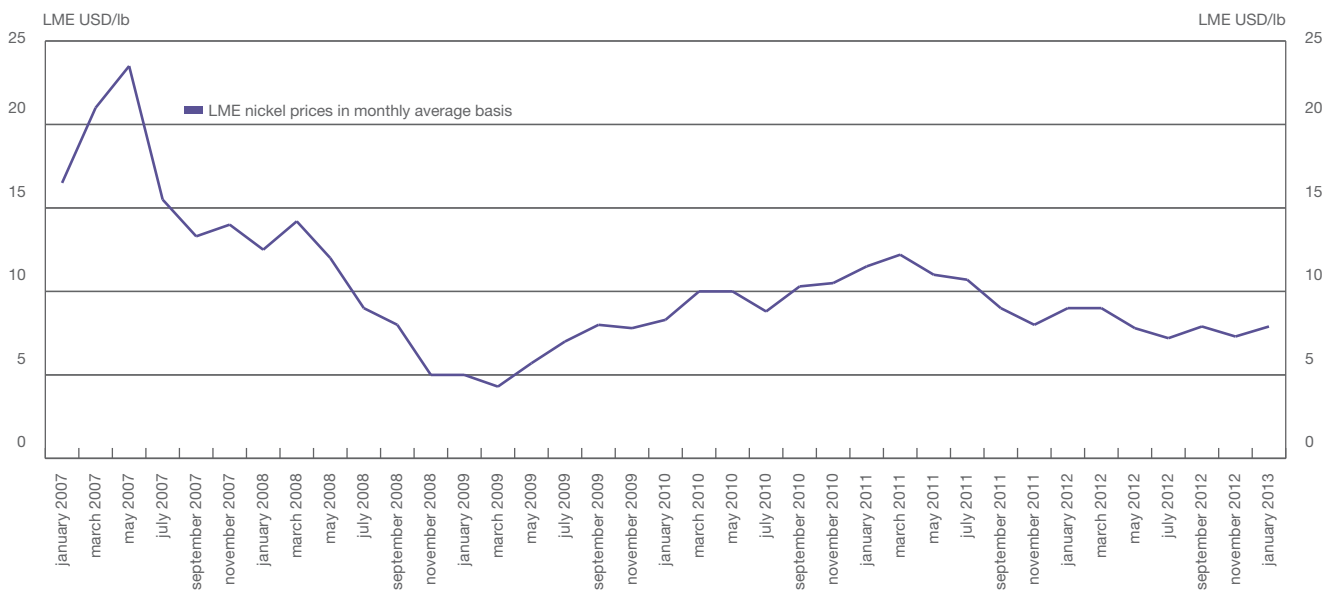
In all, actual world demand for primary nickel grew 3%, with total consumption of over 1,610 kt.

Alongside this, nickel supply rose 6% in 2012, with an additional 89 kt. Despite market players' expectations, the contribution of new projects remained limited with 36 kt (+23 kt) of refined nickel. The supply from conventional producers also increased, by 88 kt.

Chinese production of nickel pig iron also sharply increased in 2012 to reach the new record of 285 kt (+37 kt) with the development of new capacities in RKEF (electrical furnaces with a pre calcination in rotary furnaces), which are more competitive than the BF (blast furnace) and EF (electrical furnace) units.

In 2012, the nickel supply, estimated at 1,696 kt, increased faster than demand, resulting in a sizeable surplus over the year as a whole.

At 7.9 USD/lb, LME nickel prices in 2012 are 23% lower than in 2011:



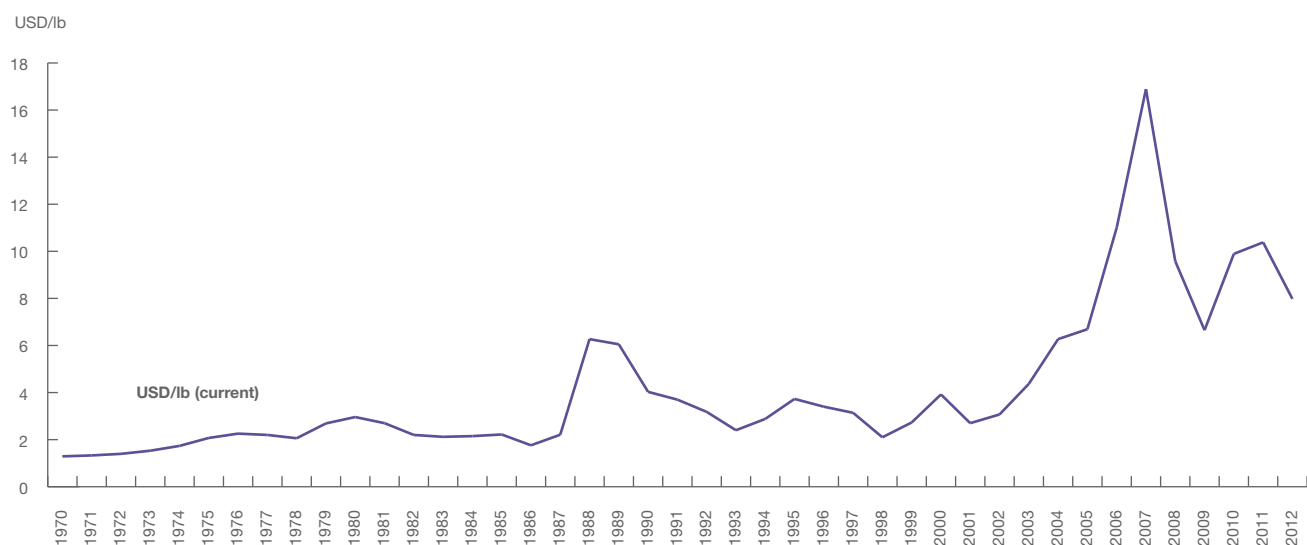
2.2.1.5. Nickel prices

Until 1979, nickel prices were set by the main nickel producers. Since 1979, nickel has been listed on the London Metal Exchange (LME), where players can trade futures and carry out hedging transactions. Every trade on the LME can in theory be settled by physical delivery of metal. In practice, however, only a small fraction of trading results in physical delivery. Sizeable volumes are also traded over-the-counter between financial institutions.

In January 2007, ERAMET became an Associate Trade Member (Category 5) of the London Metal Exchange.

In the medium term, LME prices will react to the nickel market fundamentals, namely the balance between supply and demand. In the short term, however, the macroeconomic situation and the positioning of the financial actors are liable to amplify some upward or downward adjustments. The chart below illustrates historical changes in nickel prices (in USD/lb at current parity): the strong 10-year price-rise trend reflects, in addition to strong demand, very sizeable changes in the quality of deposits and in the production-costs and capital-expenditure factors.

(in USD/lb)



Source: London Metal Exchange – Thomson Financial.

The average annual price of nickel came to USD7.95/lb (USD17,526/t) in 2012, 2% lower than the average for 2011. After a peak at USD9.90/lb (USD21,830/t) in February, macroeconomic uncertainties, combined with low demand, contributed to a strong downward adjustment in the price of nickel. After two short-lived rises in September and November, the nickel price stabilised at around USD7.70-8.00/lb (17,000-18,000/t) at the end of the year. This level seems relatively low when set against the production costs of the industry.

In parallel, LME stocks increased by almost 51 kt in 2012, to reach 142 kt. This increase is consistent with the accumulation of sizeable market surpluses from mid-2011 to end 2012 (+100 kt).

2.2.2. Overview of ERAMET Nickel

2.2.2.1. Key facts

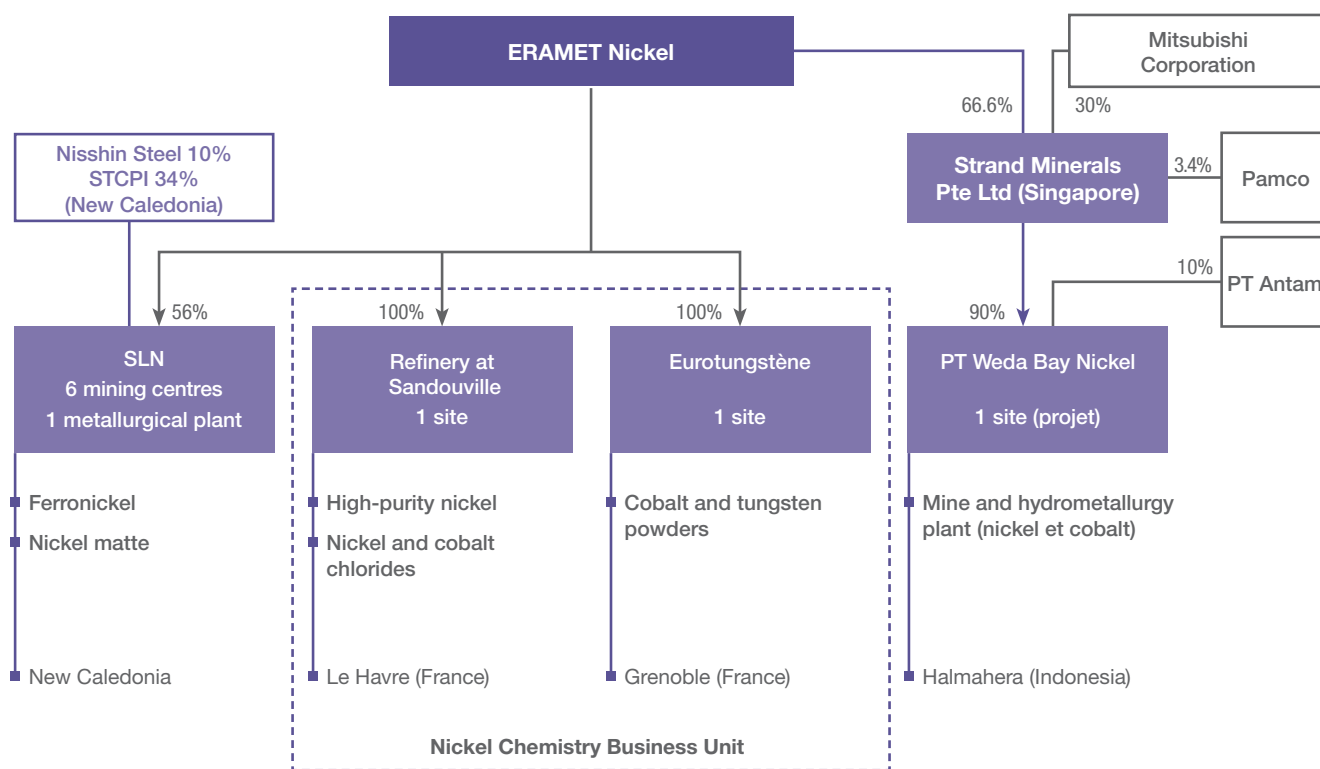
ERAMET has a strong and very long-standing presence in New Caledonia (since 1880).

- ERAMET is the world's seventh-largest nickel producer.
- ERAMET operates high-quality mines from the standpoint of both grade and reserves.
- All ERAMET's metallurgical production uses ore from its own mines.
- ERAMET is the world's second largest ferronickel producer, for the stainless steel market.
- The Group has made extensive investments in New Caledonia to renew a major proportion of the plant and equipment of Le Nickel-SLN (SLN) and to increase its production capacity in order to offset the effects of certain technical changes in its deposits.

- Production is increasing steadily, to more than 56,000 tonnes in 2012. The target is production of 62,000 tonnes per year by 2015.
- ERAMET is examining the development of the Weda Bay project at Halmahera in Indonesia, with its partners, Mitsubishi and Antam. The final investment decision for the first phase is scheduled in 2014. Ultimately, this project aims at annual production of 65,000 tonnes, in two phases (35,000 tonnes for the first phase).
- ERAMET/SLN is examining the possibility of developing new-Caledonian oxide ore using the process devised by the ERAMET group for the intended Weda Bay project. For this purpose, a statement of intent was signed with Vale and the Southern Province for the joint exploration of the Prony and Creek Pernod nickel-oxide deposits, paving the way for local development of this resource, which could be of world class.

2.2.2.2. Structure

Organisational structure at 31 December 2012



ERAMET Nickel, the Group's Nickel Division, is now split into four companies: Le Nickel-SLN, ERAMET (Sandouville), Eurotungstène and Weda Bay Minerals Inc.

Société Le Nickel-SLN

Société Le Nickel-SLN, founded in 1880, has been continually mining nickel deposits in New Caledonia for over 120 years. It now operates mines and a metallurgical plant in New Caledonia.

Weda Bay Minerals Inc.

On 2 May 2006, ERAMET acquired Weda Bay Minerals Inc., listed on the Toronto stock exchange and owner of the world

class Weda Bay nickel deposit at Halmahera in Indonesia. This deposit is 10% co-owned by the Indonesian company Pt Antam. ERAMET has undertaken studies for building a mine and a plant using the hydrometallurgical process developed by the Group at its research centre. In February 2009, ERAMET sold the Mitsubishi Corporation 33.4% of Strand Minerals (Indonesia) Pte. Ltd, which owns 90% of Pt Weda Bay Nickel, with the remaining 10% owned by Pt Antam, an Indonesian company. In December 2011, Mitsubishi Corporation decided to sell a 3.4% interest in Strand Minerals (Indonesia) Pte. Ltd to the Japanese company, Pacific Metals Co. Ltd (Pamco).

ERAMET

ERAMET owns and operates a nickel refinery at Sandouville, in mainland France, and markets all the Nickel Division's products except for ore sales, which are managed by Société Le Nickel-SLN. In addition, ERAMET provides technical support for Société Le Nickel-SLN in several areas, particularly its purchasing management, research, engineering, legal and financial needs.

ERAMET is thus both the majority shareholder and the industrial and commercial operator of Société Le Nickel-SLN.

Société Le Nickel-SLN sells all the metallurgical production from Doniambo to ERAMET. The sale price of the ferronickel sold to ERAMET is based on the average price at which ERAMET sells to its customers, minus marketing costs and a sales margin for ERAMET. The sale price of matte is based on ERAMET's average selling price to its customers for the Sandouville products after deducting marketing costs and refining expenses.

Société Le Nickel-SLN is 56% owned by ERAMET, 34% by STCPI (Société Territoriale Calédonienne de Participation Industrielle, which is jointly owned by the three Provinces of New Caledonia) and 10% by Nisshin Steel (Japan), as a result of the following transactions:

1991: ERAMET entered into a long-term cooperation agreement with Japanese stainless steel producer Nisshin Steel, resulting in:

- Nisshin Steel's acquisition of an interest in Le Nickel-SLN: the initial 5% interest (resulting from a reserved capital increase) was raised to 6% in 1992, 8% in 1993 and reached its definitive 10% level at end 1994 following sales of shares by ERAMET;
- the signing of a contract for the ERAMET group to supply ferronickel to Nisshin Steel. The agreement, which was entered into in 1991 and renewed in 2001 and subsequently in 2007, provides for ferronickel shipments over several years.

1999: in parallel to the SIMA share transfer, the ERAMET group restructured the capital of Le Nickel-SLN, resulting in a 30% stake for STCPI, a New Caledonian state-owned special-purpose entity. STCPI simultaneously received a 5.1% stake in ERAMET's share capital.

2006: in December, STCPI exercised a call option increasing its stake in Le Nickel-SLN to 34%. The transaction was completed on 23 July 2007 via the swapping of ERAMET and SLN stock, after which, STCPI held only 4.1% of ERAMET's share capital.

Eurotungstène

Since 21 August 2003 ERAMET has also wholly owned Eurotungstène S.A., a company based in Grenoble, France (ERAMET had held a 51% interest in this company since July 1994).

Eurotungstène is specialised in the production of extra-fine cobalt powders and tungsten powders. These powders are used, among others, to make hardened carbides for machining metal and for diamond tools used to cut stone and building materials.

The research conducted by the company over a number of years has led to the development of new product lines (Next® and Keen® polymetal powder ranges). These new products, in which cobalt is partly replaced by cheaper metals, have specific properties that drive their strong growth at the expense of conventional cobalt binders.

Eurotungstène can source its cobalt from cobalt chloride supplied by ERAMET's Sandouville plant.

Mines and industrial facilities

The Group is an integrated nickel producer, from mining through to a marketable product.

Nickel mines

The Nickel Division 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;
- reserves currently representing some 15 years' production with two beneficiation plants (recoverable resources represent a much longer mining lifespan estimated at approximately fifteen additional years as of today). The Group has also developed its own process for beneficiating New-Caledonian oxide ores. This technology was first implemented at the Népoui beneficiation plant and then adapted to maximise the value of the Tiébaghi deposit;
- in-depth knowledge of the geology and mining methods developed by Le Nickel-SLN; and
- environmentally-friendly mining techniques.

Operation of nickel mines

Société Le Nickel-SLN's (garnierite) oxide ore deposits are mined opencast. They are generally located at altitudes of 500–1,000 metres. Société Le Nickel-SLN currently has six working mines.

Five are directly operated by the company:

- Thio, operated since 1875;
- Kouaoua, operated since 1960 and reopened in 1977;
- Népoui Kopéto, operated from 1970 to 1982, reopened in 1994;
- Tiébaghi, operated since 1997; and
- Poum: this mine opened at end 2007.

The sixth mine, Étoile du Nord, has been operated since 1988 by a subcontractor, Société Minière Georges Montagnat.

Société 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 the mine's geology and uses hydraulic shovels. The ore is transported by trucks with payloads of 50 to 100 tonnes, depending on the model.

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

Société Le Nickel-SLN's total mining output for the past three years was as follows:

<i>(thousands wet tonnes)</i>	2012	2011	2010	2009
Direct production	2,606	2,533	2,567	2,520
Outsourced production	710	602	735	432
TOTAL	3,316	3,135	3,302	2,952
Limonites	538	550	624	256

Doniambo metallurgical plant

The Doniambo plant produces directly marketable ferronickel (approx. 80% of its output) and nickel matte (20% of output), which is used in its entirety by the Sandouville plant. The proportion varies according to the market trend in each product.

The ore received from mines is standardised and then dried. It is then calcined in five rotary furnaces after adding a reducing agent. In the ensuing stage, the ore is melted in three Demag electric furnaces. The output is then converted, either into marketable ferronickel (SLN 25) by ladle refining and then granulating, or into nickel matte by the addition of sulphur and refining in a Bessemer furnace.

The Doniambo plant is one of the world's two largest ferronickel production units and sustained capital expenditure has driven the steady improvement in the technology and equipment used there. Its close proximity to the port at Nouméa also makes the plant directly accessible for cargo ships and ore carriers.

A major modernisation programme is in progress for the production equipment at Doniambo. In all, four out of the five rotary calcining furnaces, and two of the three electrical furnaces were renewed in recent years. Moreover, ore-drying installations have been developed. Sizeable investments have also been made for the environment.

Mining techniques factor in environmental needs, with tailings stored in stabilised heaps, control of water run-off and revegetation/restoration.

Népoui and Tiébaghi beneficiation plants

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

Metallurgical production (ferronickel and matte) at the Doniambo plant *(tonnes of nickel content)*

1994	50,129
1995	52,343
1996	53,413
1997	54,892
1998	56,502
1999	56,642
2000	57,463
2001	58,973
2002	59,867
2003	61,523
2004	55,180
2005	59,576
2006	62,383
2007	59,796
2008	51,131
2009	52,131
2010	53,719
2011	54,360
2012	56,447

Sandouville refinery

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

The matte is crushed and then corroded by an iron chloride solution in the presence of chlorine. Several successive extraction stages in mixer-settlers to separate out iron and cobalt in the form of iron chloride and cobalt chloride, respectively. The various remaining impurities are then removed. The resulting nickel chloride solution is mostly processed by electrolysis in several stages. The very pure nickel cathode obtained is usually cut up and put into drums. The Sandouville refinery has undertaken a policy of making high-value-added products for various applications such as electronics and chemicals.

The refinery makes high-purity nickel (over 99.97% nickel content) in metal form (sheet nickel), as well as nickel chloride, nickel carbonate, cobalt chloride and iron chloride.

ERAMET Nickel marketing policy and products

The Group has a global sales network, ERAMET International, that markets most of its nickel. The ore is sold directly by Société Le Nickel-SLN.

The Nickel Division's sales strategy is based on a range of high value-added products that have been developed specifically to meet the technical needs of their users. The Group has leading global positions in its main products.

The Group provides its customers with significant technical and sales support to help them derive maximum benefit from its products in their own production processes. The Group maintains long-term partnerships with its customers. Ferronickel sales are usually covered by multi-year contracts with specific tonnage commitments.

Selling prices are determined by reference to LME nickel prices, to which significant premiums are added to reflect the value in use of these products. Premiums are reviewed mainly annually or quarterly.

Ore

Ore is mainly sold to ferronickel producers in Japan and to the Yabulu plant in Australia.

Ferronickel

The Group's entire ferronickel production is sold to stainless-steel producers. Ferronickel is an alloy of nickel (23%-30%) and iron. SLN 25 ferronickel provides stainless-steel producers not only with nickel, but also with top quality iron. Steelmakers can use

ferronickel in shot form in a converter to achieve substantial productivity gains.

Most of the major stainless-steel producers are customers of the Group. The Group has entered into medium or long-term contracts with some of those customers, providing for volume commitments subject to periodic price reviews. These contracts guarantee ERAMET relatively regular shipments. They account for the bulk of the Group's ferronickel shipments.

Pure nickel and related products: one of just three high-purity nickel producers worldwide

- Metallic Nickel (HP Nickel): nickel cathodes are mainly sold to nickel alloy manufacturers (superalloys for the aerospace and nuclear industries, and alloys produced to constraints that improve resistance to corrosion, expansion, pressure etc.), as well as nickel electroplating workshops;
- Nickel chloride (Selnic): ERAMET is the world's leading producer of nickel chloride, a product used in electroplating and in the chemicals industry (catalysts);
- Nickel carbonate (Nickel ONE): NiCO_3 is mainly used in the refining sector to make catalysts and in the ceramic industry as a pigment;
- Cobalt chloride: used in the tyre industry and in the chemicals industry (catalysts) and by ERAMET's Eurotungstène subsidiary.

ERAMET Nickel's research and development policy

The Nickel Division's research and development policy has brought about major developments over the past 30 years. The Group has extensive research facilities with ERAMET Research, based in Trappes (France).

R&D work has led to the following developments:

- the hydrometallurgical process at the Sandouville plant in 1976;
- ferronickel shot in 1978;
- ore beneficiation processes for the Népoui (1991) and Tiébaghi (2008) plants; and
- mining geology techniques.

Furthermore, the process improvements obtained through research and development have promoted a steady expansion in the capacity of the three Demag furnaces.

More recently, the Group passed another major milestone in its development by establishing its own hydrometallurgical process for limonites. This could be applied industrially for the Weda Bay deposit, and could also be rolled out to other deposits over time, particularly in New Caledonia for working the Prony/Creek Pernod deposits.

ERAMET Nickel's return on capital employed

ROCE: Current operating profit (loss) restated for provisions or reversals on fair-value tests/Capital employed at 31 December of year y-1 (Consolidated equity capital for the Division, plus net

financial borrowing, plus the Poum/Koniambo mining indemnity, plus provisions for major disputes, redundancy plans and restructuring, less non-current financial assets, and excluding the Weda Bay investment).

Nickel ROCE (before tax)

%	2008*	2009*	2010*	2011*	2012*
Nickel	23	(7)	26	24	(5.5)

* IFRS.

2.3. THE MANGANESE DIVISION

2.3.1. The manganese market

2.3.1.1. 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 of manganese is used per tonne of steel. However, some 9 to 10 kg of manganese content in ore needs to be extracted per tonne of steel. Manganese represents a very small portion of the cost of steelmaking.

Manganese is mainly used in steel as an alloying element to improve hardness, abrasion resistance, elasticity and surface condition when rolled. It is also used for deoxidation/desulphurisation in the manufacturing process. It is consumed in the form of manganese alloys (ferromanganese and silicomanganese).

Other applications

- Rechargeable and disposable batteries: mainly disposable alkaline 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 chemicals: pigments, fine chemicals;
- Other metallurgical uses: mainly as a hardening agent for aluminium (beverage cans).

Historical consumption trends, outlook

Manganese demand is primarily influenced by trends in global carbon steel production.

The years from 1998 to 2008 saw firm average growth in world carbon steel consumption. This is due to the end of the downturn in steel consumption by the former soviet bloc, the slight upturn in demand in traditional regions and, above all, accelerating demand in emerging countries, with increasingly significant demand from China.

From 2002 to 2008, global demand even grew by over 7% annually, mainly driven by growth in Chinese demand of almost 14% *per annum*.

During the fourth quarter of 2008 and throughout 2009, effective steel consumption was sharply impacted by the crisis; widespread and deep stock cutbacks at steel consumers and producers amplified the effects of the crisis. World production fell 8% from 2008, although the pattern varied according to zone. The developed countries output 60-70% of the 2008 production level whereas, from the second quarter onwards, India and China returned to their pre-crisis production levels.

Steel consumption staged a significant rebound in 2010, rising 17% over 2009. This is mainly due to improved conditions in the developed countries which had suffered most in 2009. However, growth slowed in 2011 and 2012, chiefly in North America and Western Europe owing to the debt-reduction measures in these regions, and steel demand remained virtually constant, at levels persistently below those of 2008. Steel consumption in the emerging countries, on the other hand, grew at a firmer pace, although remaining affected by the government credit curbs designed to combat inflation, as in China.

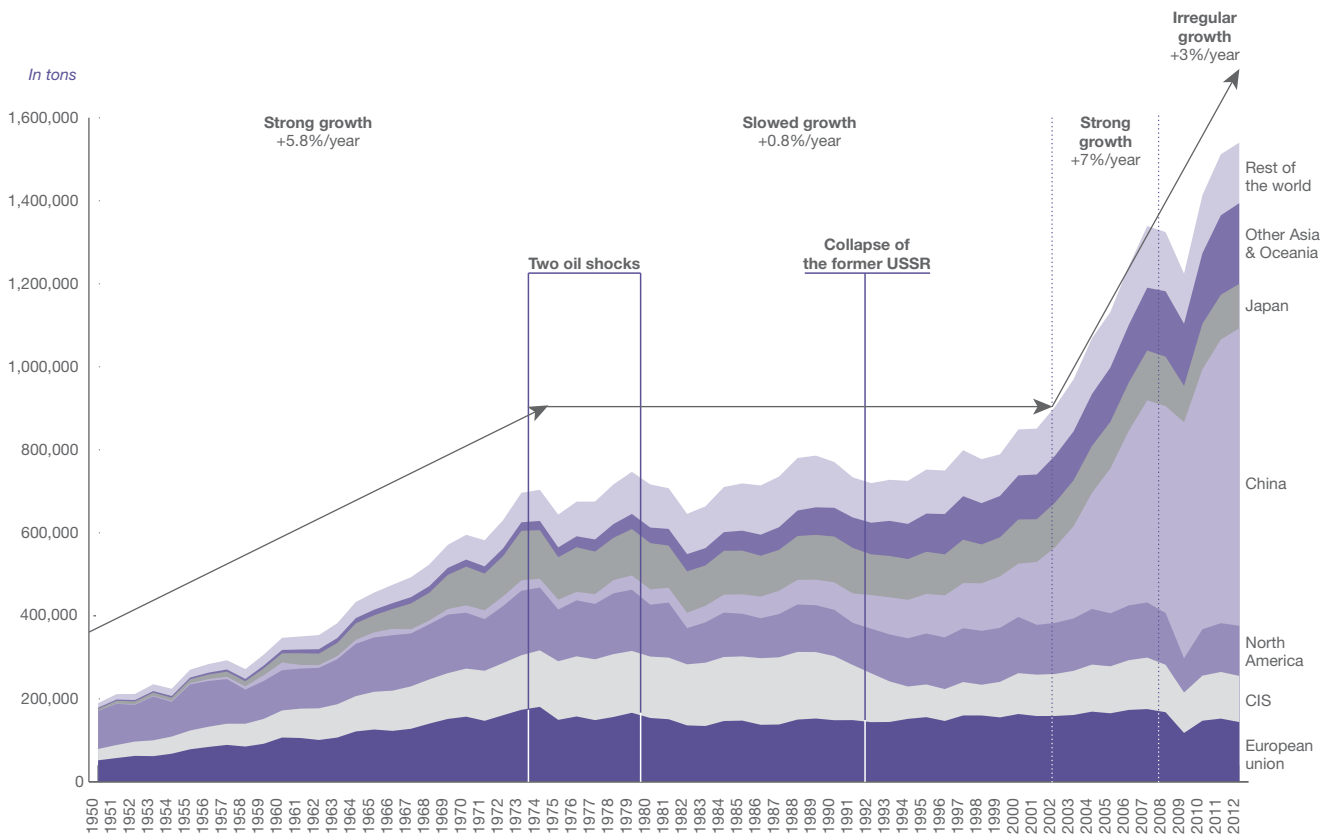
This decline in world demand and the concomitant fall in prices significantly impacted steel production in the second half of 2011 and in 2012; some regions such as Europe and Japan even recorded negative growth in 2012 as a whole, of -5.6% and -0.5% respectively. Among the developed countries, United States fared better, with steel production 3% up in 2012 over 2011, thanks to the automotive sector.

Chinese steel production in 2012 marked a retreat at 742 million tonnes, with limited growth at 3%, compared with 9% in 2011 and 2-figure growth in the preceding years. The economic crisis affected Chinese growth, which fell below 8% without inciting the Chinese authorities to initiate any massive plan to re-stimulate demand, as had been observed in 2009. The declared political

aim is to make the country's economic model evolve from industry-based growth to growth based on services, in order to limit the impact on energy and the environment.

Beyond the crisis, medium- and long-term prospects remain favourable, since growth in world demand will continue to be driven by the development of emerging countries, whose potential remains considerable. In particular, the urbanisation of world populations is an underlying trend: every year, some 20 million persons in China and India, and 60 million worldwide are urbanising. As it happens, construction accounts for more than half the world consumption of steel. Needs relating to infrastructure and industrialisation are steadily being supplemented by needs for durable consumer goods such as cars.

Carbon steel production by geographic zone



Source: WSA, ERAMET.

Global carbon steel production by geographic area

(million tonnes)	2010	%	2011	%	2012	%
Europe	177.3	12.4%	181.4	11.9%	171.2	11.1%
Former USSR	108.6	7.6%	112.4	7.4%	111.2	7.2%
NAFTA (Canada/USA/Mexico)	110.3	7.7%	117.5	7.7%	120.8	7.8%
Japan	109.6	7.7%	107.7	7.1%	107.3	7.0%
China	639.0	44.8%	694.0	45.7%	716.5	46.5%
India	68.3	4.8%	72.3	4.8%	76.4	5.0%
Other Asia & Oceania	103.5	7.3%	116.6	7.7%	117.9	7.7%
Others	110.0	7.7%	117.0	7.7%	118.6	7.7%
TOTAL	1,426.6	100.0%	1,519.0	100.0%	1,539.8	100.0%

Source: WSA, ERAMET estimates.

2.3.1.2. Manganese supply

Manganese ore

The supply of manganese ore is made up of two types of ore, of differing quality. For manganese as for iron ore, a distinction is made between high-grade ore with 35 to 48% content, for which shipment is affordable, and low-grade ore which is consumed locally. Although both types of ore are used in combination by alloy producers, the use value of the high-grade ore is very much higher than for lower-grade ores. Hence, the manganese ore price is strongly influenced by availability of high-grade ore and trends in its consumption.

Global ore production in 2012 was estimated to be 13.9 million tonnes of manganese content. Ore production is mainly from eight countries: South Africa, Australia, China, Gabon, Brazil, the Ukraine, India and Ghana. The production of high-grade ore is concentrated in Australia, Gabon, South Africa and Brazil.

Manganese ore production in 2012

(manganese content, thousands tonnes)

China*	1,748
Australia	3,106
South Africa	3,778
Brazil	930
Gabon	1,333
India*	814
Kazakhstan*	326
Ukraine*	348
Ghana*	558
Mexico*	168
Georgia*	116
Elsewhere*	665
WORLD	13,890

* Low grade ore.

Sources: International Manganese Institute and ERAMET estimates.

The main manganese ore producers are BHP Billiton, Comilog (ERAMET), Assmang and Vale.

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: the most widely used process in the world today. Producers' relative competitiveness largely depends on the availability and cost of their electricity supply;
- blast furnaces: the producers 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 product 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 to 77% of manganese. It can only be produced by electric furnace, using ore with the possible addition of FeMn slag;
- refined ferromanganese (MC FeMn, etc.): this higher value-added product contains less carbon. It is mainly produced by transferring molten HC FeMn alloy to an oxygen converter, which reduces the carbon content to the desired level. A distinction is made between medium carbon ferromanganese (1.5% carbon) and low-carbon ferromanganese (0.5% carbon). These products are used above all to make flat steel products and special steels;
- low-carbon silicomanganese (SiMnLC): with the acquisition of Tinfos, ERAMET Comilog Manganèse has strengthened its presence in the refined manganese alloy market, in particular low-carbon silicomanganese. Tinfos has developed unique expertise in this alloy, which is intended mainly for the production of stainless steel, one of the ERAMET group's main markets.

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

Breakdown of global manganese alloy production in 2012

Silicomanganese	63%
High carbon ferromanganese	26%
Refined ferromanganese and refined silicomanganese	11%

Sources: ERAMET estimates.

Global manganese alloy production in 2012

(alloys, thousands tonnes)

Europe	1,134
CIS	1,594
North America	217
China	9,337
Other Asia and Oceania	3,748
Other	1,338
WORLD TOTAL	17,368

Sources: ERAMET estimates.

The manganese alloy industry is highly fragmented. There are no significant technological barriers for high carbon ferromanganese and silicomanganese, which are standard products. However, between the trend in the ore supply, with lower manganese contents, and the trend towards demand for high-quality steel, the market is increasingly differentiating between alloys of the same type but of varying quality. Among the standard alloys, silicomanganese has grown the fastest, driven by the fact both that it can be produced mainly using low-grade ore, available in China, India and the Ukraine, that is suited to the production of long steel items which are benefiting from those countries' growth in construction.

The supply of manganese alloys depends on the availability of manganese ore. After a long period of overcapacity in the 1980s and 1990s, accelerated demand from steelmakers during the 2000s, combined with lower ore supply elasticity, caused short bursts of high market tension in manganese alloys. In 2012, the sizeable ore supply generated a surplus supply of alloys having regard to the level of demand.

The refined manganese alloys market is a specialist-products market. Refined alloys represent 11% of alloy production. This market is basically geared to the production of flat-steel products for markets such as automobiles and shipbuilding.

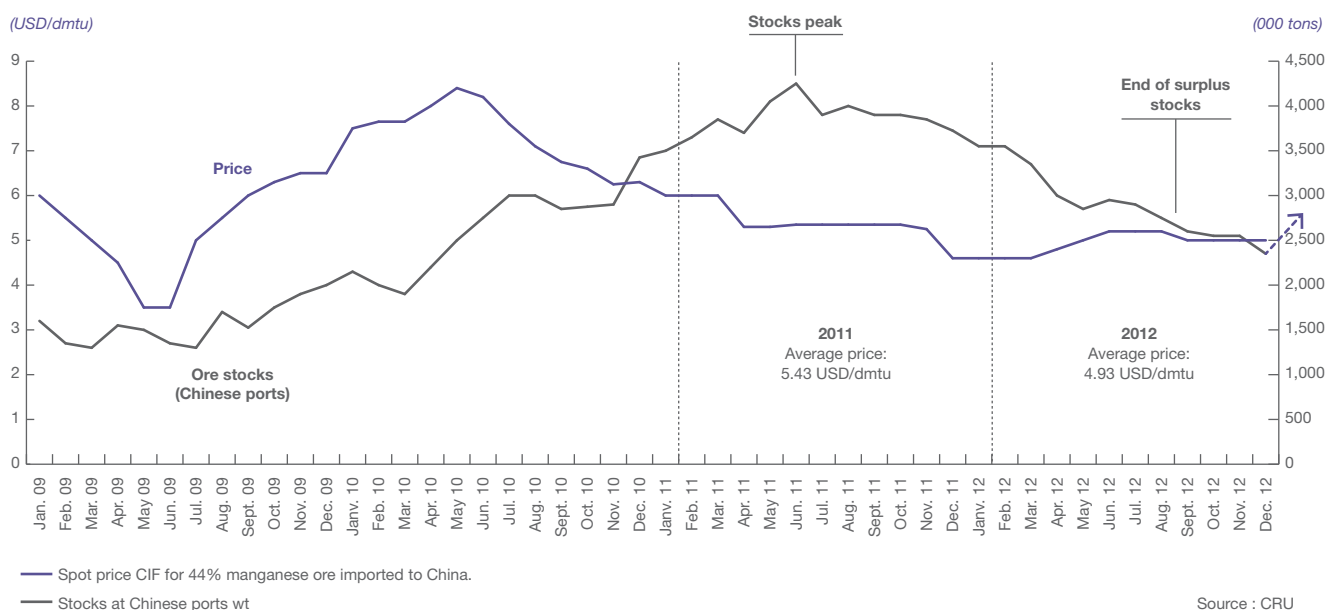
The producers are scattered among a large number of countries, even though China accounts for approximately half of world production.

The competitiveness of Chinese alloys and of metallic manganese, which is a substitute for refined alloys, fell sharply in early 2008 as a result of the Chinese government's decision to impose a 20% export duty on metallic manganese and alloys. This caused a retreat in the Chinese supply of manganese alloys for export, as well as accentuating production overcapacity for alloys in China. Outside China, the reduction in Chinese supply was offset in 2010 by a significant increase in the supply of alloys from India, particularly silicomanganese. However, since January 2013, the Chinese government has decided to withdraw the export tax on the manganese metal while maintaining that tax on manganese alloys.

2.3.1.3. Manganese prices

Manganese ore

The selling price of manganese ore, as with alloys, is negotiated directly between buyers and sellers. Prices are typically quoted in USD/DMTU (dry metric tonne unit). A DMTU corresponds to 10 kg of manganese content. The price of a DMTU is higher for rich ores and also depends on grain size and the presence or absence of impurities.



Source : CRU

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 has further accelerated since 2010, with prices shortening from quarterly to monthly quotation.

Manganese alloys

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

The manganese market is above all global and highly competitive. However, prices can sometimes vary between geographic areas (Europe, North America and Asia) because of movements in

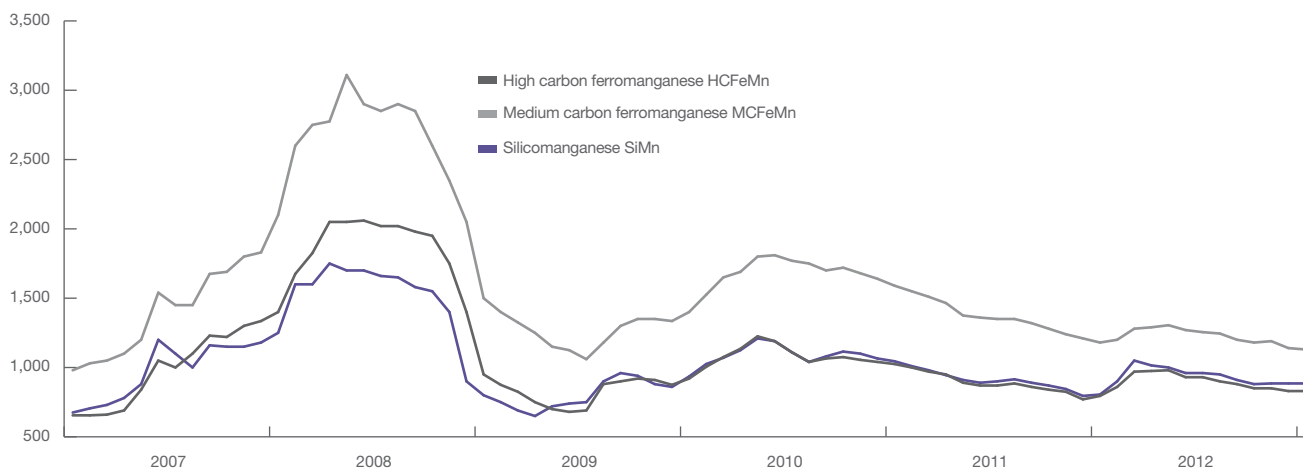
currency rates or economic cycles out of step with each other. These differences are usually only temporary.

Structural differences among the various alloy groups also exist 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. In Europe, they are mainly negotiated in Euros. Prices are determined per gross tonne of alloy and not on manganese content. However, product quality, particularly manganese content, is taken into account when negotiating.

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).

Manganese alloy prices in Europe (Euros per gross tonne of alloy: €/t)



Source: CRU.

Manganese alloy prices are historically less volatile than those of LME-listed metals.

2.3.1.4. Recent market conditions

After many years of slow growth, world steel production accelerated from 2000 to 2007, driven by China, with an annual average growth rate of approximately 7%.

This resulted in considerable demand for manganese that fed through into an initial manganese price peak in 2004 for both alloys and ore.

The response on the supply side was swift and since 2005 prices have fallen back to their historical average.

Global carbon steel production increased by 9.1% in 2006 and 7.3% in 2007, resulting in an upturn in prices, which accelerated to record levels in 2008.

Manganese ore supply is faced with certain logistical bottlenecks on the railways and at the ports of certain large producer countries like South Africa. At the same time, few major investment projects have been announced to meet the rapid growth in demand, and most projects are concentrated in South Africa.

Apart from logistical constraints and the cost of the ore itself, manganese alloy production is being affected by higher energy bills such as for electricity and coke, which are driving prices

upwards. In addition, in China where most new capacity has been built in recent years, a new policy has been introduced designed to limit exports of a number of metallurgical products, including manganese alloys. This policy has been implemented through successive export duty increases.

The ore market is chiefly driven by ore consumption trends in China and hence, by Chinese steel production trends. Accordingly, ore demand recovered from late 2009 onwards. This sudden recovery in Chinese demand for ore, together with the expanding demand in India, drove ore prices upwards from January 2010, to reach a peak in May 2010. The high price levels encouraged the development of new manganese sources, and spurred existing producers to produce at full capacity, resulting in increased ore imports into China, and thus causing stocks to increase at Chinese ports until mid-2011.

The high stock levels, together with falling demand at the year-end, explain the fall in ore prices throughout 2011. However, this fall remained relatively moderate under trying market conditions, clearly reflecting the increased operating and logistical costs in the industry, particularly in locally-mined Chinese ore.

The fall in prices compelled a number of high-cost operators to reduce their production in 2011/2012. This was combined with technical problems at certain major players, who were prevented from producing at maximum capacity; the Seaborne ore market suffered an overall shortage of supply throughout 2012, despite lowered demand (the crisis in the West, an easing of growth in China, etc.). Hence, ore stocks in the Chinese ports fell from 3.5 to 2 million tonnes. This drove a slight rise in the ore price starting in April 2012.

The alloys market is suffering from poor visibility due to the difficulties encountered by the mature economies since mid-2011: Slacker growth, the Euro zone debt crisis, etc. This depressed steel production outside China, and hence, the demand for alloys was less certain, even though most producers have maintained their rate of output. The surplus ore supply in 2011 even supported the emergence of new production capacities in India and Korea.

In China, which has exhibited a structural overcapacity in alloys since the increase in export taxes, the marked slowing of steel production in the second half-year of 2011 and in 2012 also knocked on to cause a fall in demand for alloys, and hence also depressed prices. This fall in prices, combined with rising production costs (particularly of electricity) caused numerous local silicomanganese producers to reduce or even halt their activity.

Forecasts for 2013 point towards some stability in industrial activity for Europe and Japan, and a slight rise for the United States. The alloy and ore markets appeared to be returning to an even keel at the start of this year, with some price uptrends.

Although at a more moderate pace than in recent years, China should again in 2013 see significant growth in its steel production (probably at a similar pace to 2012), as in all emerging countries, which have an increasingly significant share in world consumption of manganese alloys.

In the medium term, manganese ore supply capacity will continue to be heavily dependent on South Africa with its new mining projects and its logistical capacities. At the same time, Chinese manganese ore production is struggling to meet world demand while its grade (content) is tending to decline; this increases the need for high-grade imported products; note, however, that this supply remains limited and reserves are tending to fall.

2.3.2. Overview of ERAMET Manganèse

2.3.2.1. Key facts

The Group is a world front-runner in the manganese industry, both in mining and in ore processing: it is the world's second-largest producer of high-grade manganese ore and manganese alloys, the world's leading producer of refined alloys and the leading global producer of manganese chemical derivatives. It boasts a long-standing presence in Gabon with high-quality mines (grades and reserves), through its majority shareholding in Comilog, alongside the Gabonese Republic.

Comilog has succeeded in recent years in expanding its production to keep pace with the growth in world demand for steel; with the current capital-expenditure programme, Comilog will in 2014/2015 reach the target of 4 million tonnes, doubling its output over some 10 years. Comilog also holds a concession to operate the Transgabonais railway, through Setrag.

Besides the manganese industrial chain, other activities are also developing within ERAMET Manganèse:

- the recycling of oil catalysts in the United States (GCMC, a subsidiary of Comilog) and in France (Valdi);

- a new business division in mineral sands (zirconium and titanium), which arose in two stages, first through the acquisition of Tinfos (the Tyssedal plant in Norway), then with the setting up of a joint venture 50% owned with the Australian group Mineral Deposits Ltd (“MDL”) covering the Tyssedal site and the future mineral sands operation under construction in Senegal (Grande Côte), contributed by MDL;
- the project to develop in Gabon a potentially very large poly-metal deposit of niobium/rare-earth metals/tantalum/uranium, owned by Maboumine, a majority-owned subsidiary of Comilog. This project is currently at the stage of studies and laboratory pilots aimed at developing a new method for processing the complex ore from this deposit.

2.3.2.2. History of the Manganese Division

1957: Founding of Comilog.

1962: Mining of the Moanda deposit begins in Gabon.

1986: Start-up of the Transgabonais railway to transport ore from the Moanda mine to the port at Owendo near Libreville.

1991-1994: Comilog acquired Sadacem (manganese chemistry), SFPO (blast-furnace ferromanganese production at Boulogne-sur-Mer, France) and DEM (alloy production by electric furnace in Dunkerque, France).

1995: Comilog acquired the Guangxi and Shaoxing manganese alloy plants (China).

1996-1997: ERAMET becomes Comilog’s main shareholder.

1999: ERAMET acquired the Elkem group’s manganese business, which are merged into ERAMET Manganèse Alliages.

2000:

- Acquisition of the Mexican company Sulfamex, which produces manganese-based agrochemicals.
- Opening of the Moanda industrial complex (Gabon), a new manganese ore beneficiation and sintering plant, enhancing Comilog’s product range and extending the lifespan of its reserves.

2001: Closure of a ferromanganese blast furnace in Boulogne-sur-Mer and a silicomanganese electric furnace in Italy.

2002: Acquisition of the Guilin manganese alloy plant (China).

2003: Implementation of a restructuring programme in the Manganese Division:

- closure of the Boulogne-sur-Mer ferromanganese plant and the Shaoxing (China) manganese alloy plant. Manpower reductions at most other ERAMET Manganèse sites;
- disposal by Comilog of Sadaci (molybdenum roasting) and the carbon black business, both based in Belgium;
- provisional agency management contract for the Transgabonais train granted to Comilog by the Gabonese government.

2004: Launch of a capital expenditure programme for a 50% expansion in manganese ore production at Comilog in Moanda to 3 million tonnes.

Launch of a capital expenditure programme in China for a new manganese derivative plant to serve the alkaline disposable battery market.

With effect from 1 July 2004, the Group acquired from COGEMA (AREVA group) its 30% interest in ERAMET Manganèse Alliages and its 7% interest in Comilog. Following this transaction, the business activities of ERAMET Manganèse Alliages were split into two companies: ERAMET Norway, and Marietta.

2005: Decision to expand Comilog’s ore production capacity to 3.5 million tonnes by 2008. Oil catalyst recycling business strengthened through two projects by ERAMET’s Gulf Chemical and Metallurgical Corporation subsidiary (GCMC) to rise to 100% in Bear Metallurgical (ferromolybdenum).

In November 2005, ERAMET was granted a 30-year concession to operate the Transgabonais railway.

2006: Comilog production successfully increased to 3 Mt.

2007: In January, the Chongzuo (China) plant started producing manganese chemical derivatives for the alkaline disposable battery market.

2008:

- Acquisition of 58.93% in Tinfos, a Norwegian group (56% economic interest).

2009:

- Acquisition of the remaining non-controlling interests in the former Tinfos (excluding the Notodden power plant, in which ERAMET holds 34%).
- Construction starts on the Moanda metallurgy complex (Gabon).

2010:

- Acquisition of Valdi, a business specialising in recycling oil-industry catalysts, disposable batteries and waste from steelworks.
- Disposal of the international trading businesses acquired from Tinfos (Tinfos Nizi).
- Agreement for the Gabonese government to increase its investment in Comilog (increasing to 35% in 2015).

2011: October: Creation of TiZir, a joint venture in the mineral sands sector (particularly ilmenite and zircon) 50%-owned with Mineral Deposits Ltd.

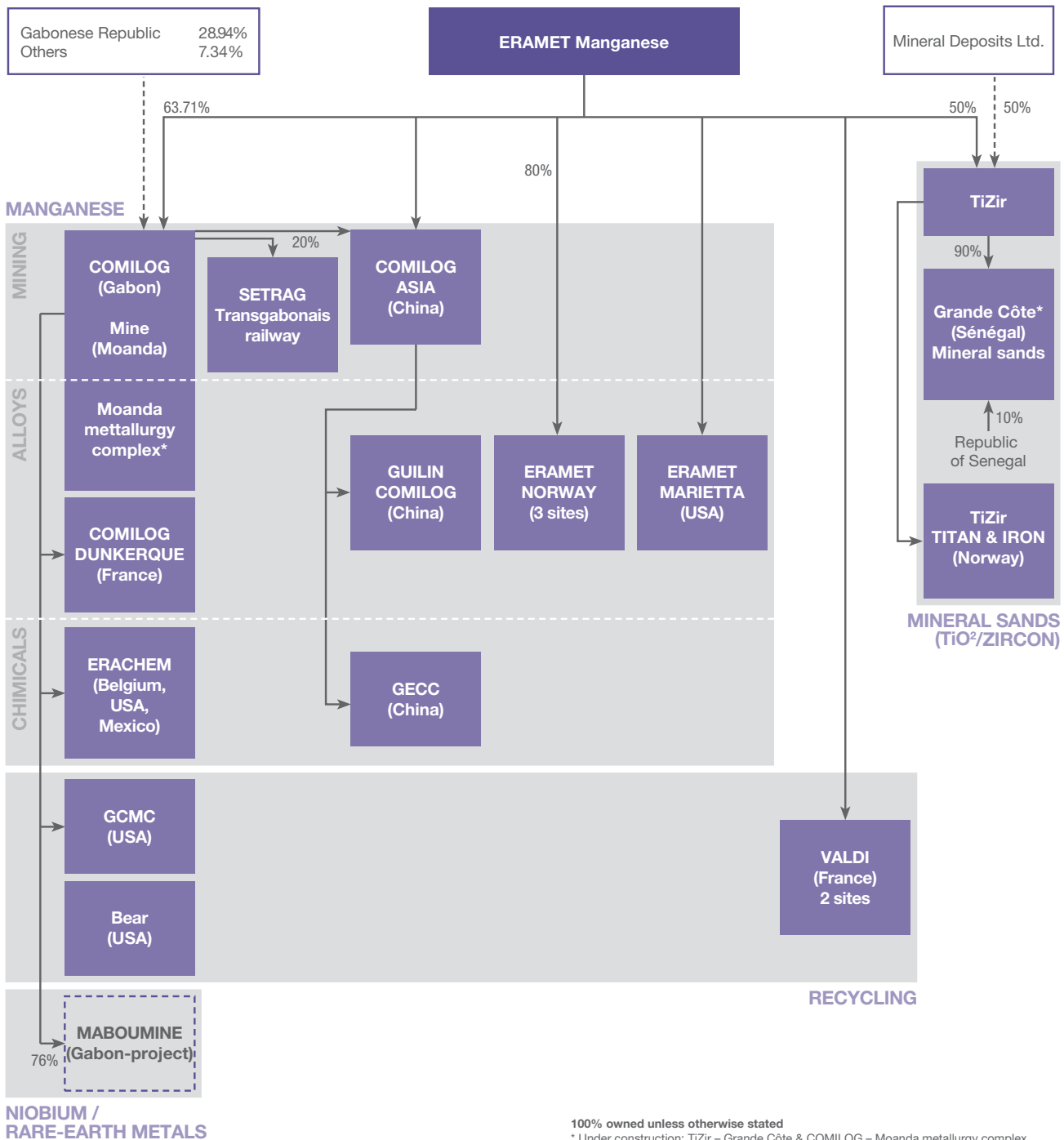
2012: Commissioning of the New Guilin new manganese-alloy production plant in China, and closure of the old Guangxi plant. R&D work on two new pilots for research into a processing method for the Mabounié polymetal deposit in Gabon (niobium, rare-earth metals, tantalum, uranium, etc.).

2.3.2.3. Structure

Organisational structure at 31 December 2012

The main business division is the Manganese Division which extends from the mining of the ore in Gabon, to its shipment and the ore-processing activities, in the form of alloys or chemical derivatives.

ERAMET Manganèse, the Group's Manganese Division, is now organised into six main companies, outlined below:



- Comilog is a company operating under Gabonese law and 63.71% owned by ERAMET. Its business activities include:
 - operation of the Moanda manganese mine and sintering plant,
 - operation of Setrag (Transgabonais railway),
 - production of manganese alloys in Dunkerque (France),
 - the production of manganese-based chemical derivatives, the recycling of metals contained in oil catalysts,
 - production of ferrovandium and ferromolybdenum,
 - the Maboumine project (niobium, rare-earth metals);
- Comilog Asia includes the Chinese manganese-processing activities. At end 2012, the manganese-alloys business included the New Guilin new Chinese plant, commissioned in July 2012, while the Guanxi plant was closed at end 2012 and the old Guilin plant was closed in 2011; Comilog Asia also includes, under manganese chemical derivatives, the electrolytic manganese dioxide plant at Chongzuo, for disposable batteries;
- ERAMET Norway has three Norwegian alloy plants at Porsgrunn, Sauda and Kvinnesdal;
- ERAMET Marietta (US) produces manganese alloys;
- TiZir is the joint venture 50%-owned with the Australian group, Mineral Deposits Limited, concerned with mineral sands and the production of titanium dioxide and zircon. TiZir groups together the titanium-ore enrichment plant at Tyssedal (Norway) and the operation currently under construction at Grande Côte, in Senegal, which will produce mineral sands (zircon and titanium ore).

Manganese mining and processing business (manganese alloys and chemicals)

The Moanda mine and sintering plant

The Moanda mine exploits 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 opencast. The ore is covered by a 4-5 meter thick layer of overburden. This is extracted by draglines. The run-of-mine ore is extracted using mechanical excavators and loaded onto 110-tonne trucks. The ore is processed at the beneficiation plant. The beneficiated ore is subsequently transferred to Moanda railway station by conveyor.

Non-marketable ore fines were previously stored in heaps but are now dispatched to the Moanda industrial complex. There they go through dense-medium beneficiation, which increases their content

from 43% to a 52% concentrate. This concentrate is then mixed with coke and sintered in a furnace at 1,300 degrees Celsius to obtain a product containing approximately 58% 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 Transgabonais railway runs from Franceville to Libreville over a distance of some 600 kilometres. In addition to Comilog's manganese ore, it carries wood and miscellaneous goods as well as transporting passengers. Comilog owns its own locomotives and wagons.

Furthermore, in May 2003, Comilog was provisionally granted the right to manage the Transgabonais by the Gabonese government, after the operator was stripped of its concession. This made it possible to considerably improve maintenance and traffic reliability, so that larger quantities of manganese ore could be shipped.

In February 2004 the Gabonese government extended the management contract for an 18-month term.

Finally, from November 2005 Comilog was granted a 30-year concession to operate the Transgabonais railway. This enables it to secure its logistics and ship fast-growing quantities 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 three months' production. The port can dock 60,000-ton 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 producer of refined alloys, which are higher-value-added products. The Group possesses six manganese alloy plants at the end of 2012 and is the only alloy producer with plant located in the three major consuming areas: Europe, the United States and Asia (China), enabling it both to provide better service to its customers and to protect itself from market and currency fluctuations.

The Group produces a very wide range of alloys: high-carbon ferromanganese, silicomanganese, medium and low-carbon ferromanganese and low-carbon silicomanganese. ERAMET Manganèse is gradually increasing the share of refined alloys in its production.

In Gabon, ERAMET has begun construction of the Moanda metallurgy complex which, in late 2013/early 2014, will begin producing silicomanganese and metallic manganese.

Production of manganese alloys for the steel industry

(thousands tonnes)	2012	2011	2010	2009	2008	2007	2006	2005
High-carbon ferromanganese (including China)	144	227	256	246	287	299	279	290
Standard silicomanganese	236	199	196	197	172	191	201	185
Refined alloys	350	358	327	174	249	270	271	252
TOTAL MN ALLOY PRODUCTION	730	784	779	617	708*	760	751	727

* Excluding Tinfos.

Manganese alloy production sites

Sites	Countries	Production capacity	Furnace type	Products
Dunkerque	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
Guangxi Province	China	0 kt	Blast furnaces	HC FeMn
Guilin	China	150 kt	Blast furnaces and one electric furnace	HC FeMn, SiMn

In Europe, three alloy plants are located in Norway. The fourth plant is at Dunkerque 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 and Guangxi were closed, and a new plant was commissioned at Guilin in July 2012; this site will be well-positioned on refined manganese alloys.

In the US, ERAMET Marietta is the main manganese alloy producer.

Manganese chemistry business

The Group is the global leader in manganese chemical derivatives. The manganese chemistry business is housed under Erachem Comilog and is carried on from five plants:

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.

Recycling business

This is currently carried on at five sites:

Location	Products
Tertre (Belgium)	Copper solutions recycling
Freeport (United States)	Recycling of oil catalysts and recovery of metal content (vanadium, molybdenum, etc.)
Butler (United States)	Ferromolybdenum and ferrovanadium production
Valdi—Le Palais-sur-Vienne (France)	Catalyst recycling for the oil industry Processing of other metallic waste
Valdi—Feurs (France)	Recycling of rechargeable and disposable batteries Alloy refining

Mineral sands business (TiO₂ and zircon)

TiZir was created in 2011 by ERAMET and the Australian company, Mineral Deposits Limited. 50% held by ERAMET, it has two sites.

Sites	Countries	Products
Tyssedal	Norway	Titanium dioxide (pigments industry) High-purity smelting for the foundry industry
Grande Côte	Senegal	Project in progress for the mining of titanium ore (ilmenite, rutile, leucoxene) and zircon

The Tyssedal plant in Norway produces titanium dioxide slurry for use in the pigments industry, as well as performing high-purity smelting using ilmenite ore sourced from several suppliers. Grande Côte is a mineral sands mining project located in Senegal, scheduled to start production in late 2013 (see below).

ERAMET Manganese marketing policy

Its industrial network and very wide product range enable the Manganese Division to provide a comprehensive product offer and a flexible response to its customers' varied needs for manganese.

The Group adopts a partnership approach in working with its customers, providing significant technical and sales support to help them derive 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 markets most of the Manganese Division's products. In countries where ERAMET International does not operate, the Group is represented by agents.

Research and Development

The Group has extensive research facilities with ERAMET Research. These have been used, in particular, to develop and implement the sintering process at the Moanda (Gabon) manganese fines plant.

Manganese chemistry activities are highly dependent on the joint development of new products with customers, particularly in the electronics sector.

TiZir

In 2011, ERAMET and the Australian company, Mineral Deposits Limited ("MDL") formed a joint venture investing in 100% of the titanium dioxide and high-purity smelting plant at Tyssedal in Norway, previously operated by ERAMET Titanium & Iron ("ETI"), and 90% of the Grande Côte mineral sands in Senegal, which were owned by MDL. The remaining 10% are held by the Republic of Senegal.

In combination, these two assets will constitute a vertically-integrated entity, and a major industry player in mineral sands: the Tyssedal plant will enjoy a new source of high-quality ilmenite—a titanium ore—supplied from the Grande Côte project, assuring the sale of a large proportion of the latter's production.

Mineral sands, an attractive market for ERAMET

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 ilmenite (FeTiO₃), but also as rutile (TiO₂) and to a lesser extent as leucoxene (FeTiO₃.TiO₂)—and zircon (ZrSiO₄).

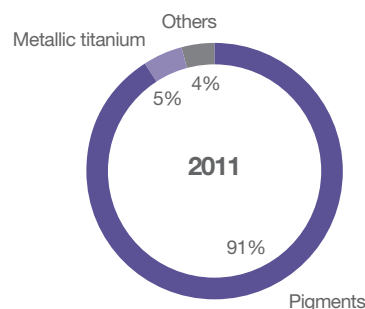
The content of these ores in the sand is often of the order of a few per cent. Accordingly, they must be concentrated by a first stage of gravimetric separation, then by magnetic or electrostatic separation. Zirconium and titanium ores are separated at the mine and are routed along separate logistical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

The main mineral-sand deposits exploited today lie chiefly in Australia and South Africa which, between them, account for almost 50% of the titanium ore supply and over half the supply of zircon.

The titanium market: high growth potential, driven by the emerging countries

Titanium dioxide is mainly used in the pigment industry, which accounts for 90% of demand, as well as being used in the manufacture of welding electrodes and in production of metallic titanium, particularly used in aerospace in the form of alloys.

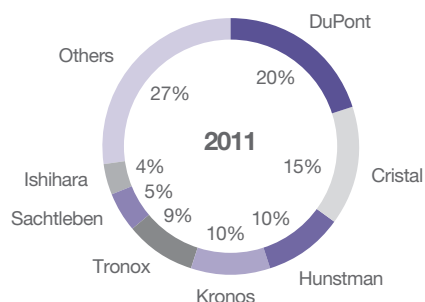
Titanium consumption – 2011



The TiO₂-base pigment is a very pure white used in paints, plastics, textiles and paper; it has the advantage of being non-toxic. Demand for pigments increased from 2.7 million tonnes in 1990 to 5.3 million tonnes in 2010, mainly driven by the buoyant Asiatic economies, which accounted for 40% of 2010 demand compared with 21% 20 years earlier. The main pigment producer is the

American DuPont, boasting 20% of the market, followed by Cristal, Kronos and Huntsman. The multiplicity of Chinese producers accounts for 21% of supply in 2010, whereas they represented only 7% of the market in 1990.

Main pigment producers – 2011



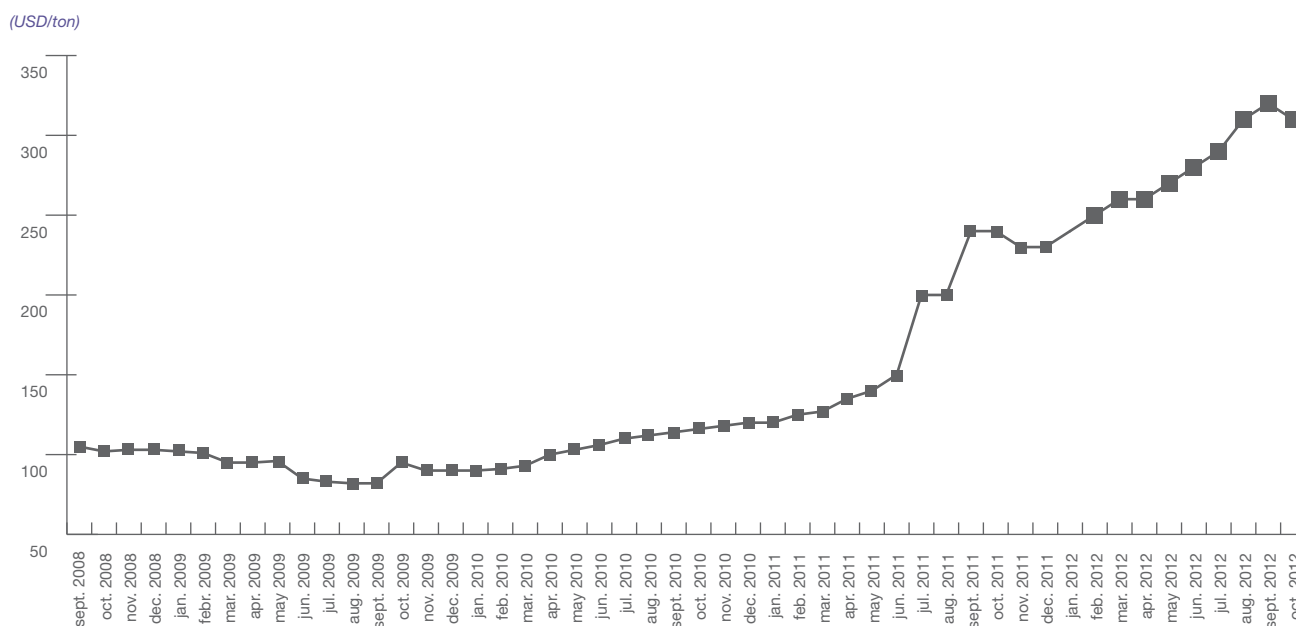
Pigment producers need a raw material rich in TiO₂: rutile contains over 95% of TiO₂; synthetic rutile is produced from high-grade ilmenite; TiO₂ slag is obtained by melting ilmenite which is produced in particular by the Tyssedal plant, which is now part of TiZir. Melting/reduction of ilmenite is also a smelting production method which,

according to the ore characteristics, may constitute a valuable by-product: this is the case for Tyssedal plant, which is a supplier of high-purity smelted products used by foundries and in applications such as wind turbine hubs.

The Metallic titanium business, although of smaller volume than pigments, is a segment with high growth potential, particularly in the aerospace and medicine markets: titanium in metallic form exhibits an excellent strength/density ratio and outstanding corrosion resistance at high temperatures, making it particularly attractive for aerospace, defence and certain industrial applications. Titanium is also biocompatible, and is used for the manufacture of certain prostheses. ERAMET produces titanium forged and closed die-forged parts, and has developed a joint venture with the Kazakh titanium sponge and ingot producer, UKTMP, leading to the creation of an ingot processing plant in France at Saint-Georges-de-Mons.

The titanium market is relatively tight and titanium prices have increased sharply. As an example, the spot price for ilmenite sulphate grade produced in Western Australia rose from less than USD100 per tonne in September 2010 to over USD250 per tonne at end 2011 and then USD300 per tonne at end 2012.

Ilmenite for sulphate process - Western Australia - indicative FOB prices



Source: TZMI.

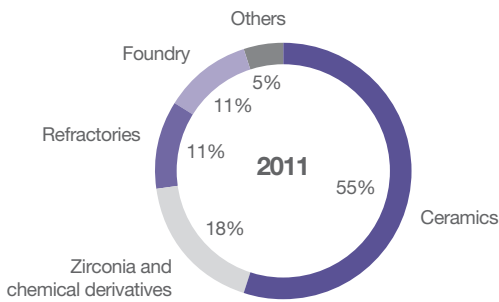
The zircon market

Zircon is particularly used in ceramics (55% of demand in 2010) as an opacifier, imparting brilliance and smoothness to ceramic items. Ceramic tiles or washbasins contain zircon: zircon sand is finely ground 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. 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).

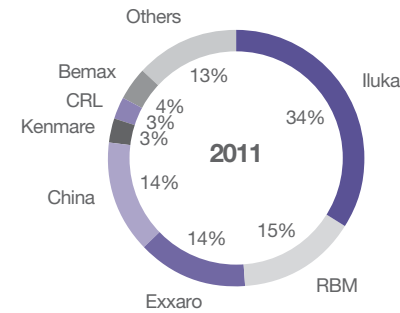
Demand for Zircon has risen from some 1.2 million tonnes in 2006 to close upon 1.4 million tonnes in 2010, increasing almost 15%, also strongly impelled by growth in emerging countries and urbanisation.

Zircon consumption – 2011



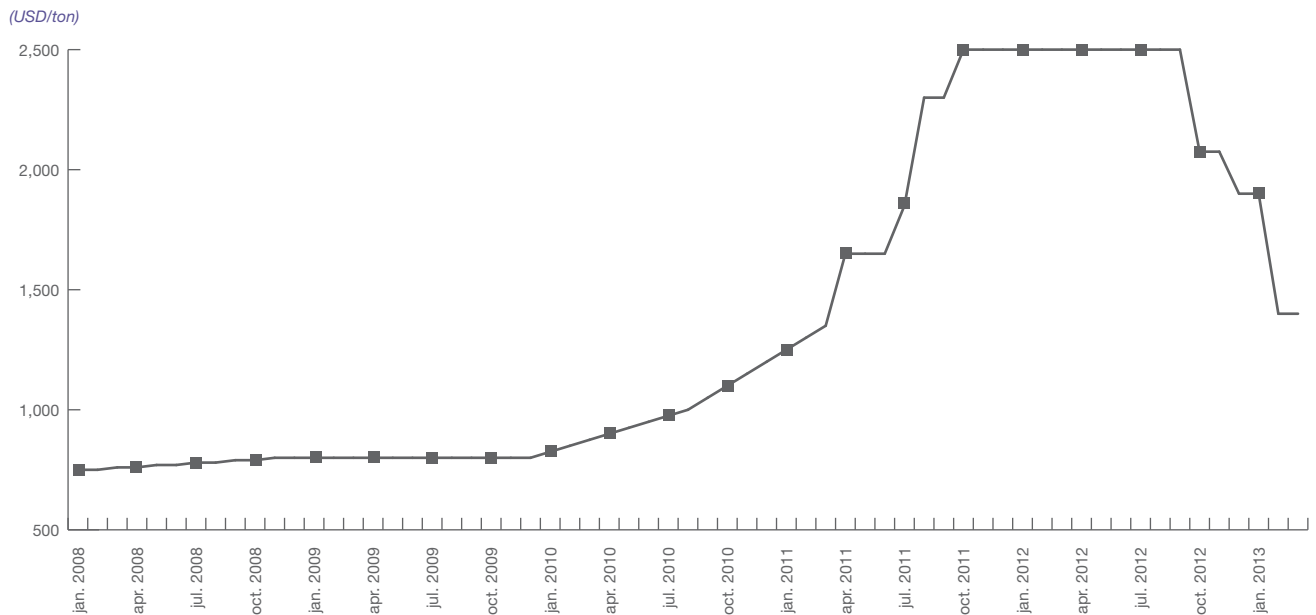
Zircon production is concentrated in Australia and South Africa, which account for 70% of supply. In 2010, the five leading zircon producers accounted for over 70% of world production (Iluka, Rio/BHP, Exxaro, Bemax and DuPont).

Main zircon producers – 2011



Today, the zircon market is under tension between on the one hand, growing demand driven by China and the other fast-urbanising emerging countries, and on the other, the depletion of several mines with no short-term projects to make good the supply shortfall. Spot zircon prices moved up from USD900/tonne in 2010 to almost USD2,500/tonne at end-2011 and back to approximately USD1,400/tonne in the second half of 2012.

Bulk zircon from Australia - indicative FOB prices



Source: TZMI.

The need to develop mining projects in order to satisfy demand with high growth potential:

The mineral sands sector has suffered for several decades from a lack of significant investment, particularly in exploration and mining development. Today, the deposits which formerly supplied a large portion of demand are becoming depleted and the new mining projects will not suffice to satisfy demand for zircon and titanium, both fuelled by the urbanisation and growth in the emerging markets.

TiZir will be a key player in this new sector and, for the ERAMET group, will constitute a genuine avenue for both sectoral and geographical diversification, since the various applications of mineral sands provide new outlets for the Group, thus widening its exposure outside the steel industry. ERAMET will thus also gain a foothold in Senegal via TiZir's subsidiary, Grande Côte S.A.

The Tyssedal plant

The Tyssedal plant is one of the two industrial sites that joined the ERAMET group in 2008 with the acquisition of Tinfos.

This plant employs 165 persons, producing titanium dioxide slag mainly for the pigments industry, with an annual capacity of 200 kt, and high-purity pig iron with an annual capacity of 120 kt, sold to foundries for various applications, particularly the production of parts for wind turbines. The site also has unrivalled access to hydroelectric power, being located near sizeable waterfalls exploited for this purpose. The particularly complex technology involved in processing ilmenite, the flexibility of the Tyssedal process and its unique access to a competitive energy source make the Tyssedal plant a key asset in the titanium industry.

The Grande Côte project

The Grande Côte mineral sands Grande Côte project lies along the Senegalese coast. It starts some 50 km north of Dakar and extends northwards for over 100 km. On the basis of an expected exploitation lifespan of at least 14 years, estimated annual production from Grande Côte is some 85,000 tonnes of zircon, 575,000 tonnes of ilmenite and approximately 16,000 tonnes of rutile and leucoxene. This site is one of the few new projects worldwide that can take advantage of the expected supply shortfall in the mineral sands industry.

The large scale of the deposit and the ease of its exploitation will enable the project to achieve a remarkable level of profitability. Work began on the project in the third quarter of 2011 and production is expected to start at end 2013 beginning of 2014, for a total estimated as of today investment cost of almost USD600 million. The investments include the construction of a dredger and a floating concentration unit to recover the sand and separate the main heavy minerals; a separating plant will also be constructed, together with an electricity generating station. Logistics are a crucial factor for the success of this mining project. Accordingly, a railway line, port and storage infrastructures at Dakar will also be constructed by the time production starts, and the main agreements required have been obtained from the local authorities.

ERAMET Manganèse return on capital employed

ROCE: Current operating profit (loss) restated for provisions or reversals on fair-value tests/Capital employed at 31 December of year y-1 (Consolidated equity capital plus net financial debt, plus provisions for major disputes, redundancy plans and restructuring, less non-current financial assets).

Manganese ROCE (before tax)

%	2008*	2009*	2010*	2011*	2012*
Manganese	145	(3)	49	35	19.5

* IFRS.

2.4. ERAMET ALLOYS

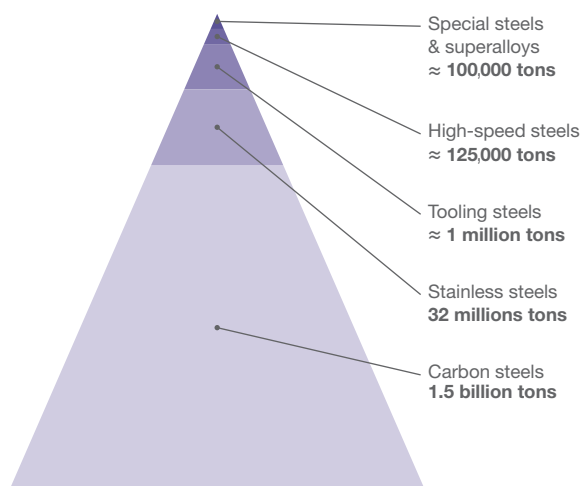
2.4.1. The ERAMET Alloys businesses

The Alloys Division makes special steels, tool steels, high-speed steels and superalloys and converts them by forging, rolling and drawing. It has developed a thriving activity in the special field of closed die-forging which it uses to work special steels and superalloys and, in addition, titanium and aluminium. This process involves hot-forming metal with a press or a ram, using tooling specially-produced for the manufacture of each part.

The Group is second-largest producer in high-speed steels through its Erasteel subsidiary. Through its Aubert & Duval subsidiary, it is the world's second-largest producer of closed die-forged parts for aerospace and one of the main suppliers of special steels for high-technology applications.

2.4.2. The ERAMET Alloys markets

The materials and products marketed by the Alloys Division sell for far higher prices than carbon steel or even stainless steel. Moreover, market volumes, and hence market size, are far smaller.



Eramet estimates.

2.4.2.1. High-speed steels

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 wear-resistant and so are mainly used to make cutting tools.

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.

Outside the cutting-tools market, there are several other applications for high-speed steels, particularly for shaping metal and high-wear automobile parts.

Western consumption of high-speed steels has been affected by competition from tungsten carbide. Another development in recent years is the emergence of industries consuming high-speed steel in countries such as China and, to a lesser extent, Brazil, particularly for less technically-intensive applications. These developments have made for a downtrend in the Western high-speed steel market.

However, in China, demand for tools containing high-speed steels is growing fast as a result of the country's rapid economic and industrial development (vehicle manufacturing, etc.).

2.4.2.2. Tool steels

Tool steels are alloy steels containing approximately 5-15% alloying elements. These are chiefly nickel, chromium, molybdenum, vanadium, tungsten and cobalt.

Tool steels are used to make tools for shaping metals, plastics and glass. The tool users are generally subcontractors in the automotive, domestic appliance and electronics industries, etc.

These steels' main characteristics are hardness, imparting to them high resistance to deformation during denting, perforation or shearing, wear resistance and tensile strength (ability to bear high stresses without sudden breakage), which is often combined with good fatigue resistance (ability to withstand repeated stress).

Tool-steel demand is mainly influenced by the launch of new models (vehicles, domestic appliances, etc.), requiring the creation of new tooling. The tool steels market is considered less cyclical than other steel segments.

There are three application families:

- cold working (manufacturing of tools for cutting and stamping);
- hot working (manufacture of tools for embossing, extrusion and light alloy injection);
- plastic-injection moulds.

2.4.2.3. Alloys with highly advanced characteristics and nickel alloys

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

- alloys with special physical properties: low-expansion alloys, alloys with magnetic properties mainly for electronics industries, electrical elements (for industrial and domestic heating appliances) and alloys for transporting liquefied natural gas;
- corrosion-resistant alloys (chemistry, agro-food industry, offshore platforms, nuclear power and the environment);
- alloys exhibiting high mechanical strength at high temperatures (superalloys).

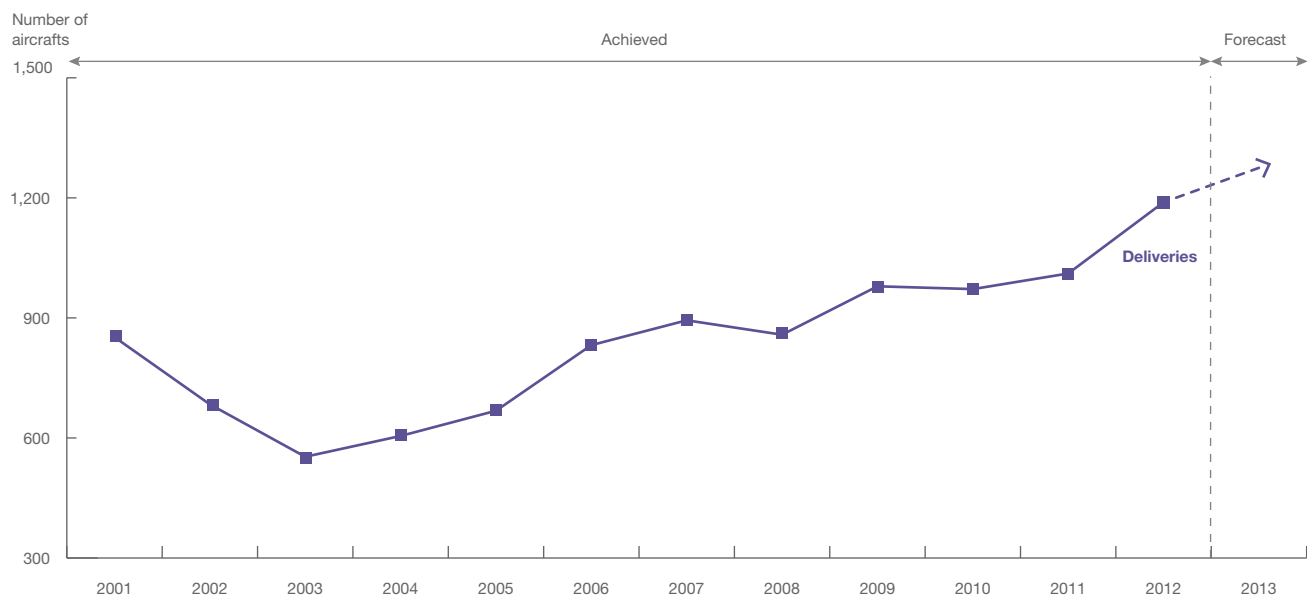
Superalloys contain 40-75% nickel. The nickel is alloyed with chromium (15-30%) and, depending on the required grade, may contain cobalt, molybdenum, titanium, aluminium or niobium. Their main outlet is aerospace (engines) and the gas turbine sector. The third focus of development is the automotive sector.

Demand for superalloys is mainly driven by aerospace, where annual medium- to long-term 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.

Growth continued on the aerospace market

A further rise in Boeing and Airbus deliveries in 2012 v. 2011:

(number of aircraft delivered by Boeing and Airbus)



Source: Airbus—Boeing.

2.4.3. Production processes for steels with highly advanced characteristics and superalloys

2.4.3.1. Production of steels with highly advanced characteristics and superalloys

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

The alloying elements are melted in an arc furnace. This is followed by metallurgical processing in an AOD converter or ladle furnace to add other alloying metals, remove impurities (inclusions and gases) and obtain the required chemical composition.

Conventionally, two solidification methods are used: ingot casting, which is more suited to small quantities—and the only process for re-melted steel—and products with specific characteristics; and continuous casting, which is more suited to large quantities.

Vacuum metallurgy

This process is used to make alloys that withstand higher stresses (and contain nitrogen- and oxygen-reactive alloying elements). It is carried out in vacuum induction melting (VIM) furnaces.

Remelting

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.

Remelting allows better control of segregations and inclusion morphology, and reduces gas content. This significantly improves the characteristics and mechanical reliability of materials. Remelting is needed for some critical parts for the aerospace, power generation and tooling sectors.

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 very advanced properties. It is also used in loose powder form for applications such as surfacing, MIM and additive manufacturing.

2.4.3.2. Alloy shaping

After an alloy has been made, various techniques are used to shape the material mechanically, usually with hot working. Beyond shaping the material, these operations also optimise its mechanical characteristics by work hardening (modification of its microstructure under the effect of deformation and temperature).

- Closed die-forging consists of shaping the material into closed die-forged blanks by hot pressing between two moulds machined in the shape of the parts. Closed die-forging is carried out with a press or ram. It is usually followed by machining and finishing operations.
- Forging involves shaping bars (typically 200-600 mm in diameter) or simply-shaped blanks in order to guarantee geometry and properties. This operation is conducted using heat and a press, a forging machine or even a ram, with a series of pressing runs between simple tools.
- Rolling consists of shaping the material into sheets, bars (typically 20-200 mm in diameter) or wire (5-20 mm in diameter) in order to assure geometry (section), surface condition and use characteristics. The operation is carried out through a series of runs between rolling cylinders.

2.4.4. ERAMET Alloys competitors

The table below lists the main producers in the Alloys Division's main business activities. It highlights the special nature of ERAMET's Alloys Division, which has the advantage of being present in every high value-added segment.

The Division's special nature is built on:

- its expertise in closed die-forging for the four main groups of material: aluminium, titanium, steels and superalloys;
- upstream integration (production) in steels and superalloys.

Companies	Metals produced					Production method			High-power closed die-forging				Isothermal closed die-forging	Open forging	Ring-rolling	
	High-speed steels	Tool steels	High-performance special steels	Super-alloys	Titanium	Air	Vacuum	Powder	High-performance special steels	Super-alloys	Aluminium	Titanium				
Alcoa (USA & Russia)																
ATI-Ladish (USA)																
Böhler + Buderus (Austria/Germany) voestAlpine																
BGH (Germany)																
Carpenter-Latrobe (USA)																
Cogne (Italy)																
Tata Steel (India & UK)																
Ellwood (USA)																
ERAMET ALLOYS																
Firth Rixson (USA & UK)																
Gloria (Taiwan)																
Kalyani (India)																
HeYe (China)																
Hitachi Metals (Japan)																
Midhani (India)																
Nachi Fujikoshi (Japan)																
Otto Fuchs (Germany)/Weber (USA)																
PCC (Wyman Gordon & SMC)																
Shultz (USA)																
Shanghai Baosteel (China)																
Schmolz & Bickenbach (Germany & USA)																
Snecma (France)																
Thyssen Krupp (Germany)																
Tiangong (China)																
Valbruna (Italy)																
VSMPO (Russia)																

2.4.5. Structure of ERAMET Alloys

2.4.5.1. Key facts

The key facts on ERAMET Alloys are as follows:

- global leadership in a number of respects: second global producer of high-speed steels (Erasteel), the second-largest global producer of closed die-forged parts for aerospace (Aubert & Duval) and the leading producer of gas-atomised metal powders;
- a strategy based on technological expertise and targeting specialist markets;
- the start, in 2011/2012, to four strategic capital-expenditure projects: the commissioning of a new titanium press (UKAD, a half-shares joint venture), a new powder-metallurgy atomising tower (Erasteel), a new VIM furnace for vacuum alloy production (Aubert & Duval) and an aluminium press (Aubert & Duval);
- new partnerships in China and India.

2.4.5.2. History of ERAMET Alloys

Within the Group, the development of the Alloys Division started out with the formation of Erasteel from 1990 to 1992. Subsequently in 1999, the various companies contributed by the SIMA group, most of which are now merged into Aubert & Duval, gave the Alloys Division its current scope. ERAMET Alloys developed mainly through organic growth, with the addition of some keenly-targeted acquisitions.

History of Erasteel

1676: Metallurgical production on the Söderfors (Sweden) site dates back to 1676 (anchor production).

1846: Metallurgical production at the Commentry (France) site dates back to 1846 (rail production).

1956: Founding of Commentryenne des Aciers Fins Vanadium Alloys company.

1982: Kloster Speedsteel was founded in Sweden by merging the high-speed steel divisions of Uddeholm and Fagersta.

1983: Kloster Speedsteel acquired Les Aciers de Champagne, a French high-speed steel production site founded in 1916.

1990: ERAMET acquires Commentryenne des Aciers Fins Vanadium Alloys, the world's third-largest producer of high-speed steels.

1991: ERAMET acquired Kloster Speedsteel, the world's largest maker of high-speed steels.

1992: ERAMET founded Erasteel, bringing together Commentryenne and Kloster Speedsteel; industrial reorganisation and commercial integration.

History of Aubert & Duval

1907: Founding of Aubert & Duval, a company specialised in the sale and processing of special steels. At the time, special steels were little-known in France, while British steelworks had a substantial technical edge.

1920/1939: The development of special steels allowed the company to take off. Plants opened at Les Ancizes and Gennevilliers. Aubert & Duval enjoyed its share of the manufacturing boom in automobiles (engines, gearboxes) and in aircraft engines, increasingly containing special steels.

1945/1960: The company positioned itself in cutting-edge sectors whose development played an important role in the post-war reconstruction of France, such as aerospace and nuclear power which require high-quality steels and alloys. Aubert & Duval is one of the leading European companies in the development of vacuum processing and consumable-electrode remelting, particularly for the jet engine market.

1970-1980: Aubert & Duval weathered the steel-industry crisis (resulting from the fall in orders for the automotive, public works and construction sectors) thanks to its policy of specialist production primarily targeting high-tech markets.

1977: Creation of Interforge (with a shareholding by Aubert & Duval: 13%).

1984: Aubert & Duval was transformed into a holding company of the same name with the founding of a wholly-owned operating company, Aciéries Aubert & Duval.

1987: Stake acquired in Special Metals Corporation (SMC).

1989: Aubert & Duval holding company was renamed SIMA.

1991: The Aciéries Aubert & Duval operating company was renamed Aubert & Duval.

1994: Agreement by SIMA and Usinor to contribute assets for the founding of an intermediate holding company: CIRAM, 55% held by SIMA and 45% by Usinor: CIRAM is a group of five complementary companies: Aubert & Duval, Fortech, Tecphy, Interforge (94%) and Dembiermont.

1997: Dilution of SIMA's stake in SMC from 48% to 38.5% following SMC's IPO on the NASDAQ via a capital increase. Usinor sold 40% of CIRAM's capital to SIMA, which thereafter held 95%. FISID, the holding company for Tecphy and Fortech, was renamed HTM.

1999: SIMA's businesses were incorporated into the ERAMET group, in which the shareholders of SIMA became the largest shareholder. Erasteel and the companies contributed by S.I.M.A. (comprising the current scope of the Alloys Division) are consolidated within the ERAMET group.

Alloys Division history

2001: Capital expenditure began on a new forging and closed die-forging plant with a 40,000-tonne press in Pamiers.

SMC: The Group's interest in SMC was fully impaired.

2002: Erasteel acquired a 78% controlling stake in Peter Stubs (UK).

2003: A major restructuring programme was announced at Aubert & Duval.

2004: The stake in Peter Stubs was increased to 100%. Implementation of the restructuring and industrial reorganisation programme at Aubert & Duval. The merger of Aubert & Duval Holding, Fortech and Tecphy into a single company, Aubert & Duval, was completed on 1 July 2004, backdated to 1 January 2004 (merger under the preferential regime provided by Article 210-A and B of the French General Tax Code).

2006: Aubert & Duval—Opening of the new closed die-forging plant in Pamiers (40,000-tonne press).

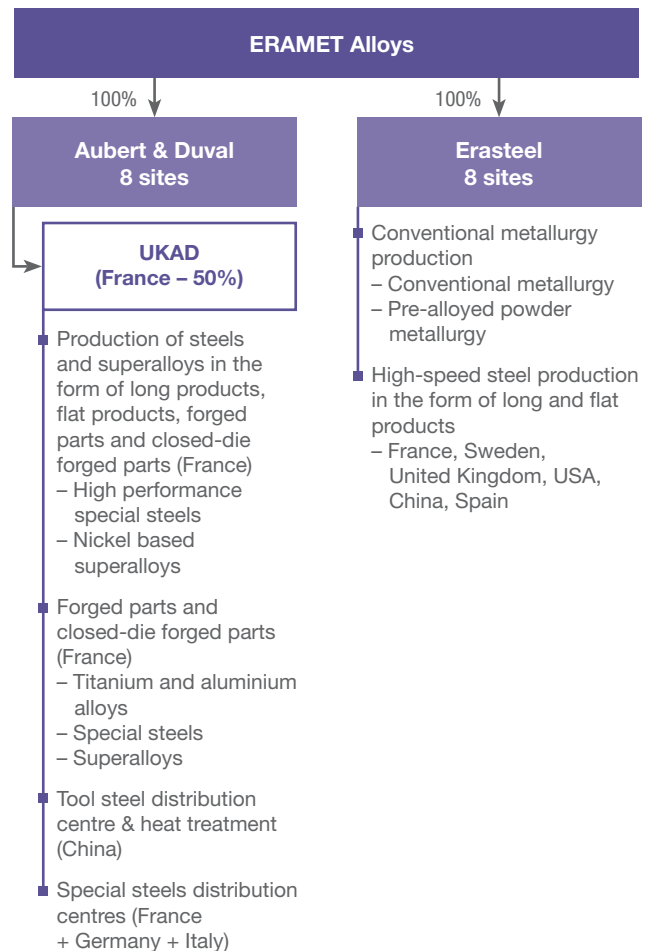
Aubert & Duval—Opening of the tool-steels distribution centre in Wuxi (China).

2007: Erasteel—Opening of the high-speed steel drawing workshop at Tianjin in China.

2008: Signing of a titanium partnership agreement (UKAD).

2011: Signing of a partnership agreement in high-speed steels (HeYe, China), Acquisition of interests in powder metallurgy (Metallied, Spain) and in closed die-forging of small and medium-sized parts (SQuAD, India).

2.4.5.3. Organisational structure at 31 December 2012



2.4.5.4. ERAMET Alloys production

Erasteel

Erasteel production

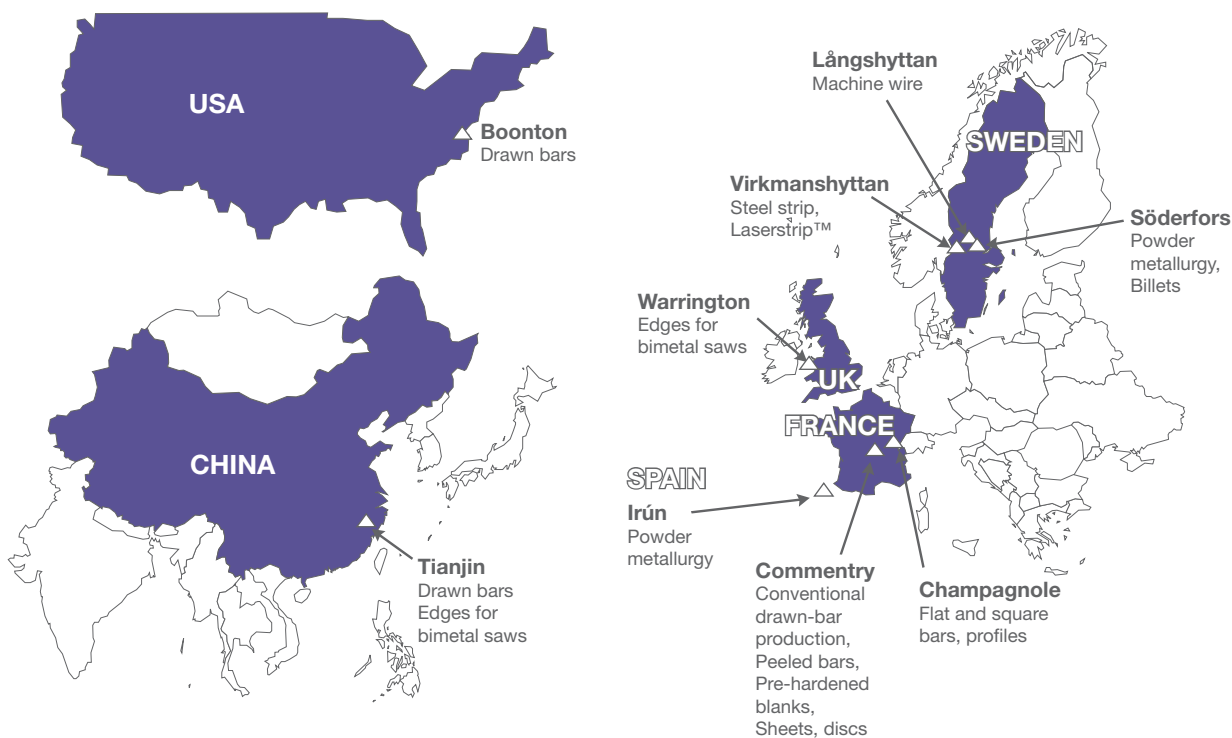
Erasteel addresses the specialist market for high-speed steels of which it is the world's second-largest producer. Its competitors are frequently general steel companies: Böhler-Uddeholm (Austria), Carpenter/Latrobe (United States), Hitachi (Japan), HeYe (China), Tiangong (China).

This specialisation gives Erasteel great control over the quality of its production and enables it to optimise its processes. Its product catalogue covers all the grades and dimensions required by customers in the sector. Erasteel is one of the few producers with a presence in all global markets.

Erasteel is also the world leader in gas-atomised metal-alloy powders, and has recently doubled its capacity with the commissioning in 2011 of a new atomising tower in Sweden.

Erasteel's industrial organisation

Erasteel'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 technically-advanced speciality products aimed at 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's business activities can be broken down into four sectors:

- closed die-forging;
- long products;
- tooling, a sector shared with Erasteel;
- individual forged parts and other specialities.

Aubert & Duval's closed die-forging sector

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

Aubert & Duval is one of the few producers that closed die-forges 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 purchased from third-party suppliers.

Closed die-forging is carried out at the Issoire and Pamiers sites.

The closed die-forging sector's industrial assets

The sector has the following equipment:

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

The Issoire site specialises in closed die-forging of aluminium alloys and the Pamiers site, of steels, titanium and superalloys.

The Interforge press

Interforge, located in Issoire, was founded in the 1970s around a 65,000-tonne press that is the most powerful in the western world. Interforge carries out closed die-forging on sub-contract solely for its shareholders, and in proportion to their shareholding (namely 94% for Aubert & Duval and 6% for Snecma).

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 competitors' presses would find difficult to produce, being limited to 40,000/50,000 tonnes. Only three western producers apart from Aubert & Duval have presses with capacities over 30,000 tonnes;
- two 75,000-tonne presses exist in Russia (aluminium producer Rusal and titanium producer VSMPO).

The Airforge press

The new Airforge closed die-forging plant at Pamiers was completed in mid-2006. Built around a fully-integrated 40,000 tonne press, it is particularly suited to the closed die-forging of aircraft engine parts. It has been fully operational since 2007.

Closed die-forging markets

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

- the aerospace industry: this market is divided into two segments: engine parts (customers such as General Electric, Snecma, Pratt & Whitney, Rolls Royce, IHI, MTU, ITP, etc.); and structure, landing-gear and equipment parts (Airbus, Boeing, Spirit, Dassault Aviation, Messier-Bugatti-Dowty, Asco, Liebherr, Goodrich, etc.);
- the gas turbine industry: turbine makers such as General Electric Power Systems, Siemens and Alstom.

Aubert & Duval uses CADD software in combination with simulation software to optimise part characteristics and costs in direct coordination with the customer. This 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 research & development policy for its products: new steel and superalloy grades, expertise in large parts in line with growing equipment size (jumbo jets, high-power gas turbines, etc.);

- an innovative research & 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).

The closed die-forging business has been strengthened since 2007 by the plant at Pamiers, France, featuring a 40,000-tonne press. On that site, Aubert & Duval has automated workshops and industrial facilities with much shorter cycle times, favourably positioning it to meet the ever more complex requirements of its customers, particularly in aerospace engine parts.

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

Closed die-forging competitors

In the high-performance steel and superalloy field, Aubert & Duval's main competitors are the US groups PCC, ATI-Ladish and the Austrian group Böhler.

For the closed die-forging of aluminium, its two main competitors are Alcoa (US) and Otto Fuchs (Germany and the USA).

Finally, for the closed die-forging of titanium, its main competitors are the VSMPO (Russia), PCC, Otto Fuchs, Schultz (United States) and ATI-Ladish groups.

Aubert & Duval's other business sectors

Industrial assets for the 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 mill trains for making 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 length, as well as surface treatment equipment (case hardening or nitriding);
- non-destructive testing equipment (dye-penetrant testing, ultrasound, X-ray, magnetic particle inspection, etc.).

All these tools have computerised management and supervision systems and are certified in line with the requirements of high-technology markets (aerospace, energy, armaments, automotive, medical, etc.).

Long products sector

These are products with advanced characteristics and are intended for conversion or machining. Aubert & Duval targets critical applications: Aerospace, medical, automotive (valves, etc.).

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

The main competitors are the Carpenter/Latrobe (US), ATI (US), Tata Steel (UK) and Böhler Uddeholm (Austria) groups, which are positioned more on relatively standard products.

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. The main players on the tool steels market are the Böhler Uddeholm, Schmolz & Bickenbach, Hitachi and Daido groups.

Aubert & Duval is specifically positioned up-range, providing a high technical-consulting content. Aubert & Duval also plans to develop this business geographically by strengthening its distribution side, particularly in China, with the tool steels distribution centre in Wuxi, commissioned in early 2006.

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;
- cast parts: highly technical small runs and SPF tools intended for aerospace;
- remelting alloys;
- powder metallurgy: semi-finished products for turbine disk closed die-forging and surfacing powders.

2.4.5.5. 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 that consume high-speed steels. In certain countries, Erasteel is supported by the ERAMET International sales network.

Alloys ROCE (before tax)

%	2008*	2009*	2010*	2011*	2012*
Alloys	13	(14)	7	3	(1)

* IFRS.

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 possesses a comprehensive products offer to respond to the needs of its markets.

Aubert & Duval's sales policy: close relations with major buyers

Multi-year contracts (typically 3-10 years) with major aerospace buyers usually specify the market shares to be ordered each year. 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 level of integration is a key requirement in this business segment, starting with part design in cooperation with the major buyers' research departments; Aubert & Duval's sales engineers work closely with those departments.

2.4.5.6. ERAMET Alloys research and development

The Alloys Division carries out extensive research & development. This mostly takes place at its two research centres in Söderfors (Sweden) and Les Ancizes (France). Both centres are also supported by ERAMET Research.

The Alloys Division ploughs back some 4% of its sales into R&D. Work is conducted on both process improvement and the development of new alloys and products.

2.4.5.7. ERAMET Alloys' return on capital employed

ROCE: Current operating profit (loss) restated for provisions or reversals on fair-value tests/Capital employed at 31 December of year y-1 (Consolidated equity capital plus net financial debt, plus provisions for major disputes, redundancy plans and restructuring, less non-current financial assets).

2.5. ORGANISATIONAL STRUCTURE OF ERAMET S.A./ ERAMET HOLDING COMPANY

ERAMET S.A. is the consolidating parent company, grouping together operationally 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, the Legal Department and the Purchasing Department; and
- a section of the Nickel Division (General Management and the Sales and Marketing Department).

The costs of these various departments are re-invoiced 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 held subsidiaries, acting on behalf of the various entities or on behalf of the parent company. The main ones are:

- ERAMET Research: ERAMET's research centre responsible for research and development;

- ERAMET Ingénierie: a project and technologies 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;
- Metal Securities: the Group's treasury management company that pools surplus cash and short-term funding requirements for the Group as a whole;
- Metal Currencies: the Group's foreign exchange management company, which carries out foreign exchange hedging for the Group as a whole;
- ERAS: reinsurance company.

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

2.6. ACTIVITY OF THE DIVISIONS IN 2012

2.6.1. ERAMET Nickel in 2012

2.6.1.1. Key figures

(to IFRS, € million)	2012	2011	2010
Sales	898	989	965
Current operating profit (loss)	(40)	189	194
Net cash generated by operating activities	42	206	176
Capital employed*	783	745	794
Industrial capital expenditure	146	141	124
Average workforce	3,045	3,035	3,022

* Excluding the impact of capitalised expenses on the Weda Bay project.

2.6.1.2. Comments

ERAMET Nickel: particularly low prices in 2012 drove down current operating profit into a loss.

ERAMET Nickel's current operating profit fell in 2012 to return a loss of €40 million for the year as a whole. This chiefly reflects the 23% fall in LME prices, as well as factoring in the fuel cost increase in 2012, compared with 2011 when it had benefited from favourable hedging.

World stainless steel production rose 2% in 2012 compared with 2011. The fall in nickel prices on the LME is due not to a fall in demand but actually to an increase in world nickel production that outstripped growth in demand. This increase in production stems from the steady rise in output from the new projects and, above all, from high Chinese production of nickel pig iron.

The low nickel prices in the second half-year of 2012, averaging USD7.56/lb, meant that a very significant proportion of world nickel production was loss-making for that period.

Nickel deliveries by ERAMET Nickel rose 6% in 2012 compared with 2011, to close upon 57,000 tonnes, thanks to the continued rise in metallurgy production at the Doniambo production site in New Caledonia.

Operating progress achieved under the competitiveness improvement plan partly offset, by some USD1/lb in 2012 compared with 2008, and at equivalent economic conditions, the price rises due to exogenous factors (exchange rates, energy costs, inflation, ore grade, recovery ratios, etc.).

The continuous-progress campaigns will continue with the aim of continuing to improve ERAMET Nickel's competitive position, while production will continue to be steadily increased to a target of 62,000 tonnes in 2015.

Two important decisions have been taken in recent months, to prepare for the future in New Caledonia:

- On 4 December 2012, the Board of Directors of Le Nickel (SLN) validated the choice of fuel for the future electricity generating plant at Doniambo. The powdered-coal technology chosen will greatly improve the economic and environmental performance of the Doniambo plant. After the selection of an operator, the performance of engineering studies and the obtaining of the necessary administrative permissions in New Caledonia, the final investment decision will be taken in 2014.

- A declaration of intent was signed on 6 November 2012 with the Vale group and the Southern Province of New Caledonia for a partnership venture to explore the Prony and Creek Pernod deposits, potentially of world class but as yet unexploited.

The Weda Bay project in Indonesia entered a phase of reliability improvement and risk reduction. ERAMET commissioned external technical experts who, in recent months, conducted a comprehensive review of the project. In the light of their findings, a number of additional actions and tests were decided-upon. The project scope has been widened to incorporate a down-stream processing phase for producing metallic nickel instead of an intermediate product. For a moderate additional investment cost, this will contribute to increasing the value added earned by the project, and to developing its market access. Furthermore, this decision is consistent with the Indonesian Government's policy aim of maximising local value added. Lastly, exchanges have been conducted with the Indonesian government in recent months, and will continue, with the aim of clarifying certain points in the legislative and tax framework which would apply to this project. Having regard to these various points, the final investment decision concerning Weda Bay can be expected in 2014.

2.6.2. ERAMET Manganèse in 2012

2.6.2.1. Key figures

<i>(to IFRS, € million)</i>	2012	2011	2010
Sales	1,560	1,713	1,858
Current operating profit (loss)	236	388	548
Net cash generated by operating activities	172	402	562
Capital employed	1,411	1,164	1,069
Industrial capital expenditure	399	245	130
Average workforce	6,293	6,418	6,433

2.6.2.2. Comments

ERAMET Manganèse: current operating profit of €236 million in 2012

ERAMET Manganèse's current operating profit was affected by the technical incidents in the first half of 2012, entailing some four additional weeks' halt to the production of manganese ore, beyond the scheduled two weeks, consequent upon difficulties experienced in changing the wagon unloading installations at the port of Owendo, and a one-month halt to production at the Norwegian Tyssedal production unit (TiZir titanium dioxide slag and high-purity smelting) due to the early renovation of the rotary furnace in 2012. For 2012 as a whole, the operating profit came to €236 million.

The manganese market, which benefited from 1.2% a rise in world steel production for 2012 as a whole compared with 2011, nevertheless grew at a more moderate pace than in 2011 (6%). Chinese production rose 3% in 2012.

Surplus manganese ore stocks accumulated in Chinese ports until they peaked in May 2011, falling thereafter, at a gradual and steady pace in 2012. These stocks depressed prices in 2012, before reverting at the year-end to a relatively low level. Spot ore prices CIF China (source CRU) averaged 9% lower in 2012 than in 2011, at USD4.93/DMTU.

Manganese ore and sinter production by Comilog in Gabon reached somewhat over 3 million tonnes for the year, allowing for the sizeable impact of the exceptional incident at Owendo in the first half of 2012.

The manganese alloys market remained in surplus for 2012, particularly in China owing to overcapacity, while in Europe, demand remained depressed by steel production levels 4% down on 2011. Spot manganese alloy prices (source CRU) fell by some 7% on average in 2012 from 2011 but with more sizeable falls for refined alloys and, geographically, in China.

In this context, ERAMET Manganèse continued to adapt its industrial base in China: the old manganese alloy plant at Guilin had closed in May 2011 and the Guangxi plant operated at 50% of its capacity in 2012, before closing at the end of that year. The new Guilin plant, based on higher-performing technology and intended to output a significant proportion of refined alloys, started up in July 2012. ERAMET Manganèse's reduction in Chinese alloy production caused its overall production to fall by 7% to 730,000 tonnes (despite a slight rise outside China) in 2012 compared with 2011. The share of refined products increased to 48%.

ERAMET Manganèse also pursued several major projects simultaneously: the Moanda Metallurgical Complex, the programme to expand Comilog production capacity to 4 million tonnes and, through TiZir, the joint venture 50%-owned with the Australian group Mineral Deposits Ltd, the Grande Côte project in Senegal, with the aim of becoming a significant world player in zirconium and titanium dioxide.

Still in Gabon, studies in progress continued on the development of an innovative process as part of the Maboumine project (niobium, rare-earth metals, tantalum, uranium, etc.); Tests were conducted on two pilots in the second half of 2012 (the upstream and downstream phases of the process).

2.6.3. ERAMET Alloys in 2012

2.6.3.1. Key figures

<i>(to IFRS, € million)</i>	2012	2011	2010
Sales	997	910	764
Current operating profit (loss)	(8)	16	29
Net cash generated by operating activities	22	(1)	43
Capital employed	799	745	647
Industrial capital expenditure	84	100	69
Average workforce	4,638	4,588	4,566

2.6.3.2. Comments

ERAMET Alloys: strongly contrasting trends in the different activities depressed results for 2012 as a whole; the action plans undertaken to master the situation should enable the 2015 profitability objectives to be met.

ERAMET Alloys sales rose 9% in 2012 from 2011. This rise fails to reflect highly contrasting trends, with the 24% increase in sales in the aerospace sector, while sales in the tooling and high-speed steels sector fell by an average of 13%, with most of the retreat in this activity concentrated in the second half of 2012.

The current operating loss amounted to €8 million.

In 2012, ERAMET Alloys improved its logistical chain and reduced its stocks by more than €50 million in the second half-year at Aubert & Duval. In addition, action plans to reach the 2015 profitability objectives were developed and will be phased in during 2013: ordering selectivity, reduction in general expenses, continuing gains on WCR, etc. They will combine with the rise in profitability of the strategic investments carried out in 2011 and 2012 in France and Sweden, to reach the objectives set for ERAMET Alloys in 2015: before-tax return on capital employed of 15% and a current operating margin of 10%.

2.7. PRODUCTION SITES, PLANT AND EQUIPMENT

Generally speaking, the Group owns its sites along with the plant and equipment therein. Some large equipment items are finance-leased (the 40,000-tonne press in the Alloys Division, the Tiébaghi washing unit and the mining equipment in the Nickel Division) and are restated in the consolidated financial statements.

A breakdown of property, plant and equipment by Division is set out below. Close upon 80% of the value of these non-current assets belongs to some ten industrial sites:

<i>(€ million)</i>	Gross value	%	Gross value	%
Société Le Nickel-SLN (New Caledonia)	1,644	31.05%	678	27.63%
Other	135		43	
Nickel Division	1,779	33.60%	721	29.38%
Comilog S.A. (Gabon)	657	12.41%	398	16.22%
ERAMET Norway A/S (Norway)	398	7.52%	168	6.85%
ERAMET Marietta Inc. (USA)	147	2.78%	52	2.12%
Guilin Comilog Ferro Alloys Ltd (China)	124	2.34%	119	4.85%
GCMC (USA)	153	2.89%	82	3.34%
Grande Côte Opérations S.A. (Senegal)	138	2.61%	136	5.54%
Other	658		249	
Manganese Division	2,275	42.97%	1,204	49.06%
Aubert & Duval (France)	681	12.86%	329	13.41%
Airforge (France)	113	2.13%	73	2.97%
Erasteel Kloster AB (Sweden)	147	2.78%	39	1.59%
Erasteel SAS (France)	109	2.06%	21	0.86%
Other	161		53	
Alloys Division	1,211	22.87%	515	20.99%
Holding Division	30		14	
TOTAL	5,295		2,454	

2.8. RESEARCH & DEVELOPMENT/RESERVES & RESOURCES

2.8.1. Research and development: an organisational structure in keeping with Group ambitions, with steadily expanding activity

1) This organisation is based on:

- a dedicated research centre (a wholly-owned subsidiary of ERAMET since 2003) based in Trappes, which changed its name to ERAMET Research in 2008. The centre employs some 180 persons, including 140 researchers, engineers and technicians. This activity earned €25 million, 30% up on 2010, and approximately trebled from 2006;
- some 200 additional divisional staff deal with more specific areas, such as products, modelling of certain special processes, coordination of industrial tests and, in particular, the critical final industrialisation phases of research projects. Also to be noted is the intensification of scientific resources of use to all R&D projects: chemical-analysis resources stepped up with three optical ICPs, one mass-spectrometry ICP and a new X-ray Fluorescence analytical tool, observation resources, with two scanning electron microscopes equipped with MLA and QEMSCAN mineralogy software respectively (the latter being the sole instance in France), and computational facilities with a supercomputer used for fluid mechanics modelling, thermodynamics modelling or the simulation of metallurgical reactors.

These significant resources represent between 1% and 2% of sales by the Divisions. In 2010, ERAMET created the Research, Innovation, Engineering and Purchases Department, to unify Group-wide the actions to improve these four significant areas of its activity. In 2011, the newly-formed Science and Innovation Department was attached to it.

Since 2006, ERAMET has been steadily stepping up its research & development resources in order to meet the needs of its industrial clients, improve its competitiveness, offer new services and identify new development opportunities. Potential environmental impact is a constant concern when developing new processes. The reduction and quality of emissions are factors governing the selection of a new process.

For ERAMET's mining, metallurgical and chemical businesses, the effectiveness of the 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's teams work in close collaboration with those responsible for development at the various units, who in turn are in direct contact with the operational teams. This makes for considerable efficiency along the entire chain, from defining programmes to introducing innovations, whether involving products, the processes themselves or productivity.

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, ERAMET has standing partnerships with the Paris postgraduate Institutes *Chimie ParisTech*, *Mines ParisTech* and *École centrale* in Paris, the Advanced Geology School or the Mining Institute, both at Nancy. Areva and Solvay also partner the Group in developing processes for the extraction of pyrochlores, particularly from the Mabounié deposit. ERAMET also collaborates with Areva, Technip, BRGM, Ifremer and MEEDDM in prospecting studies on marine mineral resources.

In 2011, a partnership was formed with Cooltech to develop magnetocaloric alloys for the refrigeration markets. Beyond France's borders, the Group has entered into several research partnerships, particularly with the Trondheim University in Norway, the GTK public research centre in Finland, the KT—Royal Institute of Technology in Sweden and the Swedish semi-public Mefos research centre, the South African mineral and metallurgical research institute, Mintek, and also the Australian ANSTO and CSIRO institutes (of which the French equivalents are the CEA atomic energy commission and the CNRS national scientific research council respectively).

Research programmes were undertaken in 2011 with a semi-public body in the Spanish Basque Country, CEIT (the Centre for Technical Studies and Investigations), specialising in powder metallurgy and materials. Aubert & Duval continued its partnership with the University of Strathclyde in Scotland and began undertaking R&D projects at the University's research and development centre (the AFRC) on the forming and forging of parts for the aerospace industry.

- 2) The flagship project at the Nickel Division is the continued development of the hydrometallurgical treatment process for oxidised nickel ores. For reference, this innovative process was developed between 2005 and 2007, backed by extensive experience in processes for extracting and purifying various metals and the cutting-edge expertise of the teams at ERAMET Research. This process can handle mixtures of the low-grade saprolites and limonites characteristic of ores from Weda Bay in Indonesia and the newer deposits in New Caledonia. The crushed ore is corroded with sulphuric acid at atmospheric

pressure and at temperatures below 100 °C. The dissolved nickel and cobalt are separated and the manganese is concentrated separately and isolated. This process consumes very little fossil energy and its liquid effluent will satisfy the most stringent environmental standards. Efforts continued in 2012 on an intensive programme of hydro-metallurgy process pilot studies. Those studies took a total of 14 weeks, with the chief aim of improving the reliability of processes over a representative period. These studies identified ways of improving project profitability in the early start-up years, testing for robustness to variations in raw materials and contributing to the design of future plant and facilities in coordination with several potential suppliers. Lastly, a programme for improving the semi-finished products was proposed for the hydrometallurgy plant, aimed at pyrometallurgical production of nickel metal shots.

In December 2007, ERAMET Research began a new phase in the pilot production of ferronickel in New Caledonia with a new, larger pilot furnace, the perfect tool for meeting the challenges of changing ore chemistry in New Caledonia. This expansion was undertaken to improve safety conditions when operating this larger furnace, and in response to the need for industrial facilities capable of handling the complex phenomena at work in industrial furnaces. In 2010, ERAMET Research achieved stable reproduction at pilot scale of all the chemical, heat and electrical phenomena present in industrial furnaces. The pilot furnace design was adjusted in 2011, enabling a pilot-testing campaign to be conducted in 2012, opening the way to exploring hitherto-unattainable areas of metallurgical operation (low silica, etc.), and to proposing industrial-furnace operating methods, so as to enable ERAMET to maintain the quality of its products despite changes in the chemical composition of the New-Caledonian ores.

- 3) ERAMET Research worked hard in 2009 on a project to increase direct reduction in the ferromanganese smelting furnaces. This project provided the most effective means available for reducing the specific energy consumption of the process. It featured the design of a brand-new pilot furnace tailored to process requirements, and five times larger than the existing furnaces. This furnace enabled pyrometallurgical phenomena to be reproduced and studied. Seven weeks' piloting in 2010 yielded exceptional results with energy performance equivalent to close upon 20% potential gains over current industrial standards. The next stage will be to identify the factors driving this performance in order to transpose it to an industrial scale, whether using in-plant observations or tests, or through simulations at the Trappes pilot facility.

ERAMET Research was also involved in various developments of the process for producing electrolytic manganese metal, with the aim of reducing both the consumption of reagents that are not readily available in Gabon and the environmental impact of the process. An industrial-scale pilot campaign performed in China validated the use of reduced ore instead of ammonia, thus eliminating the necessity of discharging this harmful reagent in aqueous effluent. In a parallel development, the electrolysis hall and cells were redesigned to adapt the electrolysis process to the Group's health and safety standards (eliminating the manual

moving of the cathodes practised in China). It is also designed to make the hall environment healthier by capturing the stray ammonia released by the cathode. An improved prototype industrial cell operated for five months in 2011, confirming the industrial-cell design. The plant is currently under construction, and ERAMET Research supports and advises the engineering and operating teams for the commissioning of the installations.

The ore quality at Moanda motivated the launch of a research programme, which culminated in the conducting of a pilot campaign designed to melt and dephosphorise the ore so as to produce slag with a high manganese content and a low phosphorus and iron content. This process innovation affords scope for generating more value from the ore at the customer's facilities through a significant improvement in its value in use.

Lastly, under the Grande Côte mineral sands development project conducted by TiZir (a joint venture 50%-owned with Mineral Deposits Limited), in-depth characterisation of the mineralogical forms of the valuable content was begun thanks to the loading of the QEMSCAN software onto the new scanning electron microscope installed in 2012. This work will subsequently allow optimisation of the beneficiation processes and of the yields from the mineralurgical plant under construction.

- 4) In the Alloys Division, the Aubert & Duval and Erasteel R&D departments continued to create new products and to improve production process control with the aims of reducing costs, improving process robustness and abating production-process imponderables.

The year 2010 featured the creation of a new research centre in Sweden, PEARL, dedicated to powder metallurgy, a key concept being the gearing of the product to the customer.

To enhance this customer-centred approach, a showroom adjoining the PEARL laboratory was created, dedicated to powder metallurgy; a virtual version of this showroom is also available to sales & marketing staff. In October 2011, Erasteel acquired control of a Spanish company, Metallied, which owns several small-scale pilot plants for very fine metal powder atomisation. This controlling interest reinforces its strategic development in the powder-metallurgy sector.

A majority of resources is devoted to digital simulation. The first stage in stimulating new alloy grades, solidification structures and metallurgical transformation ranges identifies the heat treatment and expected mechanical characteristics. These ideas are then verified by experimental casting and physico-chemical analyses. Successive iterations of this approach from simulation to testing lead to the development of new industrial alloys and new parts. These innovations are achieved thanks to the close coordination among researchers and technical specialists at the production sites, and occasionally with some customers partnering developments, to pinpoint the value in use of the final applications.

At Erasteel, the development of a new family of steel grades, in partnership with strategic customers for cutting tools, is driving growth in high-speed steels with properties intermediate between conventional products and ASP powders.

A&D innovations are usually intended for strategic industries with customers such as Airbus, EADS or the Safran group. Development work is continuing of new parts in Al-Li Airware 2050 alloy. Boeing's interest in MLX17 has been confirmed for the 747-8 and the 737-MAX. The development of new applications for this revolutionary high-resistance stainless steel is continuing in concert with aerospace equipment manufacturers. For purposes of its study agreement with Messier-Bugatti-Dowty under the aegis of the French DGAC (civil-aviation board), sizeable work was performed in 2012 to finalise the development of MLX19. Snecma selected the very-high-performance ML340 for the shafts of its new engine programmes, and work is currently under way on optimising the manufacturing processes. At the same time, customers' interest in the new AD730 superalloy was confirmed, and the first discs for hot aeronautical engines were produced for evaluation.

Erasteel, for its part, is pursuing three lines of diversification outside high-speed steel:

- the development of stainless steels or superalloys with the new Durin atomisation tower in Sweden, targeting the energy markets (oil extraction at sea), for which we are working on qualification of our powders developed in Sweden. On these markets in powder metallurgy parts, numerous synergies have been developed with A&D (commercial, metallurgical, projects, etc.), particularly by stepping up research at A&D on powder metallurgy parts at end 2012;
- the development of fine powders with the facilities of Metallied in Spain for emerging markets, including additive manufacturing (or 3D photocopying) to produce small parts in complex shapes for medical or aerospace uses;
- the development of new powder-metallurgy alloys for the refrigeration markets in partnership with Cooltech. For the latter diversification, in 2012 the best-performing magnetocaloric materials were defined, produced in powder form and worked into final form (3 patents). The industrial process was selected and defined.

5) Stepping beyond the Group's current business lines, ERAMET is developing processes in line with its diversification strategy. Thus, in collaboration with Areva, Rhodia and several international research laboratories, the Group is developing a new process for the hydrometallurgical processing of pyrochlores, with particular potential for application to the world-class poly-metallic deposit at Mabounié in Gabon, containing sizeable resources of rare-earth metals, niobium, tantalum and uranium. A dedicated team of 18 engineers and 20 technicians was set up at ERAMET Research and a new laboratory constructed at Trappes to cater for the specific characteristics of this ore. A pilot campaign on the upstream portion of the process (dissolution of valuable content and separation of Niobium) was designed and carried out in 2011 at the Areva site at Bessines-sur-Gartempe (France). Six pilot campaigns were performed in 2012, obtaining a process flow-sheet that has already yielded encouraging results. A pilot campaign on the downstream portion (separation of rare-earth metals and uranium) was also designed and carried out in 2012 at the same Areva site, and proved capable of operating and producing the first quantities of products. Lastly, a short niobium refining pilot campaign was set up at ERAMET Research in Trappes and, here again, has yielded some highly

encouraging results. To sum up, ERAMET Research successfully proposed within a very short deadline a first overall process flow sheet, simulating it with the aim of describing the principle for a pilot plant to be constructed in Gabon in order to validate this process, subject to laboratory results.

ERAMET also continued to develop a process aiming at producing lithium carbonate from the brine contained in the *salars* of the Andean *altiplano*, for electric-vehicle batteries, among other uses. In 2012, an on-site evaporation pilot facility in Argentina and the piloting of the lithium carbonation process at Trappes confirmed the ability of the process to produce lithium carbonate of sufficient purity for batteries. Further related processes are being explored: first, production of high-purity lithium hydroxide and lithium carbonate and secondly, the recycling of Li-ion batteries to extract their valuable content.

ERAMET has also participated since 2010 in three campaigns to explore the seabed off the Wallis and Futuna islands, conducted by Ifremer (French Research Institute for Exploitation of the Sea), and with other partners such as BRGM, the *Agence des aires marines protégées* (French protected marine areas agency) (Futuna 1), Technip (Futuna 1, 2 and 3) and Areva (Futuna 1 and 2). These scientific campaigns are aimed at gaining closer insight into the seabed in this Exclusive Economic Zone, from every aspect (topography, geology, geophysics, vulcanology, biodiversity, biology, etc.) particularly with the aim of identifying and mapping active and extinct hydrothermal fields which could ultimately yield a mineral resource with potential economic viability. The results of these three scientific explorations, partly financed by ERAMET, greatly enrich knowledge of the seabed; several hydrothermal sites were discovered and may subsequently be more extensively investigated.

6) The Group is deploying its strategy on a self-supporting basis factoring in environmental concerns, thanks to its R&D.

ERAMET specialises in mining alloy metals essential to the steel industry and is an up-range metallurgy industrialist supplying strategic industrial sectors such as aerospace or defence. The Group is strategically positioned and is reinforcing its positions throughout the value chain for these metals from their extraction to their recycling, as well as seeking to diversify its portfolio to other alloy metals and to special non-steel metals, while retaining its concern for preserving the environment. Satisfying its ambitious strategy entails constantly facing technological challenges, and ERAMET's R&D resources are mobilised to meet them.

Thus, hydrometallurgy furthers both ore extraction and recycling.

The observed fall in metal content of mineral ores worldwide calls for process improvements and increased recourse to hydrometallurgy. Waste recycling to recover and separate the metal present in small quantities also makes use of hydrometallurgy processes. ERAMET's several decades of experience in hydro-metallurgy (particularly for nickel and manganese) makes it a unique centre of hydrometallurgy skills. This skills centre provides essential drive to development with, for example, the Weda Bay Nickel project, or again the development of the process for working the Mabounié deposit and the development of the Lithium project, both of which are lines of diversification for ERAMET.

Recycling is a strategic line of development for ERAMET, and the focus of numerous research programmes.

ERAMET is expanding its recycling activities in various fields, from recovery and separation of metals present in waste to the reclamation of metal waste for inclusion in production processes. Projects are under study or development, such as hydro metallurgy recycling of rhenium, nickel and cobalt contained in superalloy machining waste at Grenoble within the Eurotungstène subsidiary, or ideas for recycling projects in the nuclear industry within the Alloys Division. At the Sandouville plant producing metallic nickel, research has for several decades enabled nickel- or cobalt-bearing waste to be recycled and returned to industrial use as an adjunct to the matte provided by Société Le Nickel-SLN.

Sustainable development is at the heart of ERAMET's strategy, and a watchword for its R&D policy.

Environmental protection is a strategic concern in research and a structuring force for development programmes. As an example of this, environmental preservation played a major structuring role in the early stages of the ERAMET process for hydrometallurgy treatment of nickel oxide ores, and environmental concern stands out as a novel feature of this process. All environmental considerations relating to the process were taken into account as early as the bibliographical studies and laboratory tests.

Reduction in and quality of waste are now key criteria in selecting a new process. A major concern in optimising our pyrometallurgy processes is energy saving, reducing the carbon footprint of products derived from these processes; this is the case with direct ferromanganese reduction or ferronickel production at Société Le Nickel-SLN.

Conclusion

The ERAMET group's R&D is based on an original organisational approach involving close collaboration among researchers, engineers and operational staff with regular consultation of customers; past experience has proved the worth of this approach. It remains established as indispensable to driving the Group's strategy of sustainable, diversified growth in an industry with increasingly stringent technical requirements.

2.8.2. Mineral reserves and resources

2.8.2.1. Overview

Location

Through its subsidiaries, Société Le Nickel-SLN in New Caledonia and Comilog S.A. in Gabon, the Group operates nickel and manganese deposits respectively. With the development of the Weda Bay Nickel project in Indonesia, ERAMET has acquired the means to ultimately double its nickel production.

In New Caledonia, Le Nickel-SLN mines opencast nickel oxide deposits formed by superficial weathering of ultrabasic rocks. Mining and processing are currently concentrated in the saprolitic part of the weathering profile.

In Gabon, Comilog S.A. mines opencast a rich tabular manganese deposit, located under thin caprock and formed by superficial weathering of volcano-sedimentary rocks.

In Indonesia, the Weda Bay project is progressing with an optimisation phase following completion of the feasibility study conducted during 2012.

In October 2011, ERAMET created a joint venture with the Australian company Mineral Deposits Limited (MDL). On completion of the transaction, ERAMET now holds 50% of TiZir, the company developing the Grande Côte Heavy Mineral sands project in Senegal. 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, leucosene) and zirconium-bearing minerals. These deposits can be exploited by dredging. After a favourable feasibility study, development of the Grande Côte mine began in the third quarter of 2011.

Legal claims

The reserves and resources are embodied in mining-claim instruments over which the Group possesses long-term rights: These mainly consist of perpetual concessions foreshortened to the expiry date of 31 December 2048 (Art. 7 of the New-Caledonian *loi de pays* Act of 16 April 2009) and of rights conceded for a 75-year term renewable for successive 25-year terms in new Caledonia, a 75-year concession in Gabon and a Contract of Work for a renewable 30-year term in Indonesia.

The mineral deposits at the Grande Côte project lie within a mining concession granted to MDL by the Senegalese State in September 2007 for a renewable 25-year term.

The carrying amount of reserves is recognised at historical cost for purchased claims and granted concessions are not measured. The balance sheet amount does not necessarily reflect market value.

Estimates

The resource and reserve estimates have been drawn up for Société Le Nickel-SLN, Weda Bay Nickel and Comilog S.A. by professional full-time Group employees using conventional or geostatistical calculation methods. Geological reconnaissance, resource and reserve estimation, exploitation planning and mining are supplemented by over 40 years' industrial-scale experience. The methods used evolve constantly to take advantage of technical progress in these areas.

The resource and reserve estimates for the heavy-mineral sands project were made by Competent Persons as understood by the JORC Code, from AMC Consultant, a company independent from MDL and ERAMET.

Basis of estimates

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

Estimation methodology

Given the Group's presence in New Caledonia, the estimates of the Group's reserves and mineral resources as presented herein were drawn up pursuant to the 2004 edition of the JORC Code (Australian Code for Reporting of Mineral Resources and Ore Reserves) for all aspects relating to estimation methods and classification levels.

As concerns Société Le Nickel-SLN (saprolites for use at the Doniambo plant), Pt Weda Bay Nickel (limonites and saprolites) and Comilog S.A. (manganese ore), an external audit has certified the resources and reserves have been evaluated in a satisfactory manner and in compliance with the JORC code recommendations.

Mineral resources

Resources are calculated with the same cut-off grades as reserves (except where expressly specified otherwise), but without guaranteeing that these mineral 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 higher grade than the cut-off grade;
- it is not isolated.

The mass defined by the drillings selected on the foregoing 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.

Recoverable mineral resources

Recoverable resources are mineral resources with mining recovery and ore dressing factors applied on the basis of experience acquired at 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 metallurgical or chemical processing plant. The mining allowances for dilution and losses, and those relating to ore dressing, are established on the basis of mining summaries comparing production to estimates of volumes already extracted. Recoverable resources are included in mineral resources.

Exploration results

Exploration results are given on the same basis as resources.

Reserves

Reserve estimates are based on medium to 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 limits, etc.) and constraints on current and future technical mining and treatment processes. Reserves are estimated based on a complete mining project. No assurance can be given as to the total recovery of the published reserves, insofar as market fluctuations and technical developments may affect the economic viability of recovering certain deposits or parts of deposits.

Reserves are included in mineral resources.

Presentation of estimates

Mineral resource estimates are broken down by major technical and geographical areas, whereas estimates for recoverable resources and reserves may be given for the mining deposit as a whole. Results may also be compared to production levels, giving an indication of the remaining mine life.

Definitions

Definitions of 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 that it is reasonably likely for mining to 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 that part of a Mineral Resource for which the quantity and grade can be estimated from geological evidence, but with a low level of confidence. Geological and grade continuity are assumed but not verified. The estimate is based on information gathered using 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 that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content 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 sufficiently close together for continuity to be assumed.

A **Measured Mineral Resource** is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content 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 sufficiently close together to confirm geological continuity and/or grade.

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 (shape of mine, dilution and losses depending on the mining method, yield from plant and equipment), economic, marketing, legal, environmental, labour and governmental factors that exist or can be foreseen 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 Ore Reserve** is the economically mineable part of an Indicated reserve, and in some circumstances, a Measured Mineral Resource, whereas a Proven Ore Reserve is the economically mineable part of a Measured Mineral Resource.

Exploration results

Exploration results correspond to the same commercially valuable materials as those assessed for resources and reserves. The prospecting carried out suggests that an ore zone may be found, but available reconnaissance information is weak.

2.8.2.2. Reserves and resources of Comilog S.A.

Mineral resources

The table below sets out the figures for the mineral resources at 1 January 2013 of Comilog S.A. The Bangombé plateau, which is currently being mined, was re-estimated following the factoring-in of new prospecting data (1,300 drill holes). The resources estimate at 1 January 2013 was performed on the basis of the following granulometry breakdown:

- rock ore is estimated on the basis of the +5mm fraction of the drilled samples (as against the +10mm fraction in 2009), and this is closer to the true cut-off grade at the washery;
- fines are now estimated on the basis of the 1-5mm fraction of drilling samples, as against the 2-10mm fraction in 2009.

The figures for resources at 1 January 2013 are based on the following parameters:

- the prospecting results acquired since the previous estimate (January 2011);
- a 30% manganese (Mn) cut-off grade (on the rock-ore granulometric fraction);
- the configuration of the mined areas updated at end December 2012.

The criteria for classification of resources remain the same as those used in 2012 following the audit of resources and reserves by the Melabar Geoconsulting consultancy.

Okouma deposit

In the absence of new information acquired in 2012, the resources announced in 2011 are unchanged. On a similar basis to the Bangombé deposit, the resources are established as follows:

- based on the same drilling granulometric fractions (+5 mm for rock ores and 2-5 mm for fines);
- based on a 30% manganese (Mn) cut-off grade (on the rock-ore granulometric fraction).

Bafoula, Massengo and Yéyé deposits

Comilog S.A.'s mining concession also covers other plateaux in the Moanda region: Bafoula, Massengo and Yéyé. Reconnaissance work carried out on Bafoula and Massengo indicates the existence of ore deposits. The quantity and quality of available information is sufficient to estimate inferred resources. Similarly, the reconnaissance work performed on Yéyé indicates the existence of ore bodies but the quantity and quality of available information are not yet sufficient to estimate inferred resources.

For these plateaux, the resources announced in 2012 are unchanged.

General comments for Bangombé, Okouma, Bafoula and Massengo

Recorded tonnages and grades characterise the entire ore layer (with no vertical selection).

Tonnages of manganese content are calculated with humidities of:

- 9% for rock ores;
- 12% for fines.

The figures are given in millions of Dry Metric Ton Units (DMTU million): "Mn DMTU million"; 1 DMTU Mn = 10 kg of manganese.

Moullili deposit

The Moullili river bed was filled with a manganese ore deposit. From upstream to downstream, the deposit was divided into sections:

- Section (*Tronçon*) MT1: this section was recognised by drilling in 2006; its mineral resources were estimated and classified as measured resources. The resources figures at 1 January 2013 were established taking into account the redrawing of the limits to the areas mined in 2012. No cut-off grade was taken into account. Density measurements taken in 2012 established the dry density of the materials at 2.06 (as against 1.8 adopted at the previous estimates).
- Section MT3: this section was explored by drilling in 2010; its mineral resources were estimated and classified as indicated and included since 1 January 2013 in the resources of Comilog S.A. As with the MT1 section, no cut-off grade was taken into account. Density measurements taken in 2012 established the dry density of the materials at 1.88.

Mineral resources of manganese rock ore and fines at 1 January 2013

Deposit	Measured			Indicated			Inferred			Total		
	kt	% Mn	DMTU.10 ⁶	kt	% Mn	DMTU.10 ⁶	kt	% Mn	DMTU.10 ⁶	kt	% Mn	DMTU.10 ⁶
Rock ores > 5 mm												
Bangombé	43,219	44.2	1,911	29,603	46.0	1,362	354	36.1	13	73,176	44.9	3,286
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	72,119	45.8	3,301	82,003	46.2	3,792	35,354	36.1	1,273	189,476	44.2	8,366
Fines 2-5 mm												
Bangombé	16,147	40.7	657	13,362	42.6	569	106	30.9	3	29,615	41.5	1,229
Okouma	9,300	45.3	420	17,400	43.5	760				26,700	44.1	1,180
Moullili	3,990	45.4	181	2,685	39.5	106				6,675	43.0	287
Bafoula							15,000	32.4	490	15,000	32.4	490
Massengo							7,900	38.1	300	7,900	38.1	300
TOTAL	29,437	42.8	1,258	33,447	42.8	1,435	23,006	34.4	793	85,890	40.5	3,486

Recoverable resources and reserves

The table below sets out the figures for the recoverable resources and reserves at 1 January 2013 of Comilog S.A. broken down into the following deposits:

Bangombé deposit

Recoverable resources are evaluated on the following bases:

- a 30% manganese (Mn) cut-off grade on the rock-ore granulometric fraction;
- an ore-bearing thickness greater than or equal to 2 m;
- the mining and technical factors that allow mineral resources to be transformed into recoverable resources or reserves. Those factors were adjusted following the 2011 change in the estimation method (change in drilling granulometric cut-off grades), and in the light of the production reviews taking into account the whole year 2012;
- commercial specifications changed at 1 January 2009, simplifying the product range. Thus, only the MMR, MMD and BIOG grades (for rock ore) are included in recoverable resources and reserves;
- zone boundaries frozen because of public-easement constraints (aerodrome, trunk road and HT line).

Reserves are included in recoverable mineral resources. Recoverable resources covered by a mining study have been converted into reserves. A portion of the ore resources located at the edge of the Bangombé plateau has not been converted into reserves since studies are ongoing with the aim of transforming these recoverable resources into reserves.

Okouma deposit

Recoverable-resource figures for the Okouma deposit were established using the same approach as for the Bangombé plateau. However, given the uncertainties regarding the mining-recovery and ore-processing factors, only indicated recoverable resources have been published for the Okouma deposit.

While awaiting completion of the mining studies, no reserve has been announced for this deposit.

Bafoula and Massengo deposits

In view of the uncertainties regarding the mining-recovery and ore-processing factors likely to apply to inferred mineral resources, no recoverable resources have been calculated for the ore-bearing masses at Bafoula and Massengo.

Moullili deposit

Mining of the upstream part of the Moullili deposit (called MT1) began in 2010. However, the whole deposit remains classified as a measured recoverable resource, since mining studies have not been completed on certain (downstream) areas of the deposit.

In view of the current uncertainties regarding the mining method and recovery factors, no recoverable resource or reserve has been announced for the MT3 section of the Moullili deposit.

Reminder—Heap

At end 2010, the heap, a stock of ore consisting of surplus fines that were not marketed in the past, was fully exploited, and therefore does not appear in Comilog S.A.'s resources and reserves.

Manganese ore recoverable resources and reserves at 1 January 2013 (DMTU million)

Deposit	Granulometry	Recoverable resources			Total
		Measured	Indicated	Inferred	
Bangombé		1,376	788		2,164
Okouma	> 8 mm		2,710		2,710
TOTAL ROCK ORE		1,376	3,498	0	4,874
Bangombé		496	341		837
Okouma	1-8 mm		1,200		1,200
Mouilli		180			180
TOTAL FINES		676	1,541	0	2,217

Deposit	Granulometry	Reserves			2012 shipments
		Proven	Probable	Total	
Bangombé	Rock ores	1,286	108	1,394	76
Bangombé	Fines	465	36	501	58

The production figures indicated in the above table correspond to ore shipments made in 2012, including CIM production: sinter + beneficiated HM fines.

An external audit was carried out in 2011 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.

2.8.2.3. Société Le Nickel-SLN's reserves and resources

Saprolite reserves and resources for pyrometallurgy

Mineral resources

The foregoing mineral resources have been grouped together by major geomorphological unit according to the regions defined in the Société Le Nickel-SLN geographical information system. Their equivalents in the breakdown used by the DIMENC New-Caledonian government agency are shown in brackets.

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

For the most part, mineral resources are estimated by modelling 3-D blocks using linear geostatistical methods.

Humidities vary from 22% to 45% depending on the mass in question.

These figures were drawn up with:

- a cut-off grade of 1.8-2.2% of nickel for the Tiébaghi and Népoui Kopéto centres with mineralurgical processing of run-of-mine;
- a cut-off grade of 2.0-2.4% of nickel for all sites with conventional treatment.

Saprolite mineral resources for the Doniambo pyrometallurgy plant at 1 January 2013

SLN region (Dimenc boundaries)	Measured		Indicated			Inferred			Total	
	kt	% Ni	kt Ni	kt	% Ni	kt Ni	kt	% Ni	kt Ni	kt Ni
Borindi (Kombwi N'Goye)	527	2.84	15	1,408	2.84	40	2,803	2.71	76	131
Kaala (Kaala)	1,253	2.66	33	2,303	2.66	61	648	2.66	18	112
Kopéto (Kopéto)	6,864	2.20	151	10,457	2.20	230	18,615	2.20	409	790
Kouakoué Ouinne (Kouakoué Ouinne)							1,985	2.67	53	53
Kouaoua Centre (Kouaoua)	2,190	2.52	55	6,425	2.52	162	4,659	2.52	117	334
Stamboul (Kouaoua)				3,854	2.37	91	2,197	2.37	52	143
Me Aiu Baie Laugier Mara (Boakaine)							3,268	2.45	80	80
Moneo (Moneo North and Centre)							8,529	2.57	219	219
Méré (Poro)				1,738	2.84	49	1,184	2.55	30	79
Poro Française Bonini (Poro)	303	2.73	8	764	2.73	21	397	2.73	11	40
Poum (Poum)	219	2.64	6	11,326	2.64	299	2,134	2.64	56	361
Pinpin (Me Maoya)				186	2.75	5				5
Poya Region (Me Maoya + Boulinda)							1,286	2.79	36	36
Tchingou (Tchingou)							1,750	3.34	58	58
Tene Me Adeo (Me Adeo)							131	3.74	5	5
Thio Camp des Sapins (Thio + Ouenghi)	664	2.84	19	1,186	2.84	34	2,077	2.84	59	112
Ningua (Thio)				150	3.18	5	171	3.18	5	10
Thio Plateau (Dothio)	3,260	2.64	86	6,987	2.64	185	3,113	2.64	82	353
Dothio (Dothio + Nakety)	73	2.72	2	241	2.72	7	427	2.72	11	20
Thio Region (Thio)							1,666	2.57	43	43
Tia Plaine des Gaiacs (Tia Plaine des Gaiacs)							1,753	2.57	45	45
Tiébaghi (Tiébaghi)	10,920	2.35	257	15,985	2.35	376	2,372	2.35	55	688
Tontouta (Tontouta)				1,778	2.50	44	2,181	2.50	54	98
Opoué (Tontouta)	573	2.50	14	1,177	2.50	29	241	2.50	7	50
TOTAL	26,846	2.41	646	65,965	2.48	1,638	63,587	2.49	1,581	3,865

2012 featured the following resource-related events:

- Thio Centre: little work done to update the geological models, humidity increased according to the mining summaries produced;
- Kouaoua Centre: no updating of geological models, but the exploration work allowed resources to be renewed in the closer peripheral deposits of the centre;
- Népoui Centre: the updating of the models enabled 80% of the resources consumed in 2012 to be renewed. Reconnaissance work will continue henceforth on the Kopéto Est deposit;
- Tiébaghi Centre: mineral resources were lower due to the modification of the cut-off grade to 1.8% Ni instead of 1.7% on Alpha and to changes in mining factors based on evaluations made since 2008;
- Away from the centres: resources were detected at Kouakoué-Ouiné and in the Kouaoua region (Me Aiu).

Exploration results

The exploration results also correspond to the weathered saprolites phase. At 1/1/2013, they are estimated at 654 kt Ni. The difference from the 2011 figures, of some +220 kt Ni, is explained by the

prospecting in 2012 of targets in the Dothio, Kouakoué Ouinné and Poro regions, and in the peripheral deposits at Tiébaghi. Efforts will continue in the coming years to bring these deposits up to resources stage.

Recoverable resources and reserves

The table below gives the recoverable resources and reserves of saprolites for the Doniambo pyrometallurgy plant recorded in 2012 and published at 1 January 2013; those published in 2011 are shown in italics. The data show the thousands of tonnes of nickel contained in the ore shipped, calculated with the moisture contents observed on production in progress or estimated. These figures come from the above-mentioned mineral resources and factor in the following:

- conventional treatment of run-of-mine similar to current practices on Société Le Nickel-SLN and/or subcontracted sites: approximately 80 mm screening with or without recovery of part of the coarser fractions depending on mineralisation;
- mineralurgical processing in Népoui Kopéto and Tiébaghi;
- mining projects in the case of reserves.

Changes in recoverable resources and reserves of Société Le Nickel-SLN from end 2011 to end 2012

Reserves included in resources													
Resources Recoverable	2012			2011			Reserves	2012			2011		
	Mt	% Ni	kt Ni	Mt	% Ni	kt Ni		Mt	% Ni	kt Ni	Mt	% Ni	kt Ni
Measured	23.0	2.65	610	18.6	2.66	493	Proven	14.4	2.72	392	14.5	2.72	393
Indicated	42.8	2.59	1,109	46.6	2.67	1,243	Probable	22.1	2.67	590	23.1	2.75	637
Inferred	41.2	2.56	1,055	44.7	2.59	1,158	-	-	-	-	-	-	-
TOTAL	107.0	2.59	2,775	109.9	2.63	2,894	TOTAL	36.5	2.69	982	37.6	2.74	1,030

Recoverable resources and reserves of ore intended for mineralogical processing are estimated as washery concentrate (all for Népoui-Kopéto, 1.8-2.8% Ni range for Tiébaghi).

SLN mining production in 2012 amounted to 56.3 kt Ni (thousands tonnes of Nickel). This figure corresponds to the tonnages of nickel contained in the ore transported to the various facilities at ports (wharves or mechanical loading machinery).

Reserves are estimated at some 982 kt Ni at 1 January 2013, compared with 1,030 kt Ni of reserves at end 2011.

The proportion of proven reserves has been steadily increasing for some years with the introduction of planning surveys (rising from 38% to 40% in 2012).

The work carried out on mining projects in 2012 allowed renewal of the entire reserves at the Thio and Kouaoua centres. The bringing up to standard of the Tiébaghi data resulted in an appreciable reduction in reserves at the Dôme deposit (narrowing of the drilling pattern, updating of the mining project, mining factors). Studies are continuing to consolidate the reserves at that deposit.

The indicated and measured recoverable resources are evaluated at 1,719 kt Ni. The proportion of measured and indicated resources in the inventory total therefore increased in 2012, as did proven reserves. Recoverable resources and reserves of the Union-Révolution deposit were downgraded to indicated and probable respectively, in compliance with applicable procedures.

Inferred recoverable resources are estimated at 1,055 kt Ni; the difference from the 2011 figures corresponds to the part converted into indicated resources (peripheral deposits at Thio and Kouaoua).

The renewal rate for recoverable resources of saprolite for pyrometallurgy was -113%, due to the sizeable lowering of resources at Tiébaghi (because of additional studies on ores and cost optimisation for the combined mine/washery/plant unit).

An external audit was conducted in early 2013 by Sigma Blue Pty. Ltd, certifying that the figures published in the inventory at 1 January 2013 for the resources and reserves of saprolitic nickel-bearing ore for supplying the Société Le Nickel pyrometallurgy plant at Doniambo are free from anomaly and have been evaluated in a satisfactory manner overall, in compliance with the JORC code recommendations.

SLN constructs 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. The sum of reserves and recoverable resources included in the current mining plan is 2,025 kt Ni (of which 1,030 kt Ni declared as reserves) in the 2011 long-term plan.

Mineral resources for hydrometallurgy

For all the mineral deposits of Société Le Nickel-SLN and at a cut-off grade of 1.0% Ni, limonite mineral resources ranging from inferred to measured are currently estimated at 6,000 kt Ni.

At the cut-off grade of 1.8% Ni and outside ore-processing centres, preliminary exploration results on low-grade saprolite zones, which are currently uneconomical for pyrometallurgical processing, point at a preliminary estimate to 2,000 kt in nickel content which may be recovered using the hydrometallurgical process developed by ERAMET.

Mineral resources for hydrometallurgy have not been audited to date. They have nevertheless been estimated using the same methodology as was defined in estimating resources intended for the Doniambo plant.

2.8.2.4. 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 the ore estimated to be in the 1% Ni strata in the limonites and saprolites, without applying any transformation or enrichment factors. The mineral resources are calculated at the 1% Ni cut-off grade, and are broken down by prospect, distinguishing between lateritic and saprolitic products.

The average dry densities of the limonites and earthy saprolites are around 0.8-1.0 in the ore bodies in question. Rocky saprolitic ores exhibit higher dry densities, with an average value according to mass of around 1.3-1.4. These figures were established on the basis of measurements performed in 1999-2001 and 2008-2012.

Given the small proportion of fresh rock in the lateritic profile, the tonnages and content provided in saprolites represent the saprolitic column as a whole.

Global resources are calculated by 3-D block modelling performed by the Weda Bay Nickel 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 variogram quality permits it.

Local resources were estimated for the Bukit Limber Barat deposit by Tenzing Pty. Ltd, and on the Coastal, Tofu Blowen and Kao Rahai deposits, by the ERAMET and Weda Bay Nickel teams using multivariate uniform conditioning. Tonnage-content curves have

been drawn up from the results obtained, visualising the selectivity effects in the ore bodies concerned.

The figures set out below are derived from the findings of local estimates for the saprolites in the masses marked with an asterisk, and global estimates for the other ore bodies and for the limonite horizon.

The measured and indicated mineral resources are unchanged from the figures for 2011. Only the inferred mineral resources have been upward-revised, as a result of the continued reconnaissance of Kao Rahai Nord-Est and the detection of the new Toluku mineral mass.

Saprolite and limonite mineral resources at 1 January 2013

Prospects	Measured					Indicated					Inferred					Total
	Mt	% Ni	kt Ni	% Co	ktCo	Mt	% Ni	kt Ni	% Co	ktCo	Mt	% Ni	kt Ni	% Co	ktCo	
Limonites																
Bukit Limber Barat	14.2	1.26	178	0.19	26.9	9.4	1.23	116	0.18	17.0						294
Bukit Limber Timur						15.4	1.22	187	0.17	26.1						187
Coastal Deposits	7.0	1.20	84	0.20	13.9	2.9	1.19	34	0.18	5.2	1.2	1.12	13	0.17	2.0	131
Tofu Blowen	11.6	1.29	150	0.15	17.3	3.8	1.25	47	0.15	5.7	1.3	1.22	16	0.14	1.8	213
Kao Rahai West	3.3	1.33	44	0.23	7.5	2.9	1.25	37	0.21	6.1	1.3	1.23	16	0.21	2.7	96
Kao Rahai East						3.6	1.26	46	0.17	6.2						46
Kao Rahai North-East											3.8	1.18	45	0.14	5.4	45
Big Kahuna (Fonli)						12.0	1.22	147	0.21	25.3						147
Ake Jira						7.2	1.14	82	0.20	14.4						82
Pintu						9.2	1.23	113	0.18	16.5	5.0	1.18	59	0.22	11.0	172
Boki Mekot											7.2	1.23	89	0.12	8.3	89
Jiguru											1.1	1.23	14	0.16	1.8	14
Toluku**																
Total limonites	36.0	1.26	455	0.18	66	66.4	1.22	809	0.18	122	20.9	1.20	252	0.16	33	1,516
Saprolites																
Bukit Limber Barat*	37.5	1.52	570	0.03	11.3	26.0	1.53	398	0.03	7.8						968
Bukit Limber Timur						53.2	1.42	756	0.03	16.0						756
Coastal Deposits*	21.7	1.67	363	0.04	7.8	10.6	1.65	175	0.03	3.5	5.5	1.72	95	0.01	0.6	633
Tofu Blowen*	26.6	1.86	496	0.03	6.9	9.0	1.68	151	0.02	2.2	5.0	1.63	82	0.02	1.1	729
Kao Rahai West*	12.9	2.05	264	0.04	5.3	5.9	1.93	114	0.04	2.2	3.9	1.85	73	0.04	1.6	451
Kao Rahai East*						18.3	1.56	285	0.03	5.5						285
Kao Rahai North-East											29.4	1.52	446	0.03	8.8	446
Big Kahuna (Fonli)						14.2	1.54	218	0.04	5.7						218
Ake Jira						14.9	1.64	244	0.04	6.0						244
Pintu						13.5	1.53	206	0.03	4.0	15.9	1.59	253	0.03	4.8	459
Boki Mekot											18.7	1.63	305	0.02	3.7	305
Jiguru											4.4	1.25	55	0.03	1.3	55
Toluku											12.9	1.28	165	0.02	3.1	165
Total saprolites	98.8	1.72	1694	0.03	31	166.0	1.54	2,547	0.03	53	96.0	1.54	1,473	0.03	25	5,714
TOTAL	134.8	1.59	2,149	0.07	97	232.0	1.45	3,356	0.08	175	117.0	1.48	1,725	0.05	58	7,230

* Resources estimated by multivariate uniform conditioning.

** No limonitic ore at Toluku.

At a constant cut-off grade, the measured, indicated and inferred resources were increased by almost three million tonnes of nickel from the estimates made at the time of acquisition in May 2006 (4.1 Mt Ni).

Reserves

The figures below relate to the saprolite and limonite reserves intended for hydrometallurgical processing.

Pt Weda Bay nickel limonite and saprolite reserves at 1 January 2013

Mass	Proven					Probable					Total
	Mt	% Ni	kt Ni	% Co	kt Co	Mt	% Ni	kt Ni	% Co	kt Co	
Limonites											
Bukit Limber Barat	13.0	1.28	166	0.17	21.7	5.4	1.29	70	0.16	8.7	236
Bukit Limber Timur						10.3	1.25	128	0.16	16.4	128
Coastal Deposits	4.4	1.18	52	0.20	8.6	0.7	1.18	8	0.19	1.2	60
Kao Rahai West	3.1	1.30	41	0.23	7.2	1.5	1.24	19	0.21	3.2	60
Tofu Blowen	11.0	1.29	142	0.15	17.0	3.5	1.25	44	0.15	5.1	186
Total limonites	31.5	1.27	400	0.17	54.4	21.4	1.26	269	0.16	34.7	670
Saprolites											
Bukit Limber Barat	23.1	1.60	369	0.03	7.6	10.3	1.59	163	0.03	3.4	532
Bukit Limber Timur						20.9	1.49	311	0.04	8.8	311
Coastal Deposits	19.7	1.60	315	0.05	10.0	4.7	1.57	74	0.05	2.2	389
Kao Rahai West	11.1	2.09	232	0.04	4.4	4.8	2.00	96	0.02	1.0	328
Tofu Blowen	21.2	1.97	417	0.03	6.4	6.5	1.85	121	0.01	0.7	538
Total saprolites	75.1	1.78	1,334	0.04	28.4	47.2	1.62	765	0.03	16.0	2,099
TOTAL	106.6	1.63	1,734	0.08	82.9	68.7	1.51	1,034	0.07	50.7	2,768

The reserves data correspond to the transformation of resources discussed in the previous paragraph that are in the deposits 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, limonites and earthy saprolites in the Bukit Limber and Tofu Blowen ore bodies;
- 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 geostatistical studies measuring the impact on those products of selectivity at 1.4% Ni;
- Mining factors were applied to the tonnages and contents to take account of the technical limits in the mining phase to obtain the selectivity estimated by uniform conditioning. These factors were adjusted for the geometry of the mass and for the estimate method and findings. They average 0.98 for Ni content and range from 0.95 to 1 for the ore tonnage;
- The experience garnered from a mining test carried out in 2007 and the strong rain patterns observed at the deposits determined the choice of the geotechnical and environmental constraints currently used. In particular, access problems and management of water drained from the mine resulted in zones presenting a natural incline greater than 30° being discarded from the project and the average pit slope being limited to 35°.

The same reasons determined the use of minimum ore thickness as a selection criterion for mineable zones. At this stage of the study, this thickness varies from 3 m to 12 m according to the specific climatic, geomorphologic or environmental conditions of each mass.

Changes in resources and reserves in 2012

The changes in resources and reserves between 2011 and 2012 feature an appreciable increase in inferred resources, while there was no change to the figures for measured and indicated resources and for reserves. The focus of much of the work in 2012 was on gaining closer insight into the ores in existing deposits and optimising the mining sequence.

Drilling will continue over the coming years to reduce the drilling pattern on certain strategic ore bodies, with the primary result of improving confidence levels and resource/reserve classification.

Following the external audit performed by Melabar GeoConsulting in March 2009, the resource classification procedure recommended at the audit was implemented.

Consequently, Melabar GeoConsulting has confirmed that the resources are calculated in a satisfactory manner, and that the conversion of resources into reserves duly factors in certain technical constraints controlled thanks to results acquired from an experimental mine, and that the whole proceeding is compliant with the recommendations of the JORC code.

2.8.2.5. TiZir's reserves and resources

Mineral resources

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

Ordinary kriging was used to perform the block modelling. The mineral resources have been estimated at a cut-off grade of 1.25% 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 cut-off density of 2.85 g/cm³.

TiZir mineral resources at 1 January 2013

Resources	Run of mine (Mt)	HM (%)	HM (Mt)
Measured	1,002	1.73	17.3
Indicated	74	1.77	1.3
TOTAL	1,075	1.73	18.6

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 10% of zircon and 75% of titanium-bearing minerals (ilmenite, pseudorutile, leucoxene and rutile).

Reserves

The data on reserves correspond to the transformation 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.

TiZir reserves at 1 January 2013

Reserves	Run of mine (Mt)	HM (%)	HM (Mt)
Proven	746	1.8	13.2
Probable	5	1.7	0.1
TOTAL	751	1.8	13.3

Pilot testing of the industrial process has demonstrated the technical feasibility of the extraction and separation of heavy minerals using conventional mineral-processing methods.

3

RISK FACTORS

3.1. Commodity risk	68
3.2. Special relationships with Group partners.....	68
3.2.1. Political risks	68
3.2.2. Supply and marketing contracts.....	68
3.2.3. Special relationships with third parties	68
3.3. Mining and industrial risks	70
3.3.1. Risks entailed in evaluating mining reserves and resources	70
3.3.2. Mining project development risks.....	70
3.3.3. Safety and environmental risks.....	71
3.3.4. Transportation-related risks	73
3.4. Legal and tax risks/Disputes.....	73
3.4.1. The Group's dependency on the legislative and regulatory environment.....	73
3.4.2. Major lawsuits	74
3.5. Liquidity, market and counterparty risks	76
3.5.1. Liquidity risk.....	76
3.5.2. Market risks	76
3.6. Insurance/ coverage of risks likely to be incurred by the Issuer.....	77
3.6.1. The Group's general coverage policy/risk coverage strategy.....	77
3.6.2. The different types of insurance taken out	78

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 and aluminium).

The main Group entities involved are:

- ERAMET, Société Le Nickel-SLN and Aubert & Duval for nickel;
- Société Le Nickel-SLN for fuel oil;
- Aubert & Duval for aluminium;
- Erasteel Kloster AB and ERAMET Norway Kvinesdal A/S (ex-Jernverk) for electricity.

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

Hedges are put in place with a horizon of one to four years, depending on the commodities, and on the basis of the budget. Only part of the forecast consumption or production is hedged (e.g. for fuel oil, a maximum 80% of the budget is hedged). The Group uses various instruments to hedge and limit its exposure: futures and options.

At 31 December 2012, the fair value of hedges set up for the various commodities breaks down as follows:

- 0 for nickel (€6 million asset at 31 December 2011);
- 0 for fuel oil (€5 million asset at 31 December 2011);
- 0 for aluminium (0 at 31 December 2011);
- €1 million liability for electricity (€1 million liability at 31 December 2011).

3.2. SPECIAL RELATIONSHIPS WITH GROUP PARTNERS

3.2.1. Political risks

Some of the Group's activities are carried on in countries where political developments may 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 without long-term political and 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 and marketing contracts

The Group has overall control of the contracts relating to the supply and marketing of ore and its byproducts insofar as such contracts are entered-into with companies it controls (such as the supply and marketing contract between ERAMET and Société Le Nickel-SLN and the supply of Manganese Division production sites by Comilog). The other commercial agreements relating to continuing operations do not entail any particular risks or commitments for the Group. Those agreements are mainly for purchases of raw materials (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 regional actors. These partnerships can consist, among others, of taking interests in Group subsidiaries, with a number of special covenants taking account of the existing shareholding balance.

3.2.3.1. Nickel Division

Relations with STCPI and New Caledonia— Société Le Nickel-SLN shareholders' agreement

Société Le Nickel-SLN, a subsidiary 56%-owned by ERAMET with 10% held by Nisshin Steel, is 34% held by the Société Territoriale Calédonienne de Participations Industrielles—STCPI.

STCPI is an SAS (simplified joint-stock corporation) whose sole object is to hold this interest in Société Le Nickel-SLN and an interest of some 4% in the capital of ERAMET. Two directors

out of fifteen (seventeen as from 15 May 2013) represent it on the ERAMET Board. The interest in the share capital of Société Le Nickel-SLN, initially of 30%, was raised to 34% in a share-swap transaction on 23 July 2007, then sold by the French State when ERAMET was privatised. Its political, financial and strategic value resides in its allying local public interests with the Group's mining and industrial interests in New Caledonia. STCPI represents the three New Caledonian Provinces: the Southern Province (with a population of mostly European origin) on one hand and the Northern and Island Provinces (a mainly Melanesian population) on the other hand. The Board members and observer are selected so as to ensure that, on one hand, the Southern Province and, on the other hand, the Northern and Island Provinces, have balanced representation.

The Société Le Nickel-SLN shareholders' agreement of 13 September 2000 followed on from the agreement of 17 July 2000 between the State, the Provinces of New Caledonia and representatives of the island's main political parties. Since 2010, it was extended each year for one-year periods. 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, with the latter 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 Société 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 shall retain the same interest in the share capital or voting rights as they had previously, through either balancing transfers of shares or the joint exercise of subscription rights in a share-capital increase.

Following a press release from STCPI on 27 June 2008, proposing discussions on the level of its interest in Société Le Nickel-SLN, ERAMET's Board meeting of 11 July 2008 resolved that there was no reason to change the shareholding structure of Société Le Nickel-SLN, which represents a satisfactory balance.

Following the meeting of its Board of Directors on 19 November 2009, Société Le Nickel-SLN announced the implementation of a new, modernised corporate-governance system with greater involvement by New Caledonia, and the creation of a strategic 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 discuss the making of adjustments to that 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 Société Le Nickel-SLN and in its environment since the conclusion of the original agreement. The extensions of that agreement in 2011 and 2012 until 31 December 2013 allow the discussions in progress to continue.

Supply contract with Nisshin Steel

ERAMET 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 Société Le Nickel-SLN. Nisshin-Steel is a major customer which 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 to smooth 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 entity 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), with the remaining 10% in the hands of the nickel-producing Indonesian public limited corporation, Pt Antam TBK (Antam), a company specialising in exploration, mining, the refining and distribution of mining products. Antam is represented by one director on the board of directors 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 in the 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 the inclusion of Pamco. Under this amended shareholders' agreement, Mitsubishi Corporation is represented on the board of directors of Strand Minerals by two directors out of a total of six, as well as by one director on the board of directors of Pt Weda Bay Nickel out of a total of five directors. Pamco is not represented on any of these boards.

3.2.3.2. Manganese Division

Relationship with the State of Gabon

Comilog has a special relationship with the State of Gabon, which has been a shareholder since 1973 and is represented by three members on the Board of Directors. From the outset, the State has supported Comilog through both tax concessions (a mining agreement and a special tax agreement to finance the sintering complex) and industrial measures (as Comilog's partner in constructing the Owendo Port, operated under a concession by the Comilog subsidiary, Port Minéralier d'Owendo), and more recently by granting a railway concession to Setrag, in which Comilog is the leading partner, alongside other Gabonese shareholders. 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 purposes of its project to construct two silicomanganese and metallic-manganese metallurgical units at Moanda in the Upper Ogooué (termed the "Moanda Metallurgy Complex"), Comilog signed two agreements with the Gabonese authorities on 7 January 2010, in Libreville; the first agreement laid down among others 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 dedicated financing facility has been provided, with guarantees provided by ERAMET and the Gabonese Republic who are the reference shareholders.

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 this agreement, from 2010

to 2015, ERAMET will transfer in stages to the Gabonese Republic an additional interest 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 involves 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 is to be transferred on 14 June 2011. Eramet's Board of Directors meeting of 26 October 2012 agreed in principle to the appointment of an observer proposed by the Gabonese Republic, until a Director could be appointed. On 21 March 2013, Eramet's Board of Directors, on the one hand, appointed as observer the person proposed by the Gabonese Republic and, on the other hand, submitted to the general meeting of shareholders to be held on 15 May 2013 a resolution for the appointment of the said person as new director.

TiZir partnership with Mineral Deposits Limited

On 25 October 2011, ERAMET and Mineral Deposits Ltd created a joint venture, 50%-owned by each partner, to hold a 100% interest in ERAMET Titanium and Iron (TTI) (Norway) and 90% of the Grande Côte mineral sands project in Senegal. Production is scheduled to start at Grande Côte in late 2013, and will assure TTI supplies of good-quality ilmenite for its titanium dioxide slag production. The zircon production at the Grande Côte project will assure a strong position for TiZir on another very promising market. Lastly, TiZir will be backed by ERAMET's skills in mining, metallurgy, R&D, logistics and marketing, and by the project-development experience of the MDL teams, with the Senegalese Sabodala gold-mining project in commissioned in 2009, and the exploitation of the mineral sands.

3.3. MINING AND INDUSTRIAL RISKS

3.3.1. Risks entailed in evaluating 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, in the "Reserves and resources" sub-section of this document.

3.3.2. Mining project development risks

In view of their capital-intensiveness and the time they involve, studies for the launch of new mining operations or for the renovation of existing operations are capital-expenditure decisions which, in addition to full technical feasibility studies, require beforehand the making of 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 slowing demand, some of these decisions may be delayed or cancelled, with a probable impact on a mining operation's profitability.

3.3.3. Safety and environmental risks

3.3.3.1. Industrial activity that factors in Sustainable Development

ERAMET's Communications and Sustainable Development Department (DC2D) is responsible for monitoring the technical aspects of Sustainable Development in close cooperation with the three operating Divisions and the Group's Human Resources Department.

Given metals' unique feature of being almost endlessly recyclable, 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, these products, although durable and recyclable, may at some stage in their conversion or use present hazards or risks. The Group therefore has to face the challenge of identifying all such hazards, preventing and controlling the resulting risks to its sites and to the outside environment, while contributing to the sustainability and development of its business activity.

In addition to its Environmental Charter adopted in 2002, the Group has operated a Sustainable Development policy since January 2010.

For purposes of regulatory compliance, ERAMET has set itself a goal of "zero disputes" as described below. Also reviewed are the various industrial-risk issues related to the Group's activities involving the status of polluted sites and soil, and the adequate control of industrial risks.

3.3.3.2. Industrial risk-control policy

Group crisis management procedures

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

- crisis prevention: identification of the local and national landscape (authorities, elected representatives, media, etc.), contacts plan, identification of weak indicators, Group reporting, simulations;
- management of serious incidents: 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 rolled out to all sites except China. In 2012, especial attention was paid to crisis simulation exercises at all the sites outside China.

Out of the 39 sites currently monitored, 34 (87%) conducted one or more exercises in 2012, some of them in coordination with the Fire Brigade. Of the five remaining sites, four overhauled their

contingency plans in 2012, together with the relevant training. Exercises are scheduled for 2013. One site is currently deploying the "internal contingency plan" procedure, and is expected to be conducting exercises in 2013.

Risk-analysis methodological assistance

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.

Action plans to counter the risks of contact between water and molten materials

Following a major industrial accident in late June 2011 at the Valdi Feurs site in France, an action plan was decided, with the aim of eliminating the risk of explosions caused by contact between water and molten materials (liquid slag or metal), or to reduce such risks as far as possible.

This action plan comprises three phases and covers all the sites concerned:

■ Phase 1: Hazard studies

Each site must review the hazard studies already conducted, with a focus on the events referred-to.

■ Phase 2: Plant inspections

Inspections are conducted with an outside expert, and involve a detailed study of the furnaces and their environment in order to examine, with the persons concerned at the sites, their hazard studies, the appropriateness of the measures taken (prevention/protection) and to consider any additional measures.

■ Phase 3: Site action plans

These take account of the hazard-study findings and the expert's recommendations.

DC2D/RI monitors half-yearly the progress in these action plans

Phase 1 was completed during the second half of 2011.

Phase 2, deployed in 2012, is currently being finalised. 16 concerned sites were inspected by DC2D/RI, assisted by an independent expert specialising in this type of steelmaking risk. The plant at the New Guilin site in China remains to undergo expert examination. Following these inspections, each site was issued an official report listing the expert's remarks and recommendations. Divisional summaries will be submitted to the Industrial Divisional managements in Q1 2013. The following overall observations were made:

- a high degree of commitment by all sites on this subject;
- a generally good standard of control of these risks;
- clearly-defined avenues for improvement, some applicable generally, and others specific to certain sites;

- one of the main actions to undertake is the training of personnel assigned to at-risk work positions, and the periodical checking of knowledge of the equipment and procedures.

Phase 3 will be rolled out in 2013.

Preventive engineering required under the Group's damage insurance policy

In 2012, ERAMET continued its policy of biannual engineering visits (preventive audits) to all industrial sites, in close cooperation with the insurer and the Group Insurance Department. Note that, in 2012, at the insurer's request, the inspections have focused on breakage of machines and the management of refractories.

The following sites were visited:

- **ERAMET Research;**
- **Aubert & Duval:** Firminy, Issoire, Interforge, Les Ancizes, Forges de Monplaisir;
- **Erasteel:** Commentry;
- **Manganese Division:** Comilog Dunkerque, ERAMET Norway Kvinesdal, TiZir Titanium & Iron (Tyssedal), Erachem Comilog Baltimore and New Johnsonville, Valdi-le-Palais;
- **Nickel Division:** ERAMET Sandouville, Eurotungstène, SLN.

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

As always, close involvement of the Group's on-site industrial-risk officers and the leading insurer's engineering teams in all capital-expenditure programmes ensure that insurer recommendations are factored into new plant from design stage. In 2012, the studies focused on the downstream rolling mill project at Les Ancizes, the Champagnole rolling mill, the CMM project in Gabon, the protection of fuel tanks and critical electrical rooms, as well as the new coal workshop project at SLN, and the biomass boilers project at Sandouville, etc.

Environmental insurance policy – Risk-control visits

In 2007, ERAMET signed an extension of its Group Civil Liability policy with AXA, including an Environmental Damage component (Ecosphère).

Under the inspection programme, the insurers assess the risk of harm to the environment, with three sites inspected per year.

A half-yearly progress report monitors implementation of the actions decided following these inspections.

Each site inspection involves determining the site's compliance with the regulations, inspection of the terrain and a first-approach survey of the existing action plans. This preliminary survey is additional to the periodic internal audits.

After this audits programme was deployed according to this pattern in 2010 and 2011, a pause was made in 2012. Two new sites underwent the first assessments by the insurers, by exchange of information and using questionnaires. The inspections programme will resume in 2013.

3.3.3.3. “Zero dispute” goal

The ERAMET group promotes a policy of strict regulatory compliance, transparency and dialogue with the supervisory authorities, particularly in the event of temporary difficulties or special operating conditions. Since 2007, it has 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.

Since 2009 the “zero dispute” has been widened to cover all the Group's working mines and industrial sites.

Fulfilment of this goal monitors three levels:

- **Level 1:** A letter from the authorities conveying a specific request which, if not acted upon, could escalate to formal notice requiring compliance with regulatory obligations.
- **Level 2:** Formal notice served by or an official complaint from the supervisory authority relating to a breach on our part of the regulatory obligations, liable to lead to criminal proceedings or a fine.
- **Level 3:** Legal proceedings carried through to judgement and/or formal notice expired with consequent legal proceedings.

The “zero dispute” score for 2012 is lower in case number than in 2011. It is contrasted though with:

- two level three disputes arising from the changing demands of the supervisory authorities in environmental cases opened by them in 2009 concerning the GCMC Freeport site in the USA and on 2011 concerning the Erasteel Kloster Langshyttan site in Sweden;
- after three years of rise in level two disputes, the number of level two disputes is markedly improving in 2012 with seven cases of formal notice (compared to 13 in 2011), mainly in France and the USA.

Nevertheless, these disputes remain few in number and should be viewed in perspective, set against the large number of mining permings with which the Group sites must comply. The number of permits in 2012 amounts to 190, each of which includes at least ten parameters to be complied-with n an annual, quarterly, monthly or even continuous bases.

3.3.4. Transportation-related risks

3.3.4.1. Sea freight

The Group makes extensive use of sea freight to ship 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 markets. To protect itself against sharp rises in freight costs, the Group seeks to contract long-term at predefined prices and to reserve some ships on a long-term basis. During periods of low sales activity, however, this may, among others, entail renegotiation of some contracts.

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

3.3.4.2. Rail transport

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.

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 the Group's performance.

3.4. LEGAL AND TAX RISKS/DISPUTES

3.4.1. The Group's dependency 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 mainly concern the following:

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

These regulations may change, with possible incidence on the operation and performance. This is currently the case in Gabon, where the authorities are reforming the Mining Code and the Environmental Code.

Independently of mining, industrial operations are also subject to specific, site-related regulations. These regulations relate mainly to:

- the regimes governing the operating permits and authorisations;
- compliance with limits on effluent 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 to restore the site after cessation of operations, with particular regard to the risks relating to polluted sites, ground pollution and wastes.

These regulations may change, with possible incidence on the operation and performance, particularly where additional capital expenditures are required to factor in environmental concerns after changes in the regulations.

3.4.1.2. Specific tax framework

The Group's business is subject in part to a special tax framework (fees, duties and taxes). Its companies and units in mainland France are taxable at the standard French tax rate. The current corporate income tax rate is 33.33%, excluding both an additional social security contribution of 3.3% and a special surcharge of 5% applicable since 2011.

It should be noted that ERAMET is the parent company of a tax consolidation group that comprised 23 companies at 31 December 2012.

The following notes apply to subsidiaries outside mainland France:

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

On 1 September 2011, the New-Caledonian Congress requested the government to undertake a prompt, comprehensive reform of direct and indirect taxation and other levies on the mining and metallurgical industries; this reform would have no impact on businesses' expenses and would include among its aims the introduction of a uniform local business VAT, termed the "TGA" (*taxe générale sur les activités*) as from 1 January 2013. To date, the TGA rate has not been set, and the introduction of this new tax has been postponed, while the mining royalty project is still under study. SLN and the other mining and metallurgical businesses worked hard to draft and propose amendments to the New Caledonian Government regarding the conditions for application of the TGA regime and the desired principles for introducing a mining royalty per tonne of ore mined and exported. The mining business community in New Caledonia will be watchful of any impacts of this reform on current and future tax-freeze arrangements.

- The Weda Bay investment project is governed by a contract of work defining among others the tax regime applicable to the production activity at the start of the site's operations. Tax matters currently under discussion with the Indonesian Government concern the issues of State revenues (royalties, tax incentives, VAT). The outcome of these discussions will be decisive for the success of the investment and its profitability.
- For its part, the Comilog subsidiary is subject to income tax at 35%, to export duty and mining royalties that represent approximately 6% of the pithead value of the mined products (close to FOB value), and to a 15% tax on dividends. This tax framework is frozen until 2032 under 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, superseding the earlier convention of 21 April 1966. The current convention was published in the Official Journal of the Republic of Gabon on 24 to 31 July 2011. The authorities have initiated discussions, involving Comilog and the other mining concerns, on radically redrafting the Mining Code. The mining business community in Gabon will be watchful of any impacts of this reform on current and future mining agreements.
- Generally, subsidiaries based abroad are subject to standard-rate local taxation and have benefit of 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, withholding tax is charged on dividends paid by Comilog (Gabon) and SLN (New Caledonia) at the rates of 15% and 5% respectively.
- Note that, since 1 January 2008, substantial reforms have been introduced to Chinese taxation, among others the discontinuing of systems favouring certain foreign companies and the introduction of a uniform 25% corporate income tax rate. This reform has had no particular implications for the ERAMET group's Chinese companies.

3.4.2. Major lawsuits

Apart from the matters detailed below, no government, judicial or arbitration proceedings exist, including any proceedings of which the Company is aware, whether pending or threatened against it, that is liable to have or has in the last 12 months had 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 summoned SIMA, SORAME and CEIR, as well as members of the Duval family, to appear before the Paris Commercial Court. The summons specifies that these proceedings are being brought in the presence of ERAMET. The facts are detailed in Note 34 to the consolidated financial statements set out in Section 6 of this document.

On 2 December 2011, the Paris Commercial Court dismissed all the claims of Carlo Tassara France as inadmissible, on the grounds that the legal limitation period had expired. Carlo Tassara France has entered an appeal against this ruling. On 19 March 2013, the Paris Court of Appeal confirmed the ruling of the Paris Commercial Court in all its provisions.

3.4.2.1. Nickel Division

Prony and Creek Pernod concessions

On 6 November 2012, Société Le Nickel-SLN signed with the Southern Province and Vale New Caledonia a declaration of intent whereby it consents to engaging in discussions for the signature of a joint collaboration programme aiming as a first stage at exploring the deposits and in a second stage, at the possible development of those deposits. Under this declaration of intent, upon the conclusion of the joint collaboration programme, Société Le Nickel-SLN and Vale will renounce the administrative proceedings undertaken concerning research permits for these deposits, issued by the Southern Province in January 2009 and annulled by ruling of the New Caledonia Administrative Court on 17 November 2009.

Supply of electricity by Enercal

A dispute has arisen on the determination of the financial terms applicable as from 1 January 2012 for the supply of electricity by Enercal to Société Le Nickel-SLN, provided in the 1956 concession agreement for the operation of its Doniambo metallurgy plant at Nouméa in New Caledonia. As no agreement has been reached with Enercal before the expiration date of the last ten-year contract defining the applicable price, in December 2011, the arbitration procedure was initiated as provided in the agreement between Enercal and Société Le Nickel-SLN, and the arbitral tribunal was empanelled. In December 2012, an arbitration ruling was given, without impact on the 2012 financial statements. Enercal and Société Le Nickel-SLN are concerting to examine the terms of that ruling and their consequences from July 2013 onwards.

3.4.2.2. Manganese Division

Claim by Kazakh companies

In 2006, an anti-dumping complaint was filed with the European Union by Euroalliages on behalf of its members, against Kazakh manganese alloy producers, who contended the complaint to be unfounded and wrongful. Accordingly, on 9 May 2007, the Kazakh producers brought Euroalliages and its members (including ERAMET Comilog Manganèse) before the Belgian Law Court in Brussels, claiming €335 million in damages. ERAMET Comilog Manganèse, in coordination with Euroalliages, has taken all measures to fight this manifestly undue claim, which seeks in reality to place indirect pressure on the European Union. As matters stand, that claim has little chance of succeeding. On 17 February 2009, the Court of First Instance in Brussels ruled in favour of Euroalliages and its members, ruling that only European Union courts have jurisdiction to hear this dispute pertaining to an anti-dumping complaint. The Kazakh producers appealed against this decision, and an appeal ruling could be given in 2013.

Former employees of Comilog in Congo

Before the Transgabonais railway started operating, Comilog exported its manganese ore *via* the Republic of 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. After several years of negotiations delayed by the civil war in the Republic of 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 agreement, Comilog and the Republic of Congo put an end to all past and future disputes, with the latter taking over all liabilities and obligations resulting from Comilog's operations in the Republic of 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 considerable 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 the Republic of Congo summoned three French subsidiaries of Comilog, which had never employed them, and Comilog, to appear on 9 October 2008 before the Conciliation Board of the Paris Labour Arbitration Tribunal. In a decision on 26 January 2011, the Judgement Board of the Employment Arbitration Tribunal declared that it had no territorial competence in the matter. The applicants have disputed that declaration in a referral to the Paris Court of Appeal. In view of the weak grounds for these actions, the various defendant companies have not funded any provision.

Sacinter dispute

Arbitration proceedings are in progress in the dispute between Comilog and Sacinter, the former majority shareholder in the Port Minéralier d'Owendo company (PMO) regarding the price of the PMO shares held by Sacinter and acquired by Comilog in 2008. Arbitration hearings were held on 8 March 2013.

Moanda environmental dispute

Four NGOs (non-governmental organisations), an inhabitants' protest group ("*collectif d'habitants*") and a former *député* (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 S.A. and ERAMET for environmental damage alleged to have been caused by the operation of the Moanda mining site.

On 13 November 2011, the Libreville Court of First Instance upheld the application by Comilog S.A. and the other defendants by declaring itself territorially incompetent. The applicant appealed against that decision. The arguments so far put forward by the claimants fail to substantiate their claims.

Gulf Chemical & Metallurgical Corp.

In 2009, the American company GCMC (Gulf Chemical & Metallurgical Corp.), a subsidiary of the Group, entered into negotiations with TCEQ (the Texas Commission for Environment Quality) regarding the terms of its mining licence. The authorities noted that it required a number of corrections, which it submitted to GCMC. In February 2011, the Attorney-General for the State of Texas instituted enforcement proceedings against GCMC, mainly relating to the corrections requested by TCEQ, before the District Court of Travis County, Texas. On 15 June 2011, the District Court of Travis County found that GCMC had fulfilled the obligations defined in the amicable settlement signed between the parties. Civil proceedings and discussions remain in progress with the local authorities to settle the matter. A provision of USD6.8 million was set aside, proportionate to the risk assessed.

In February 2013, the Group was informed of civil proceedings against Group companies, seeking reparation of alleged damage to residents living close to the Freeport, Texas, USA, plant. As of the date of filing of this document, no formal notice has been received and the amount of damages which may be requested is not known.

3.5. LIQUIDITY, MARKET AND COUNTERPARTY RISKS

3.5.1. Liquidity risk

The Group is not exposed to liquidity risks because of its clearly positive net cash position of €448 million at 31 December 2012. Cash surpluses are mostly transferred to Metal Securities, the Group's special-purpose entity responsible for pooling and investing Group cash surpluses.

In addition, the Group may draw whenever necessary on additional sources of financing, namely a confirmed revolving credit line, the issue of commercial paper and a repo programme drawing on its bond portfolio.

3.5.1.1. Other liabilities

Some Group subsidiaries also have credit lines of their own, some of which were drawn down at 31 December 2012, particularly in the form of finance leases and borrowings.

3.5.1.2. Covenants

The main covenants at Group level are described in the Note 20 to the consolidated financial statements.

3.5.2. Market risks

The Group is primarily exposed to three types of market-trading 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, namely:

- 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.

Since 2003, the Group has centralised the transactional foreign currency risk of its subsidiaries. Each Group company reports to Group Treasury its exposure in currencies other than its functional currency. This management scheme is part of a multiyear policy with procedures approved by the Executive Committee and monthly reporting to its members.

Transactional risks

Since 2007, hedging transactions have been carried out *via* the special-purpose entity, Metal Currencies. The subsidiaries in question determine the amount of their net exposure. The associated risks are then hedged if the amount is greater than €2 million or the equivalent per currency and per year, except in special cases.

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

These hedges are detailed in the Notes to the consolidated financial statements (note 22).

At 31 December 2012, the fair value of currency hedges covering transactional risks represented an €18 million net asset (31 December 2011: a net liability of €43 million).

Foreign currency denominated sales and purchases (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, trade payables and bank-account balances are restated at the hedging rate indicated by the Group's Treasury Department. Any differences between:

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

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

A change of plus or minus 10% in the dollar rates would have an impact on the hedges charged to shareholders' equity of around -€73 million were rates to rise and approximately €53 million were rates to fall.

Balance-sheet risks

The ERAMET group manages part of the foreign currency risks to the balance sheet, primarily relating to the U.S. dollar, by issuing financial liabilities denominated in the same currency as the net assets in question.

In 2006, the ERAMET group acquired Weda Bay Minerals Inc. for USD232 million. This acquisition was financed internally for the equivalent amount in Euros, and the foreign-currency risk was hedged from the outset by a Euro/dollar currency swap.

See Note 22 to the consolidated financial statements.

The Group manages the foreign currency risk to the balance sheet for each case individually.

3.5.2.2. Interest rate risk

a) As regards its gross debt position, the Group looks at its debt position and market trends when deciding whether interest rate hedging is necessary. The Group's Treasury Department is responsible for setting up hedges.

At 31 December 2012, the Group had two interest-rate hedges in place on its gross debt.

b) Cash surpluses managed by Metal Securities are invested in:

- variable-rate instruments linked to the EONIA (Euro OverNight Index Average) or EURIBOR (Euro InterBank Offered Rate) rates; or
- fixed-rate instruments swapped against the EURIBOR.

Under these conditions, a drop of 10 basis points in the EONIA/ EURIBOR rate would have a negative annual impact of approximately €0.3 million on financial income.

3.5.2.3. 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, credit insurance or the setting up of 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 the major customer accounts.

- For issuers of bonds or negotiable debt securities of more than three months' maturity: 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 Insurance Department was established in 2003 with the goal of setting up Group programmes, monitoring the risk-control policy in coordination with the DC2D and seeking optimal risk/premium/retention solutions, including use of the Group's captive reinsurer.

3.6.1.2. Risk identification and control

When instituting its risk management policy, the Group re-mapped its risks, submitting the map to the Audit Committee attached to the Board of Directors in 2011 in order to set up action plans for each risk, designed to prevent their occurrence and limit their impacts, particularly by having them transferred to the insurance market whenever possible. During 2012, a risk management charter was devised but not yet validated; it was designed to

coordinate top-down approaches, initiated by general management and the risks department, with the bottom-up approach by the operating Divisions, particularly as regards their projects.

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 market that offer an optimum balance between cost and coverage. Through brokers, the Group has thus put in place global insurance programmes 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, as and where insurance is required under local regulations.

3.6.1.4. Reinsurance

The Group, moreover, has a captive reinsurance company (ERAS) that enables it to provide primary coverage in some insurance programmes. 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. Coverage levels

The Group considers that it has established sufficient coverage, in terms of both scope and amounts insured or coverage 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 programmes designed to cover the different insurable risks to which it is exposed.

The three main insurance programmes cover civil liability, property damage, business interruption and shipping risks.

3.6.2.1. Civil liability insurance

General Civil Liability insurance

This programme 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 sudden and accidental pollution cover. Coverage is comprehensive meaning that everything not excluded is covered, exclusions being those commonly applied for this type of risk. Coverage is applied on a "claims" basis, meaning that it applies to any claim made during the insurance period (including the subsequent five year period, in line with French regulations). For any claims received, the programme applies from France. If applicable, where local regulations require local policies, this insurance applies on top of those policies and to compensate for differences in conditions and/or limits on a DIC/DIL basis worldwide. In excess of local policies, the scheme is based on a Master policy issued in France covering €50 million and on two additional Excess policy lines of €50 million each bringing the total cover to €150 million; applicable excess levels may vary depending on local policies and are usually around €15,000 per claim. This programme also comes into play on top of the coverage and limits of several specific sub-programmes, particularly in North America, for motor insurance and employer's civil liability, and on top of mandatory insurance policies in the United Kingdom such as employer's civil liability. The annual renewal date for this programme is 1 July. This programme was set up on 1 July 2004 with AXA Corporate Solutions. It has been renewed since then with no increase in premiums. In 2012, the programme was further enhanced by the subscription of coverage in addition to that already provided.

Environmental Civil Liability

In 2007, a specific environmental civil liability policy was taken out for €10 million to cover certain subsidiaries. The cover terms for this policy were significantly improved in 2010, among others by raising the amount from €10 million to €25 million. At 1 July 2012, the programme's scope was widened to include ecological harm. A similar policy was taken out for USD25 million in early 2008 for the US and Canadian companies.

3.6.2.2. Property damage and business interruption insurance

This global programme covers direct property damage caused suddenly and accidentally affecting the insured property, including machine breakage risk and any resulting business interruption losses for all Group entities. Coverage is comprehensive meaning that everything not excluded is covered, exclusions being those commonly applied for this type of risk. 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. With the inclusion in 2009 of the companies located in China, all Group companies are now covered by the programme. The programme was subscribed with a pool of insurers with AXA Corporate Solutions as leading insurer. It took effect on 1 January 2005 with maximum coverage of €250 million, subject to sub-limits applying to certain events and to commonly-accepted exclusions. Since then, a number of underwriting improvements have been made to the cover and excesses under the programme. Furthermore, it has been systematically extended under the same budget conditions. Particular attention is given to recommendations made by the insurers based on site prevention visits. This makes it possible to customise both the prevention programme and the coverage terms for the sites.

3.6.2.3. Shipping insurance

On 1 January 2008, a Group global transport insurance scheme was established. This scheme covers all Group entities worldwide and for all types of shipping: sea, river, land or air. It covers all types of goods, freight or equipment shipped. The programme comprises three policies: "marine cargo" for goods shipping with Chartis, "charterer" with RAETS Club and "hull and machinery" with AXA Corporate Solutions. The introduction of this programme secured particularly favourable terms for both coverage conditions and premiums.



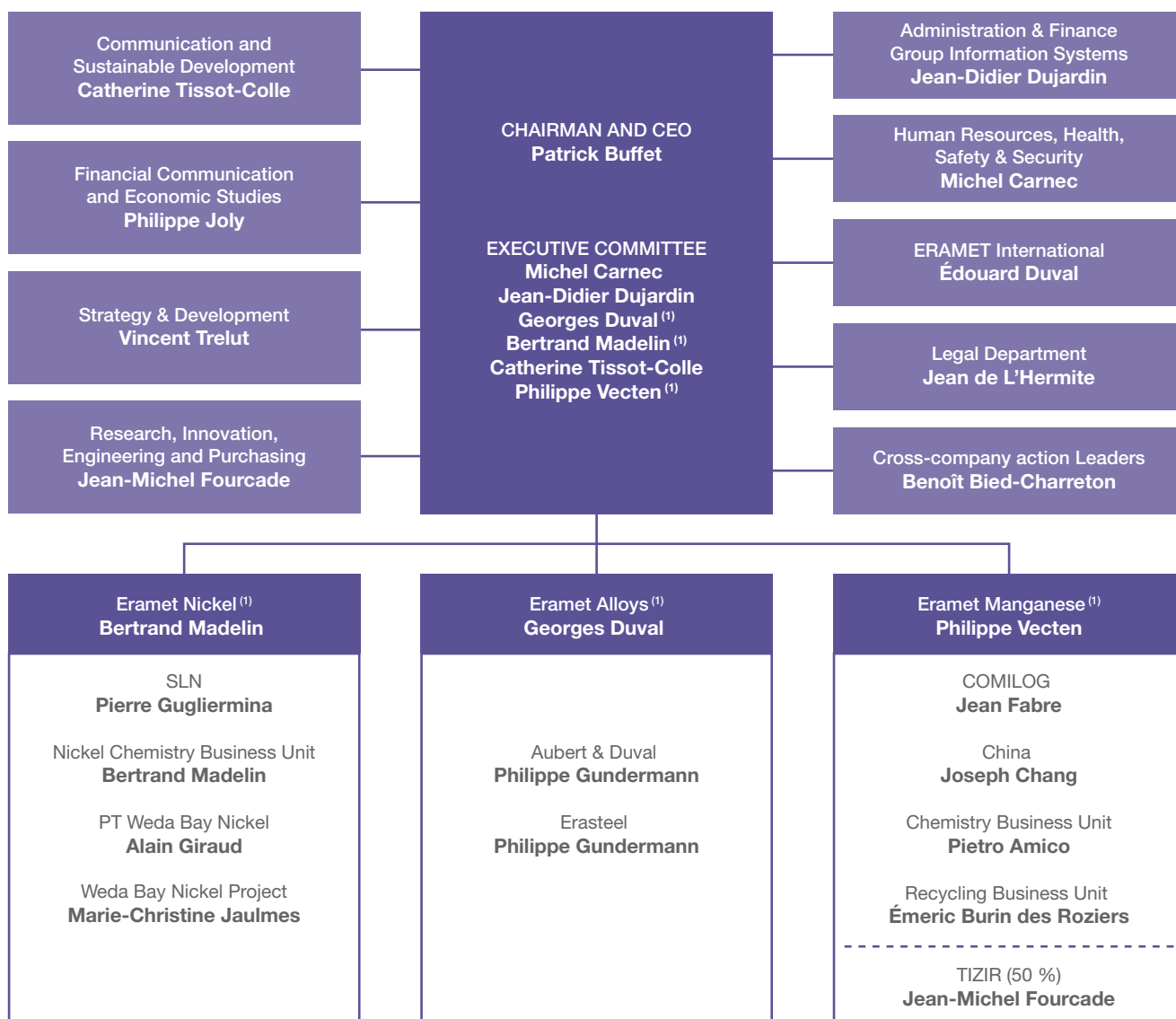
4

CORPORATE GOVERNANCE

4.1. Presentation of Company and Group management and administrative bodies	80
4.1.1. General Management Organisational Chart	80
4.2. Report from the Chairman of the Board of Directors	81
4.2.1. Conditions for the preparation and organisation of the work of the Board of Directors.....	81
4.2.2. Internal control procedures.....	87
4.2.3. Other items	91
4.3. Summary of differences between the Company's corporate governance procedures and Afep/Medef code recommendations.....	91
4.4. Statutory Auditors' report, prepared in accordance with article L. 225-235 of the French Commercial Code (<i>Code de commerce</i>), on the report prepared by the Chairman of the Board of Directors of ERAMET	92
4.5. Remuneration of corporate officers	93
4.6. List of other offices held by members of the Board of Directors and General Management	100
4.7. Securities held by members of the Board of Directors and by General Management	105
4.8. Special report on share subscription and purchase options	106
4.9. Special report on bonus share grants	107

4.1. PRESENTATION OF COMPANY AND GROUP MANAGEMENT AND ADMINISTRATIVE BODIES

4.1.1. General Management Organisational Chart



(1) Deputy CEO.

4.2. REPORT FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

Approved by the Board of Directors on 21 February 2013

2012 financial year

Ladies and Gentlemen,

As Chairman of the Company's Board of Directors, I am delighted to be able to present you with the report provided for under Article L. 225-37 of the French Commercial Code. This report was approved by the Board of Directors at its meeting of 21 February 2013.

As required by law, this report firstly covers the preparation and organisation of the work of the Board of Directors and indicates, where applicable, the limits on the powers of the Chairman and CEO. It will subsequently cover internal control procedures.

4.2.1. Conditions for the preparation and organisation of the work of the Board of Directors

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. A copy of this code is available from the Legal Department at head office.

4.2.1.1. General Management

Company Management Method

At its meeting of 26 March 2003 and in line with the discussions of the General Shareholders' Meeting of 23 May 2002 and Article 14 of its Articles of Association, the Board of Directors of the Company adopted a traditional management organisation for the Company with a Chairman & Chief Executive Officer responsible for both the general management of the Company and the chairmanship of the Board of Directors, considering this choice to be most suited to the organisation and the composition of the Company's share capital.

In accordance with Article 16 of the Articles of Association, the Board may, on the proposal of the person in charge of the Company's general management, appoint up to five deputy CEOs to assist him/her. The Company's CEO and deputy CEOs must be nationals of a member state of the European Union and may not hold the position beyond the age of 70.

The Board may also, in accordance with Article 18 of the Articles of Association, appoint up to four non-voting observers. The observers may be selected from amongst the Company's employees.

Membership of General Management

The General Management of the Company and Group is organised as follows:

Chairman and CEO

Patrick Buffet.

At its meeting of 25 April 2007, the Board of Directors granted him all the powers permitted by French law to a Chairman and CEO of a public limited company. At its meeting of 11 May 2011, 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 or her responsibility, to such persons as he sees fit, with the possibility of sub-delegating such part of his powers as he feels appropriate, by giving special powers for one or more specific purposes.

In line with the provisions of Article 13, Subsection 2 of the Articles of Association, the Chairman and CEO exercises full authority 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."

In line with Article 13, Subsection 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

The following individuals were appointed in that capacity:

- Georges Duval (with effect from 23 May 2002), ERAMET Alloys;
- Bertrand Madelin (with effect from 1 January 2008), ERAMET Nickel;
- Philippe Vecten (with effect from 23 May 2007), ERAMET Manganèse.

Each of the three deputy CEOs is also a Division Manager. The China Department reports to Philippe Vecten. The Administration and Finance Department, the Human Resources, Health, Safety & Security Department, the Communications and Sustainable Development Department, the Research, Innovation, Engineering and Purchasing Department, the Strategy and Development Department, the Project Leaders Department, the Group Financial Communication and Economic Studies Department, the Legal Department and ERAMET International, all report to the Chairman and CEO. The Chief Financial Officer, Jean-Didier Dujardin, also supervises IT systems, internal audit, management control, treasury, financing and accounting.

Monthly Division meetings chaired by the Chairman and CEO enable monitoring of 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 is comprised of the Chairman and CEO, the three Division Managers, the Human Resources, Health, Safety and Security Manager, the Chief Financial Officer, and the Communications and Sustainable Development Manager. The Corporate managers of support departments (Human Resources, Health, Safety and Security Department, Administration and Finance Department and Communications and Sustainable Development Department) are Comex members, thereby strengthening the effectiveness and consistency of their actions. The aim is to enable the cross-company departments to carry out three essential roles: an operational role, a supervisory role and a service role for the Divisions.

The International Management Committee meets on a quarterly basis and is attended by members of the Executive Committee, the CEO of Aubert & Duval and Erasteel, the Alloys Division Strategy Manager, the Chairman of ERAMET International, the CEO of Société Le Nickel-SLN, the Chairman of Pt Weda Bay Nickel, the Weda Bay Nickel Project Manager, the Leaders' Programmes Manager, the Manager of ERAMET in China, the Executive Director in charge of Group development in Africa and the Research, Innovation, Engineering and Purchasing Manager.

4.2.1.2. Board of Directors

Membership/independence

In accordance with the Shareholders' Agreement of 16 March 2012 between SORAME and CEIR, on one hand, and the Fonds

Stratégique d'Investissement (FSI), on the other, since 25 May 2012, the Board of Directors has been comprised of fifteen members, including the Chairman:

- five directors, put forward by the SORAME-CEIR concert party, (of whom, one (Manoelle Lepoutre) has the status of the four "qualified persons" listed here below);
- three directors put forward by the FSI;
- two directors put forward by STCPI;
- four "qualified persons", two put forward by the SORAME-CEIR concert party and two by the FSI, "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."

At 31 December 2012, the Board was comprised of fifteen members, as follows:

Chairman of the Board of Directors

Patrick Buffet, since 25 April 2007.

Directors

- Claire Cheremetinski (director representing the State);
- FSI-Equation, represented by Thomas Devedjian;
- SORAME, represented by Cyrille Duval;
- Édouard Duval;
- Georges Duval;
- CEIR, represented by Patrick Duval;
- Caroline Grégoire-Sainte-Marie (independent director);
- Thierry Le Hénaff (independent director);
- Manoelle Lepoutre (independent director);
- Louis Mapou;
- Michel Quintard;
- Michel Somnolet (independent director);
- Claude Tendil;
- Antoine Treuille (independent director).

The Afep/Medef code considers that a director is independent "when he has no relations whatsoever with the Company, its Group or its management, 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 which it consolidates, 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 salaried employee designated as such or a corporate officer of the Company (currently or having held such a position within the past five years) holds a directorship";

- “not being (or being directly or indirectly associated with) a major customer, supplier, merchant banker, financing banker of the Company or its Group, or for which 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 company auditor during the past five years”;
- “not having been a company director for more than twelve years”.

At 31 December 2012, based on an examination of these criteria by the Board, the Board was comprised of five independent directors out of a total of 15 board members; therefore, one third of board members are independent, in accordance with Afep/Medef Code recommendations.

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 extensive experience and expertise.

In accordance with the provisions of Act No. 2011-103 of 27 January 2011, 20% of the directors on the Board of ERAMET are female.

Under Article 10 of the Articles of Association, directors may not be over seventy years of age when they are appointed and are so 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.

Other participants at Board meetings

Observers

The Board of Directors, at its meeting of 12 April 2000, drawing on the option provided for in Article 18 of the Articles of Association, decided to offer two observer positions to Group employees, in addition to Works Council representatives. In practice, the two observers are nominated by the European Works Council. On 27 July 2012, the Board reappointed Daniel Signoret and Pierre Lescot as observers for a further four years.

At its meeting of 26 October 2012, the Board of Directors also approved the appointment of a new observer, in principle, as proposed by the Gabonese Republic.

Company Works Council Delegates

Béatrice Peignot, Odile d’Erceville, Philippe Laignel, Guillaume Pareyt.

ERAMET Director’s 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 directors’ duty to defend ERAMET’s interests in all circumstances and they shall refrain, whilst carrying out their duties, from any and all action, or inaction, that may compromise it”.

All new directors elected by the General Shareholders’ Meeting or co-opted by the Board, whether he or she is a director in his/her own right or the permanent representative of a legal entity, signs up to the charter which gives a general description of the directors’ mission, 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 adopted for the first time in 1999, particularly emphasises directors’ competence, their duties as regards disclosure and obtaining information, their attendance both at Board meetings and, insofar as possible, at General Shareholders’ Meetings, and their independence. Board Members are notably asked, at all times, to ensure they are not in a direct or indirect conflict of interest with the Company and any company in which they 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. On the date of drafting this report, no directors were in a conflict of interest within the meaning of paragraph 14.2 of Appendix 1 to EC Regulation No. 809/2004.

The duty of confidentiality and of refraining from dealing in the Company’s shares when in possession of unpublished material information is also repeated. 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 a 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.

By-laws

At its meeting of 25 May 2012, the Board of Directors reviewed the by-laws which specify its rules of organisation and which were first adopted in 2006. The by-laws may be requested from the Secretary of the Board of Directors at the Company’s registered 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 or the Group’s structure, balance sheet or risk profile. It also examines press releases related to the financial statements or to acquisitions or disposals, prior to their distribution, except in duly justified urgent cases.

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 Group management. They report on the information and advice obtained.

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 this 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 of the code of conduct are as follows: combat all kinds 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.

This code of conduct, translated into the Group's twelve languages, was distributed to all Group employees in 2010. It is passed on by members of the Comex, the Management Committee of each Division and the main Corporate managers. An Ethics Officer has specific responsibility for monitoring the appropriate application of the code of conduct. During 2012, internal audits were carried out in the Group's main subsidiaries, with the support of independent specialists. These audits are ongoing in 2013.

Sustainable development policy

At the recommendation of the Audit Committee, the Board of Directors adopted a sustainable development policy on 20 January 2010. The full text of the policy is available on the ERAMET website and its main provisions also appear in the chapter on Sustainable Development in the 2011 Registration Document. Each year since 2010, the pluriannual objectives of the sustainable development policy have been approved: the implementation of those objectives is regularly monitored.

Evaluation of the work of the Board of Directors

At its meeting of 28 July 2010, the Board of Directors reviewed the conclusions of the last evaluation of its work carried out. A further evaluation of the work of the Board of Directors will be carried out in 2013.

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 telephone conference calls that may be held during the year, the Board's meetings are usually held at the Company's head office (Tour Maine-Montparnasse).

Process for Board meetings

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 three Division Managers on the market conditions relevant to each Division. Particularly important projects with respect to the Group's strategy may also be presented.

At the end of the Meeting and 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 the markets open, in order to report to the market on the main developments affecting the Company and the Group.

Minutes

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 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 2012

The Board of Directors met seven times in 2012. The attendance rate of its members was 85.2%.

In addition to examining recurring items relating to the Group's business and, specifically:

- approval of the 2011 financial statements of the Company and the Group and the calling of the General Shareholders' Meeting;
- review of the 2012 interim financial statements;
- review of the key events affecting the Company and its business divisions during the previous quarter;
- the 2013 budget;
- planned investment in or development of existing facilities.

This year, the Board focussed its deliberations, in particular, on progress with the Weda Bay project and Plant C at Doniambo.

In order to carry out its work, the Board is also aided by the work of three Committees which it has set up.

Audit Committee

The charter specifying membership of the Audit Committee (minimum three members, maximum five members, two thirds being independent directors, in compliance with the Afep/Medef corporate governance code), its operation and its responsibilities was 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, (iv) the independence of the Statutory Auditor.

To this end, the Committee has particular responsibility for (i) reviewing the suitability and proper application of the accounting methods used, (ii) analysing the interim and annual financial statements, (iii) examining the internal audit plans and conclusions, (iv) monitoring major disputes (v) examining the Group's change management, raw materials, hedging and investment policies and (vi) examining the Chairman's report on the preparation and organisation of the work of the Board of Directors and internal control procedures.

The Company refers to the AMF working group's report on the Audit Committee to organise the 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 Manager, the Accounting and Tax Manager and the Financing and Treasury Manager.

The Audit Committee is currently comprised of three directors: Caroline Grégoire-Sainte-Marie (independent director), Michel Somnolet (independent director) and Antoine Treuille (independent director).

Caroline Grégoire-Sainte-Marie, a graduate of IEP Paris and a Corporate Director, has worked in General Management and in the Finance Departments of industrial and pharmaceutical groups.

Michel Somnolet, a graduate of HEC, is a former director, Deputy Chairman and CFO of L'Oréal.

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.

The Audit Committee met three times during 2012 and the attendance rate of its members was 100%.

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 the report on audits for the year as well as the audit programme for the following year. The examination of the financial statements by the Committee is assisted by a presentation given by the Statutory Auditors describing the conclusions drawn from their work and the main issues concerning works carried out.

In addition to the review of the annual and interim financial statements, in 2012, 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 2012 and its scheduled work plan for 2013;
- the latest changes to IFRS;
- the competitiveness improvement plan for the Alloys Division;
- the implementation of new information systems;
- the activity of the captive insurance company, ERAS.

Compensation Committee

The charter specifying membership of the Compensation Committee (three members), operation and responsibilities, was reviewed by the Board of Directors on 25 May 2012. The main responsibility of this Committee is to make proposals to the Board of Directors with regard to the remuneration of ERAMET group corporate officers appointed by the Board of Directors.

The Committee is assisted in its work by the Group Human Resources, Health, Safety and Security Manager who also holds the position of Committee Secretary.

The Compensation Committee is currently comprised of three members: Michel Somnolet (independent director), Claude Tendil and Antoine Treuille (independent director).

The compensation policy for corporate officers established by the Board of Directors is based on the following items:

- Remuneration is comprised of a fixed portion and a variable portion, decided annually by the Board following recommendations from the Compensation Committee.
- The variable portion is based on a certain number of specific criteria and goals, the choice and weighting of which are approved by the Board of Directors every year, on the basis of a recommendation from the Compensation Committee; for example, in 2012 it was based on: (i) actual economic performance (Current Operating Profit), (ii) financial performance (net cash position), (iii) the completion vis-à-vis 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, the environment and industrial risk. For reasons of confidentiality, these results, compared against pre-established targets and accurately defined by the Compensation Committee and the Board of Directors, may not be disclosed to the general public. The variable portion may not exceed 65% of gross annual fixed remuneration (130% for the Chairman and CEO).
- In addition, in respect of profit-sharing, 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, on the basis of a recommendation from the Compensation Committee. Since the Board meeting of 23 July 2007, corporate officers are required to retain 20% of shares acquired under performance share plans, throughout the term of their appointments. In 2012, a total of 17,130 performance shares, all subject to fulfilment of specific performance conditions, were granted to corporate officers. The performance conditions, calculated over three years, are as follows: relative performance of ERAMET shares for 50% of the share grant (this involves comparing the change in total shareholder return over three years with that of a panel composed of 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 thirds over three years of certain economic indicators for 50% of the share grant (25% of current operating income on turnover and 25% of cash-flow related to operating activities, with annual targets related to the Company's budgeted targets and the performance conditions only being fully achieved in

the event of significant out-performance of these targets). 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 a 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 internal plan regulations, with said reference salary being limited, in the same regulations, to 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 taken into account to calculate the reference salary is twelve months for the annual fixed portion and the average of the last three variable remunerations, calculated on the basis of full years, for the variable portion. 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⁾, provides the whole pension plan with a very well balanced structure.
- Should the Chairman and CEO leave the Company, 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/her term of office must be 20% 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. The amount of severance pay which may fall due is equal to three times the last gross annual fixed remuneration plus three times the average gross annual variable remuneration received in the last three complete years prior to his departure. In accordance with the provisions of article L. 225-42-1 of the French Commercial Code, these arrangements were approved by shareholders at the General Shareholders' Meeting of 16 April 2008, and subsequently on 15 May 2012, following reappointment of the Chairman and CEO. In addition, in accordance with Afep/Medef Code recommendations, Patrick Buffet does not hold a contract of employment with the Company.

The other corporate officers do not benefit from a commitment or promise relating to the granting of a severance payment in respect of their offices. The employment contract between the Deputy CEOs and the Company is suspended until their respective terms of office expire. The suspended employment contracts of Messrs Madelin and Vecten provide 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 their reference remuneration

(fixed plus variable) as employees. 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 parties upon their departure. The suspended employment contract of Georges Duval contains a clause providing, in the event of dismissal, retirement or pensioning-off, for the payment of a contractual payment of 18 months' salary, calculated on the basis of his reference remuneration (fixed plus variable) as an employee, which is not cumulative with the customary payments calculated on the basis of the national collective bargaining agreement for executives in the metallurgy industry. Édouard Duval's employment contract contains an identical clause.

- No payment relating to a non-competition commitment has been provided for corporate officers at the end of their respective terms of office, with the exception of Cyrille Duval whose employment contract provides for the right for his employer to invoke a one-year non-competition obligation, renewable once for the same term, against payment of compensation equal to 50% of his average fixed remuneration for the twelve months preceding contract termination, regardless of the reason. In the event of dismissal, the compensation is raised to 60% of this average.
- 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 implemented. On 31 December 2012, this guarantee applied to 15 of the Group's senior executives (Messrs Madelin and Vecten, the only corporate officer beneficiaries, certain members of the Group Executive Committee who are not corporate officers and members of the Comex pertaining to the Divisions). This guarantee, which represents compensation equal to three years' remuneration (fixed plus variable) for each beneficiary manager, was estimated at a total of €6.4 million at 31 December 2012. Patrick Buffet does not benefit from this guarantee.

Under their employment contracts, certain employees also benefit from contractual indemnities, including upon their 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.

- Following a review of the recommendations of the Afep/Medef code by the Board of Directors in 2008, the conclusion was reached that the corporate officer remuneration arrangements are in line with those recommendations, with the exception of the number of years of pensionable service taken into account to calculate the amount of severance pay of the Chairman and CEO which is three times the last gross annual fixed remuneration plus three times the average of the gross annual variable remunerations received in the last three years prior to his departure, while the Afep/Medef Code recommends two years fixed and variable remuneration in its recommendation 20.2.4.

(1) In 2012, the annual social security ceiling was €36,372.

Following the Board's decision, taken on 11 May 2011, to renew the term of office of the Chairman and CEO, and at the suggestion of the Compensation Committee, at its meeting of 27 July 2011 the Board of Directors unanimously voted (with the Chairman and CEO's abstention) to uphold this arrangement (also taking into account all amendments decided since then by ERAMET's Board of Directors at the recommendation of the Compensation Committee), in order to preserve the general balance of the corporate officer's contract of 26 April 2007, drawn up when he joined the ERAMET group, which was brought in line with the provisions of the TEPA act of 21 August 2007 by the Board of Directors at its meeting of 20 February 2008. In accordance with the provisions of article L. 225-42-1 of the French Commercial Code, shareholders approved the upholding of these arrangements at the General Shareholders' Meeting of 15 May 2012.

The Compensation Committee met four times during 2012 and the attendance rate of its members was 100%.

During the year, besides validating the proposed 2011 bonuses and 2012 targets for corporate officers which the Board of Directors approved, the Committee also proposed to the Board of Directors and the latter approved a 2012 EraShare worldwide bonus share grant plan, as part of the annual performance share grant 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, and a selective performance share plan for 2012, granting a total of 89,885 performance shares to 201 Group executives (including 17,130 performance shares to corporate officers). The Committee also suggested that the

Board review the directors' fees paid to members of the Board from 1 January 2012, based on the arrangements of comparable listed companies.

Selection Committee

Comprised of four members (three directors and the Chairman), it recommends the appointment of the corporate officers 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 must examine and render an opinion on solutions for such replacement.

The Committee is currently comprised of Patrick Buffet, Cyrille Duval, Édouard Duval and Thomas Devedjian. Contrary to Afep/Medef code recommendations, this Committee does not include an independent director among its members. This is due to the specific rules of the shareholders' agreement designed to structure relationships between the various shareholders of the Company.

The Selection Committee did not meet in 2012.

4.2.2. Internal control procedures

4.2.2.1. The Company's internal control goals

In accordance with the AMF reference framework issued in January 2007, the internal control procedures in force at ERAMET aim to:

- ensure that management actions, the carrying out of transactions and employee behaviour all comply with the policies laid down by the Company's governing bodies, with applicable legislation and regulations and with the Company's values, standards and internal rules;
- check that the accounting, financial and management information provided to the Company's governing bodies accurately reflects the Company's business activities and position;
- ensure that procedures and/or programmes are put in place to protect assets against the various risks of loss 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 have been totally eliminated.

4.2.2.2. 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 cohesion. The following are the main internal control players:

- the Executive Committee (Comex), the membership of which is set out in the "General Management" section above, meets every two weeks. The International Management Committee, the membership of which is also set out in the "General Management" section above, deals, more specifically, with organisational matters. It meets four times a year;
- the Internal Audit Department reports to the Chief Financial Officer (CFO). Based on an Audit Plan approved each year by the Comex, the department carries out assignments in the

various Group units as defined in the Plan and instructed by the Chairman. It reports quarterly to the Comex and annually to the Audit Committee on the results of its assignments and the progress achieved with the resulting action plans. Each year the Audit Committee reviews the internal audit plan of the Group and of its subsidiaries (current plan and plan for the following year) and proposes any adjustments it sees necessary to the Board of Directors;

- the Group Planning and Management Control Department reports to the CFO. It sets out the structure of ERAMET's management controls and monitors the Division's management systems projects 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 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 and the Risk Management Department both report to the CFO. As service centres, in collaboration with specialist Committees of the main subsidiaries, firstly, they handle hedging of foreign currency and commodity risk, particularly with regard to nickel and oil, and manage financial resources (investments and borrowings) for the whole Group and, secondly, they are responsible for setting up and monitoring all the insurance policies taken out by the Group;
- the Group Risk Manager, reporting to the CFO, coordinates Risk Management procedures. He steers the deployment of the risk management function within the Group, performs regular risk mapping updates and ensures that action plans are implemented to increase the level of risk control. He reports to the Comex and to the Audit Committee on risk management measures taken;
- the Tax Department is part of the Accounting, Tax and Consolidation Department and reports 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 in controlling and reducing the Group's environmental impact, thereby ensuring the sustainability of ERAMET's business activities, products and markets in line with legislative, political and social 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 coordinates 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 items, under the management of the relevant Manager who is a member of the Comex.

Risk management

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 Group has implemented a two-step approach: the identification and assessment of major risks on the one hand, and risk management on the other.

Risk identification and assessment

In 2011, the Group carried out an in-depth update of its risk mapping. The method used enabled identification of the major strategic, operational, financial and compliance risks which could affect Divisions and, in a broader sense, the Group.

This exercise was achieved through risk mapping carried out at Branch level and at Group level. The risks identified were assessed by the Management Committees for the Divisions and by the Group Comex, respectively.

The findings of all these works were presented to the Audit Committee.

The main operational and financial risks faced by the Group are described in the 2011 Registration Document, in chapter 3, Risk Factors, and in the notes to the 2012 consolidated financial statements with regard to financial risks.

Treatment of risks

In 2012 and thereafter, 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 Manager is responsible for monitoring this procedure.
- The results obtained from risk mapping are integrated in the Group's internal audit plan: the goal of this procedure is to ensure that mechanisms are put in place to control the risks.

The operational risks are mainly managed at Division 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.

A “Nickel Committee” was established in 2006 to focus on commodity risk. It comprises certain members of general management and representatives of ERAMET’s Nickel Division (including the CFO of SLN). It is responsible for advising the Group as regards the definition and implementation of policies to control risks related to Nickel price fluctuations.

Finally, the Finance and Risk Management Department, together with Division managers, establishes the insurable risk coverage policy for all the Group’s companies. The various insurance programmes are described in the Group’s 2011 Registration Document. Any additions to those insurance programmes will be detailed in the Group’s 2012 Registration Document.

Summary of internal control procedures implemented in the Group

- Existing charters: the Audit Committee, Internal Audit, Legal Department, Risk Management Department, where it concerns insurance, Management Control, Tax Department and IT 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, 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.
- Signing authority, other powers: the three Division Managers, 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 bank accounts and to execute with a co-signer, whose name is indicated on a list for that purpose, all financial transactions, up to a maximum of one hundred million Euros. He may also carry out alone, up to a maximum of the same amount, exchange, loan, advance or borrowing transactions over the telephone, and send any transfer order by fax, in favour of third parties with a confirmation call by the bank should the fax systems not be operational. These transactions should be confirmed in writing with a co-signer whose name appears in the aforementioned list.
- IT systems: the role of the Group IT Department is to make IT systems more harmonised across the Group and to assist 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 liabilities 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 study has been set up to modernise our main ERP platforms around the SAP solution in a harmonised fashion across the whole Group. An initial pilot project was launched to manage the European Manganese business.
- General organisation of procedures: ERAMET has drawn up, and published within the Company and its subsidiaries, internal procedure manuals on capital expenditure, foreign currency hedging, management procedures (budgeting, operational planning, long-term financing plans, updating forecasts, analysis of over/under-runs, etc.), the 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, day-to-day running of the Divisions is managed independently. Each Division has a Management Committee that takes all decisions within its area of responsibility, reporting to the Group Comex on a regular basis;
 - the Legal 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 Compensation Committee. At the meeting of the Board of Directors of 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 Compensation Committee, as part of a modernised corporate governance structure. This was implemented at the SLN Board meeting of 17 November 2009 and has since proved very successful. This arrangement was modified at the SLN Board meeting of 4 December 2012 to take into account the separate functions of Chairman and CEO of the Company and the appointment of new persons to those offices, replacing the Group’s Chairman and CEO;

- Division management meetings: monthly meetings are organised with the management of each Division to review monthly performance and to analyse budget over/under-runs 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: the internal audit carried out 12 assignments in 2012 throughout the Group's subsidiaries. The work carried out in 2012 did not reveal any significant failings or weaknesses in the way in which internal control is organised;
- control of strategic investments: Under the Capital Expenditure Procedure, all projects exceeding €4 million are submitted for approval at Division meetings on the basis of specific procedures (presentation dossier, approval meetings, follow-up, etc.). Capital expenditure projects are controlled and approved from a technical perspective by the Engineering Department, which reports to the Group Strategy and Development Manager and, from a financial perspective, by the Administration & Financial Department. Strategic projects are presented to the Board of Directors of ERAMET;
- monitoring of commitments given and received: independently of the abovementioned procedure, quarterly accounting reporting provides information on these commitments. Moreover, the Legal 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 department 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 Financial 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 consolidated financial statements: 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 the end of the year for the ensuing year and at least three forecast revisions are made to the prevailing annual budget 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 Comex and, subsequently, by the Chairman and CEO of ERAMET. An analysis of the differences 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: the Group Administration and Financial Department, in addition to its pivotal role in managing foreign currency and commodity risk, 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 incorporated Metal Securities, a cash-pooling company 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 and 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 validated at meetings held with the Division and Group Finance Departments, the Division Managers, the Group CFO and, thereafter, with the Chairman and CEO of ERAMET.

4.2.3. Other items

4.2.3.1. 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 current Articles of Association.

4.2.3.2. Information required under Article L. 225-100-3 of the French Commercial Code

The information required under Article L. 225-100-3 of the French Commercial Code (factors likely to have an impact in the event of a public offer) is published in the 2011 Registration Document and will be updated, if necessary, in ERAMET's 2012 Registration Document.

Paris, 21 February 2013

The Chairman of the Board of Directors

4.3. SUMMARY OF DIFFERENCES BETWEEN THE COMPANY'S CORPORATE GOVERNANCE PROCEDURES AND AFEP/MEDEF CODE RECOMMENDATIONS

These items are considered in more detail in the Report from the Chairman of the Board of Directors on corporate governance and internal control.

Recommendation

Recommendation 20.2.4: Chairman & CEO severance pay: number of years of pensionable service taken into account: two years of fixed and variable remuneration.

Recommendation 16.1 (referring to 15.1): membership of the Selection Committee: membership consists mainly of independent directors with no executive corporate officers.

ERAMET Corporate Governance

Severance pay is calculated on the basis of three times the last gross annual fixed remuneration plus three times the average gross annual variable remuneration received in the last three complete years prior to his departure. These arrangements have been upheld in order to preserve the general balance of the corporate officer's contract of 26 April 2007.

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' agreement designed to structure relationships between the various shareholders of the Company.

4.4. STATUTORY AUDITORS' REPORT, PREPARED IN ACCORDANCE WITH ARTICLE L. 225-235 OF THE FRENCH COMMERCIAL CODE (CODE DE COMMERCE), ON THE REPORT PREPARED BY THE CHAIRMAN OF THE BOARD OF DIRECTORS OF ERAMET

Year ended 31 December 2012

This is a free translation into English of a report issued in French and it is provided solely for the convenience of English speaking users. 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 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 2012.

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.

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*).

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*).

Neuilly-sur-Seine and Paris-La Défense, 21 February 2013

The Statutory Auditors

Deloitte & Associés
French original signed by:
 Alain Penanguer

Ernst & Young et Autres
French original signed by:
 Aymeric de La Morandière

4.5. REMUNERATION OF CORPORATE OFFICERS

The table below sets out an individual breakdown of gross remuneration due to corporate officers and members of the Group Executive Committee ("Comex") in 2012:

Table 1 – Table summarising the remuneration of all executive corporate officers in addition to shares and options granted to each one

(€)	Remuneration due in the year		Value of performance shares/ bonus shares/ options granted during the year ⁽²⁾		Total 2012	Total 2011
	2012	2011	2012	2011		
Patrick Buffet⁽¹⁾ Chairman and CEO	1,662,555	1,476,322	976,662	1,301,764	2,639,217	2,778,086
Georges Duval⁽¹⁾ Deputy CEO	446,752	405,631	90,810	307,098	537,562	712,729
Bertrand Madelin⁽¹⁾ Deputy CEO	403,472	366,793	169,361	225,407	572,833	592,200
Philippe Vecten⁽¹⁾ Deputy CEO	495,852	456,584	206,593	275,330	702,445	731,914
Édouard Duval Manager ERAMET International	338,335	328,921	78,551	113,460	416,886	442,239
Cyrille Duval General Secretary Alloys Division	256,946	256,333	33,600	90,768	290,546	347,101
Total corporate officers	3,603,912	3,290,584	1,555,575	2,313,828	5,159,487	5,604,270
Michel Carnec⁽¹⁾ Human Resources Manager	407,376	389,028	187,523	249,915	594,899	638,640
Jean-Didier Dujardin⁽¹⁾ Chief Financial Officer	465,204	455,028	219,306	292,273	684,510	746,998
Catherine Tissot-Colle⁽¹⁾ Communications & Sustainable Development Manager	241,041	244,522	127,134	169,736	368,175	413,956
TOTAL CORPORATE OFFICERS AND COMEX MEMBERS	4,717,533	4,379,162	2,089,538	3,025,751	6,807,071	7,403,864

(1) Comex member.

(2) Calculated according to fair value of the share on the date of granting by the Board of Directors.

Table 2 – Table summarising the remuneration of each executive corporate officer and/or Comex member

(€)	Amount for 2012		Amount for 2011	
	Due	Paid	Due	Paid
Patrick Buffet				
Chairman and CEO				
Fixed remuneration	783,850	783,850	753,679	753,679
Variable remuneration	804,479	650,022	650,022	775,725
Directors' fees	66,500	65,000	65,000	65,500
Benefits in kind ⁽¹⁾	7,726	7,726	7,621	7,621
Total	1,662,555	1,506,598	1,476,322	1,602,525
Georges Duval				
Deputy CEO				
Fixed remuneration	320,197	320,197	290,733	290,733
Variable remuneration	98,861	90,704	90,704	126,524
Directors' fees	23,500	20,000	20,000	22,000
Benefits in kind ⁽¹⁾	4,194	4,194	4,194	4,194
Total	446,752	435,095	405,631	443,451
Bertrand Madelin				
Deputy CEO				
Fixed remuneration	250,000	250,000	234,749	234,749
Variable remuneration	124,556	102,241	102,241	104,410
Directors' fees	24,500	25,500	25,500	23,000
Benefits in kind ⁽¹⁾	4,416	4,416	4,303	4,303
Total	403,472	382,157	366,793	366,462
Philippe Vecten				
Deputy CEO				
Fixed remuneration	298,000	298,000	286,532	286,532
Variable remuneration	150,699	120,558	120,558	140,673
Directors' fees	41,573	43,914	43,914	42,437
Benefits in kind ⁽¹⁾	5,580	5,580	5,580	5,580
Total	495,852	468,052	456,584	475,222
Édouard Duval				
Manager ERAMET International				
Fixed remuneration	277,573	277,573	274,599	274,599
Variable remuneration	23,262	19,822	19,822	26,890
Directors' fees	37,500	34,500	34,500	35,000
Benefits in kind ⁽¹⁾				
Total	338,335	331,895	328,921	336,489
Cyrille Duval				
General Secretary Alloys Division				
Fixed remuneration ⁽²⁾	185,858	185,898	193,444	193,444
Variable remuneration	28,367	24,473	24,473	29,881
Directors' fees	39,500	36,000	36,000	39,000
Benefits in kind ⁽¹⁾	3,221	3,221	2,416	2,416
Total	256,946	249,592	256,333	264,741
SUB-TOTAL CORPORATE OFFICERS	3,603,912	3,373,389	3,290,584	3,488,890

(1) This relates to the provision of a Company car.

(2) Part time as from 1/1/12.

(€)	Amount for 2012		Amount for 2011	
	Due	Paid	Due	Paid
Michel Carnec				
Human Resources Manager				
Fixed remuneration	270,500	270,500	262,288	262,288
Variable remuneration	107,997	100,750	100,750	120,000
Directors' fees	24,500	21,500	21,500	17,000
Benefits in kind ⁽¹⁾	4,379	4,379	4,490	4,490
Total	407,376	397,129	389,028	403,778
Jean-Didier Dujardin				
Chief Financial Officer				
Fixed remuneration	313,000	313,000	305,973	305,973
Variable remuneration	104,776	101,127	101,127	110,860
Directors' fees	41,500	42,000	42,000	40,500
Benefits in kind ⁽¹⁾	5,928	5,928	5,928	5,928
Total	465,204	462,055	455,028	463,261
Catherine Tissot-Colle				
Communications & Sustainable Development Manager				
Fixed remuneration	181,800	181,800	183,902	183,902
Variable remuneration	55,631	57,372	57,372	44,988
Directors' fees				
Benefits in kind ⁽¹⁾	3,610	3,610	3,248	3,248
Total	241,041	242,782	244,522	232,138
TOTAL CORPORATE OFFICERS AND COMEX MEMBERS	4,717,533	4,475,355	4,379,162	4,588,067

(1) This relates to the provision of a Company car.

The top ten earners at ERAMET in respect of 2012 received total remuneration of €5,315,510.56, as certified by the Statutory Auditors.

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 2013 in respect of 2012 amounted to €428,775 (€378,950 in 2011). The total sum allocated to the Board of Directors was set at €550,000 at the General Shareholders' Meeting of 16 April 2008 (sixth resolution), to be distributed freely amongst the directors by the Board.

The directors' fees for 2012 were distributed on the following basis:

- annual fixed amount of €13,000;
- amount of €1,500 for each actual attendance at Board meetings;
- annual fixed amount of €8,000 for Audit Committee members;

- amount of €1,300 for each actual attendance at Audit Committee meetings;
- annual fixed amount of €8,000 for members of the Compensation Committee;
- amount of €1,300 for each actual attendance at Compensation Committee meetings.

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).

The directors' fees paid to ERAMET's corporate officers by other companies in the Group amounted to an overall total of €87,500 in 2012 (€90,500 in 2011).

No other remuneration is paid to non-executive corporate officers.

The distribution of directors' fees at the beginning of 2013 in respect of 2012 was as follows (in Euros, before deductions):

	ERAMET	Other companies	Total 2012	Total 2011
Patrick Buffet ⁽¹⁾	23,500	43,000	66,500	65,000
Pierre Charreton (Areva) ⁽⁶⁾	5,528	-	5,528	-
Claire Cheremetinski (State Rep.) ⁽⁵⁾	23,500	-	23,500	2,000
Thomas Devedjian (FSI Equation) ⁽⁹⁾	13,583	-	13,583	-
Cyrille Duval ⁽¹⁾	23,500	16,000	39,500	36,000
Édouard Duval ⁽¹⁾	23,500	14,000	37,500	34,500
Georges Duval ⁽¹⁾	23,500	-	23,500	20,000
Patrick Duval	23,500	-	23,500	19,000
Caroline Grégoire-Sainte-Marie ⁽⁶⁾	19,350	-	19,350	-
Pierre-Noël Giraud ⁽²⁾	-	-	-	6,500
Gilbert Lehmann ⁽⁷⁾	16,050	-	16,050	31,000
Thierry Le Hénaff ⁽⁶⁾	10,583	-	10,583	-
Manoelle Lepoutre ⁽³⁾	23,500	-	23,500	11,500
Jean-Hervé Lorenzi ⁽⁷⁾	9,917	-	9,917	19,000
Louis Mapou	16,000	-	16,000	24,100
Astrid Milsan ⁽⁴⁾	-	-	-	7,000
Sébastien de Montessus (Areva) ⁽⁶⁾	2,889	-	2,889	16,000
Michel Quintard	25,075	14,500	39,575	37,575
Jacques Rossignol ⁽²⁾	-	-	0	12,500
Michel Somnolet	59,275	-	59,275	55,200
Claude Tendil ⁽⁸⁾	19,550	-	19,550	-
Frédéric Tona ⁽⁷⁾	16,275	-	16,275	31,000
Antoine Treuille	50,200	-	50,200	41,575
TOTAL	428,775	87,500	516,275	469,450

(1) Other remuneration: see other tables related to corporate officers' remuneration.

(2) Up to the General Shareholders' Meeting of 11 May 2011.

(3) Appointment at General Shareholders' Meeting of 11 May 2011.

(4) Appointment at General Shareholders' Meeting of 11 May 2011—resignation in September 2011—amount paid to Ministry of Finance.

(5) Appointment at Board meeting of 14 December 2011—amount paid to Ministry of Finance.

(6) Appointment from 20 March 2012—Resignation at Board Meeting of 25 May 2012.

(7) Resignation at Board Meeting of 25 May 2012.

(8) Appointment at Board Meeting of 25 May 2012.

(9) Appointment at Board Meeting of 25 May 2012—amount paid to FSI.

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 corporate officer during the year

Performance shares were granted to executive corporate officers and to 201 senior managers, executives and promising junior staff of the ERAMET group. In addition, each Group employee received two bonus shares as part of the EraShare 2012 bonus share plan for all Group personnel.

	Plan no. and date	Number of shares granted	Value of shares	Purchase date	Date available	Performance conditions
						See below
P. Buffet	15/02/2012	10,755	976,662	15/02/2015	15/02/2017	
G. Duval	15/02/2012	1,000	90,810	15/02/2015	15/02/2017	
B. Madelin	15/02/2012	1,865	169,361	15/02/2015	15/02/2017	
P. Vecten	15/02/2012	2,275	206,593	15/02/2015	15/02/2017	
E. Duval	15/02/2012	865	78,551	15/02/2015	15/02/2017	
C. Duval	15/02/2012	370	33,600	15/02/2015	15/02/2017	
TOTAL		17,130	1,555,575	15/02/2015	15/02/2017	

The number of shares granted, as indicated above, refers to the maximum number of shares that may be granted subject to meeting the performance conditions. The rigorous performance conditions are calculated over three years and are set out in the report from the Chairman, in accordance with article L. 225-37 of the French Commercial Code, in the section regarding the “Compensation Committee” elsewhere in this chapter.

Details concerning the number of shares that may actually be purchased and their corresponding value will only be disclosed upon maturity of the plan, in February 2015.

Table 7 – Not applicable

No performance shares were distributed to any corporate officer in 2012.

Table 8 – Record of share subscription/purchase options granted

These details relate to the share subscription options plan commencing on 15 December 2004 (the “G plan”) and ending on 15 December 2012.

Plan	Plan G
Date of General Shareholders’ Meeting	23/05/2002
Date of Board Meeting	15/12/2004
Type of plan	Subscription
Number of options granted at outset	130,000
Number of beneficiaries at outset	81
Total number of shares that may be subscribed/purchased	
• by corporate officers at the outset, namely:	31,500
Georges Duval	6,000
<i>Of which, remaining at 1 January 2013</i>	0
Bertrand Madelin	2,000
<i>Of which, remaining at 1 January 2013</i>	0
Philippe Vecten	3,000
<i>Of which, remaining at 1 January 2013</i>	0
Édouard Duval	1,500
<i>Of which, remaining at 1 January 2013</i>	0
Cyrille Duval	2,000
<i>Of which, remaining at 1 January 2013</i>	0
• by the top ten employee beneficiaries	27,000
Start of option exercise period	15/12/2006
Expiry date	15/12/2012
Subscription or purchase price	64,63
• Terms and conditions of exercise	-
Number of shares subscribed at 31 December 2012	126,300
Share subscription & purchase options cancelled/lapsed	24,102
Share subscription & purchase options still to be exercised or purchased	0

Table 9—Information on share subscription & purchase options and bonus shares (not including corporate officers)

Share subscription/purchase options/bonus shares granted to the top ten beneficiary employees and options exercised by them	Total number of options granted/shares subscribed or purchased or bonus shares	Price per share (€)	Related plan
Options held with regard to the issuer and the companies referred to above exercised in 2012 by the ten employees of the issuer and these companies who exercised the most options (summary information)	24,102	64.63	G
Bonus shares or share subscription and purchase options granted in 2012 by the issuer and by any company within the option grant scope, to the ten employees of the issuer and of any company within this scope receiving the most bonus shares (summary information)	20 12,485	90.81 90.81	N O

Details of the plans mentioned here above are shown in the notes to the financial statements accompanying this Registration Document.

Table 10—Summary table of executive corporate officers

Corporate officers	Contract of employment	Supplementary pension plan (detailed here below)	Compensation or benefits falling due, or which may fall due, as a result of departure or a change of position (detailed here below)	Compensation related to a non-competition clause (detailed here below)
Patrick Buffet Chairman and CEO Start of term of office: 25 April 2007 End of directorship: GSM to approve 2014 financial statements	No	Yes	Yes	No
Georges Duval Deputy CEO Start of term of office: 23 May 2002 End of directorship: GSM 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: 1 January 2008 End of term of office: permanent	Yes—suspended	Yes	Yes (within limit of suspended contract of employment)	No
Philippe Vecten Deputy CEO Start of term of office: 23 May 2007 End of term of office: permanent	Yes—suspended	Yes	Yes (within limit of suspended contract of employment)	No
Édouard Duval Manager ERAMET International Director Start of term of office: 21 July 1999 End of directorship: GSM to approve 2014 financial statements	Yes	No	Yes (within limit of contract of employment)	No
Cyrille Duval General Secretary Alloys Division Permanent Representative of SORAME, director Start of term of office with SORAME: 11 May 2011 End of directorship: GSM to approve 2014 financial statements	Yes	No	No	Yes (within limit of contract of employment)

4.5.1. Remuneration arrangements

Remuneration of corporate officer Comex members is set annually by the Board of Directors based on the recommendation of the Compensation Committee. For members of the Comex who are not corporate officers, remuneration is set by the Chairman and CEO of the Group.

Remuneration of each Comex member is broken down into a fixed portion and a variable portion. The goals of the corporate officers are determined by the Compensation Committee and submitted to the Board of Directors for approval. The elements required to determine the variable portion are detailed elsewhere in this chapter, in the report from the Chairman of the Board of Directors, under the section concerning the "Compensation Committee".

The Comex members also benefit from a supplementary healthcare plan and a supplementary disability and life insurance scheme, offered to all ERAMET group employees.

Members of the Comex who are not corporate officers also benefit from a collective discretionary profit-sharing scheme. The sums paid under the scheme in 2012 with respect to 2011 amounted to a total of €53,028, in line with the legally prescribed ceiling.

4.5.2. Retirement Commitments

Corporate officers are eligible for the existing defined benefit supplementary pension plan for ERAMET executives. The elements required to determine the variable portion are detailed elsewhere in this chapter, in the report from the Chairman of the Board of Directors, under the section concerning the "Compensation Committee".

Based on the latest actuarial calculation, the present value of the estimated portion of the four corporate officers in question

who were still working as at 31 December 2012, out of total commitments in respect of the past service of all beneficiaries of this supplementary pension plan, amounted to €17.3 million at the end of December 2012, with the total amount of commitments being measured under IFRS at €36.9 million.

4.5.3. Other commitments

Commitments related to a departure from the Company or a non-competition clause concerning corporate officers, are detailed elsewhere in this chapter in the report from the Chairman of the Board of Directors, under the section regarding the "Compensation Committee".

4.6. LIST OF OTHER OFFICES HELD BY MEMBERS OF THE BOARD OF DIRECTORS AND GENERAL MANAGEMENT

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
<p>Buffet Patrick Director, Chairman and CEO since 25 April 2007 Born 19 October 1953 (59 years) <i>Business address:</i> 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.</p>	<p>Director: Co-opted by the Board on 7 March 2007 Chairman and CEO: Board meeting of 25 April 2007</p>	<p>Reappointments: General Shareholders' Meetings of 25 April 2007 and of 11 May 2011 for a four-year term. Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements</p>	<p>In Group companies</p> <ul style="list-style-type: none"> Chairman and CEO of Société Le Nickel-SLN until 31/12/12, then Director Director of Comilog S.A. <p>In non-Group companies</p> <ul style="list-style-type: none"> Member of the Supervisory Board of Arcole Industries (unlisted) Director of Bureau Veritas and Banimmo (Belgium) (listed companies) <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Director of Rhodia (until 21 October 2011)
<p>Cheremetinski Claire Director representing the State Born 2 May 1976 (36 years) <i>Business address:</i> Agence des Participations de l'État 139, rue de Bercy Teledoc 229 75012 Paris Ms. Cheremetinski is Deputy Director for Energy and other shareholdings at the French Government Shareholding Agency (APE).</p>	<p>Co-opted by the Board meeting of 14 December 2011 (confirmation by General Shareholders' Meeting of 15 May 2012)</p>	<p>Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements</p>	<p>In non-Group companies</p> <ul style="list-style-type: none"> Director of AREVA NC and of Française des Jeux Member of the Supervisory Board of Électricité Réseau Distribution France (ERDF) and of RTE (Réseau de Transport d'Électricité) EDF Transport <p>Offices held and completed during the past five years</p> <p>None</p>
<p>FSI Equation Director Represented by Devedjian Thomas Born 16 June 1971 (41 years) <i>Business address:</i> 56, rue de Lille 75356 Paris 07 SP Mr. Devedjian is Manager and Comex member of Fonds Stratégique d'Investissement.</p>	<p>Co-opted by the Board on 25 May 2012</p>	<p>Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements</p>	<p>In non-Group companies</p> <ul style="list-style-type: none"> Manager and Comex member of Fonds Stratégique d'Investissement Permanent representative of FSI to the Board of Directors of Eutelsat S.A., Eutelsat Communications S.A. and Paprec Holding Member of the Supervisory Committee of Holding d'Infrastructures des Métiers de l'Environnement (HIME), appointed by FSI <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Permanent representative of FSI to the Supervisory Board of Novasep Holding SAS

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 (66 years) <i>Business address:</i> Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Brother of Édouard Duval, cousin of Cyrille and Patrick Duval 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 and 11 May 2011 for a four-year term Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements		In Group companies <ul style="list-style-type: none"> • Chairman of: <ul style="list-style-type: none"> - Aubert & Duval (SAS) - ERAMET Holding Alliages (SAS) - ERAMET Alloys - Erasteel (SAS) In non-Group companies (unlisted companies) <ul style="list-style-type: none"> • Manager of SORAME SCA <ul style="list-style-type: none"> • CEO of CEIR Offices held and completed during the past five years <ul style="list-style-type: none"> • Chairman of UKAD (S.A.)
Duval Édouard Director Born 2 December 1944 (68 years) <i>Business address:</i> Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Brother of Georges Duval, cousin of Cyrille and Patrick Duval Mr. Duval is Chairman of ERAMET International, Chairman of the Management Board of SORAME and CEO of CEIR.	General Shareholders' Meeting of 21 July 1999			Reappointments: General Shareholders' Meetings of 21 May 2003, 25 April 2007 and 11 May 2011, for a four-year term Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements		In Group companies <ul style="list-style-type: none"> • Director of Société Le Nickel-SLN • Chairman of ERAMET International (SAS) • Deputy CEO of ERAMET Holding Alliages (SAS) In non-Group companies (unlisted companies) <ul style="list-style-type: none"> • Chairman of the Management Board of SORAME SCA <ul style="list-style-type: none"> • CEO of CEIR
CEIR Director represented by Duval Patrick Permanent representative of CEIR to the Board of Directors Born 15 May 1941 (71 years) <i>Address:</i> c/o ERAMET Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Brother of Cyrille Duval, cousin of Georges and Édouard Duval Mr. Duval is Chairman of CEIR and Manager of SORAME.	General Shareholders' Meeting of 11 May 2011			Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements		In Group companies <ul style="list-style-type: none"> • CEO of ERAMET Holding Alliages In non-Group companies (unlisted companies) <ul style="list-style-type: none"> • Chairman of CEIR • Manager of SORAME SCA <ul style="list-style-type: none"> • Director of Cartonneries de Gondardennes S.A. <ul style="list-style-type: none"> • Manager of: <ul style="list-style-type: none"> - SCI Compagnie Franroval - SCI Les Bois de Batonceau <ul style="list-style-type: none"> - SCI de la Plaine - SCEA Les Terres d'Orphin

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
<p>SORAME Director represented by Duval Cyrille Permanent representative of SORAME to the Board of Directors Born 18 July 1948 (64 years) <i>Business address:</i> Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Brother of Patrick Duval, cousin of Georges and Édouard Duval Mr. Duval is Secretary General of the Alloys Division, Manager of SORAME and CEO of CEIR.</p>	General Shareholders' Meeting of 11 May 2011	Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements	<p>In Group companies</p> <ul style="list-style-type: none"> Deputy CEO of ERAMET Holding Alliances <ul style="list-style-type: none"> Director of Comilog S.A. Permanent representative of ERAMET Holding Alliances to the Board of Directors of Metal Securities Chairman of Brown Europe and of Forges de Monplaisir <ul style="list-style-type: none"> Manager of Transmet and of SCI Grande Plaine <p>In non-Group companies</p> <ul style="list-style-type: none"> Director of Nexans (listed company) (unlisted companies) <ul style="list-style-type: none"> CEO of CEIR Manager of SORAME <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Chairman of AD TAF
<p>Grégoire-Sainte-Marie Caroline Director Born 27 October 1957 (55 years) <i>Business address:</i> c/o ERAMET Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Ms. Grégoire-Sainte-Marie has worked in various General Management positions at Frans Bonhomme, Tarmac and Lafarge groups.</p>	Co-opted by the Board on 25 May 2012	Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements	<p>In non-Group companies</p> <ul style="list-style-type: none"> Director of Groupama S.A. (listed company) and FLSMIDTH (Denmark) Observer of Safran (listed company) <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Chairman and CEO of Frans Bonhomme, Chairman and CEO of Tarmac
<p>Le Hénaff Thierry Director Born 4 May 1963 (49 years) Business address: Arkema 420, rue d'Estienne-d'Orves 92705 Colombes Cedex Mr. Le Hénaff has been Chairman and CEO of Arkema since 6 March 2006.</p>	Co-opted by the Board meeting of 25 May 2012	Expiry date: General Shareholders' Meeting called to approve the 2012 financial statements	<p>In non-Group companies</p> <ul style="list-style-type: none"> Chairman and CEO of Arkema (listed company) Chairman of the Board of Directors of Arkema France <p>Offices held and completed during the past five years</p> <p>None</p>
<p>Lepoutre Manoelle Director Born 8 May 1959 (53 years) Business address: TOTAL 2, place Jean-Millier La Défense 6 92078 Paris La Défense Cedex Ms. Lepoutre is Sustainable Development and Environment Director of the Total Group and a member of the Management Committee.</p>	General Shareholders' Meeting of 11 May 2012	Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements	<p>In non-Group companies (unlisted companies)</p> <ul style="list-style-type: none"> Director of Fondation Vilette-Entreprises Member of the Scientific Board of BRGM and the Steering Committee of Ineris <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Director of Ifremer (until 2010), and of Total E&P Norway (until 2010)



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
Mapou Louis Director Born 14 November 1958 (54 years) Business address: STCPI Immeuble Carcopino 3000 98845 Nouméa Cedex Mr. Mapou is Chairman of STCPI.	Co-opted by the Board meeting of 29 March 2001 (confirmed by General Shareholders' Meeting of 30 May 2001)				Reappointments: General Shareholders' Meetings of 21 May 2003, 25 April 2007 and 11 May 2011 for a four-year term Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements	In non-Group companies (unlisted companies) <ul style="list-style-type: none"> Chairman of STCPI (New Caledonia) CEO of Sofinor (New Caledonia) Offices held and completed during the past five years <ul style="list-style-type: none"> Director of Société Le Nickel-SLN
Quintard Michel Director Born 1 August 1946 (66 years) Business address: BP 1109 98845 Nouméa Cedex Mr. Quintard is technical advisor to the Chamber of Commerce and Industry of New Caledonia which he chaired from 1998 to 2005.	Co-opted by the Board meeting of 15 December 2010 (confirmed by General Shareholders' Meeting of 11 May 2011)				Expiry date: General Shareholders' Meeting called to approve the 2012 financial statements	In non-Group companies (unlisted companies) <ul style="list-style-type: none"> Director of Société Le Nickel-SLN In non-Group companies <ul style="list-style-type: none"> Manager of Locauto, subsidiary of the CFAO Group Foreign trade advisor, technical advisor to the CCI of NC Offices held and completed during the past five years <ul style="list-style-type: none"> Director of Vale NC
Somnolet Michel Director Born 6 February 1940 (72 years) <i>Business address:</i> c/o ERAMET Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Mr. Somnolet is former Director, Vice-Chairman and CEO in charge of Administration and Finance of L'Oréal (until 2002).	General Shareholders' Meeting of 21 May 2003				Reappointments: General Shareholders' Meetings of 25 April 2007 and 11 May 2011 for a four-year term Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements	In non-Group companies <ul style="list-style-type: none"> Director and member of the Compensation Committee of L'Oréal USA Chairman of the Board of Directors of CSTC (Tanzania) Offices held and completed during the past five years <ul style="list-style-type: none"> Director and Vice-Chairman of the Board of L'Oréal Morocco Director of Perinvest Dividend Equity Fund
Tendil Claude Director Born 25 July 1945 (67 years) <i>Business address:</i> Generali France 7-9, boulevard Haussmann 75309 Paris Cedex 09 Mr. Tendil is Chairman and CEO of the Generali Group in France.	Co-opted by the Board on 25 May 2012				Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements	In non-Group companies <ul style="list-style-type: none"> Chairman and CEO of Generali France, Generali Vie and Generali IARD Chairman of the Board of Directors of Europ Assistance Holding and of Generali France Assurance <ul style="list-style-type: none"> Director of SCOR SE Chairman of the Board of Directors of Europ Assistance Italy <ul style="list-style-type: none"> Permanent representative of Europ Assistance Holding to the Board of Europ Assistance Spain Offices held and completed during the past five years <ul style="list-style-type: none"> Director of Assicurazioni Generali S.p.A. (until April 2010)

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
<p>Treuille Antoine Director Born 7 October 1948 (64 years) <i>Business address:</i> Charter Pacific Corporation 300 East 75th Street Suite 31N New York NY 10021 USA Mr. Treuille is Chairman of Altamont Capital Partners LLC.</p>	<p>General Shareholders' Meeting of 21 July 1999</p>	<p>Reappointment: General Shareholders' Meetings of 21 May 2003, 25 April 2007 and 11 May 2011 for a four-year term Expiry date: General Shareholders' Meeting called to approve the 2014 financial statements</p>	<p>In non-Group companies (unlisted companies)</p> <ul style="list-style-type: none"> Chairman of: Altamont Capital Partners, LLC (United States); Mercantile Capital Partners LLC (United States) Chairman of Charter Pacific Corporation (United States), Partex Corporation (United States) <ul style="list-style-type: none"> Director: Harris Interactive, Inc. (United States); Imperial Headwear, Inc. (United States); French American Foundation <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Director of BIC S.A. (France); Harlem Furniture, LLC (United States) (until 2009); Skip's Clothing, Inc. (until May 2007)
<p>Madelin Bertrand Deputy CEO (non director) Born 13 September 1954 (58 years) <i>Business address:</i> Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Mr. Madelin is Deputy CEO.</p>	<p>Appointed by the Board meeting of 12 December 2007</p>		<p>In Group companies</p> <ul style="list-style-type: none"> Chairman of the Board of Directors of Strand Minerals (Indonesia) Pte Ltd (Singapore) Director of Société Le Nickel-SLN Member of the Board of Commissioners of Pt Weda Bay Nickel (Indonesia) <ul style="list-style-type: none"> Chairman of Eurotungstène <p>Offices held and completed during the past five years</p> <p>None</p>
<p>Vecten Philippe Deputy CEO (non director) Born 22 April 1949 (63 years) <i>Business address:</i> Tour Maine-Montparnasse 33, avenue du Maine 75015 Paris Mr. Vecten is Deputy CEO.</p>	<p>Appointed by the Board meeting of 23 May 2007</p>		<p>In Group companies</p> <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Manager of Comilog Holding <p>Offices held and completed during the past five years</p> <ul style="list-style-type: none"> Director of Tinfos International (until January 2010) and of Société Le Nickel-SLN (until June 2012)

No information falling within the scope of Section 14.1 of Appendix 1 of EC Regulation No. 809/2004, other than that set out above, needs to be disclosed.

4.7. 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.

4.7.1. Indirect interests

Patrick Duval is Chairman of CEIR. Édouard Duval is Chairman of the Management Board of SORAME. Georges, Édouard, Cyrille and Patrick Duval are shareholders of SORAME and of CEIR.

4.7.2. Direct interests

Shares held at 31 December 2012	Equities	Voting rights
Patrick Buffet	10,010	20,020
Claire Cheremetinski (representing the State)	n/a	n/a
FSI Equation	6,810,317	6,810,317
Thomas Devedjian	n/a	n/a
SORAME	8,051,838	13,558,933
Cyrille Duval	538	1045
Édouard Duval	465	930
Georges Duval	1,209	2,411
CEIR	1,783,996	1,783,996
Patrick Duval	102,	204
Caroline Grégoire-Sainte-Marie	100	100
Thierry Le Hénaff	100	100
Manoelle Lepoutre	100	100
Louis Mapou	100	100
Michel Quintard	100	100
Michel Somnolet	100	200
Claude Tendil	100	100
Antoine Treuille	160	320
Bertrand Madelin	3,176	3,176
Philippe Vecten	1,150	2,300

No director has a direct material interest in any Group subsidiary. 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 agreement with ERAMET.

4.7.3. 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.

4.8. SPECIAL REPORT ON SHARE SUBSCRIPTION AND PURCHASE OPTIONS – 2012

Dear Shareholders,

Pursuant to the provisions of Article L. 225-184 of the French Commercial Code, this report is presented to the General Shareholders' Meeting.

4.8.1. Options granted

No share purchase or subscription options were granted during the 2012 financial year.

4.8.2. Options exercised

The table below sets out the number and price of shares subscribed for or purchased during the financial year by the Company's corporate officers and by the ten employees of ERAMET or Group companies who are not corporate officers and who subscribed for or purchased the highest number of shares.

Exercised 2012	Plan G 15/12/2004 <i>(number of shares)</i>	Exercise price <i>(€)</i>
Corporate officers		
Duval G.	6,000	64.63
Duval E.	1,500	64.63
Top 10 individuals exercising options excluding corporate officers		
Abeke M.	3,000	64.63
Robert A.	1,559	64.63
Chang J.	1,500	64.63
Poilevé G.	1,500	64.63
Garcia G.	1,000	64.63
Noyer P.	1,000	64.63
Husmo O.	1,000	64.63
Fourcade JM.	1,000	64.63
Dubois P.	905	64.63
Lecadet J.	750	64.63

The Board of Directors

4.9. SPECIAL REPORT ON BONUS SHARE GRANTS

For Year 2012

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.

4.9.1. Grants to corporate officers of the Company

Plan of 15 February 2012	Number of shares	Value (€)
Patrick Buffet	10,755	90.81
Cyrille Duval	370	90.81
Édouard Duval	865	90.81
Georges Duval	1,000	90.81
Bertrand Madelin	1,865	90.81
Philippe Vecten	2,275	90.81

4.9.2. Grants to non-corporate officer employees of the Company and its subsidiaries

Plan of 15 February 2012	Number of shares	Value (€)
Jean-Didier Dujardin	2,415	90.81
Michel Carnec	2,065	90.81
Catherine Tissot-Colle	1,400	90.81
Pierre Gugliermana	1,270	98.67
Marie-Christine Jaulmes	1,080	90.81
Alain Giraud	955	98.67
Marcel Abeke	850	98.67
Pierre Alla	850	98.67
Joseph Chang	800	98.67
Jean Fabre	800	98.67

4.9.3. Grants to all beneficiary employees

Each employee on the payroll received two bonus shares, subject to length of service conditions, as part of the bonus share plan of 15 February 2012.

The Board of Directors

5

SUSTAINABLE DEVELOPMENT

5.1. Introduction.....	110	5.6.5. Mining exploration in Argentina	138
5.2. Sustainable Development Policy	111	5.6.6. Sea bed exploration operations.....	139
5.3. Environmental information	114	5.6.7. A new electric power plant in New Caledonia	139
5.3.1. Environmental Charter	114	5.6.8. Cooperation with the Southern Province and Vale for the concessions of Prony and Creek Pernod	139
5.3.2. ISO 14001 certification of the industrial sites	114	5.7. Responsibility for chemicals	139
5.3.3. Resources devoted to preventing environmental contingencies.....	115	5.7.1. At Group level	140
5.4. Environmental Data.....	117	5.7.2. Strong involvement in professional bodies.....	141
5.4.1. Pollution and waste management	118	5.7.3. ERAMET and the international scientific community	142
5.4.2. Sustainable use of resources.....	122	5.7.4. Regulatory changes	142
5.4.3. Climate Change	124	5.8. Health and Safety	143
5.4.4. The Mining Environment	126	5.8.1. Safety.....	143
5.4.5. Protecting Biodiversity	127	5.8.2. Health and Safety	146
5.5. Information on societal commitments in favour of sustainable development	131	5.9. Human Resources	149
5.5.1. Territorial, economic and social impact of the Company's activity.....	131	5.9.1. Social Policy	149
5.5.2. Relations with stakeholders.....	133	5.9.2. Workforce.....	150
5.5.3. Subcontracting and suppliers.....	135	5.9.3. Work organisation and remuneration.....	154
5.6. Major projects	136	5.9.4. Comprehensive and constructive social dialogue....	156
5.6.1. A Greenfield project in Indonesia.....	136	5.9.5. Training.....	157
5.6.2. Metallurgical complex in Gabon under construction	137	5.9.6. Performance monitoring	159
5.6.3. Recovering niobium, rare earths and tantalum in Gabon	137	5.10. ATTESTATION OF COMPLETENESS AND LIMITED ASSURANCE REPORT OF ONE OF THE STATUTORY AUDITORS ON SELECTED SOCIAL AND ENVIRONMENTAL INFORMATION	160
5.6.4. A joint-venture in Senegal to recover poly-metallic sands	138		

5.1. INTRODUCTION

ERAMET is a mining and metallurgical group that operates two world-class mining sites and about fifty industrial sites, while developing four important mining projects. Due to the nature of its activities, the Group is concerned by all the aspects of sustainable development (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 placing Sustainable Development at the heart of its activities and constantly improving this commitment. Through this approach, 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.

Chapter 5 of this document aims to give readers a comprehensive view of the managerial systems set up and the action taken in this direction; parts 5.3 and 5.4 deal with environmental protection; part 5.5 describes the quality of relations with regions and stakeholders; part 5.7 presents the responsibility associated with our products and finally parts 5.8 and 5.9 discuss the protection and development of employees.

Involvement at the highest levels of the Company reflects the Group's commitment. Thus, a Communications and Sustainable Development Department (DC2D)—comprising an Environment Department and a Human Resources Department (HR)—including a Health & Safety Department, whose directors are members of the Executive Committee (Comex), have been organising, supporting and monitoring these various initiatives since 2007.

The Sustainable Development Policy adopted by the Group in 2009 takes up, puts into perspective, expands and completes the objectives and actions conducted in the framework of the policies on the three areas of Sustainable Development, *i.e.* the social, environmental and economic aspects. It was adopted by the Board of Directors in January 2010. The document is structured around the four essential cornerstones of its activities: the employees, sites, products and stakeholders. The details of this policy are presented in Chapter 5.2.

This Sustainable Development Policy, deployed at all sites in 2010 and translated into the Group's 12 languages, involves a multi-annual action plan validated by the Comex and which currently covers 2012-2016. The action plan ranks the objectives according to three levels of priority:

- Level 1: Essential objectives:
 - related to compliance with existing statutory obligations,
 - to help defend markets and activities,
 - to actively prevent any potential risks and dangers that products and activities may present for the Group's employees;
- Level 2: Objectives enabling the actual deployment of the policy:
 - carrying out reviews prior to making improvements,
 - setting up and/or updating support tools;

- Level 3: Objectives corresponding to new or proactive approaches:
 - carrying out studies: new tools, defining indicators, new themes (example: biodiversity),
 - deploying action taken in certain areas (France, EU, etc.) throughout the Group,
 - long-term preventive action.

These are short or long-term objectives and they are reviewed annually. For 2012, there were 42 objectives altogether, with 27 level 1 priorities, six level 2 priorities and eight level 3 priorities set out in direct continuity with objectives of previous years.

We should also note that some objectives are considered as deployed and are managed in perfect continuity like day-to-day business and action plans at sites. This is the case with the deployment of EraGreen, the environmental data collection tool, the anticipation of new regulations and the energy saving initiatives. Some new objectives have been added to the action plan.

Here, for example, are a few examples of objectives that progressed in 2012:

- The policy of ISO 14001 certification of the industrial sites continued successfully. At the end of 2012, this certification was awarded to seven new sites, including all the industrial, mining and logistics activities at Comilog in Gabon.
- Following a major industrial accident in 2011, all hazard studies at Group sites where there is a risk related to contact between water and liquid metal were re-examined internally and also with the support of a firm of experts (see Chapter 3 §3.3.3.2—Action plan on risks related to contact between water and molten material).
- Biodiversity initiatives started in 2011 were reinforced in 2012 through inter-division and inter-disciplinary exchanges and through ERAMET's involvement, both at international level and in working groups focussed on developing new regulations in close collaboration with the French ministries concerned.
- To ensure that "sustainable development" initiatives continue over time, all employees have to play a leading role in it. The Group has set up an initiatives Challenge including a growing number of "sustainable development" based initiatives. Thus, out of the six award-winning initiatives in 2012, four were related to the preservation of resources or recycling.
- Lastly, for the past two years, all Group correspondents and players involved in sustainable development have come together at an annual meeting to take part in an HSE challenge. This year, 26 sites took part in this challenge based on the theme of risk control.

These orientations and action plans are adapted to each operational entity and division in the Group. Over the past years, ERAMET has reinforced efforts to share experience and promote international coordination of environmental management tools for mining activities. This point is developed in part 5.4.4 on the Mining Environment.

At the same time, the Group is very careful to integrate social, environmental, 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. In Part 5.6 of this Chapter, we will describe how these general principles are applied in all the Group's major transformation projects.

Lastly, the Group introduced instruments to monitor and control activities to ensure that sustainable development objectives have been implemented in a concrete manner across the whole scope.

Environmental data is analysed using specific Group software, EraGreen, which was fully implemented at all the industrial and mining sites in 2011. It is based on the GRI methodology and ensures that the requirements of French regulations are observed. In addition to generic indicators which apply to the Group's various activities, some other indicators were developed or were adjusted in order to better meet the specificities of the Group's

activities. This was the case with the "sustainable development" scope of mining activities which, after in-house discussions and external benchmarking, resulted in the development of new specific indicators.

The Group also makes use of a periodical internal auditing system to check the performance of its entities regarding the Environment, Health and Safety. It is based on a very demanding framework which adopts the requirements of standards ISO 14001 and OHSAS 18001 at least. Other inspections carried out as part of the insurance programme provide more information on the environmental impact of the sites and the structures and actions implemented to minimise the impact. 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.

5.2. SUSTAINABLE DEVELOPMENT POLICY

The ERAMET group acts under a value-creating, continuous improvement rationale. In that framework, it has set up a Sustainable Development policy to enable it to conduct its activities on a lasting basis in the areas where it is based and to support its development in new territories.

The Group strictly complies with the regulations that apply to its activities and develops its performance standards in accordance with best practices in the industry. The policy concerns its employees, its customers and its stakeholders, and includes the control of industrial, health, social and environmental risks with respect to its activities.

Its implementation is based on specific Charters and Policies adopted by the Group such as the Ethics Charter, Health & Safety policies and the Environmental Charter.

I. Protect and develop ERAMET's employees by involving them in our actions

1. Protect our employees' health and safety

- The ERAMET group's employees are its prime asset. The Group shall continue the actions taken to reduce workplace accident

frequency and seriousness rates, wipe out fatal accidents and move towards "zero accidents".

- Action plans are constantly implemented to harmonise safety standards between the Group's various bases and organise the sharing of best practices.
- Prevention and screening of occupational diseases is a priority under the health policy of the ERAMET group, which also seeks to help combat AIDS and possible pandemics, as well as addictions and stress.
- Moreover, the Group makes an active contribution to the development of scientific research and knowledge relating to the health and environmental impact of its business.

2. Foster professional development and industrial dialogue

- We recognise individual worth and talent. We value diversity as it is a major advantage for as international and innovative a Group as ERAMET.
- We ensure that we practise no discrimination whatsoever based on gender, disability, family status, age, political opinions, religious convictions, trade union activity or origin.
- Rewarding and developing employees' skills are essential factors in retaining personnel and enhancing ERAMET's attractiveness. Rewarding managerial and technical skills, developing career opportunities within the Group and promoting managers from territories where the Group is based are all priorities.

- The ERAMET group strives to keep up constructive dialogue with personnel representatives, who are essential partners in the implementation and rollout of Sustainable Development policy.

3. Make employees players in Sustainable Development

- Employee buy-in for the ERAMET group's commitments to Sustainable Development is a critical success factor for that process.
- The deployment of Sustainable Development policy is supported by employee awareness-raising and training actions. These emphasise the action levers that employees have in their respective specialties for contributing to the achievement of the Group's Sustainable Development commitments and demonstrate the relevant issues.

II. Manage our health and environmental risks and impacts in order to protect balances on a sustainable basis

1. Control the health and environmental impacts of our facilities and industrial processes

- Aware of the potential environmental impacts of mining and metallurgical activities on the natural environment, the ERAMET group considers that its responsibility is to adopt exemplary behaviour by implementing all the resources needed to protect the environment.
- For both its mines and its plants, the Group shall reduce its environmental footprint by keeping up the efforts taken for several years. This goal is factored into its projects and development from design onwards.
- Protecting water resources, reducing air emissions, conserving biodiversity and restoring sites after closure are action priorities that mobilise all the Group's activities.

2. Reducing energy consumption and fighting climate change

- The fight against climate change is an action priority for the international community and all businesses that have undertaken a Sustainable Development process.
- The ERAMET group has opted to improve the energy efficiency of its facilities by setting targets for greenhouse gas emission reduction.

3. Aim for better use of natural resources and develop recycling

- The sustainable beneficiation of mining deposits is a primary environmental and economic issue for the ERAMET group.
- The Group is developing processes that enable low grade ores to be used and extend the lifespan of natural resources. Finally, it fosters the use of secondary raw materials obtained by recycling.

III. Seize the opportunities offered by Sustainable Development for the benefit of our customers

1. Factor Sustainable Development into the Group's innovation and business diversification policy

- The ERAMET group makes innovation and research efforts to reduce the environmental impacts of its facilities, manufacturing processes and products.
- Work is done to share knowledge, capitalize know-how and develop new partnerships with customers in order to utilise those potential new sources of growth.
- Diversifying activities into new products and new applications and bolstering our presence on selected innovative markets are also sources of development for the Group.

2. Highlight the environmental benefits of using our products in our customer approach and reduce the risks from products for people and the environment

- The ERAMET group structures its marketing process by meeting customers' demand for more environmental benefits from the use of its products (stainless steels, very high strength alloys, use of manganese in rechargeable batteries, etc).
- This process is based on scientific studies carried out to quantify the precise environmental impacts with respect to our products' entire lifecycles.
- The Group regularly implements all the necessary resources in terms of traceability and regulatory compliance to ensure that the use of its products does not impair health or safety and does not disrupt natural balances.

3. Undertake a responsible purchasing process

- In many cases, allowance for costs related to the use and end-of-life of products means that products with lower environmental impact which do not entail excess costs for the buyer should be preferred.
- Given that fact, the ERAMET group develops a responsible purchasing policy by preferring suppliers that offer products or services that fulfil environmental and social criteria better while remaining competitive.
- In particular, the Group checks that its suppliers comply with the demands of REACH regulations.

IV. Nurture a trusting relationship with our stakeholders to create value for all

1. Meet our stakeholders' expectations better

- In its host regions, the ERAMET group has long shown itself capable of dialogue and of understanding local stakeholders' expectations. It fosters consultation and modernised governance in the various regions where it is active in order to identify any concerns of its stakeholders at as early a stage as possible and provide relevant responses to the demands made of it.

- Such an approach involves building forms of dialogue that are relevant to the political and cultural contexts of host countries.

2. Contribute transparently to host regions' economic and social development by ensuring good governance of our operations

- ERAMET's ability to maintain a long-term presence wherever it is based and to develop its activities in new directions largely depends on its ability to demonstrate that its presence brings positive economic and social fallout for its local partners and its facilities' neighbouring populations.
- As a major player in the economies of many regions in the world, the Group intends to continue to develop actions in support of education, health prevention and stimulus of local businesses.
- Entering into partnerships with non-governmental organisations is encouraged. The Group strives to improve the governance of its operations constantly under a principle of shareholder dialogue and respect.

3. Share our challenges and achievements as widely as possible

- Companies' non-financial performance is becoming a subject of major interest, examined by different types of stakeholders seeking information on how environmental and social issues are factored into the companies' policy.
- To meet that expectation, the ERAMET group provides increasingly clear and objective information in its internal and external communication on past and future achievements in terms of Sustainable Development.
- This information is based on verifiable facts and quantifiable indicators and forms the basis for a relationship of trust with our shareholders, the general public and any other stakeholder interested in our Sustainable Development process.

5.3. ENVIRONMENTAL INFORMATION

5.3.1. Environmental Charter

Control and reduce the environmental impact of the Group's industrial activities

As a responsible industrial operator, the ERAMET group carries on its business activities in such a way as to keep its health and environmental impact as low as possible, while ensuring that the cost of such efforts remains economically viable.

Control the risks and impact stemming from products sold by the Group

The ERAMET group's environmental policy includes a specific portion relating to the potential risks and impact stemming from the characteristics and use of its products. Controlled and reasonable management of these risks is one of its priorities.

Encourage ongoing improvement

The Group is continuously seeking to improve its environmental performance. This commitment is one of its responsibilities, on a par with ensuring the health and safety of its employees, complying with commercial agreements or identifying optimised technologies at the lowest possible cost.

Factor the environment into every aspect of the Group's activities

This determination to make the environment a part of the Group's activities is demonstrated in every aspect of the Company's activities:

- when designing and starting up new activities, projects or capital expenditure programmes;
- throughout the day-to-day operation of facilities;
- when discontinuing activities.

Strictly comply with regulations

Strict compliance with regulations that are applicable to sites is the first guarantee of responsible management of their impact. Any non-compliance must be temporary, justified and notified to the relevant administrative body.

Develop self-knowledge to improve and communicate

Accurate knowledge of our actual impact is a necessity. Knowing how to anticipate and assess both improvements and difficulties is key to the implementation of a policy. Communicating actual performance is becoming a regulatory requirement. By setting up an Environmental Information System (EIS), the ERAMET group is equipping itself with the resources necessary to achieve its goal.

Anticipate regulatory changes from a sustainable development perspective

The ERAMET group is subject to a series of complex and ever more stringent environmental regulations. We owe it to ourselves to acquire full knowledge of these regulations, anticipate changes to them and act to raise awareness of our situation from a perspective of sustainable development that protects our competitiveness.

Contribute to scientific know-how

Scientific knowledge of the health or environmental impact of our activities is complex and constantly evolving. The ERAMET group helps to further research and knowledge on its activities.

5.3.2. ISO 14001 certification of the industrial sites

The significant progress made in recent years with regard to the goal of gradual introduction of measures along the lines of Environmental Management Systems, initially provided for in the 2002 Environment Charter and confirmed by the Sustainable Development Policy of January 2010, continued in 2012.

In line with the goal set in early 2007 and renewed every year, a target schedule for sites involved in the ISO 14001 certification processes continued. In 2012, seven more sites in France, China, the United States and Gabon obtained ISO 14001 certification:

- Aubert & Duval Firminy;
- GECC Chongzuo;
- Erachem Comilog Baltimore;
- Comilog Gabon (three sites: Port Minéralier d'Owendo, Moanda Industrial Complex & both the Mine and Industrial Zone of Moanda);
- ERAMET Marietta Inc.

ISO 14001 certifications demonstrate the sites' commitment to pursue a continuous improvement process. The coherence of the management systems and the extent of this continuous improvement are checked every year *via* external audits and *via* three-yearly audits to renew the certification.

On 31 January 2013, there were altogether thirty-two sites with ISO 14001 certification:

- Airforge, Pamiers;
- Aubert & Duval Firminy;
- Aubert & Duval Heyrieux;
- Aubert & Duval Imphy;
- Aubert & Duval Issoire;
- Aubert & Duval Les Ancizes;
- Aubert & Duval Pamiers;
- Comilog Dunkerque;
- Comilog Gabon (Port Minéralier d'Owendo, Moanda Industrial Complex & the Mine and Industrial Zone of Moanda);
- Erachem Comilog Baltimore;
- Erachem Comilog New Johnsonville;
- Erachem Comilog Tertre;
- Erachem Mexico;
- ERAMET Marietta;
- ERAMET Norway Kvinesdal;
- ERAMET Norway Porsgrunn;
- ERAMET Norway Sauda;
- ERAMET Sandouville;
- Erasteel Champagnole;
- Erasteel Commentry;
- Erasteel Kloster Langshyttan;
- Erasteel Kloster Söderfors;
- Erasteel Kloster Vikmanshyttan;
- Eurotungstène Grenoble;
- GECC Chongzuo;
- GCMC Freeport;
- Interforge, Issoire;
- TiZir Titanium & Iron Tyssedal;
- Valdi, Feurs;
- Valdi, Le Palais-sur-Vienne.

As the certified site of Erasteel Tianjin has left the Group's scope of consolidation, it no longer appears in this list.

This process of obtaining ISO 14001 certification, undertaken at industrial sites and now being undertaken at mining sites, enhances performance. The certified sites represented 85% of the Group's 2012 sales compared to 60% at the end of 2011.

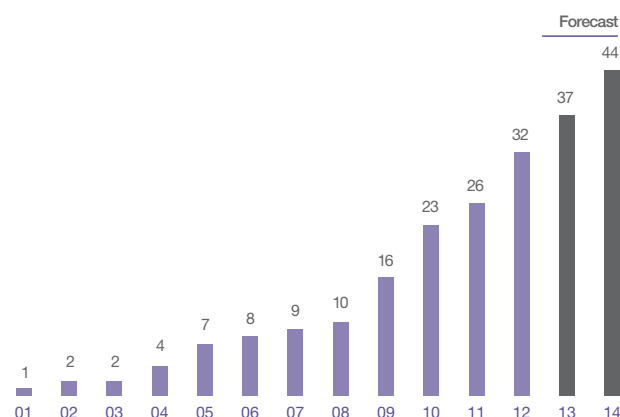
To support and evaluate sites in their environmental approach, the Group carries out internal pre-certification audits, and site follow-up audits in the fields of health, safety (H&S) and the environment.

For this purpose, the Group works with a framework that is common to these various themes, developed in 2008, and which is

perfectly adapted to ISO 14001 and OHSAS 18001 requirements. This stringent framework is used at all the Group's sites.

Mixed teams of auditors (central departments and site representatives) supervise these audits which are organised in an increasingly integrated fashion to ensure that each site is audited regularly, as required by internal rules.

Changes in sites with ISO 14001 certification and prospects for the next two years (including mines)



Prospects for new certifications in 2013 and 2014 result from the periodically reviewed undertakings made by sites, which were reconsidered at the end of 2012.

Thus, at the beginning of 2013, there were about twelve new industrial and mining sites in the Group committed to this process, including the SLN plant and its mines in New Caledonia.

5.3.3. Resources devoted to preventing environmental contingencies

5.3.3.1. Technical and human resources

The Group develops its environmental policy through the four mainstays of its Sustainable Development policy (2010), and its Environmental Charter (2002).

Cross-functional, multi-year objectives are developed, updated and followed up annually. They are managed either by the Environment Department, the Divisions, or the sites.

Special attention is paid to the attainment of these objectives which are subject to annual approval and monitoring by the Comex.

To develop this process, the Group decided to professionalize its in-house network of experts. There are over 80 people in this network (HSE duties) who report to general management at most sites.

This cross-functional, bottom-up and top-down process has enabled vigorous action to be taken in the field of environmental strategies, training, awareness-raising and synergies.

Here are just a few examples:

- The Group's three Divisions now have a coordination structure to deal with environmental themes and monitor issues related to chemicals management. In 2011, a Health, Safety and Environment Department was set up in the Alloys Division and an Environment coordination and Safety coordination were created in the Manganese Division. The Nickel Division carried out a similar deployment in 2012. This initiative helps to reinforce the coherence of the Group's managerial policy between the central departments, the Divisions and sites.
- The network of over 80 HSE correspondents meets annually. In 2012, the International Health, Safety & the Environment seminar held in November focussed on best practices in risk analysis and control. It was preceded by a visit to the Trappes research centre. There were representatives from almost all of the sites and major projects.
- Cross-functional working groups allow to develop, share and structure experiences on themes as varied as regulations on waste and metal residue, the recycling of slag, the inter-site recycling of waste or co-products, the development of a biodiversity strategy, product stewardship and even the updating of safety data sheets following changes to European regulations (CLP), etc.
- The domain Committee on Health & Safety (H&S) and the Environment (E) analyses the skills available in the Group with regard to requirements and challenges once a year. This proactive process is perfectly coordinated by the Divisions' and Group's Human Resources Departments and the Health & Safety/Environment and Sustainable Development departments.
- Both interactive and traditional communication media are powerful tools which circulate messages and offer opportunities to develop awareness on environmental issues and stakeholders' expectations. Internet sites, brochures and regular in-house newsletters devote a lot of space to these themes.

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. New recruits are integrated and given training in Health, Safety, the Environment and best practices on the sites. Training is provided via "IMaGE", the Group's Management Training Institute, and the "Alloys Management Institute" devotes a whole day to Health, Safety and the Environment to raise managers' awareness on the subject. Representatives from the Group's Sustainable Development Department, divisional coordinators and site HSE engineers take part in these various initiatives.

Finally, the Group continues to carry out its Environmental audits of sites, and when relevant, combines them with Health & Safety aspects. In 2012, twelve sites were audited for all the environmental themes and ten others received an in-depth inspection. The audit framework common to the environment, health and

safety is based on three main themes: the involvement of people, operational control and prevention. It completely integrates the requirements of ISO 14001 and OHSAS 18001.

Mixed teams of Group auditors (central departments, divisional coordinators and site representatives), who have been trained and certified according to an in-house framework, organise these audits in as integrated a manner as possible 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 will develop a network of experts, encourage operational teams to share experience and enable them to benefit from the others' best practices. In parallel, the Group's Environment Department, in its support policy, carries out an ISO 14001 pre-certification audit of sites involved in the process and offers an efficient tool which analyses deviations and allows the sites concerned to manage their improvements with a view to obtaining their certification.

With regards technical resources to control the impacts of aqueous discharge or air emissions of its 57 sites, the Group has a whole series of treatment and monitoring equipment:

- For water:
 - Over 80 aqueous discharge points are canalized and monitored.
 - There are over 400 treatment facilities for these aqueous discharges (purification plants, septic tanks, pH adjustments, settling tanks, holding reservoirs, scrubbers/oil traps, etc.).
 - There are over 100 air-cooling towers, which in most cases, allow water loops to be used and which are suitably monitored.
 - There are over 250 piezometers to monitor ground water aquifers. About fifty extra piezometers have also been installed outside the sites' boundaries.
- For air:
 - Over 340 air emission points are canalized and monitored.
 - There are over 330 facilities to treat these discharges (dry or wet dust removers, cyclones, electrostatic filters, washing/absorption of gas, an ammonia incineration facility, desulphurisation, activated carbon absorption, afterburning, etc.).
 - There are over one hundred atmospheric fallout measurement points, half of which are on-site and the other half of which are outside site boundaries. 80% of the plants carry out these two types of monitoring.

Whenever necessary, the sites have developed a sampling and analysis plan which is perfectly in line with the operating permit requirements.

Please refer to Section 5.3 on environmental data for further details on the appropriateness of resources implemented and the results obtained.

5.3.3.2. Financial Resources

This overview focuses on the many improvements and capital expenditure implemented on sites during the year. Overall environmental capital expenditure is estimated to be almost €70 million in 2012 (a relatively stable figure compared to 2011), spread out over 41 sites.

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. This does not cover capital expenditure for new activities which inevitably comprise a considerable financial proportion, but which is not specifically identified, to comply with the best techniques chosen.

As was the trend in 2011, more than 60% of capital expenditure in 2012 was devoted to the prevention of air pollution. The SLN Doniambo site (New Caledonia) pursued its multi-year investment programme in this field by increasing its filtration capacities both for direct discharge and for dust emissions and by capturing gases and smoke from fuel storage tanks and pre-heating burners. The sites of GCMC Freeport (USA) and ERAMET Sauda (Norway) also devoted a great deal of capital expenditure to improving their filtration capacities for SO₂ emissions and dust.

In 2012, a large number of studies and realisations were also carried out at the Group's other sites to improve the quality of their

air emissions; this was the case at the following sites: ERAMET Marietta, the Port Minéralier d'Owendo & the Moanda Industrial Complex (Gabon), Valdi Le Palais-sur-Vienne, ERAMET Research & Sandouville, AD Imphy and Les Ancizes, and Eurotungstène Grenoble (France).

In 2012, almost 30% of environmental capital expenditure was devoted to the prevention of water pollution. A considerable amount was spent on mining sites, both at SLN in New Caledonia and Comilog in Gabon, in order to improve the quality control of runoff water and heavily polluted water from the process carried out by settling tanks.

Numerous other sites undertook action to improve their water treatment systems. This was the case at the sites of AD Les Ancizes (France), Comilog Dunkerque (France), Erachem Comilog Baltimore (USA), Erachem Comilog Tertre (Belgium), ERAMET Kvinesdal (Norway), ERAMET Research & Sandouville (France).

Some sites also built new slab-like structures for containment and dumping, such as the French sites of Interforge and ERAMET Research; some sites improved their water collection systems by building separating networks for example.

Naturally, these precautions are integrated at the project stage, as was the case at the famous Weda Bay Nickel site (Indonesia) where water control and settling structures were built right from the pre-construction stage.

5.4. ENVIRONMENTAL DATA

Environmental indicators have been improving over the past several years and this trend continued overall in 2012, even if some of the results in 2012 are proportional to the rates of activity, as has already been observed in previous years.

The 2012 environmental report covers all the industrial and mining sites of the scope used for the Group (57 sites), spread out over five continents, *i.e.* the following Chinese, Norwegian, Italian, Swedish, Gabonese, Mexican, American, English, Belgian, German, French, Indonesian and Caledonian sites:

Norway	Porsgrunn, Sauda, Tyssedal, Kvinesdal
Sweden	Söderfors, Långshyttan, Vikmanshyttan
Belgium	Tertre
Germany	Mönchengladbach
France	Landévant, Les Ancizes (2 sites), Champagnole, Commentry, Dunkerque, Feurs, Firminy, Gennevilliers (2 sites), Grenoble, Heyrieux, Imphy, Issoire (2 sites), Laval de Cère, Le Palais-sur-Vienne, Pamiers (3 sites), Sandouville, Saint-Priest, Trappes
Italy	Ferrare
United Kingdom	Warrington
New Caledonia	Doniambo, five mining facilities
USA	Marietta, Baltimore, Freeport, New Johnsonville, Bear, Boonton, Romeoville
Mexico	Tampico
Gabon	Moanda (CIM and mine), Owendo (Setrag and Port Minéralier d'Owendo)
Indonesia	Halmahera
China	Chongzuo, Guilin, Liabin, Wuxi

In 2011, the sites of UKAD (France) which was inaugurated in September 2011, the Weda Bay Nickel project (Indonesia), SUPA (France), Erasteel Romeoville (USA) and ADES (Italy) were included in the reporting scope. In 2012, the distribution centres of Aubert & Duval, CMM Landévant and Special Steel GmbH in Germany, as well as Forges de Monplaisir were integrated into the scope.

The key events of 2012 also include:

- the gradual halting of production at the Guangxi ERAMET Comilog Chemical plant (China), in which only one blast furnace operated in 2012, and where activities stopped completely in August;
- the starting up of the new Guilin Comilog Mn Ferroalloys plant (China) where four furnaces started production one after the other between July and December. The former plant located right in the centre of the town of Guilin ceased its operations in May 2011.

Lastly, environmental data from the Chinese site of Tianjin was no longer integrated into Group data as from mid-year when the Group's share in its activities fell below 50%.

To monitor its key indicators, the Group uses its in-house reporting tool EraGreen. This computer system is used to collect and consolidate environmental data from industrial and mining sites. The main themes covered are water, air, soils, energy, waste, biodiversity and regulations.

All the quantitative data given in the present report (environmental data) has been extracted from EraGreen and comes exclusively from the data encoded by each of the Group's sites.

In an effort to adopt an ongoing improvement approach, from one year to another, some sites may update previous figures, thus causing a slight variation in data that was consolidated in the past.

This is the case when the results of the year are not known on the date of the report's fiscal year end. In the present report, some data on air emissions and hazardous waste was revised following the receipt in 2012 of the 2011 measurement cycle results.

5.4.1. Pollution and waste management

5.4.1.1. Air emissions

Air emissions		2010	2011	2012
CO ₂ emission related to energy	thousand tonnes	4,892	4,780	4,556*
Sulphur oxides (SO _x)	tonnes	11,825	11,286	11,370
Nitrogen oxide (NO _x)	tonnes	3,624	2,875	2,934
Volatile organic compounds (VOC)	tonnes	167	182	454**
Total dust	tonnes	1,931	1,872	1,786*
Nickel	tonnes	11	10	10
Manganese	tonnes	83	78	142**

* Elements reviewed by Deloitte—moderate assurance.

** Values take into account the extended scope.

The Group's air emissions derive from energy requirements and the production of ferrous and non-ferrous metal alloys.

In parallel to energy requirements, it has been noted that it is above all the pyrometallurgical activities with their melting facilities and heat treatment furnaces that contribute to air emissions. The associated CO₂ emissions are calculated according to the type and quantity of energy consumed by a site and according to specific emission factors.

Concerning sulphur oxide and nitrogen oxide emissions in 2012:

- SO_x air emissions remained stable in 2010, 2011, and 2012;
- the clear improvement observed between 2010 and 2011 regarding NO_x emissions continued in 2012.

However, the stability of SO_x and NO_x emissions is accompanied by contrary trends, with either increasing levels or decreasing levels which neutralise each other. The SLN Doniambo plant (New Caledonia) continued to make good progress regarding SO_x emissions, mainly because it used fuel with a low sulphur content and it optimised its use. However, due to a high level of activity at the Moanda Industrial Complex (Gabon), there was a marked increase in air emissions, including SO_x and NO_x emissions. This was also the case for the Guangxi ERAMET Comilog Chemical site (China) where the SO_x emissions increased once again, due to the fact that its boiler used coal containing more sulphur than in 2011.

Air emissions are usually proportional to the activity of the facility emitting them. Nevertheless, it should be noted that some of the

materials processed contain high levels of chemical elements and this can result in emissions. It should also be noted that the measurements taken by approved bodies are sometimes called into question and new measurements taken by a third-party expert can sometimes differ greatly from those taken earlier. As a certain number of measurements are taken in an isolated manner and then extrapolated to emissions for the whole year, the impact of the accuracy of the measurement can prove to be very significant. The accounting of Volatile Organic Compounds (VOC) in air emissions is affected due to the extension in the number of sites where this measurement is taken and hence reported *via* the EraGreen tool. No marked increase was observed at industrial sites which have carried out this measurement for three years or more.

In pyrometallurgy, emissions of suspended solids and other metal dust are channelled 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, drying and transport of materials.

5.4.1.2. Aqueous Discharges

Aqueous Discharges		2010	2011	2012
Suspended solids (SS)	tonnes	8,348	4,360	9,257
Chemical oxygen demand (COD)	tonnes	204	200	217*
Nickel	tonnes	8.9	14.4	6.7
Manganese	tonnes	93.2	90.8	32.3

* Elements reviewed by Deloitte—moderate assurance.

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.

In 2011, there was a sharp drop in aqueous discharges with Suspended Solids (SS). An analysis of this situation suggested that at SLN Doniambo (New Caledonia) the quality of the sea water used for the plant cooling and slag granulation was the main reason for this drop as it contains low levels of SS at the place it is collected. These quantities are contained in the final discharge, meaning that the total SS contained in the sea water collected beforehand is counted together with the SS linked to the process. As announced in last year's report, further investigations into this situation were carried out and the discharges have returned to 2010 levels and the theories put forward in 2011 were not sufficiently convincing. However, it should be noted that applicable regulations do not allow us to deduct the SS counts.

Other industrial sites generate lower levels of SS. This is the case with Aubert & Duval Les Ancizes which, after cleaning its settling tanks, continued to improve its performance. This is also the

Collection and filtration systems accompany most of these sensitive operations. Counted for the second year running, the Group now has more than 330 air emission treatment facilities, *i.e.* 10% more than in 2011. This progression is in line with the proportion of capital expenditure devoted to this type of facility, which represents once again this year more than 30% of the total capital expenditure for the environment.

Since 2009, total dust emissions have decreased from year to year. Compared to 2011, there was a further improvement of 5%. The Tyssedal and Doniambo plants greatly contributed to this reduction.

Nickel air emissions remain constant while manganese emissions increased substantially. The main cause of this was the high level of activity and some technical problems encountered in the production of manganese sinter in Gabon.

Various projects were conducted on the sites in 2012 to reduce air emissions. Improvements continued to be made to the facilities' existing dust traps. Thus, a new sulphur gas trapping facility was started up at the GCMC Freeport site (USA). There was also a considerable improvement in the levels of emissions at the ERAMET Marietta plant.

case with Erachem-Comilog Tertre and TiZir Tyssedal. In 2011, this Norwegian site allowed a sharp increase in its SS discharges due to non-scheduled shutdowns but it has now returned to 2010 levels.

As indicated in paragraph 5.2.3, in 2012, a great deal of capital expenditure was put into improving the quality of the water released. Thus, two thirds of the Group's sites devoted capital expenditure to the prevention of water pollution.

This capital expenditure allowed:

- the construction of water settling structures at the mining sites in New Caledonia and Gabon, and within the framework of the Weda Bay Nickel project;
- improvements to the industrial water treatment facilities at ERAMET Kvinesdal & Sauda (Norway), Erachem Comilog Baltimore, New Johnsonville (USA) & Tertre (Belgium), Erachem Mexico, GCMC Freeport (USA), ERAMET Research, Sandouville & AD Imphy (France);
- the setting up of an unloading area at Interforge and ERAMET Research (France);

- the construction of containments, systems to recover leachates, hydrocarbon separators for storage facilities at AD Firminy, Comilog Dunkerque & Erasteel Champagnole (France);
- the creation of separating networks for rainwater and industrial water, the repairing of septic tanks but also improvements to existing treatment facilities and related analysers;
- the installation of new hydrocarbon separators at the sites of AD Firminy (2), and Erasteel Champagnole (2) which join the hundreds of similar installations already set up at Group sites.

With regards to aqueous discharge, we note that nickel discharge has dropped sharply. This is mainly due to discharges at SLN Doniambo (New Caledonia). The investigation plan launched in 2011 showed the important role played by leaching on roads and at ore storage areas and the leaking potential of gutters. The monitoring of these different points was reinforced. A full review of the clean-up plan was initiated and further investigations are being prepared.

There was a marked improvement in manganese aqueous discharges in 2012. A sharp drop in discharges was once again

observed at the sites of Erachem Comilog Tertre (Belgium) and ERAMET Marietta (USA).

The Chemical Oxygen Demand (COD) remained stable over the 2010-2012 period. It should be noted that some sites had difficulties with the COD analysis measurement because various chemical elements may interfere with this, especially the presence of chlorides, and this may lead to incoherent results. The results observed from one year to the next lead to situations which deserve further investigations. Eurotungstène Grenoble (France) is one of the sites which is examining the matter.

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 over 250 piezometers at different Group sites which carry out this monitoring.

This equipment establishes the initial state and is used during the first stages of all new projects to monitor the situation and enable sites to act fast if there is any impact on the ground water and surface water.

5.4.1.3. Waste

Waste Production		2010	2011	2012
Quantity of non-hazardous waste	thousand tonnes	3,997	3,640	3,310
Quantity of hazardous waste	thousand tonnes	48	66	66*

* Elements reviewed by Deloitte—moderate assurance.

The field of waste management is constantly changing. For years, ERAMET has strived to recycle the waste it generates in its processes and also to become involved in the different processes of recycling waste containing metals resulting from the manufacture or use of products marketed by other industrial players.

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. Erasteel Commentry (France) distinguished itself in 2012 because 93% of its raw materials came from recycling.

For many years, ERAMET has 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, and also, since 2010, the Valdi site (France) which is a major European 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.

The setting up of environmental management systems is always accompanied by reinforced waste management. The increased number of certified sites goes hand in hand with the setting up of

specific channels to recover waste, *i.e.* scrap metal, neon tubes, printer toners, used grease, and aerosols. Thus, Comilog in Gabon has created waste yards dedicated to scrap metals, tyres, used conveyor belts, and several hazardous waste storage areas.

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.

Industries involved in steel-making, melting-reduction and the production of ferroalloys generate more than 80% of the Group's by-products and non-hazardous waste. 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.

Therefore, over the past several years, increasing amounts have been recycled (metal recovery, in road ballast, in civil engineering, etc.). In 2012, the Aubert & Duval steelworks continued to recycle its slag instead of sending it for storage to specialised waste landfills.

At Les Ancizes, over 2,000 tonnes of waste from the steelworks pouring basin (metal scraps, iron shot, sands and refractory material used for bottom pouring) underwent selective sorting so that they could be processed and re-used.

The Erasteel Commentry plant set up a recycling channel for the 5,000 tonnes of slag and 2,500 tonnes of refractory material generated annually by the steelworks.

It should be noted that the non-hazardous waste calculations do not include the tonnages of deliberately rich slag generated in the ferromanganese pyrometallurgical process, which serve as a secondary raw material to fuel the furnaces which produce silicomanganese. The calculation of non-hazardous waste is also affected by the significant tonnages that result from tool maintenance or dismantling operations (rubble, scrap metal, etc.).

The Group's overall quantity of non-hazardous waste fell in 2011 and continued to fall in 2012.

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 slag which, according to their intrinsic characteristics, can be considered as hazardous waste.

The quantity of hazardous waste in 2012 was strictly the same as that of 2011. It should be noted that the quantity indicated for 2011 was re-evaluated after the close of the fiscal year of reporting and a tonnage of sodium-calcium slag from the SLN (New Caledonia) was added.

There were no significant changes to the quantities generated by the sites. The main contributors to this balance sheet, excepting the SLN, include: the Sandouville site with its sulphur waste and the Erachem-Comilog Tertre site with its manganese ore gangue.

5.4.1.4. Site rehabilitation/restoration

The Group carefully monitors the management of issues with a potential impact on the soil and subsoil arising from past, continuing or future mining and industrial operations.

For several years, the Group has developed a policy and expertise in investigating, identifying, monitoring and managing land under potential impact from different projects, e.g. 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 2012 are listed below. First of all, in the industrial field:

- *Erasteel Kloster Söderfors (Sweden)*: The programme of investigations on the soil at Söderfors industrial site which started in 2008 will end in 2013 when the last tests are carried out.

At the same time, discussions with local authorities initiated in 2011 concerning measures for the rehabilitation of the two hazardous waste storage areas in Ingså were concluded in 2012. Taking these measures into account, work to cover over these two areas and prevent the ground from leaching will be undertaken in 2013.

- *Aubert & Duval Les Ancizes (France)*: At the non-hazardous industrial waste landfill (slag, firebricks, debris from the pouring basin) which ceased operations on 31 December 2010 a series of studies and work was carried out in 2011 in collaboration with the town of Les Ancizes. Its rehabilitation was completed in 2012, after the eradication of an invasive plant (Japanese Knotweed) and the planting of 1,200 trees in the spring. The objective was to allow nature to reassert its rights and this has been achieved.

- *Aubert & Duval Firminy (France)*: At Aubert & Duval, Firminy, a tripartite agreement between the Canadian multinational Harsco, the municipality and the plant was signed in 2012 to pursue discussions on the recycling of slag stored at the sites of Dorian and then Layat. Operations could last for 10 to 15 years. Eventually, once the waste heaps have been cleared away, the land could be sold to the local authorities and used in compliance with the Local Urban Planning scheme (services sector, etc.).

- *Aubert & Duval Genevilliers*: In 2011, the B&C plants ceased operations, the site was secured and studies were carried out the same year. The cessation of business statement and related management plan were then registered. The supervisory authority determined the objectives to aim for in terms of dismantling and decontamination. All these measures were carried out in perfect coordination with the local authorities and the entities continuing their operations, i.e. plant A and the contract processing workshop ("AD TAF"). Invitations for tenders are being sent out and the work should be carried out in 2013.

- *Erasteel Kloster (Sweden)*: This Swedish entity, comprising three plants at Söderfors, Långshyttan and Vikmanshyttan, is pursuing its project involving the internal recycling of metal hydroxide sludge. The aim of this project is to dry out the sludge (about 6,500 tonnes) from the Långshyttan landfill and then to use it as a raw material in the Söderfors steelworks. This will eventually lead to the Långshyttan landfill being closed. In the summer of 2012, characterisation studies were carried out on an older layer of this type of sludge to determine the processing possibilities, in coordination with the local authorities. Pending this decision, the storage site has been secured as has the sludge that has already been evacuated and which is awaiting transfer to Söderfors. Tests were also undertaken in 2012, with a view to creating briquettes from the sludge and thus facilitating their recycling.

- *GCMC Freeport (USA)*: The ground protection plan that started in 2011 was continued in 2012. Various outside waste storage areas were renovated and the new “Scrubber SO₂” area was completed. Sealing work was also carried out on the concrete slabs in the building which receives the used catalysers before recycling. Moreover, studies on the decontamination and closure of the “Pond 4” landfill were started.

Initiatives were also taken in the mining sector.

In New Caledonia

Major rehabilitation initiatives continued in 2012. A considerable amount of restoration work to complete the rehabilitation was conducted:

- in Poum, the restoration of the former Fabrice tip (a tip that had slid down before SLN recovered the Poum Massif) allowed more than 130,000 m³ of fallen material to be evacuated and 50,000 m³ of hillside to be remodelled. The seeding of the slopes scheduled for 2013 will bring this enormous project to its end;
- on the Thio Plateau the SLN teams continued to remodel a very old tailings heap. At the end of 2012, this gigantic project (about 200,000 m³ of earth moved) was half way through. Most of the very large earthmoving works and landscape remodelling was completed. It involves impressive water canalisation and management systems and the remodelling of the heap;
- there were many other work sites at Poro, Kouaoua and Népoui.

Furthermore, the total surface area of replanted land in 2012 was 46 ha (of which 30 ha were replanted and 16 ha received topsoil).

At the same time, SLN makes significant contributions to the following:

- the mining-site restoration committees (*Comités de Réhabilitation des Sites Miniers—CRSM*) financed, pursuant to *Délibération* (motion) 104. Since its formation in 1990, SLN has contributed some €24 million (€2.1 million paid in 2012);
- the financing of the Nickel fund provided under the development scheme. It was set up in March 2010 and is intended for the rehabilitation of mines operating mainly before 1975 which have no more re-usable mining resources. It has an annual budget of approximately €4 million. Half its funding is provided by the annual land royalties on mining concessions.

In Gabon

- *Comilog Moanda*: operations to restore the river Moulili by extracting the sediment deposited in the riverbed downstream from the mine washery continued. Since the start of operations, 3,357,174 tonnes of manganese sediment has been excavated, 1,244,542 tonnes of which were excavated in 2012*, in strict compliance with the Environmental and Social Management Plan drawn up following the impact study. The banks are starting to appear and plans on how to replant them are being discussed. 2012 was also an important year at the Moanda Industrial Complex where work continued to adjust the process in the workshop that recycles sands. This workshop which processes very fine-grained materials was set up in March.

* Elements reviewed by Deloitte.

More information on rehabilitation initiatives conducted at mining sites is given in Chapter 5.4.5 on the protection of biodiversity.

Lastly, an important point to note 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.

5.4.2. Sustainable use of resources

Consumption		2010	2011	2012
Total energy consumption	GWh	17,350	17,346	16,928*
Total water consumption	million m ³	32.8	29.2	28.2
Industrial water consumption	million m ³	17.3	16.7	16.5
Mains water consumption	million m ³	2.1	1.9	2.6
Surface water consumption	million m ³	11.8	7.8	6.9
Ground water consumption	million m ³	1.5	2.8	2.2

* Elements reviewed by Deloitte—moderate assurance.

5.4.2.1. Water consumption

Metallurgy, hydrometallurgy and chemicals are three activities that consume water for a range of purposes:

- cooling furnaces and other metallurgical installations;
- washing ore, raw materials and by-products;
- hydrometallurgy processes: solubilisation and reaction environments.

It should be noted that none of the Group's industrial sites are located in countries confronted with "water stress", *i.e.* when the 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. Water recycling is encouraged everywhere, whenever possible.

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 is mainly carried out in a closed circuit. The water consumed is mainly top-up water to compensate for evaporation;
- use industrial water and surface water for industrial processes. Sometimes, operating constraints impose the use of "clean" water. For example, Erachem Comilog Baltimore (USA) which used to use industrial water for the cooling process, had to change its habits and use mains water instead in order to provide water of a suitable quality for its cooling facilities. However, this usage was accompanied by a sharp drop in the water consumed.

It should be noted that some of the water consumption is based on estimations (rate of flow of pumps, inflow-outflow assessment). However, new water meters are regularly installed to cover all the networks. This is the case for Setrag (Gabon) which continues to implement its multi-year programme to install water meters in the railway stations.

We should point out that part of the Group's overall water consumption is used by the general public or the staff living in the accommodation provided for them. At the moment, this proportion of social water is not counted separately and is included in the total consumption. However, it is estimated to be approximately 500,000 m³ per year.

The decrease in consumption observed in 2010, then in 2011 continued in 2012.

It should be noted that, because it is restored, the sea water used to cool the SLN thermal power plant (New Caledonia) and for slag granulation is not counted in the present assessment.

The drop in the Group's total water consumption in 2012 is due to a six-month production at the Chinese plant of Guangxi ERAMET Comilog Chemical (currently closed), and to improvements in the recycling loop at the Comilog washing plant in Gabon.

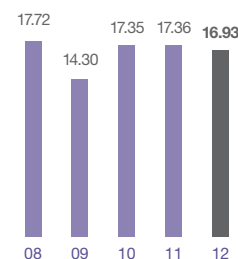
Finally, we should also stress the importance of monitoring and sometimes reconsidering water consumption. The cooling of the electric furnaces must be perfectly managed and optimised. A water supply shortage could present a risk. For these reasons of safety, the Porsgrunn plant in Norway re-increased its water consumption to ensure that its cooling circuit reached a lower temperature.

5.4.2.2. Energy

The main energy requirements come from sites with pyrometallurgy operations. The furnaces and melting facilities, ERAMET group's core metallurgy business in its three Divisions, are the main contributors.

Since 2008, energy consumption (all energies consumed including reducers) at ERAMET sites can be broken down as follows:

Energy consumption trends since 2008 (in TWh)



Energy consumption trends.

This consumption results from three factors:

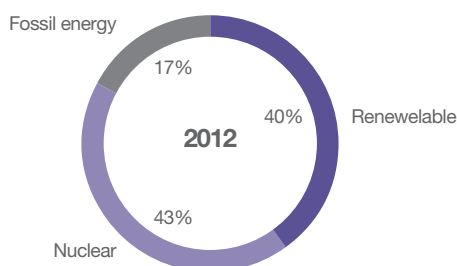
- the scope of the Group;
- the sites' level of activity;
- the sites' energy efficiency.

Consumption fell in 2009 in relation to other years because of the downturn in activities due to the economic climate.

In 2012, the Group's energy consumption fell below the 17 TWh mark. This reduction was mainly achieved *via* the initiatives carried out within the framework of the "energy savings" process. For example SLN, the Group's top energy consumer, saw an improvement in the energy efficiency of its pyrometallurgical site in New Caledonia. At the same time, the Manganese Division closed a Chinese site that consumed very high levels of energy and replaced it with a new much more energy-efficient plant, located nearby.

Purchased electricity⁽¹⁾ corresponds to 25% of the Group's total energy consumption. This electricity comes from three types of primary energies: renewable energy (mainly hydro-electric), carbon-free energy (nuclear) and fossil energy. The mix depends on the electricity providers and also on the countries in which the sites operate. In 2012, 83% of the electricity purchased came from renewable and nuclear primary energy, thus keeping the Group's environmental impact to a strict minimum.

Proportion of primary energies in the electricity purchased by the Group in 2012



Breakdown of primary energies in the electricity purchased by the Group.

5.4.2.3. Energy saving

Since 2005, ERAMET has had an "energy savings" programme in place, designed to cut the Group's energy spend by 5% to 10%. This measure, which helps the sites to define their "energy savings" action plan, was first initiated at six sites. It was then gradually extended to all sites with high levels of energy consumption.

A site's action plan is defined in cooperation with the Group's Industrial Affairs Department, which may call upon independent experts if necessary.

The actions generally adopted cover at least the following subjects:

- the maintenance of production equipment (maintenance focussed on energy efficiency, Best Available Technology, etc.);
- operation of this equipment (best practices, etc.);
- energy metering and monitoring of energy efficiency, etc.

Once the action plan has been drawn up, the Group's Industrial Affairs Department continues to support the sites, depending on their needs, and asks them for a six-monthly progress report. Progress is also presented to the Group's Comex annually.

At the end of 2012, the 26 energy-intensive sites had their action plan. Specific measures were implemented which not only allowed substantial gains to be made but sometimes also enabled the environmental impact to be reduced.

In 2012, the Group consolidated the results that had already been achieved. Moreover, the integration of new energy standards (ISO 50001, the European Energy Efficiency Directive, EN16231, etc.) will lead the Group to develop its "energy savings" process into an "energy efficiency" process. Two of the Group's Norwegian sites already have ISO 50001 certification.

5.4.2.4. Use of Mineral Resources

This aspect is developed in the chapter on the Mining Environment (see 5.4.4.1).

5.4.3. Climate Change

5.4.3.1. Contribution to greenhouse gas reduction policy

Since 2003, the Communications and Sustainable Development Department has had a unit responsible for climate change related issues for the Group as a whole, the primary responsibilities of which are:

- active participation in the climate change committees of French and European professional bodies (AFEP, MEDEF, FEDEM, FFA, Eurofer, Eurométaux and Euroalliances) that represent the industry vis-à-vis the French and European authorities in the drafting of related regulations;
- informing the relevant sites about such regulations and assisting them with their application;
- helping to define and roll out the Group's policy with respect to climate change, in close cooperation with the "energy management" unit in the Industrial Affairs Department, the Purchasing, Development and Innovation Department and the three Divisions;
- providing information on CO₂ emissions and emission forecasts to the Group Purchasing Department, which is responsible for managing the accounts of the relevant French sites vis-à-vis the national greenhouse gas allowance registry. In 2013, we shall examine whether this policy concerning the impact of climate change on our activities should be pursued, whether it is appropriate and whether it needs to be reinforced.

(1) The ERAMET group also produces its own electricity. The proportion of self-produced electricity is not taken into account in this calculation because the environmental impact of this is included in the Group's overall assessment.

Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003, establishing a system for greenhouse gas emission allowance trading within the Community

The sites affected are the four steelworks in the Alloys Division:

- Aubert & Duval: Firminy and Les Ancizes in France;
- Erasteel: Commentry (France) and Söderfors (Sweden).

For the second period (2008-2012), due to the low level of activity of the sites concerned since 2009, the forecasts at the end of 2012 show an overall surplus of approximately 260,000 allowances.

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).

Sites concerned

Alloys Division: Aubert & Duval: Les Ancizes, Firminy, Pamiers and Airforge

Erasteel: Commentry

Manganese Division: Comilog Dunkerque, ERAMET Norway (Porsgrunn, Sauda, Kvinesdal) and TiZir in Tyssedal.

The Group's total emissions subject to the ETS will rise from approximately 100,000 tonnes of CO₂ *per annum* at present to around one million tonnes of CO₂ *per annum* during the third period.

Free allowances

Calculation of the number of free allowances will be based on the general formula:

$$\begin{aligned} & \text{Free allowances} \\ & = \\ & \text{specific emissions (according to benchmark)} \\ & \quad \times \\ & \text{historical production volume} \\ & \quad \text{(2005-2008 median activity)} \\ & \quad \times \\ & \text{annual reduction factor for allocations (1.74\%)} \\ & \quad \times \\ & \text{trans-sectoral reduction factor} \end{aligned}$$

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, Airforge and Interforge) are not in the list of sites with a “risk of carbon leakage” and therefore, they will not be entitled to free quotas. For a transitional period, they will receive a decreasing number of free quotas (from the historic 80% of emissions in 2013 to 30% in 2020).

An official questionnaire drawn up by the Commission was completed by all the sites concerned, checked by accredited verifiers and passed on to the national authorities before 1 July 2011 in France and mid-September in Norway.

Each Member State passed on the compilation of this collected data to the European Commission to obtain its approval of the free allowances allocated to each installation (early 2013).

CO₂ Coordination Committee (C3O2)

In order to coordinate information and actions related to the Group's carbon footprint, the “C3O2” was set up in April 2010. It includes representatives from the Communications and Sustainable Development Department, the Group Purchasing, Research and Innovation Department, the Group Industrial Affairs Department and the Industrial Departments of the three Divisions.

5.4.3.2. Group Carbon Footprint

The primary goal of a carbon Footprint is to provide a high-level overview of an activity with an indicator of greenhouse gas emissions that is no longer primarily economic but physical in nature. The review brings to light “physical” dependence that may not be obvious in a purely economic review, but which over the long term are drivers of constraints.

ERAMET's initial Carbon Footprint, was carried out jointly in 2007-2008 by Carbone 4, a company in receipt of ADEME approval as regards methodology, the Communications and Sustainable Development Department, the Group Industrial Affairs Department, the Group Purchasing Department, the environmental contacts at all Group sites and the logistical units in the three Divisions (for CO₂ emissions related to freight transportation).

After checking and consolidating the data for 2007 and integrating the SLN carbon footprint carried out in 2008, the Group's carbon footprint for 2007 was approximately:

6.35 million tonnes CO₂ equivalent

Breakdown by Division:

- 55% for Manganese Division;
- 39% for Nickel Division;
- 4% for Aubert & Duval;
- 1% for Erasteel.

Breakdown by 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”:** CO₂ emitted during the production of the raw materials that were purchased, particularly the scrap for steelworks' arc furnaces.

According to the international reference, the GHG Protocol, global emissions can be broken down into three scopes:

- Scope 1: Direct emissions from processes carried out in Group installations;

- Scope 2: Indirect emissions from the consumption of electricity;
- Scope 3: Other emissions (freight transportation, carbon content of inputs, etc.).

According to this classification, the Group's emissions can be broken down as follows:

- Scope 1 emissions = 4,742,098 tonnes of CO₂, *i.e.* 74% of the total;
- Scope 2 emissions = 797,918 tonnes of CO₂, *i.e.* 13% of the total;

- Scope 3 emissions = 810,473 tonnes of CO₂, *i.e.* 13% of the total.

Note that the total of Scopes 1 and 2 represents 87% of the total.

Changes in the Group's Carbon Footprint

All sites enter the data used to calculate Scopes 1 and 2 emissions into the Group's consolidation of environmental data system (EraGreen).

The following table shows changes in the Group's emissions between 2007 and 2012.

Change in CO₂ emission – Scopes 1 & 2



The low level of emissions in 2009 is mainly due to the Manganese Division's drop in activity.

5.4.4. The Mining Environment

All the Group's mining operations are opencast mines, which are all located in areas of high rainfall and from which stable oxide ores are extracted.

The mine operated by Comilog on the Bangombé plateau in Gabon is one of the world's richest manganese ore deposits (average content 46%) 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 relatively little mining waste (tailings and mine waste). The ore is concentrated on the site in a washing unit and then transported by train to Port Minéralier d'Owendo.

SLN operates 12 mines in New Caledonia; five of them are operated directly by SLN and seven others are contracted out to local operators. The mines are located on rugged terrain at altitudes of between 500 and 1,000 meters. With this type of deposit, approximately 7 to 8 tonnes of overburden has to be removed in order to produce 1 tonne of useable ore.

Teams dedicated to ensuring that the environment is taken into account in mining operations are present on the sites both in Gabon and New Caledonia. Since 2010, within the framework of its Sustainable Development Policy, ERAMET has reinforced efforts to share experience and promote international coordination of environmental management tools for mining activities. This has led to the establishment of a benchmark to position the Group's mining practices on an international scale, the setting up of dedicated working groups and the selection of new indicators specific to mining activities. In 2012, the main progress was the ISO 14001 certification of Comilog which covers Moanda's mining operations, storage activities, transportation of the ore and sinter to Owendo and equipment maintenance operations. These are the Group's first mining activities to obtain this certification.

5.4.4.1. Extracting the resource responsibly

Mining operations are 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 recovery of deposits. The geologists reduce the number of tracks opened and prefer to transport equipment by helicopter during exploration operations. They also use modelling tools to improve their understanding of deposits and better assess resources. This data is passed on to miners who optimise the extraction stages by reducing the volume of tailings handled, 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 recently 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 magnetic separation technology developed within the Group.

SLN recycles tailings from the washing unit and also the products stored on the terraced heaps of mining waste. In two years, more than 150,000 tonnes of a new product from the tailings heaps have been recycled, thus giving concrete expression to the recycling of secondary raw materials. Finally, SLN has developed techniques to recycle ores that were initially considered as marginal, to lower the cut-off grade and thus greatly extend the life of deposits while reducing the final environmental impact.

5.4.4.2. Water Management

Given the nature of the ores (oxide ores), the tailings and mining waste are chemically stable. Therefore, ERAMET's mining sites are not subject to the acid mine drainage (AMD) phenomenon which constitutes the main risk in terms of pollution for many mining sites worldwide.

The main objective of water management on ERAMET's sites is to prevent the receiving bodies of water from becoming polluted by suspended solids (SS) carried by runoff waters.

To avoid this, some time ago, SLN equipped its sites with sedimentation basins which trap the suspended solids thus enabling clean water to be returned to 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.

All these management procedures, as well as sizing rules for hydraulic structures, are assembled in a technical guide published by SLN which serves as a reference for the profession in New Caledonia. This guide is applied to all the Group's mining operations in New Caledonia and constitutes the Group's best internal practices.

In Gabon, the subject of erosion is less sensitive given that the deposit is located on a plateau. However, a study was launched in 2012 to enhance our understanding of hydrological systems on the plateau.

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, sedimentation basins were built to put a stop to discharges into the river Moullili. In 2012, new basins were built and installed to recover overflow water and redirect it to the concentration facility. The recycling thus enables the site to considerably reduce the water it takes from the environment.

In mid-2010, a rehabilitation programme for the river Moullili was undertaken which will last at least 12 to 15 years. More than 3.3 million tonnes of sediment have now been extracted. A study on the environmental impact of these operations has been carried out on a voluntary basis by Comilog in coordination with the Gabonese ministries concerned. This study led to an environmental and social management plan aimed at minimising the impact of the project on the quality of life of neighbouring populations and rehabilitating the river so that the river bed could return, as far as possible, to its natural course before the mining activity.

5.4.4.3. Managing mine tailings

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 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. SLN has also published a technical guide on this subject, describing the construction methods for these heaps and the sizing rules. This guide was updated in 2012 and the project was awarded a trophy at the Group's HSE challenge.

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 the tailings are put back into the pits straight after the extraction process.

5.4.5. Protecting Biodiversity

Within the framework of its Sustainable Development policy (2010) and in accordance with its Environment Charter (2002), ERAMET gives structure to the initiatives it takes in favour of biodiversity and takes part in studies on the mitigation sequence, *i.e.* avoiding, minimising and compensating the impacts on biodiversity.

At an international level, and *via* the Weda Bay Nickel (WBN) project, in October 2011 ERAMET joined the Business and Biodiversity Offsets Programme (BBOP) which aims to share experiences and expertise in the field of biodiversity offsets. The BBOP is a group with many partnerships made up of over

80 companies, financial institutions, governments and non-governmental organisations (NGO). It was established by Forest Trends and the Wildlife Conservation Society (WCS). The BBOP aims to test and develop best practices for the creation and implementation of biodiversity offset programmes, *via* pilot projects carried out worldwide. For this purpose, in 2010, the BBOP adopted ten principles which lay down rules for avoiding, minimising and offsetting impacts on biodiversity. In 2011, these principles served as a basis for criteria and indicators and they now represent a recognised international standard on biodiversity offsets. In 2012, ERAMET took part in the French translation of this standard. The first BBOP offset programme is under study for the WEDA BAY Nickel project in Indonesia, the goal of which is to achieve no net loss in biodiversity.

In France, ERAMET takes part in the work started by the Ministry of the Environment aimed at developing a doctrine and methodology sheets on "Avoidance-Minimisation-Offsets", in line with the BBOP principles.

In 2011, an internal task force dedicated to biodiversity was created. It meets three times a year and brings together the Group's main players in this field. It aims to encourage teams to exchange ideas, whether they are on site, in the Divisions or at head office, to create networks with partners, to share experiences and to try to set up a Biodiversity policy together.

5.4.5.1. In New Caledonia

The Société Le Nickel (SLN) mines nickel deposits at different sites in New Caledonia, in the heart of a very sensitive region in terms of biodiversity and the very endemic nature of its plants and animal species.

The SLN has been developing reliable and environmentally-friendly prospection, exploration, mining and rehabilitation methods for more than 30 years. They are the subject of internal guidelines and are presented in the guide to best New Caledonian mining practices shared with other mining companies which will be published in 2013.

Replanting work started at the SLN in 1993, and hydraulic seeding and planting has been carried out on almost 200 ha of land. Given the nature of the soil and difficult weather conditions, the results are not always very apparent in the short-term.

In 2010, the SLN put a great effort into re-organising this "replanting" activity in order to considerably increase the surface areas treated while at the same time continuing to improve the quality of the features created. To achieve this, the SLN reinforced its partnership with the local company SIRAS Pacifique, which has

been SLN's service provider since 1993. Together they developed a planting technique involving hydraulic seeding. In 2012, a surface area of 38 hectares was replanted, *i.e.* more than twice the area replanted in 2011.

New Caledonia's new Mining Code, dating from 2009, requires that environmental impact studies are carried out for all present and future operations.

This review was an opportunity to carry out a vast inventory of existing data on biodiversity and to complete it with new environment characterisation studies. Nineteen research departments worked on the study and more than one hundred reports were commissioned. Numerous specialists and experts from the scientific community worked on fields as varied as botany, herpetology (the study of reptiles), ornithology (the study of birds), myrmecology (the study of ants) and even the marine environment (corals and fishes). The compiled and summarised data handed over to the supervisory authority led to concrete recommendations for the operator, thus enabling it to avoid or minimise identified impacts and to develop and roll out biodiversity management plans for all the 12 mining sites.

In an effort to improve scientific knowledge, enhance our understanding and protection of biodiversity, the SLN set up five scientific partnerships in 2011. The agreements cover several areas of environmental engineering: optimising the use of topsoil (UNC⁽¹⁾-IAC⁽²⁾ agreement), studying the genetic diversity and dynamics of the *Araucaria rulei* population, a conifer in danger of extinction (IAC agreement), assessing the impact of light pollution on petrels, seabirds that nest on mining massifs (IRD⁽³⁾ agreement), developing *in vitro* culture propagation for species in danger of extinction with a view to eventually re-introducing them (CIVNC⁽⁴⁾-UNC agreement) and finally a project to plant hyper-accumulator species capable of absorbing metal (CNRS⁽⁵⁾-IAC agreement).

For several years, the SLN has been conducting a policy that resolutely promotes biodiversity at its mining sites. It has decided to formalise its past actions and their continuity in a Biodiversity Strategy. Through this, the SLN hopes to draw up an overall programme taking into account the environmental challenges facing all its facilities and mining sites spread out over New Caledonia's Grande Terre. This Biodiversity Strategy will be integrated into the SLN's environment policy and will be an integral part of the Company's overall strategy.

It will be based on consultations with stakeholders, the creation of partnerships, the application of the mitigation sequence and the development of compensation programmes at pilot sites close to SLN mines.

(1) UNC: University of New Caledonia.

(2) IAC: New Caledonian Institute of Agronomy.

(3) IRD: Research and Development Institute.

(4) CIVNC: New Caledonian *in vitro* laboratory.

(5) CNRS: National Centre for Scientific Research.

5.4.5.2. In Gabon

The Compagnie Minière de l'Ogooué (Comilog) has been mining manganese ore on the Bangombé plateau (altitude ~600 m), in Moanda, Gabon, for fifty years.

Although there are still considerable reserves of manganese ore that will allow mining to continue for more than ten or even twenty years, part of the plateau has already been rehabilitated. This has involved a great deal of reshaping. Opencast mining techniques are employed comprising three stages: stripping the topsoil, removing the layer of overburden and then the actual extraction. The mined areas have formed bumps and hollows of a few metres high. Since 2010, more than 120 ha. of land have been rehabilitated and the mining procedure has been reviewed so as to integrate the reshaping stage and the recycling of topsoil as work progresses.

Part of the reshaped area has been covered with topsoil. Nature has reasserted its rights and numerous plants, herbs, flowers and shrubs have appeared. A study of the flora and fauna is underway on the free zones of the plateau which aims to compare this natural re-colonisation with a reference state specific to this type of terrain.

Another large-scale programme has been undertaken by Comilog. This is the rehabilitation of the river Moullili whose flow has been disrupted by the accumulation of manganese sediments. This was caused by the washing plant operations and the sediments discharged into the river bed. The rehabilitation work started in 2010 and should be spread over a period of about fifteen years. This work involves the gradual landscaping of the banks and the slopes. At the end of the work, 170 hectares of land will have been rehabilitated and reintegrated into valley's landscape with the reconstruction of a stable ecosystem. The teams from Comilog are working on the first replanting projects with the University of Science and Technology of Masuku (Franceville, Gabon): soil study, plant propagation and re-introduction.

Alongside its mining activities, Comilog finances the *Parc de la Lékédi*. This is situated 5 km from Bakoumba, in the south-east of the Republic of Gabon.

This park 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 buffalos, mandrills, chimpanzees, gorillas, red river hogs, panthers, and numerous antelopes.

The park has been constantly maintained and regularly developed with a view to preserving fully protected species, animal observation and rearing. With the aim of protecting the great apes in Gabon, the *Parc de la Lékédi* works with international organisations such as the Aspinall Foundation for gorillas and Jane Goodall International for chimpanzees. Moreover, in 2011, it entered into a partnership with the CNRS to study this population of mandrills which had been reintroduced into the wild, and to accurately map out their interaction network and assess the social resilience of this species faced with environmental changes such as habitat fragmentation.

At the same time, the park conducts activities to highlight local resources and the remarkable natural heritage of the region. It develops ecotourism (camps, school trips to the country, etc.) and fish farming (the leading producer of tilapias in Gabon), and fosters local craft industries like basketwork and pottery.

A study is being carried out for a mining site in Gabon, about 250 km from Libreville, to the south of Lambaréné. The project, still at the exploration stage, aims to optimise an ore which is rich in niobium and rare earths. At the same time as the geological and ore beneficiation studies, investigations were launched during the first quarter of 2012 to establish the initial environmental and social conditions. Preliminary inventories of flora and fauna are being drawn up in the research area, via field work and the selective placing of camera traps. Gabonese specialists and experts (the National Centre for Scientific and Technological Research—Genarest, the National Herbarium of Libreville and TERE, a firm of environmental consultants) have worked in tandem with international scientists (the Missouri Botanical Garden—MBG, the Wildlife Conservation Society—WCS and Golder & Associates, a firm of environmental consultants). The first results should be available in the second quarter of 2013.

During floristic inventories, three samples of each fertile species (which have fruits or flowers) are collected. To increase the chances of identifying the family, genus and taxon, the MBG calls upon the knowledge and skills of three herbariums:

- the National Herbarium of Libreville;
- the Herbarium of the *Université Libre de Bruxelles*;
- the Wageningen Herbarium in Holland, which contains the largest collection of Gabonese plants.

The Maboumine project is thus contributing to the supply of plants to Gabon's reference herbariums.

5.4.5.3. In Indonesia

ERAMET is studying a project to extract and beneficiate nickel 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 WBN have placed biodiversity at the heart of this Greenfield project by conducting studies to establish and assess the initial state of the environment with recognised Indonesian and international experts and specialists. The aim of these studies is to fully establish the diversity of the ecosystem consisting of the local and regional fauna and flora so as to be able to avoid or limit the potential impact of future mining and industrial activities in the project impact area. In 2012, the studies focussed on assessing the sensitivity of habitats (sensitive, critical, etc.), anticipating the impacts of the future project on biodiversity, choosing measures for avoidance, reduction and rehabilitation, and developing plans to manage biodiversity and initiatives to enhance knowledge, raise stakeholders' awareness, define the monitoring process and principles of bio-safety.

WBN reinforced its partnerships and thus:

- signed a Memorandum of Understanding (MoU) with the Indonesian Institute of Science LIPI (*Lembaga Ilmu Pengetahuan Indonesia*) in 2011 for the aquatic aspects of the studies and assessments;
- entrusted the task of reviewing the concession's botanical inventories and assessing its endemism to the Missouri Botanical Garden (MBG), an organisation recognised for its skills in botanical research and conservation, in association with the botanical gardens of Saint Louis in the United States, the Bogor national herbarium, and the Leiden herbarium in Holland. Thus, all the data collected is fed into these public databanks;
- set up a programme to patrol and watch the forests in order to prevent any illegal land clearing in the areas of the concession concerned.

At the same time, rehabilitation programmes continued with:

- two nurseries on the plain and foothills, to ensure the proper reproduction and growth of local species capable of adapting to disturbed soil;
- experimental testing of potted plants which involves comparing plant growth based on soil quality (combinations of topsoil, limonites and saprolites) and the addition or non-addition of compost;
- monitoring the 15-hectare area of foothills rehabilitated and replanted in 2008, following the completion of mining tests (pilot mine, drainage system and debris basins). This had involved the planting of 7,000 plants of 19 local species. In 2013, Indonesia's environmental authorities will assess the effectiveness of the programme over the previous five years.

Moreover, since 2009, WBN has set up six observatories close to the future mines and industrial facilities. These are plots of land where the growth of plants is monitored during the whole project, in order to visualise the impact of the mining operations on the surrounding environment. The other advantages of these plots is that firstly they offer sources of seedlings and a seed bank of local species for future rehabilitation activities, and secondly their role as wildlife sanctuaries can be assessed.

In line with the performance criteria set out by the International Finance Corporation (IFC), especially number six dedicated to biodiversity, the project undertakes to have a positive impact on biodiversity. To attain this objective, the project devises biodiversity offset programmes to compensate for any significant residual impact. WBN has thus developed a preliminary feasibility study to assess the impact on biodiversity.

5.4.5.4. In France

ERAMET is just as committed to the protection of biodiversity in Metropolitan France. The mitigation sequence is also applied to the Group's industrial projects. The notion of avoidance is of critical importance in the selection of a site for future activities. In 2012, ERAMET decided to exclude a site because of its rich biodiversity. The site was relatively anthropised. However, the inventories carried out as part of an environmental impact study showed the presence of two bird colonies, of which the two species are protected in France. It would have been difficult to minimise or offset the impact due to the limited number of nesting sites in the region and the low tolerance of the two species. Therefore, ERAMET gave precedence to another, less sensitive, site nearby.

In Les Ancizes-Comps, in Auvergne, a municipal rubbish dump was authorised in 1972 which, for more than 30 years, received household rubbish, steelworks' slag, debris from earthworks and rubble and debris from public works or private individuals. In 2005, operations at the southern part of the dump were handed over to the local industrial plant, *i.e.* Aubert & Duval (an ERAMET subsidiary) which undertook to ensure the safety of the site throughout its operations, and then to integrate it into the landscape and re-vegetate it within the framework of its rehabilitation from 2011 onwards.

Since then, Aubert & Duval has been working with environmental engineering firms and the municipality to develop and execute a site rehabilitation plan.

Moreover, the status of the site has changed since operations of the dump were handed over in 2005; it is now located inside the sensitive zones:

- type 1 and 2 areas of ecological, faunistic and floristic interest (*zone d'intérêt écologique, faunistique et floristique*—ZNIEFF);
- Natura 2000 site (*zone de protection spéciale*—ZPS—or special protection area), by a government decision of 24 April 2006 due to the presence of protected bird species;
- Important Bird Area (IBA).

Aubert & Duval has integrated this sensitivity and maintained an ecological continuity with the natural area. Therefore, the rehabilitation plan integrates site safety, the collection of runoff water, the treatment of leachates, the vegetation, and the planting of 1,200 forest trees, indigenous and food-producing shrubs. The work was completed in 2012 and the first stage of planting took place in autumn 2012; the second stage is scheduled for 2013.

5.5. INFORMATION ON SOCIETAL COMMITMENTS IN FAVOUR OF SUSTAINABLE DEVELOPMENT

5.5.1. Territorial, economic and social impact of the Company's activity

5.5.1.1. Employment and regional development

The ERAMET group is present in over twenty countries worldwide and strives to actively participate in the economic and social development of the 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 regional development, and the sites' involvement in major national or regional sustainable development initiatives.

The emergence of companies

Group sites encourage the emergence of local companies because the nature and development of the sites' activities often lead to a certain amount of subcontracting which gives rise to specific requirements. Thus, Comilog is now, directly and indirectly, one of Gabon's main employers and has contributed to the arrival in the area of several SMEs. This ERAMET subsidiary now works with over 1,000 subcontractors in various fields: industrial, environmental activities, etc.

On a smaller scale, ADES (Italy) has enabled a local boilermaker to develop and represents 30% of its sales. In France, ERAMET Sandouville (Seine-Maritime) helped finance beds in a nursery where opening times have been adapted to the plant's hours of work (continuous). Moreover, ERAMET Norway Sauda helped to set up a company specialised in the employment rehabilitation of people suffering from chronic illnesses.

In a longer-term perspective, some sites encourage the development of economic initiatives for populations living close to their sites. This is the case with the Weda Bay Nickel (WBN) mining project on the island of Halmahera in the Northern Maluku Province (Indonesia), which, via its cooperation with the NGO Bina Swadaya, helps to develop local economic initiatives through a programme called the "Community Local Empowerment Program". This NGO has provided support to more than 950 people in 21 villages near the Pt WBN concession. Brought together in about forty groups that focus on subjects of their choice (fishing, craft industries, etc.), these people are guided and given training on technical skills or training related to the creation of small companies or cooperatives, on management, or on how to find capital and recognise commercial opportunities.

Construction of local infrastructures

As well as contributing to the emergence of local companies, many of the Group's sites are directly involved in the construction of local infrastructures, particularly highway infrastructures. In Gabon, Comilog helps to maintain the road network, with an internal road network of over 20 km, and carries out work on the national and departmental road networks in cooperation with the relevant government departments. Comilog is taking part in the construction of a departmental road which will be completely tarmacked over a distance of 15 km and which represents an overall cost of more than €12 million.

In the same field but on a different scale, the GECC site in China took part in the construction of a concrete road to improve the daily life of the villagers.

Other initiatives related to Sustainable Development

Group sites act as responsible players committed to sustainable development via their participation in local and territorial initiatives related to subjects like the reduction of CO₂ emissions, transportation of dangerous materials, recycling, etc. Many local and national initiatives are also taken to reduce energy consumption. Thus, the GECC site in China is involved in the national programme "Energy Savings—Emission Reduction". Erachem Comilog Tertre in Belgium has just renewed its commitment to the industry-wide "Mains Energy" agreement with the Walloon government in order to define, in 2013, the improvement goal for energy efficiency and CO₂ emissions by 2020. Another field covered by this type of local initiative is the field of waste. Within this framework, Erachem Mexico takes part in the municipal environmental programme called E-Waste with other local industrial partners. In France, ERAMET Research (Île-de-France) provides scientific support to Agenda 21 France in the field of mines and strategic metals.

5.5.1.2. 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. Another line of development concerns industrial ecology for the benefit of local populations.

Industrial Ecology

Industrial ecology is an environmental management procedure that, among other things, enables a stakeholder to benefit from a material flow that is not used by the Company. In concrete terms, industrial ecology may involve providing the neighbouring stakeholders (community and other companies in the sector) with a source of energy or products resulting from the site's activity which are not used. For example, in its process, ERAMET Norway Kvinesdal produces hot water which is re-used to heat the neighbourhood (shops and houses) and to heat a nearby fish farm. Erasteel Commentry (France, Allier) will soon offer its slag (steelworks' mineral waste) to the public works and civil engineering sector for the construction of roads rather than sending it to the dump. This practice is becoming more and more common in the steel industry and allows a considerable reduction of CO₂ emissions in the public works and civil engineering sector.

Local Information Bodies

Most of the Group's sites are involved in local information or consultation bodies aimed at presenting and explaining the site's news, with regards to industrial risks in particular, but also to ensure transparency. The site in Le Palais-sur-Vienne (France, Haute-Vienne) is a good example of this: Within the framework of the Local Information Committee (CLI), the Director of the site and the Environment Manager take part in a site management convention which meets at least once a year, in the presence of Board representatives, elected representatives, and association representatives and which is presided by the Prefecture. In 2013, employee representatives will join this body.

Here is another example of this approach: the Kloster sites in Sweden are involved, both as companies and on behalf of employees, in various local, regional and national organisations which each deal with a specific theme (employment, education, training, etc.).

Other sites in the Group, like ERAMET Norway Kvinesdal, take part, in collaboration with local authorities, in various organisations to develop local projects: the construction of road networks for example.

Raising Populations' Awareness of Sustainable Development

The Group's sites go further than just informing the public; they help train the public and raise its awareness of company issues and sustainable development. Some sites organise public information sessions on specific themes. The Belgian site of Erachem Comilog Tertre organised, in cooperation with industry players and the town's fire service, an information session on a subject related to industrial risks: Seveso. In 2012, GECC in China organised an awareness raising campaign on health and safety for the inhabitants of Chongzuo.

Other sites organise sessions on "recycling dangerous materials" like GCMC Freeport (Texas, USA) for example, or work with local NGOs to organise sessions on environmental protection (AD Imphy, France, Nièvre).

Lastly, some sites (ERAMET Marietta, Ohio, USA) organise "Engineering and Science Days" and take the opportunity to present to the students the site's activities and how these activities are implemented in a sustainable fashion. Other sites organise operations with the local schools, like the one which involved planting of 80 *maquis* plants on the heaps (Société Le Nickel, New Caledonia, Poum Mine).

5.5.1.3. Support for education and training

For over a decade, the Group has been committed to a policy of providing active support for the education and training of local communities and young people in particular. This support takes many forms on the sites and within the Group's major projects.

Students

Once a year or more often, all the Group's sites, with some rare exceptions, receive trainees or apprentices on their premises, for a few weeks or several months, including those studying for advanced vocational diplomas, engineering degrees or those working on a thesis.

The UKAD site (Puy-de-Dôme, France) hosted a trainee after only five months of production and with a total workforce of 20 people.

In Gabon, Comilog and Setrag have steady relations with the higher education institutions in their area, and strive to satisfy requests for work experience and apprenticeships as best they can. These two entities hosted 200 and 138 students on their sites respectively in 2012.

Other sites work together with local learning institutes to allow students to discover life in a company in general and the jobs available in their area.

This is the case at ERAMET Marietta (Ohio, USA) which organises meetings between students and its employees who describe what it is like to work in a plant. In addition to this, there is a work placement programme which allows high school or university students to gain experience and knowledge of the world of work while remaining students.

In France, Comilog Dunkerque (Nord) gives local school children in SEGPA classes (adapted general and vocational education sections) the opportunity to discover the jobs that exist in a local company in which they could fulfil their potential.

Training

The Group's sites work in close cooperation with local training institutes which are likely to provide them with future employees. Within the framework of its training policy, Comilog (Gabon) works with training centres, under the supervision of the National Employment Office, to recruit future employees for the Moanda metallurgy complex. Another example is Erachem Comilog Tertre (Belgium) which has close ties with the Federation of Chemical Industries which, together with social partners, has set up a post-studies training centre to be able to recruit operators.

Some sites even go as far as suggesting that educational centres create specific courses of study to meet the industrial sites' need for employees with certain job skills. This is the case with AD Issoire (Puy-de-Dôme, France) which would like a forging training course to be set up; meanwhile, it hosts apprentices from the last school of this type in France, which is a long way from Issoire.

As for international mining projects, WBN continues to take part in educational programmes, in cooperation with local authorities, schools, technical high schools, universities and local student associations. For example, in 2012, WBN contributed to the ongoing training of 26 teachers from Halmahera Island, helped develop a training course including language classes and computer studies for pupils and teachers from several neighbouring villages, and was even involved in the creation of infrastructures (building dormitories for students for example). Moreover, within the framework of a Memorandum of Understanding (MoU) in the field of education between the Northern Maluku Province in Indonesia and the French Haute-Normandie region, *via* the Saloi Foundation which is sponsored by WBN, two major initiatives were taken in 2012:

- Alongside the Indonesian Authorities, the WBN project agreed to draw up training roadmap in order to maximise local employment opportunities.
- Six teachers from the Northern Maluku Province and five teachers from the University of Le Havre in France shared their knowledge and teaching methods.

These concrete examples illustrate the diversity of relations between sites and training institutes, both within plants and schools.

5.5.2. Relations with stakeholders

5.5.2.1. Conditions for dialogue with people and organisations

All ERAMET sites, whether involved in mining, metallurgy, chemicals, or distribution, interact with a wide variety of stakeholders on a daily basis, i.e. neighbours, schools, public authorities, associations, etc. These interactions can take many forms—presenting sites, celebrating events, taking part in exchanges with educational institutions and forums or trade fairs.

Dialogue with neighbouring populations

There are many types of dialogue with local stakeholders, and neighbouring populations. These can be local consultations, specific initiatives to establish dialogue, information meetings, or Open Days and each site interacts with its stakeholders according to its own sensibility and resources, in line with the Group's

sustainable development objectives and policy. Thus, most sites organise Open Days or take part in Local Information Committees, and some go even further by developing more elaborate strategies. This is the case with the French site AD Firminy (Loire). In 2011, after identifying its important stakeholders, it called upon an outside consultant to meet the stakeholders and compare their perceptions with the site's perceptions with regards to important issues like the environment, skills development and maintenance, safety, supplier partnerships, etc. Based on the information collected, the site drew up a plan of action that is now being rolled out and which will continue for the next three years. In the coming years, this initiative will be implemented at other French and European sites in the Group.

Dialogue with educational institutions

Numerous sites in the Group also have strong ties with educational institutions. As well as offering work placements, hosting apprentices and students on sandwich courses, organising site visits for classes and their teachers, some sites enter into partnerships with educational institutions and take part in numerous student fairs and forums. Erasteel Romeoville (Illinois, USA) entered into a partnership with the local apprentice centres. The site in Les Ancizes (Puy-de-Dôme, France) takes part in regional forums and is involved in Open Days at several local high schools. Moreover, within its teams, there is a specific person in charge of relations with schools. This site is very committed to education and has entered into a partnership with the School of Sciences in Châteauneuf-les-Bains (Puy-de-Dôme) focussed on the environment and air quality.

Dialogue with the authorities

Sites in the Group that have very close ties with their local or national authorities regularly invite them to their sites for special events or to show them the results of their capital expenditure. For example, the French Brown Europe site presented its activities to the Deputy of the Lot Department and the Mayor of Laval-de-Cère. Moreover, site visits can enable recently appointed members of local or regional authorities to get to know the industries located in their region (Issoire, France, Puy-de-Dôme). Lastly, these visits are often very instructive: enabling local authorities to better understand the impact of administrative and regulatory decisions or draft decisions on industrial and mining activities. In 2012, AD TAF (Île-de-France, France) organised a visit of its workshops for two delegations from the Ministries of the Environment and the Economy based on the use of trichloroethylene in an enclosed chamber.

Opening the sites to the public

To ensure transparency and provide information, the Group's sites regularly open their doors to all types of stakeholders—employees' families, neighbouring populations, local authorities, schools, customers, etc.

These events are organised by the Swedish, Norwegian, American, French, Chinese and Gabonese sites to enable their stakeholders to discover their activities, once a year or more often, in the form of guided tours, presentations and actions. A good example of this is the organisation of four site visits during the National Heritage Month by SLN in New Caledonia: visitors were able to discover the Doniambo plant (Nouméa) by following a circuit through the actual plant where they could obtain information at the stands presenting the Company's activities, from the extraction of nickel to its transformation, and the efforts taken to limit its air emissions. The operation was a great success—all the visits were full before the date of the event and 100 people were received.

This form of dialogue is very instructive and can be applied to all types of sites, including mining and industrial sites. It was also implemented within the Group's major Greenfield projects, particularly the WBN project. On Halmahera Island where the Weda Bay Nickel project is under development, project teams regularly organise site visits for inhabitants of neighbouring villages and local authorities and in 2010 opened an Information Centre for the public.

Celebrating an event

Industrial and mining sites which celebrate a special event take advantage of the occasion to show their activities to their stakeholders. These stakeholders, many of whom are the employees' families, are not very familiar with this type of industry. This year, Erachem Comilog Baltimore (Maryland, USA) celebrated four consecutive years of continuous production at the site with about one hundred people. There was another example of this in the Puy-de-Dôme in France, but in a completely different field: the inauguration of IV 30 and UKAD was spread over three days; one day was dedicated to customers (250 people), one day to institutional stakeholders (a Minister, a Prefect and a local elected representative were present) and another day to employees and their families, representing nearly 2,500 people. This year, the Group's research centre ERAMET Research based in Trappes (Île-de-France) celebrated its 40th anniversary with the employees' families, retired employees, representatives of local authorities and neighbours, *i.e.* more than 250 people.

5.5.2.2. 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. While the industrial and mining sites are usually involved in local partnerships with local stakeholders, the Group's foundations and the major mining projects can contribute to the development of their community on a different scale.

Local partnerships and sponsorships

The vast majority of sites have entered into one or more partnerships with local associations, involving a few hundred or a few thousand Euros in each case. Sites like New Johnsonville (Tennessee, USA), Heyrieux (Isère, France) and Pamiers (Ariège, France) sponsored sporting activities.

Sites like Erasteel Commentry (Allier, France), Porsgrunn (Norway) and Bear Metallurgical (Pennsylvania, USA) supported associations which help the community in various ways, such as financing meals, providing learning support, promoting health by actively supporting the Red Cross, fighting domestic violence and buying Christmas presents for disadvantaged children.

The sites greatly support local associations in the field of culture, whether it is music, theatre, cinema or sciences. For example, this year, GCMC Freeport (Texas, USA) contributed €31,000 to Freeport Planetarium and to the Lake Jackson Historical Museum, a museum dedicated to local industry and the community.

Lastly, some sites enter into environmental partnerships with NGOs. ERAMET Norway which has three metallurgy sites in Norway is a partner in the Bellona Foundation, an international environmental NGO. Moreover, ERAMET Norway, which contributes €66,000 to this association, regularly calls upon its consultancy services. The American site GCMC Freeport (Texas, USA) provides financial support of approximately €115,000 to a Texas Gulf bird protection association which recovers exotic birds in difficulty or threatened and helps them regain their health. In New Caledonia, the SLN is on the Management Committee of the New Caledonian Northern Lagoon, a UNESCO World Heritage Site.

Sponsorships in the major projects

The Group's major entities have more considerable financial resources than sites and they contribute to the development of their community at a much higher scale.

The WBN mining project works with the Health Institutes in the two districts of Halmahera Island concerned by the project and the Northern Maluku Province. The support involves training doctors and paramedics, financing the two itinerant doctors in the two districts concerned by the project and it amounts to €140,000. In another field, WBN works in partnership with the Bina Swadaya Association and other NGOs to encourage local economic development (€188,000 funding). Finally, in 2012, WBN contributed €300,000 to education *via* partnerships with the University of Le Havre in France, the Indonesian Universities of Khairun and Gadjaja Mada and various training centres.

In Gabon, Comilog devoted €1.7 million to local and community development in Gabon *via* numerous partnerships and sponsorships in a wide variety of sectors. In 2012, €1.5 million were devoted to sports sponsorships, €150,000 to health (combating HIV *via* the Gamma ERAMET programme or supporting NGOs for example) and €50,000 went into cultural projects (music and producing Gabonese films).

In Oceania, the Société Le Nickel (SLN) has been encouraging and supporting initiatives in New Caledonia since 1992. This sponsorship scheme—called Nickels for Initiative—has distributed more than €752,000 over the past 20 years to all sorts of original projects: sports, the environment, solidarity, arts and national heritage projects, etc.

Foundations

The ERAMET group now supports two foundations. One was created in 2010 as part of the WBN project, and one was created in 2012 by ERAMET's subsidiary Aubert & Duval and is dedicated to the French sites of this subsidiary.

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 is active in the following fields: education, local economic action, health, environmental and cultural initiatives, and local infrastructure support.

The Aubert & Duval Foundation, set up in 2012 by ERAMET's subsidiary Aubert & Duval, aims to develop initiatives that contribute to the vitality of the French regions in which AD sites operate and to support local micro-economic projects and associations. The Foundation's objectives are twofold: 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.).

5.5.2.3. Extractive Industries Transparency Initiative (EITI)

ERAMET has been a supporter of the international EITI initiative (Extractive Industries Transparency Initiative) since 2011 which

first involves governments but which companies can join. To ensure transparency and combat all forms of corruption, the Group takes part in national interest groups in Gabon, Indonesia (mining countries which host Group sites) and France. In Gabon, ERAMET's subsidiary Comilog presents its accounts to an independent auditor in charge of comparing the State accounts with the accounts of extractive companies in its country. In Indonesia where the report models used for auditing accounts are being drawn up, a member of the Weda Bay Nickel Supervisory Board works in close collaboration with the committee setting up the Indonesian EITI Secretariat. Moreover, ERAMET follows the EITI's activities in Norway, a country that adheres to this initiative, where the Group has industrial sites but not mining sites. ERAMET publicly supports the EITI and welcomed the decision taken by Senegal, a mining country where the Group has a large-scale project, to adhere to this initiative.

5.5.3. Subcontracting and suppliers

The ERAMET group gives priority to suppliers that offer products and services that are environmentally friendly and socially responsible while remaining very competitive. In particular, it ensures that its suppliers comply with the demands of REACH regulations.

Moreover, as stated in its Code of Ethics, the Group bans the use of any kind of forced or child labour, whether directly or *via* its suppliers or partners.

The ERAMET group wishes to promote good business practices and therefore takes part in various initiatives (SME pact, Innovative SME, Mediation Charter) aimed at improving the visibility of commitments among suppliers.

The Group Purchasing Department, in coordination with the operational entities and the Sustainable Development Department, is studying a plan to formalise a Responsible Purchasing process and its conditions of implementation.

5.6. MAJOR PROJECTS

ERAMET is driving major projects which are currently at different stages of maturity:

- the Weda Bay Nickel project in Indonesia;
- the Moanda metallurgy complex (C2M) and the Maboumine project in Gabon;
- the Grande Côte project in Senegal;
- the Lithium project in Argentina;
- the sea bed exploration project off the coast of Wallis-et-Futuna;
- the electricity plant project in New Caledonia.

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. 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.

5.6.1. A Greenfield project in Indonesia

In 2006, ERAMET acquired the Indonesian Weda Bay Nickel (WBN) deposit which represents one of the most attractive non-exploited deposits of nickel. The WBN project is an industrial and mining project of strategic and transformative interest for the ERAMET group.

The project is at the banking feasibility stage. It includes mining operations and the recovery of ores *via* hydrometallurgical processing. The hydrometallurgical process is specially adapted to ERAMET's nickel ores and has been patented. It allows the optimal use of the geological profile, the recovery of limonites and saprolites, a limited consumption of energy (the process is almost self-sufficient) and environmentally-friendly techniques (controlled waste and effluent). This process is proposed as the Best Available Technique in the European reference documents (BREF Non Ferrous Metal) which is in the final stage of validation.

WBN currently employs over 500 people, working in Jakarta, Manado and on Halmahera Island in Indonesia, and in Kuala Lumpur in Malaysia. Exploration activities, social and environmental studies and pre-construction work are being carried out on the site in Halmahera Island where the deposit is located.

5.6.1.1. The commitments

The project is developed in accordance with the ten Equator Principles, the International Financial Corporation's Performance Standards, the best international mining and industrial practices and Group policy. The whole project is conducted in compliance with Indonesian regulations.

Therefore, WBN and ERAMET strive to:

- assess social and environmental impacts in order to ensure effective management;
- develop and maintain a continuous dialogue with stakeholders;
- promote safe and healthy working conditions;
- prevent and reduce the risk of pollution;
- ensure the protection of the community and the respect for the dignity and culture of indigenous peoples;
- avoid forced displacements and limit the impacts related to land use on those people concerned;
- ensure the safety and security of people and the project;
- protect and conserve biodiversity by favouring the sustainable management of natural resources.

The project has been insured by the World Bank's Multilateral Investment Guarantee Agency (MIGA) since 2010. This guarantee was granted following impact studies and in-depth audits which confirmed that the project complied with World Bank standards. Every quarter, WBN sends a report to the MIGA on the Environment, Health, Safety, and Public Affairs/Dialogue with stakeholders and Human Resources and MIGA representatives come to the site once a year to carry out an audit.

5.6.1.2. Implementation and initiatives

WBN has completed the characterisation studies, assessed the potential impact and risks associated with the project, and decided on the avoidance, reduction and compensation measures to take in accordance with the mitigation sequence.

The characterisation studies improved our knowledge of the island's biodiversity and ecology in terms of habitats, flora and fauna. Moreover, they confirmed its richness and WBN has undertaken to develop a biodiversity offset programme to complement the mitigation and control measures. This "tailor-made" compensation programme will offset the residual impacts so as to maintain an equivalent state and avoid a net loss of biodiversity, and will even achieve a net gain. It was within this

framework that ERAMET joined the Business and Biodiversity Offsets Programme (BBOP), a recognised international think-tank which developed a robust, scientific method which has already been tried and tested on several pilot projects around the world. More than eighty companies, financial institutions, governments and non-governmental organisations adhere to the BBOP.

WBN has also developed more than twenty management plans which it has transposed into operational procedures that are already implemented in the field. All of this strengthens the environmental and social management system being developed.

To ensure continuous progress, the teams in charge of environmental, social and societal aspects continue to carry out studies on physical, ecological and human environments. They also help the technical teams with the detail engineering and in the transposition of sustainable development requirements in Registration Documents which will allow the invitation for tenders to be launched for construction firms and suppliers.

In line with its commitments, WBN actively keeps up relations with local communities and its other stakeholders and continues to:

- receive inhabitants from local communities, politicians, students, etc. in the project's information centre every week;
- implement the local development programmes (initiated in 2008). Priorities regarding education, health, agriculture, fishing and light infrastructures are established with local populations and stakeholders;
- organise public meetings in each village twice a year;
- coordinate a complaints management system, formalising their receipt and resolution;
- reinforce its ties and partnerships with universities, institutions and non-governmental organisations (NGOs) and work together in social, societal and environmental fields.

5.6.2. Metallurgical complex in Gabon under construction

Comilog is expanding its activity in Gabon. A metallurgical complex is being built near the existing mining facilities in Moanda. This complex will use pyrometallurgical and hydrometallurgical methods to process resources other than the ore resources currently sold or intended for the sintering plant, to produce silicomanganese and metallic manganese respectively. This complex is in line with the country's policy of economic expansion and value creation.

The study on environmental impact, the study on transport and the study on hazards were carried out in accordance with applicable Gabonese legislation. They also took into account European regulations and Best Available Technologies (BAT) in ad hoc reference documents, for all project phases, from the construction to the discontinuation of activities and integrating the post-operations rehabilitation process. The Gabonese authorities approved the project at the end of 2011.

At the moment, the project is under construction. The industrial equipment is being received and set up.

Technical decisions were made in coordination with technical, environmental and financial teams, taking into account the best techniques developed in the Group and the Best Available Techniques described in the European reference documents. For example:

- sulphur dioxide discharges comply with the BAT;
- the recycling of process water;
- residue from the hydrometallurgical process is filtered and stored in tips or pits;
- rainwater collection pools are adapted to the equatorial rains of Gabon.

5.6.3. Recovering niobium, rare earths and tantalum in Gabon

The company Maboumine, a subsidiary of Comilog, holds a mining exploration licence for the Mabounié poly-metallic 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.), tantalum (used in electronic components) and uranium.

ERAMET's research centre is trying to develop an innovative hydro-metallurgical process to recover these resources, in cooperation with about twelve other international research laboratories. The whole process is continuously simulated on laboratory installations built for this purpose in Bessines, near Limoges and Trappes in the Paris region.

In December 2012, a new drilling operation began, following on from that of 2008.

A regulatory study was launched in 2011 to identify the context of environmental, social, societal and sanitary limits. The environmental and societal characterisation study was launched in 2012 with inventories of flora and fauna, the installation of monitoring equipment, the first studies on the physical environmental, and an inventory of existing social data. The first results should be ready in the second quarter of 2013. These studies will support assessments on the impact of the exploratory mining facility and the pilot plant.

The project is developed in accordance with Gabonese regulations, the ten Equator Principles, the International Financial Corporation's Performance Standards, the best international practices and Group policy, with support from a network of recognised national and international experts. The Maboumine Sustainable Development strategy was presented to Gabonese authorities which gave it their wholehearted support.

5.6.4. A joint-venture in Senegal to recover poly-metallic sands

Grande Côte is one of the two entities of TiZir Limited, a joint-venture in which ERAMET and the Australian company Mineral Deposits Limited (MDL) each hold a fifty percent share. This joint venture holds a 90% share in the Grande Côte entity and the Republic of Senegal holds a 10% share. This is one of the largest projects being developed in the industry of mineral sands.

Grande Côte marks the arrival of ERAMET in Senegal and also its sectoral diversification, as mineral sand (titanium, zircon, etc.) applications open new markets for the Group. The project is at the construction stage and production is expected to start at the end of 2013. The Grande Côte operating period is estimated to be twenty years, based on an annual production of about 85 kt of zircon and 575 kt of ilmenite.

In view of the TiZir Limited joint-venture, ERAMET assessed the environmental, social, societal and sanitary aspects of the Grande Côte project to ensure a responsible and sustainable start of production at the site, in accordance with the Group's environmental and social standards.

An environmental and social management plan has been developed for the project. It specifies the preventive and corrective measures required to minimise and reduce any environmental and social impact that could result from these activities.

In terms of environmental protection, this programme includes measures to manage water, waste, noise, biodiversity and the storage of the material. 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. The specific operating method used at this mine, which involves moving the plant along the deposit gradually, allows the reconstruction of a similar dune after operations, and will therefore limit the long-term impact on the landscape. Moreover, samples of earth and seeds from the dunes have been taken and studied on the site so as to initiate studies on the best re-vegetation methods to adopt once operations begin.

In 2012, in anticipation of the operational phase of the project, the workforce dealing with social and environmental responsibility was reinforced, with the arrival of a new environment manager and a social responsibility manager.

5.6.5. Mining exploration in Argentina

Lithium is one of the special metals with a high growth potential. ERAMET has put together a team of geologists, engineers and researchers to study not only the potential of deposits in Argentina and the lithium salts' production process but also the recyclability of lithium batteries.

Its Argentinean subsidiary is studying different lithium-rich salt lakes in the North of the country, with a view to confirming the economic potential of a deposit. Up until 2011, ERAMET worked in association with the Bolloré Group to explore the Western side of the Salinas Grandes salt lake, situated in the Salta Province. Since the termination of this project in 2011, due to insufficient lithium resources, the Group has been focussing on another region: the Centenario salt lake. A lithium deposit was identified in 2012 and the current exploration programme is aimed at assessing its economic potential.

The exploration activities, such as the drilling, pumping tests, hydrodynamic modelling, and the installation of pilot units to concentrate lithium are conducted in accordance with a sustainable development policy in compliance with local regulations and international standards. The Group's Environment Department accompanies all the activities.

At the same time, ERAMET Research and ERAMET Ingénierie are developing an extraction process and a process to develop the lithium salts used in rechargeable batteries, particularly in hybrid and electric vehicles. The lithium sector also encompasses the downstream development of very high-purity lithium compounds. ERAMET Research has developed a process to produce lithium from the lithium-bearing brine present under the salt-lakes of the Andean Plateau. A new evaporation pilot facility in the Argentinean Cordillera and a pilot carbonatation process set up at the research centre in Trappes (France) contribute to assess and optimise the efficiency of this process. Moreover, ERAMET Research is examining and assessing alternative ways to produce lithium from brine, so that we can take the technical, commercial, industrial, environmental and financial aspects into account and thus make an informed decision when choosing from the various options for future development. Our goal is to produce lithium salts which are pure enough to be used by manufacturers of cathodes and electrolytes.

5.6.6. Sea bed exploration operations

ERAMET invests in research projects for which the scientific benefits surpass its own activities. Since 2010, the Group has taken part in seabed and volcano exploration operations off the coast of the Wallis and Futuna Islands, in the Pacific Ocean. Conducted by Ifremer, these operations result from a partnership between the French Ministry of Ecology, Sustainable Development, Transport and Housing, public institutions (BRGM, *Agence des aires marines protégées*), and also industrial companies interested in deep-water mining projects (AREVA, ERAMET, Technip).

The results of these scientific explorations, partially financed by ERAMET, will greatly contribute to the knowledge of the seabed in this area (topography, geology, volcanology, biology, biodiversity) because a great deal of analysis was carried out on the samples taken (fluids, rocks, living organisms). Moreover, the discoveries are promising from an economic point of view: several hydrothermal sites that may represent a potential mineral resource have been identified and are the subject of an in-depth study.

5.6.7. 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 which is expected to be replaced in the coming years.

5.7. RESPONSIBILITY FOR CHEMICALS

The ERAMET group stands out, at its different sites, because it plays a dual role: on the one hand, it uses chemical substances and mixtures, and on the other hand, it produces them. The mixtures concerned are mostly iron-alloys or steel and alloy grades which, in certain forms (especially powders), are considered as special mixtures by REACH. It is the metal constituents which are taken into account when assessing the dangerous nature and risks sometimes associated with them.

With the ever-changing regulations, the new REACH requirements on registration, assessment and authorisation of chemical substances have to be integrated. The gradual implementation of the CLP regulation on the classification, labelling and packaging of substances and mixtures also has to be managed.

This fuel-powered plant will be replaced by a coal-powered plant that uses the best available technologies described in the corresponding reference document (BREF Large Combustion Plants); a long technical, economic and environmental assessment of the possible alternatives in the region was carried out before choosing the type of fuel. This project is to be environmentally and socially exemplary. Studies to assess the potential impact of the new power plant are conducted in accordance with the Equator Principles and the International Financial Corporation's Performance Standards; they will de facto meet New Caledonia's regulatory requirements.

5.6.8 Cooperation with the Southern Province and Vale for the concessions of Prony and Creek Pernod

On 6 November 2012, Société Le Nickel-SLN signed with the Southern Province and Vale New Caledonia a declaration of intent whereby it consents to engaging in discussions for the signature of a joint collaboration programme aiming as a first stage at exploring the deposits and in a second stage, at the possible development of those deposits. Under this declaration of intent, upon the conclusion of the joint collaboration programme, Société Le Nickel-SLN and Vale will renounce the administrative proceedings undertaken concerning research permits for these deposits, issued by the Southern Province in January 2009 and annulled by ruling of the New Caledonia Administrative Court on 17 November 2009.

Although the Group is not strongly associated with chemicals, *via* its mining and metallurgical activities, ERAMET is nevertheless involved in all the areas of chemicals management and therefore, it has adopted a certain organisation at corporate level and in its three Divisions. Each Division has a dedicated structure which allows it to properly manage compliance with REACH regulations. Within this context, 2012 saw an extension of tasks to ensure the integration of all the related regulations. For example, work continued monitoring ten consortia and relevant professional organisations, with the Group and the three Divisions playing a proactive role.

In 2012, there was also a great deal of activity which led all the Group's legal entities to comply with changes and with new stipulations on classification, labelling, marketing and the drafting of revised safety data sheets, and also to examine the operational consequences of the content of chemical safety assessment dossiers on the sites concerned. With regards product stewardship and related risks, ERAMET clearly adopts a voluntary, sustainable and responsible approach.

5.7.1. At Group level

During the year, many of the Group's teams were involved in different tasks related to the various aspects of chemicals management. This multidisciplinary network took part in ensuring that the impact of the application of various regulations was taken into account properly. The network was comprised of buyers, sales people, plant representatives, R&D, logisticians, lawyers, IT experts, etc. In each Division, a specific steering committee continued its work and took the necessary decisions to ensure its completion.

REACH regulations and any other regulations related to them in any way are carefully monitored. This includes adaptations to technical progress, new developments, certain regulatory decisions, and classification changes that could affect the Group's activities. Special attention is paid to substances of very high concern and to the process that may result from their inclusion in the candidate list.

Indeed, REACH organises 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 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 in 2012. The Group monitored this work carefully and actively contributed to discussions between producers and within the professional organisations concerned.

In 2012, the preventive and protective measures taken in previous years were pursued in order to consolidate the medium and long-term management of chemicals and also to carry out a large proportion of the registrations required by REACH regulations in advance, before the deadline of 1 June 2013.

A lot of progress was also made in harmonising the management of Safety Data Sheets. The Group acquired a software programme to draw up the data sheets used by the three Divisions and improved the overall management by developing a procedure covering the application, drafting and validation stages for the safety data sheets required for dangerous products and for the risk information sheets for non-dangerous products. These safety data sheets will continue to be developed in 2013 when the exposure scenarios will be updated. In this respect, a working group made up of specialists from the three Divisions endeavoured to simplify the exposure scenarios so as to provide a single model for the Group which would be clearer and more comprehensible for final recipients but which would still contain all the key information. Finalised in December 2012, this model will be implemented in 2013 and will integrate the extended safety data sheets.

Lastly, particular attention was paid to international regulations concerning metals that are specific to the Group and to their salts and oxides. Indeed, it is important to properly monitor the changes that may appear in a region or a country and to consider the action that would ensure homogeneity with regards the approach to products, the danger status and the resulting industrial constraints.

In 2012, the other key events for each of the three Divisions were as follows:

5.7.1.1. The Manganese Division

In close collaboration with the Manganese consortium, Erachem Comilog, acting as the exclusive representative of Erachem Comilog Inc, a subsidiary of the Group based in the United States, registered manganese chloride ($MnCl_2$), manganese nitrate ($Mn(NO_3)_2$) and manganese dioxide (MnO_2). Erachem Comilog SPRL also filed a dossier for manganese dioxide (MnO_2) and is preparing the ammonium sulphate dossier ($(NH_4)_2SO_4$). As for Valdi, it registered zinc oxide (Waelz oxide).

The Division started re-writing the safety data sheets (SDS) for all its dangerous products. However, this revision was extended to include non-dangerous products and products that are not subject to REACH (waste, etc.) and for which an SDS is not compulsory. Indeed, the Group has decided to draw up an information sheet on risk management measures (RMIS for Risk Management Information Sheet).

The examination and development of exposure scenarios that are to be appended to the SDS will continue in 2013. They will include all the uses of a specific substance.

5.7.1.2. The Nickel Division

2012 marked a turning point in the Cobalt and Nickel REACH process. In 2011, the ECHA recommended the commission to include five cobalt salts in Annex XIV of REACH regulations to start an authorisation process. In 2012, the Commission decided to temporarily suspend this proposal and to adopt a strategy of restricted use, with a view to determining the most pertinent path to follow. Some nickel compounds may also be concerned by these discussions on the most appropriate risk management measure. In 2012, ERAMET played an active role in the Nickel Institute, drafting the socio-economic studies aimed at identifying and analysing these Risk Management Options (RMO) for nickel and its compounds. As well as the work within the Nickel Institute, at the end of 2012, France volunteered to carry out this work within the framework of the ECHA studies. It should also be noted that the Nickel Institute updated the analysis of the life cycle of nickel, from the mining stage to the final products (to be finalised in February 2013). ERAMET played an active role in collecting the data for this study, which should be very useful in demonstrating the long-term advantage of producing and using nickel.

Lastly, ERAMET helped to centralise data from the industry and the Cobalt Reach Consortium in response to a consultation by ANSES (French Agency for Food, Environmental and Occupational Health & Safety) which is determining an OEL (Occupational Exposure Limit) for cobalt in France.

5.7.1.3. The Alloys Division

In 2012, the Alloys Division registered five substances in advance of the 2013 deadline. At the same time, exposure scenarios for two of these dangerous substances, vanadium pentoxide and cobalt cathode, were developed and translated so they could be appended to the Safety Data Sheets as required by REACH regulations.

In order to adapt to its product offering, the Alloys Division published or updated over one hundred Safety Data Sheets in several EU languages for the steel and alloy grades it markets in powder form. In addition to this publication, the Division implemented an internal procedure on the management of these SDS, integrating the production and distribution to customers.

To ensure that products supplied to entities within the Alloys Division comply with REACH regulations, a quality control procedure called "Integrating REACH into the purchasing process" was also drawn up and distributed to the sites.

Lastly, in 2012, trichloroethylene, a substance used by one site in the Division, was chosen by the European Commission to be included in Annex XIV of REACH and will therefore be prohibited within three years. A project group dedicated to finding a replacement solution was set up and at the same time it was charged with applying for an authorisation. This is a complex procedure and the industry does not yet have enough hindsight.

5.7.2. Strong involvement in professional bodies

ERAMET is highly involved and holds several key positions in professional bodies operating in its sphere, including:

- the General Manager of the Alloys Division, member of the Board of the *Fédération Française de l'Acier* (FFA);
- the DC2D Director, Chairwoman of the *Fédération des Minerais, Minéraux Industriels et Métaux non Ferreux* (FEDEM), member of the Economic, Social and Environmental Council (CESE) for the MEDEF and member of the Environment Section;
- the General Manager of Aubert & Duval, member of the Board of the European Powder Metallurgy Association (EPMA);
- Environment Director, Chairwoman of FEDEM's Health, Safety and Environment committee (HSE), member of the Eurométaux HSE policy committee;
- Sales Director of the Nickel Division, member of the Steering Committee and the general assembly of REACH Nickel Consortia;
- ERAMET's Environment Department takes part in the scientific working groups of the Nickel Institute and the International Manganese Institute, including the groups working on the changing Exposure Limit Values, on the updating of the Best Available Techniques for non-ferrous metals in Europe, on the development of environmental quality standards in Europe, and on the assessment of ore classifications;
- the Group's Environment Department chairs the technical groups of the Ni and Mn consortia.

5.7.3. ERAMET and the international scientific community

ERAMET is particularly active in the scientific field involving studies assessing the toxicity of nickel compounds. ERAMET continues its involvement in the work on the “sediment” compartment in the last part of the European Risk Assessment dossier on Ni compounds.

In September 2011, the SCOEL (European committee to assess the workplace atmosphere) suggested that European occupational exposure limits be set at 0.01 mg of Ni/Nm³ (respirable dust containing compounds of Ni except Ni metal). ERAMET played an active role in the work initiated by the Nickel Institute on this proposition. The Group continued its involvement *via* the work carried out by a tripartite advisory committee made up of authorities, employee representatives and industrial operators (Advisory Committee on Safety and Health at Work). An assessment of the social, economic and technical impact that it would produce is in its final stage.

Through its dynamic participation in the activities of Eurométaux, ERAMET contributed to the preparation of new methodologies for the assessment of the impact of metals on the environment and on health (HERAG and MERAG). The Group continued its activity in the framework of the European project to identify and finalise methodologies to assess the impact of alloys on health with a view to harmonised European classification scheduled for 2015.

ERAMET also plays a key role with regard to manganese and actively contributes to the development of scientific knowledge. The Group helped draft a five-year plan for the International Manganese Institute to better integrate the notion of sustainability into the manganese industry. For this purpose, in 2012, the Group took part in the first studies involving a socio-economic analysis applied to manganese and studies on the life cycle of ferromanganese and silicomanganese.

5.7.4. Regulatory changes

Finally, ERAMET pays close attention to regulatory changes related to chemicals which could affect its present and future activities. The Group actively worked on some of the recent changes, including:

- In 2012, completion of the revision of the European Seveso II directive. This work required particular attention because recent changes to the classification of substances and mixtures has an impact on the regulations that apply to the facilities on some sites when the quantities of hazardous substances and mixtures stored exceed certain threshold quantities.
- The transposition of the European IED (Industrial Emission Directive) which will replace the IPPC directive, and the revision being made to the European reference document on Best Available Technology (BAT) in the non-ferrous metals industry.
- The revision of the Framework Directive on water and in particular the definition of environmental quality standards for top-priority substances including certain metals like Ni and Cu. Documents dealing with ferronickel, ferromanganese and silicomanganese require special attention. The plan to index nickel hydrometallurgical processes was also carefully followed.
- Changes to regulations on chemicals and particularly adaptations of the GHS (Global Harmonized System) and its European version, the EC 1272/2008 called the CLP, regarding the classification, labelling and packaging of hazardous substances. Special attention is paid to adaptations to technical progress which are regularly introduced.

5.8. HEALTH AND SAFETY

5.8.1. Safety

5.8.1.1. Frequency rate trends

The frequency rate is defined as the number of lost-time accidents per million hours worked.

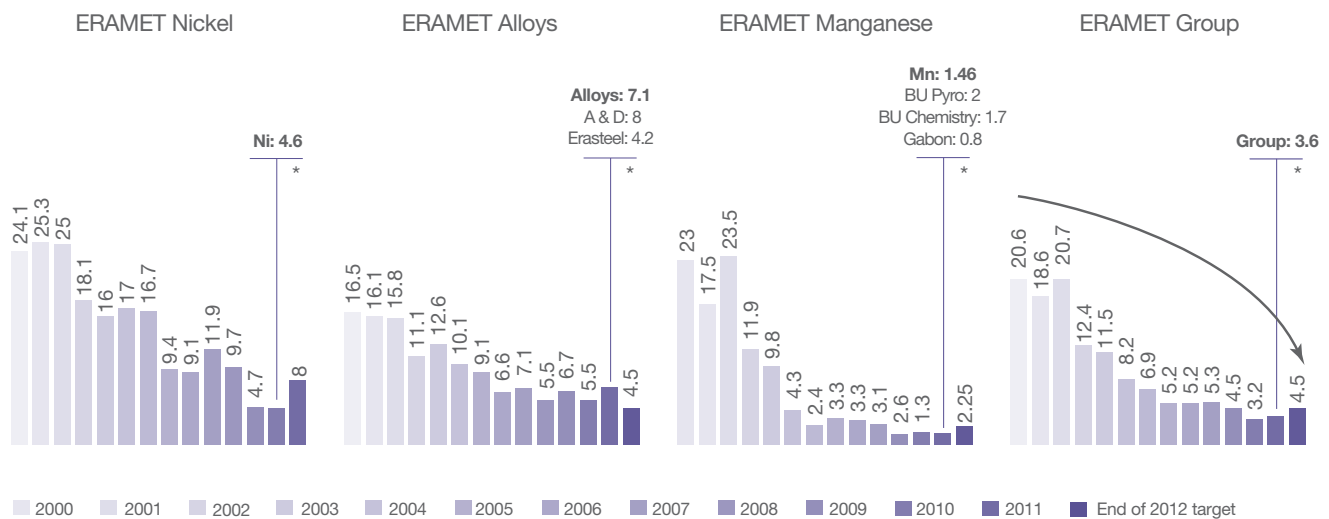
The chart below shows the Lost Time Injury (LTI) frequency rate (TF1) for the past thirteen years at a virtually constant scope (excluding Chinese metallurgical plants before 2003 and including successively Setrag in 2007 and Weda Bay in 2008).

A steady improvement in the frequency rate since 1999 (with the exception of 2002) can be seen, with the Group rate falling by a

factor of over four and a half in eight years, then this frequency rate levelled off and remained almost constant for three consecutive years, at around 5.2.

The improvement noted between 1999 and 2008 is mainly due to initiatives in the Manganese Division (which accounts for half the hours worked in the Group), to a lesser extent the Alloys Division and, lastly, for 2007 and 2008, to the Nickel Division and more specifically the Société Le Nickel (SLN) in 2007 (the Weda Bay site was included in the Group's scope of consolidation in 2008).

The improvements achieved by the Manganese and Alloys Divisions were wiped out in 2009 due to the considerable deterioration in the accident rate at the Nickel Division and more specifically at the SLN.



* Elements reviewed by Deloitte—moderate assurance.

2010 and 2011 saw a significant improvement in the Group's frequency rate which broke away from the previously mentioned plateau (minus 0.7 then 1.3 point for each of the two years) and reached 3.2. This result corresponds respectively to 21 then 30 fewer employees suffering occupational injuries (82 in 2011 compared with 112 in 2010 and 133 in 2009).

This improved frequency rate is the result of:

- a very good overall improvement at the Manganese Division which first of all halved its accident rate (down from 2.6 to 1.3) before a slight rise in 2011 (up from 1.3 to 1.6);
- a positive break in the Nickel Division's trend (the accident rate fell by a factor of 1.2 then by a factor of over 2 in 2010 and 2011 respectively).

Unfortunately, this improvement was offset by the results of two unstable years at the Alloys Division which saw its accident frequency rate go up to 6.7 at the end of 2010 (compared with 5.5 at the end of 2009) and then improve in 2011 (going from 6.7 back to 5.5).

In 2012, the Group's accident frequency rate deteriorated slightly and went up to 3.6 at the end of December. This deterioration was the result of a sharp increase in the accident rate in the Alloys Division (and more specifically at Aubert & Duval where the frequency rate increased by a factor of almost 1.5), and despite the fact that the Nickel Division maintained the good results it achieved in 2011 and the Manganese Division improved its frequency rate by 10%.

After a bad year in 2008 marked by five fatal accidents and 2009 in which there was only one fatal accident, none of the Group's employees were victims of fatal accidents in 2010, 2011 or 2012.

However, in February 2011, a subcontractor's employee died on the construction site of the New Guilin plant in China and two employees working for the company AFE (a maintenance subcontractor) died in a furnace explosion in June 2011 at Valdi in Feurs.

We have developed and implemented two other indicators to allow us to better monitor and analyse the overall accident rate at sites:

- The accident severity rate ASR (which has been monitored for a very long time)—for a given entity, the ASR refers to the number of days off work due to lost-time accidents (not including the day on which the accident occurred) per one thousand hours worked. In the past few years, there was a downward trend in this severity rate (0.55 in 2010, 0.34 in 2011) but in 2012 it went up at Group level (0.377)*.

* Elements reviewed by Deloitte—moderate assurance.

- The number of serious accidents: It is important to monitor this indicator because when a serious accident occurs, a specific plan of action is required to prevent it from occurring again on that particular site or on other sites with similar environments.
- Frequency rate 3 which represents all the events likely to cause some kind of human injury (lost-time-injury, no-lost-time-injury and health-care slip) in relation to one million hours worked. Unfortunately, not all the Group's sites have the same system for recording these events, and analyses of changes and comparisons between sites and/or Divisions are not really very meaningful, despite the attempts to harmonise the systems in 2012.

5.8.1.2. Safety audits

A site assessment policy is carried out through systematic audits at the average rate of one audit every two years for every site worldwide. The audits are carried out by the safety coordinators on sites overseen by the Health and Safety Manager based on a customised framework for the Group. This framework was drawn up several years ago in cooperation with DNV and is based both on the International Safety Rating System and on the Group Health and Safety policy signed by the Chairman.

Introduction of V3 safety audit framework

As from 2009, the ERAMET group carried out all H&S and/or Health Safety and Environment (HSE) audits with the Health Safety and Environment V3 framework (which is modular and which, compared to V2, introduces new requirements, including those of the international framework OHSAS 18001-2008 and the international standard ISO 14001-2004).

In light of the significant changes to the framework, it is no longer possible to correlate the results of the audit for a site with those obtained during the previous audit. However, each closing meeting states the points that have improved and those that have not changed compared to the previous results.

In order to optimise the added-value for the sites, in 2009, the ERAMET group supplemented these audits with additional initiatives providing support, sharing best practices, training, use of Gap Analysis, etc.

The results of these audits partly serve as the basis for the Group's action plan and then (and above all) the sites' action plan for the following two years.

Health and Safety audits in 2012

In 2012, following specific requests from sites, the teams of auditors (always made up of the Group Health & Safety Manager and senior auditors such as the medical officer or the Safety and/or Environment Coordinators) carried out Health & Safety or Health, Safety and the Environment audits at 14 sites:

- Health, Safety and Environment audits at 5 sites (A&D Issoire, Interforge Issoire, A&D Les Ancizes, Erachem Tertre and ERAMET Sandouville);
- Health and Safety audits at 5 sites (Erasteel Klöster in Sweden, the Tiébaghi mining facility at the SLN in New Caledonia, Comilog's Port Minéralier d'Owendo in Gabon, Comilog's mine and CIM in Moanda, Gabon and A&D Pamiers);
- Health & Safety audits + Environmental elements at four "small sites", for the first time (for three of the sites). The small team of auditors added questions concerning the Environment to the Health and Safety audit in order to provide our colleagues at the Environment Department with a first view of the site so they could decide if it was worth carrying out a full Environment audit (Metallied in IRUN, CMM in Landévant, Wuxi in China and Forges de Monplaisir in Saint-Priest).

Following these audits and before leaving the site, the audit team and Management draw up the guiding principles of the Action Plan to deal with any significant anomalies observed, highlighting, if appropriate, any of the other sites' Best Practices that the site could adopt.

Lastly, always at the request of the sites concerned, we carried out two "follow-up audits" one year after the Health & Safety audit at the sites of ADES Acciai in Italy and Valdi Le Palais-sur-Vienne.

5.8.1.3. HSE seminar (Health, Safety and the Environment)

The theme of the 2011 international Health Safety & the Environment seminar, held from 4 to 6 October 2011, was: "The sites, the Divisions and the ERAMET group face-to-face with their responsibilities regarding chemicals".

Before this seminar, organised by the Nickel Division, there was a visit to the Sandouville site which is classified as a Seveso high-threshold site. About one hundred people attended the seminar, with nearly all the sites and projects represented. Introduced by the Group's Director of Human Resources, the Group's Director of Communications and Sustainable Development then by the Group's Director of Health and Safety and the Group's Director of the Environment, this seminar reminded everyone of the mission carried out by the Health, Safety and the Environment

and Sustainable Development teams in the Group and subsidiaries: *i.e.* ensure that the products and their hazards are properly managed, controlled, understood and anticipated to contribute to the development of the Group and the future of the metals it uses.

Indeed, the risks inherent in the products used and sold may impact the life of the sites, health and the environment, commercial relations with customers, contracts with suppliers, supplies, in short, the whole of the value chain and the Group's reputation. Together with the REACH process, it is essential that these risks are controlled, for the sites, for the employees and for all the stakeholders that could be affected by them. Therefore, a policy on how to prevent these risks needs to be developed, and the HSE seminar enabled to discuss the issues and define the actions to take.

The seminar was punctuated by several important events with one main guiding theme: allowing the sites to speak for themselves, *via* feedback, concrete examples and first-hand accounts on the different themes—health, the environment, industrial hazards, safety, stakeholders. Small groups took part in workshops to discuss the actions to implement based on two main points: the criticality and the interest of taking the action. The conclusions reported back from the workshops helped establish an outline for the road map on “product stewardship”.

A new element was introduced into the seminar this year in the form of an HSE Challenge. This challenge involved giving a presentation of sites, the criteria being the interest of the subject and the quality of the exposé. The presentations were limited to 5 minutes and subjected to two votes, by the public and by a jury of experts on each theme (health, safety, the environment), the aim being to give feedback on the sites and to present the subjects in a lively way. This interactivity was a great success. At the end of the seminar, six sites received awards.

Well-known guests then attended round tables aimed at sharing the views, strategies and feedback of specialists in the sector. It was an opportunity for experts from customers' and partners' companies, from public bodies, and from consulting firms to discuss subjects facing the Group's HSE specialists.

The seminar offered a great variety of first-hand accounts, feedback and interactivity and enabled the Group's HSE teams to exchange ideas and share their Best Practices and also their difficulties, while drawing up the framework for the action plan to implement in 2012 in terms of product stewardship and related risks and thus ensure a sustainable and responsible approach to this theme.

In 2012, this seminar was held from 13 to 15 November. It took a very similar form and the theme was “Risk Control within ERAMET”.

About one hundred people attended the seminar including many Health & Safety coordinators (HS&S) Environment coordinators (E), and/or HSE from our Group's fifty or so sites spread over the five continents.

Before the 2012 seminar, there was a visit to the Research Centre in Trappes (ERAMET Research) which proved a great success.

5.8.1.4. Special training programmes

In addition to the “prescribed” training programmes (handling fire extinguishers, driving handling equipment, basic life-saving skills, prevention of physical activity-related risks, etc.) in recent years the ERAMET group has developed special training programmes for supervisors and/or operators.

The purpose of these modules is to explain and inform the Company's employees about a certain number of topics such as shared definitions for frequently used terms (accident, incident, danger, risk, etc.), accident occurrence methods (risk tolerance), roles and responsibility (“ordinary” and criminal) of supervisors, the rights and duties of operators, statistics, the increasing incidence of behavioural causes in the occurrence of accidents, management tools (BIRD pyramid, safety minute, audits, etc.), occupational health and safety management systems, Prevention Plans for external companies, the employer account, etc.

In 2010, in response to increased demand from sites, the ERAMET group continued providing the scheduled training modules (Les Ancizes and Imphy) and also introduced a trainer training course which will multiply the number of modules provided within the sites. Thus, a H&S training module for managers, which can be customised for each Division, was formalised and made available to the Divisions. Moreover, three teams of instructors (New Caledonia, France and Gabon) were put together and trained in the teaching methods needed to provide the above-mentioned modules. Instructors are carefully accompanied and shadowed during their first lessons.

In 2011, the team of instructors at the SLN gave the two-day H&S training course to all the members of the supervisory staff in the Company, *i.e.* about 600 managers, which proved a great success. Moreover, we continued the trainer training course by creating an operational team of Health & Safety or Health, Safety and Environment instructors who were trained in Baltimore, USA, in October 2011.

Lastly, after training the supervisory staff at the two Valdi sites, at the request of the DHR at Erasteel, we trained all the members of the supervisory staff at the Erasteel sites in France (Commentry, Champagnole &TMM), Sweden, USA (grouped together in Baltimore) and China (Tianjin).

In 2012, we expanded our range of training courses, in coordination with IMAGE (ERAMET's Management Institute) offering:

- a training module for operators was developed at the request of the SLN. In April, instructors were trained in New Caledonia and, based on the same training method as that used for supervisory staff, these instructors started to deploy the module to all the operators at SLN;
- a module for Top Managers (Directors of sites or of entities of the same nature) was given twice, in July and in November, at the specific request of Managers who were taking on operational positions, and who wanted to be able to describe how to have a “good and safe posture” to their teams.

In a more traditional vein, we also gave a management training module to the new engineers employed by ERAMET Research and we trained the team that will be in charge of operations at the new plants being built in Gabon (C2M).

5.8.1.5. Work station risk analysis

After the two previous stages successfully conducted in 2010 and 2011 which involved asking the sites to draw up a list of all the current work stations on the site, and to analyse and assess the risks that exist on these work stations, firstly concentrating on 33% and then on 66% of the work stations, we continued the analysis process and set the objective at 100% of workstations.

This process is essential as it allows preventive action to be prioritised properly and, in 2012, the objective was achieved.

5.8.1.6. Handling safety campaign

For the first time ever at ERAMET, from 20 June to 1 July 2011, in each of the Group's sites and entities, the focus was placed on safety and more precisely risk-prevention in handling operations.

Indeed, handling-related risks are the most common cause of accidents in our Group, *i.e.* 40% of our lost-time-injuries over the 12-month period preceding the campaign. They may have extremely serious consequences. These risks exist at all our sites and may be related to handling heavy loads *via* overhead travelling cranes, handling *via* vehicles and manual handling.

This awareness-raising campaign lasted two or three weeks, depending on site constraints. It included meetings, safety quarter-hours, and above all activities, some of which were very original, combining several sites, subcontractors and partners.

A steering committee, supported by the Group's Director of Human Resources, Health and Safety, was put together to manage this "project" and the sites were given a set of appropriate PowerPoint presentations, visuals and posters, translated into seven languages, as backup material.

A satisfaction survey (the results of which were shared at the HSE Seminar in October) revealed the strong points and the points that need to be improved to ensure that the 2012 campaign on "working at heights" is even more pertinent.

5.8.1.7. Working at heights safety campaign

For the same purpose and based on the framework of the campaign organised in 2011, we carried out a safety campaign on working at heights from 10 to 21 April 2012 (dates of the official, common campaign but, depending on the sites and working hours, it may have been extended).

As in 2011, a satisfaction survey allowed us to see the strong points and the points that need to be improved (documents should

be made available at sites according to the dates set, and the messages on the posters should be clarified so that everyone can understand them more easily) and also the theme most people want for the 2013 campaign: Consignment.

5.8.2. Health and Safety

The health safety of employees, whatever their status, of personnel from outside companies, of visitors and people living near the industrial sites is a priority for the ERAMET group.

The goal of the Group health policy is to control health risks in order to prevent them or minimise their frequency and seriousness.

The ERAMET group wants to have detailed and in-depth information on all the dangers associated with its activities. It also wants to contribute to the development of knowledge on these subjects, distribute it and promote dialogue with stakeholders.

The Group health policy was adopted in 2007 and the task of coordinating it was entrusted to the Group's medical officer.

In its Sustainable Development policy, adopted in 2010, the ERAMET group confirmed its desire to protect its employees and control the impact of its industrial processes on health and the environment. This Sustainable Development policy sets out the main principles of the Group's health policy.

5.8.2.1. The guiding principles of the health policy

This policy is based on the following guiding principles:

- reducing work-related health risks or the health impact of ERAMET products or industrial activities through the involvement of all concerned and in liaison with occupational health specialists, management and health and safety and working condition committees and/or similar bodies;
- complying with local regulations, applicable rules and health standards drawn up by the Group;
- fostering everybody's responsibility in safeguarding health *via* clear, transparent information on health risks and suitable preventive measures;
- contributing actively to scientific work on risks inherent to products and processes.

5.8.2.2. Priority actions applying the principles of this health policy

These priority actions are as follows:

- making health and working conditions a factor in all decisions on a day-to-day basis and at all management levels in the same way as safety and the environment;

- drafting, distributing and applying the standards, guides and procedures necessary for the health policy, in cooperation with the workforce and their representatives;
- preparing a health action plan for each unit making it possible to respond to risk assessments. Providing the most suitable work equipment to protect health, informing employees and raising their awareness of the risks, and listening to staff representative bodies are all aspects of this approach;
- ensuring a monitoring system for the early detection of health problems that could relate to production processes or products marketed. Measuring exposure levels and providing suitable medical monitoring of risks in line with current scientific data are essential to ensuring the traceability of occupational exposure;
- on-going scientific monitoring and benchmarking of new risks and best practices by means of an active contribution, especially within professional bodies, to the development of scientific knowledge relating to the health impact of the Group's activities and products;
- developing a policy to combat addictive behaviour;
- identifying the worst work stations for lumbago and musculoskeletal disorders *via* an analysis method in order to make the work stations in question more ergonomic.

5.8.2.3. The resources implemented

The Group's health-related initiatives are implemented in line with the Health Policy using the network of Group doctors and health unit managers overseen by the Group Medical Officer, and also with the support of the site safety and/or environment contacts for related technical aspects. These preventionists meet up every year at the HSE seminar. In 2012, the main theme covered was risk control. In 2011, a specific health seminar for the Group's doctors and nurses was devoted to dangerous chemicals and psychosocial risks.

The Group Medical Officer is also responsible for coordinating the network of occupational doctors and health department managers, for putting in place strategies for knowledge/skills sharing between the health units and the safety and/or environment units, for making the main operational managers aware of these initiatives and for providing advice on the use of toxic or hazardous products. He acts as an interface between professional and environmental aspects of health and helps draft the health sections of impact studies.

The Medical Officer is called upon to approve the Group's Product Safety Data Sheets.

The "Projet Zéphyr", a Psychosocial Risk Prevention programme, is implemented by a dedicated sociologist, under the responsibility of the Group Medical Officer.

Health & safety coordinators have been put in place at the Manganese and Alloys Division to facilitate the operational implementation of the Group's action plan.

5.8.2.4. Annual and multi-annual objectives within the framework of the Sustainable Development Policy

As part of the implementation of its Sustainable Development policy, the Group has defined annual and multi-annual objectives that integrate health aspects. These objectives were updated to define the objectives for 2012-2016.

5.8.2.5. Tangible initiatives

The Group's determination to ensure early detection of health problems that may be related to production processes has led to improvements in monitoring employees' exposure to chemical risks, in particular, atmospheric measurement and bio-monitoring. The traceability of exposure in certain establishments is ensured. Efforts to implement these practices at other sites continued in 2012.

An operational adaptation of the exposure scenarios resulting from the REACH studies was developed.

Initiated in 2011, the information campaigns on the new health and environmental recommendations aimed at companies using Nickel and Nickel salts continued in 2012.

Scientific monitoring, benchmarking of new risks and best practices are developed thanks to involvement in professional organisations, national and international conferences and enable occupational health and environmental health to be monitored. All this work enhances the health and safety standards established and shared by the Group.

The benchmark on monitoring the health of workers exposed to manganese, drawn up by the International Manganese Institute (IMnI), was developed within the ERAMET group and it continues to be implemented.

Awareness of risks and dangers

ERAMET continued to contribute to work carried out by professional bodies on the enhancement of knowledge.

The work carried out at the IMnI (International Manganese Institute) is scheduled to last five years and focuses on watching for changes to international regulations and anticipating the changes, developing acceptable occupational exposure threshold values and enhancing our knowledge on health in relation to manganese, especially *via* the new research programme "Neurotoxicity Research Program".

The Nickel Institute and NIPERA continued to enrich our knowledge and assess the toxicology mechanisms of nickel compounds.

Actions at site level

Being aware of its corporate social responsibility, ERAMET is involved in its establishments' health policies and acts as a good corporate citizen:

- The Chinese establishments have dispensaries.
- Through its medical, surgical and maternity units, Comilog's Moanda hospital in Gabon provides healthcare to the Company's employees, to their beneficiaries and to some of the population. Gynaecology and paediatric services are provided. Repair work on existing premises and renovation of the operating theatre continue. The radiology department was renovated and equipped with a new machine. A room to deal with serious emergencies (resuscitation room) was installed and an emergency doctor's position was created in 2012.
- In Owendo (Gabon), Setrag has a dispensary which provides consultations for employees and their beneficiaries thanks to the presence of four medical officers, two of whom are occupational health officers.
- These two establishments have laboratories and provide the medicines needed for treatments. Setrag's care facilities in the stations along the railway line are the subject of agreements with local doctors.
- The GAMMA Plan to combat AIDS, launched in Gabon in 2006, continues.

This programme is aimed at employees of Comilog, Setrag and Sodepal together with their families, and includes initiatives on communication and health education, preventive action, and support for those infected by HIV.

Following the success of the voluntary and anonymous screening campaigns (more than two-thirds of employees took part), the distribution of condoms to employees and their families continued. Since 2006, more than 1,840,000 condoms have been distributed to the 3,000 ERAMET employees in Gabon. Staff and members of their families who wish to be tested, or who have HIV, are supported by the Company, at Comilog and at Setrag, under partnerships with government health organisations. Three hundred and fifty people concerned by HIV are given health care support and kept in employment.

Communication and grassroots initiatives continued in 2012 with sporting events (football, basketball, tennis) and festivities (Comilog's fiftieth anniversary, feast of Sainte Barbe) at which there were stands handing out information leaflets and condoms.

- In 2012, the steering committee made up of all the stakeholders involved in the SYSMIN Environment and Health study met twice in Moanda. Out of the twenty-four recommendations given by the experts in the final report, thirteen are to be implemented by Comilog. The work on six of them was completed. Three of them are the subject of a multi-year plan, in particular the rehabilitation of the river Moullili and the Bangombé plateau. The steering committee visited these last two sites in 2011. An occupational health officer was recruited by Comilog at the end of 2012.

- The HCVP (Health Check and Vaccination Program, formerly called "Go Care") has been in place since 2008. It provides better medical monitoring and preparation for the risks relating to foreign travel and expatriation for travellers and expatriates. Almost 400 people in the Group benefitted from it.
- A Group steering committee on Carcinogenic, Mutagenic and Reprotoxic (CMR) products was set up to establish and coordinate a CMR action plan which was approved by the Comex and implemented in the industrial divisions and the research centre in Trappes. At the beginning of 2010, a multidisciplinary group of prevention officers was set up in order to harmonise the management and prevention of CMR products, particularly risk assessment, prevention and traceability methods with a new IT solution (Chemhyss and Evaluthyss) which is being deployed.
- The Zéphyr psychosocial risk prevention plan was deployed.

This plan included a collective Psychosocial Risk assessment phase *via* a questionnaire. The WOCCQ (Working Condition and Control Questionnaire) was scientifically checked by the University of Liege (Belgium).

All the establishments in mainland France completed the assessment phase and drew up action plans based on the results of the questionnaire, in association with the health, safety and working conditions committees.

A training course for all managers was implemented in 2012. It aimed to help managers control their own stress, identify situations which may cause stress in their teams and take suitable action. At the end of 2012, almost 90% of the managers had followed this training course.

With regards the tertiary prevention of psychosocial risks, Monitoring Units were set up at each site to quickly detect dangerous situations and help people in difficulty.

A joint monitoring committee meets annually to follow the progress of the Zéphyr project.

This process was adopted at the SLN in 2012.

5.8.2.5. Asbestos-related Risk

In 2011, Asbestos-related risk prevention focused on environmental asbestos in particular.

In order to comply with recent New Caledonian regulations enforced on 1 May 2011 on environmental asbestos, the preventive action already implemented was reviewed and further action was developed with regards risk assessment, atmospheric measurements and preventive action in mining.

To ensure that these new rules are implemented in a harmonious, coherent fashion, work with other New Caledonian mining companies continued.

In order to treat its employees equally, ERAMET adopted the same approach with the Weda Bay Nickel project, despite the fact that no such obligations exist in Indonesia.

The Group has a central in-house unit which tracks all cases of occupational illnesses and, in particular, those related to asbestos. It can prove that none of its 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 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 ERAMET's industrial sites, and the audit findings and recommendations have been used to prepare detailed action plans.

A survey carried out at ERAMET's French sites (including New Caledonia) covering the past five years (from 1983 to 2012) revealed 135 cases of asbestos-related occupational illnesses, primarily pleural plaques and pleural thickening (75%), 105 of which were recognised and attributed to Group companies. 38 actions for gross negligence were filed during this period. Provisions for asbestos-related risks have been recognised based on the compensation typically awarded in such cases.

5.9. HUMAN RESOURCES

Our Code of Ethics states that the Group complies with the international standards of the International Labour Organisation, as well as the rules applicable in the countries in which it operates and, more generally, acts in accordance with international human rights law. In particular, the Group bans the use of forced or child labour, whether directly or via its suppliers or partners.

5.9.1. Social 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 business challenges. It is based on six main strategic objectives:

- identify, attract, retain and develop talented people;
- develop and recognise performance that creates value;

- strengthen managerial skills, define and promote the role of management;
- help implement an employee-friendly working environment that complies with Group values;
- develop and promote constructive relations with social partners;
- develop the operational excellence of the HR function.

While ERAMET has a very marked international dimension (more than 63% 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-to-day basis on sites.

5.9.2. Workforce

On 31 December 2012, the total workforce managed was **14,353 employees**, compared with 14,749 on 31 December 2011, representing a **slight reduction** in the workforce.

	France			Other European countries			The Americas			Asia			Other regions			Total		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
Holding company**	288	336	378*	20	20	20*	14	13	15*	26	26	31*	7	27	32*	355	422	476*
Nickel Division	366	383	391*	0	0	0*	0	0	0*	341	377	364*	2,305	2,301	2,244*	3,012	3,061	2,999*
Alloys Division	4,085	4,205	4,274*	503	528	501*	43	43	39*	120	113	43*	0	0	0*	4,751	4,889	4,857*
Manganese Division	246	257	278*	903	883	871*	697	657	680*	1,862	1,699	1,038*	2,711	2,881	3,154*	6,419	6,377	6,021*
TOTAL	4,985	5,181	5,321*	1,426	1,431	1,392*	754	713	732*	2,349	2,215	1,476*	5,023	5,209	5,432*	14,537	14,749	14,353*

** Eramet Holding including Eramine Suramerica, Eramet Research, Eramet Ingénierie and Eramet International. As a holding company, Eramet represents 177 people.

* Elements reviewed by Deloitte – Moderate assurance.

On 31 December 2012, 37% of ERAMET's total workforce was in France, 10% in the rest of Europe, 4% in North America, 10% in Asia and 39% in the rest of the world (Gabon and New Caledonia). Gabon had 3,062 employees listed on 31 December 2012, and New Caledonia had 2,244 employees.

The listed workforce fell slightly between 2011 and 2012 for the Nickel Division (-2%) and the Manganese Division (-5.6%), and remained almost stable for the Alloys Division. The increase in employees of Holding more particularly reflects the increase in headcount at the Group's Research center, at the level of teams dedicated to Information Systems projects, purchasing and Nickel Division strategic projects.

The various Group companies also employed 1,083 temporary staff on 31 December 2012, representing the full-time equivalent of 902 temporary workers. 41% of the temporary staff, i.e. 445 people, were employed in France and 252 were employed in Indonesia at the Weda Bay site.

5.9.2.1. Headcount by type of employment contract

Out of the 14,353 Group employees on 31 December 2012, 13,018 (i.e. 91%) had open-ended contracts and 1,335 had fixed-term contracts.

The technical nature of mining and metallurgical jobs calls for a long period of professional training. Very little use is made of short-term contracts, which represent about 5% of the workforce outside Asia.

49% of the fixed-term contracts concerned Asia (China and Indonesia) where the use of fixed-term contracts is more widespread and corresponds to modes of management that are specific to these countries.

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.

	Open-ended contracts			Fixed-term contracts			Total		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Holding company**	339	412	454*	16	10	22*	355	422	476*
Nickel Division	2,870	2,905	2,880*	142	156	119*	3,012	3,061	2,999*
Alloys Division	4,453	4,521	4,650*	298	368	207*	4,751	4,889	4,857*
Manganese Division	5,358	5,268	5,034*	1,061	1,109	987*	6,419	6,377	6,021*
TOTAL	13,020	13,106	13,018*	1,517	1,643	1,335*	14,537	14,749	14,353*

** Eramet Holding including Eramine Suramerica, Eramet Research, Eramet Ingénierie and Eramet International. As a holding company, Eramet represents 177 people.

* Elements reviewed by Deloitte – Moderate assurance.

5.9.2.2. Headcount by gender

Female employment in the mining and metallurgical sectors has traditionally been low. As the table below shows, the headcount

is predominantly male, with women representing some 15% of all employees. More precisely, they represent 17% of the workforce in France and in Europe, 13% in North America, 21% in Asia and 12% in the rest of the world.

	Men			Women			Total		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Holding company**	224	272	303*	131	150	173*	355	422	476*
Nickel Division	2,676	2,711	2,647*	336	350	352*	3,012	3,061	2,999*
Alloys Division	4,103	4,211	4,099*	648	678	758*	4,751	4,889	4,857*
Manganese Division	5,356	5,330	5,101*	1,063	1,047	920*	6,419	6,377	6,021*
TOTAL	12,359	12,524	12,150*	2,178	2,225	2,203*	14,537	14,749	14,353*

** Eramet Holding including Eramine Suramerica, Eramet Research, Eramet Ingénierie and Eramet International. As a holding company, Eramet represents 177 people.

* Elements reviewed by Deloitte – Moderate assurance.

The percentage of women in managerial positions is higher, with 20.3% of these positions occupied by women in 2012, for the whole of the Group.

5.9.2.3. Breakdown of workforce by socio-professional category

The concept of socio-professional category in the French sense of the term is difficult to transpose to every country in which the Group operates. However, companies located in mainland France, New Caledonia and Gabon share the same concepts. Given that this represents some 74% of the headcount, it seems appropriate to use the following definitions:

Management:	<i>executives, managers, post-graduate staff, civil engineers (white collar).</i>
Supervisory staff:	<i>clerks, technicians, foremen (white collars).</i>
Workers:	<i>(blue collars).</i>

The staff breakdown by category has been relatively stable over the past three years, although there has been significant upward trend in the level of qualifications: accordingly, blue collar workers represented 63% of the workforce in 2005 compared to 55% in 2012, supervisory level employees made up 26.3% of the workforce in 2005 compared to the current 32% and, lastly, management accounted for 9.8% of the workforce in 2005 but now represents 13%. This stemmed both from the rapid increase in managerial and technical requirements and the progression of Group projects.

	Workers			Supervisory staff			Management			Total		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
Holding company**	1	10	18*	134	150	170*	220	262	288*	355	422	476*
Nickel Division	1,613	1,577	1,565*	1,145	1,210	1,167*	254	274	267*	3,012	3,061	2,999*
Alloys Division	2,794	2,826	2,815*	1,469	1,530	1,525*	488	533	517*	4,751	4,889	4,857*
Manganese Division	3,950	3,758	3,431*	1,762	1,861	1,790*	707	758	800*	6,419	6,377	6,021*
TOTAL	8,358	8,171	7,829*	4,510	4,751	4,652*	1,669	1,827	1,872*	14,537	14,749	14,353*

** Eramet Holding including Eramine Suramerica, Eramet Research, Eramet Ingénierie and Eramet International. As a holding company, Eramet represents 177 people.

* Elements reviewed by Deloitte – Moderate assurance.

5.9.2.4. Average age

The average age, as can be seen from the table below, is relatively constant across professional categories and Divisions. At Group level, on 31 December 2012, the average age was 45.

Employees over 50 accounted for 22% of the total workforce and those 30 or younger a little over 16% of the total workforce.

Future Employment and Expertise Management is an HR tool undergoing progressive and significant development.

	Workers			Supervisory staff			Management		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Holding company**	40	38	34*	41	40	41*	44	45	43*
Nickel Division	34	34	38*	42	42	41*	42	43	42*
Alloys Division	41	43	49*	41	43	50*	44	43	42*
Manganese Division	43	42	42*	45	45	44*	48	46	45*
TOTAL	41	42	44*	43	43	45*	45	44	43*

** Eramet Holding including Eramine Suramerica, Eramet Research, Eramet Ingénierie and Eramet International. As a holding company, Eramet represents 177 people.

* Elements reviewed by Deloitte – Moderate assurance.

5.9.2.5. Length of service

On 31 December 2012, the average length of service within the Group was 12.7 years.

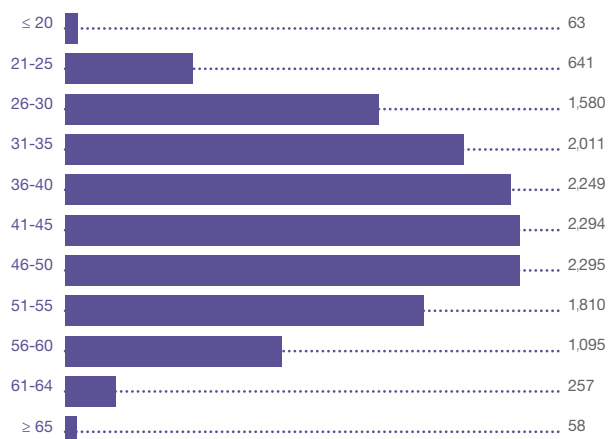
	Workers			Supervisory staff			Management		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Holding company**	8	9	9*	10	8	11*	8	9	8*
Nickel Division	8	7	10*	13	13	13*	9	9	8*
Alloys Division	14	14	14*	15	15	18*	11	11	10*
Manganese Division	14	14	15*	17	15	17*	14	14	13*
TOTAL	14	14	13*	15	14	16*	11	13	11*

** Eramet Holding including Eramine Suramerica, Eramet Research, Eramet Ingénierie and Eramet International. As a holding company, Eramet represents 177 people.

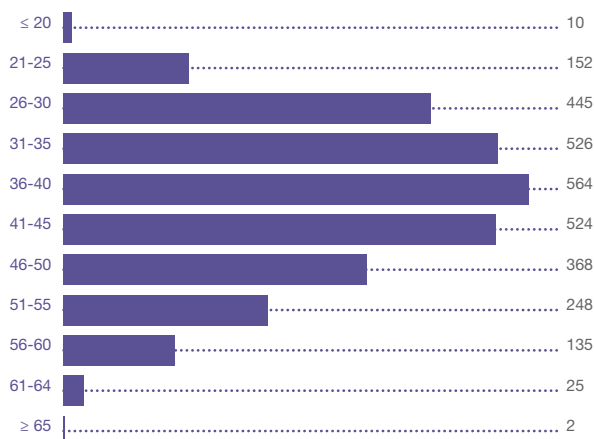
* Elements reviewed by Deloitte – Moderate assurance.

5.9.2.6. Age pyramid

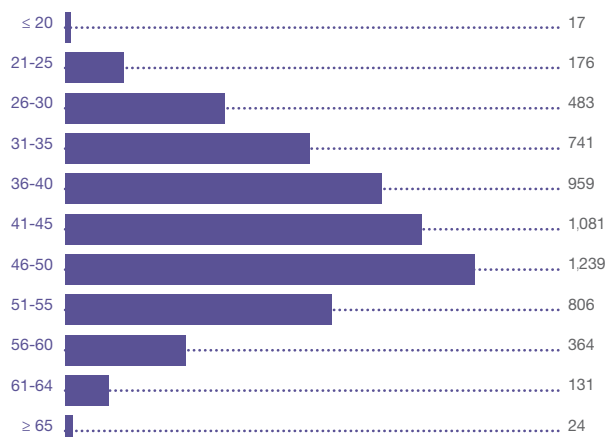
Group



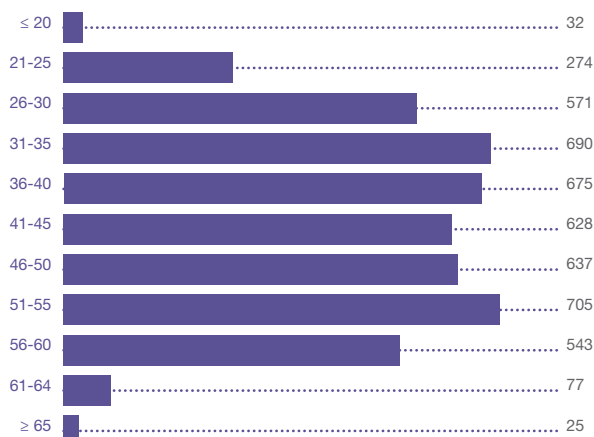
Nickel



Manganese



Alloys



5.9.2.7. Employment of disabled workers

The Group's companies employed 275 disabled people on 31 December 2012. 80% of them were employed in France, *i.e.* 192 people. Due to the local legislation of some countries (Sweden for example), a census cannot be taken of all the disabled workers.

5.9.2.8. Workforce management

Group companies hired 1,665 employees in 2012, representing a rise of more than 23% compared to 2011. 53% of hiring took place in Europe (including France), 25% in Gabon, 7% in Asia, 5% in New Caledonia, 4% in North America and 5% in the rest of the world.

The total number of departures in 2012 reached 1,780, including 160 retirements (9% of departures) and 266 resignations (15% of departures). Most of the departures (60%) resulted from the end of fixed-term contracts.

The table below gives an indication of employee turnover within the Group by country.

Defined as the sum of departures during the year (excluding death and the end of temporary contracts), divided by the number of employees at the end of the year, workforce turnover was 6.7% in 2008, 7.6% in 2009 and 5.5% in 2010, 5.1% in 2011, then reached 6% in 2012.

The job creation balance (arrivals—departures), which was positive in 2007 and 2008, became negative in 2009 and 2010, positive in 2011, then negative again in 2012, *i.e.* minus 115.

This negative balance resulted from the closure of Guangxi Comilog Ferroalloys Ltd, a plant located in Laibin, Guangxi Province, China, specialised in the production of Manganese Alloys for China's domestic market. On 1 January 2012, there was a workforce of 606 FTE.

Faced with a drop in activity in the manganese alloys market in China in the third and fourth quarters of 2011, this plant was obliged to adapt its production volume.

Therefore, in January 2012, a decision was taken to temporarily close one blast furnace (out of the two furnaces operating). Then, in April 2012, as the markets were not improving, a headcount adaptation plan was implemented involving retirement and early retirement, termination of temporary employment contracts, short-time working measures, internalisation of activities that were previously externalised.

In August 2012, the second blast furnace still in operation was also temporarily closed. All the staff gradually ceased all activity.

Finally, in December 2012, a decision was taken to definitively shut down industrial operations and therefore terminate all employment contracts.

Thus, on 31 December 2012, the employment contracts of 515 people, out of the 516 people still working, were terminated.

There remains one employee, whose contract cannot be terminated due to the regulations. Once the company has been liquidated, his contract will be terminated. At the beginning of 2013, the company went into receivership and the liquidation process is underway.

	Arrivals									Departures								
	Outside hiring and others			Redundancies			Retirement and early retirement			Resignations			Others**			Total		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
Mainland France	281	554	621*	34	52	76*	105	48	53*	52	71	69*	120	187	271*	311	358	469*
New Caledonia	30	119	82*	53	67	66*	22	13	9*	33	28	34*	13	15	25*	121	123	134*
Europe ex. France	22	69	266*	3	2	25*	27	24	28*	17	27	38*	10	11	30*	57	64	121*
North America	165	156	62*	33	29	19*	11	14	6*	34	32	24*	62	122	14*	140	197	63*
Gabon	84	133	421*	13	13	15*	50	33	21*	35	13	17*	14	22	61*	112	81	114*
Asia	256	182	122*	44	155	76*	57	51	42*	90	91	82*	45	19	588*	236	316	788*
Elsewhere	2	142	91*	2	2	1*	0	0	1*	1	1	2*	0	2	87*	3	5	91*
TOTAL	840	1,355	1,665*	182	320	278*	272	183	160*	262	263	266*	264	378	1,076*	980	1,144	1,780*

** This category includes, amongst others, the end of fixed-term contracts, together with deaths.

* Elements reviewed by Deloitte – Moderate assurance.

5.9.3. Work organisation and remuneration

5.9.3.1. Working hours

The types of working-hour organisation vary from one company to another, their type of business and locations and are defined to match business needs and employee preferences as much as possible. Wherever it operates, the ERAMET group complies with applicable legislation on working hours. For information, working hours are as follows:

- in mainland France: 35 hours per week;

- in Norway: 37 hours 30 minutes per week;
- in New Caledonia: 37 hours 50 minutes per week;
- in China, Gabon, the USA, Sweden: 40 hours per 5-day week.

5.9.3.2. Part-time workers

On 31 December 2012, 2% of ERAMET's total workforce was employed on a part-time basis, *i.e.* a total of 229 people. 72% of these employees, *i.e.* 161 people, work in France, representing 3% of the workforce in mainland France.

5.9.3.3. Work Organisation

	France	Other European countries	North America	Asia	Other regions	Total
	2012	2012	2012	2012	2012	2012
Employees working daytime hours	2,827	708	230	864	3,783	8,412
Employees working on shifts	2,494	684	367	612	1,784	5,941
TOTAL	5,321	1,392	597	1,476	5,567	14,353

8,412 employees worked daytime hours, *i.e.* 59% of the total workforce. The remaining 5,941 employees, *i.e.* 41% of the workforce, work on shifts.

5.9.3.4. Absenteeism

In 2012, the rate of absenteeism in the Group's French companies varied between 1.6 and 9.21%, depending on the sites. On average, the rate was 5.7% for Europe, 5.8% for the USA and 5.7% for China. In New Caledonia, the average rate was 5.2%. In Gabon, it was 3.75%.

5.9.3.5. 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.

A large number of the sales staff, and also Group executives, have variable remuneration arrangements based on annual quantitative and qualitative objectives. Moreover, these bonus arrangements were reviewed at the end of 2011, to gradually increase the number of people concerned, while reinforcing the system to assess performance *via* a common framework for setting and assessing annual objectives.

At the end of 2012, over 40% of the Group's managerial staff were entitled to a variable remuneration.

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.

Personnel—payroll charges

Salaries account for the main part of employee remuneration. The average rate of social security contributions on wages and salaries at Group level was around 47% in 2011.

On average, these charges represented 49.6% of the payroll expenditure in mainland France. They varied greatly from one country to another (for example 40.3% in New Caledonia and 32.4% in Belgium).

In 2012, personnel costs for the ERAMET group stood at €675 million, up 2.43%. They were €659 million in 2011, €609 million in 2010 and €580 million in 2009.

In 2012, the average cost of personnel, excluding temporary staff, was €47,029, up 2.24% compared with 2011.

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. On 9 July 2007, ERAMET and the five unions represented in the Group in France signed a Group healthcare agreement. The principles underpinning the negotiations are of greater coherence, responsibility and solidarity:

- coherence across ERAMET production sites in France to favour a sense of equity;
- responsibility of the employer and employee in their shared desire to protect the health of the family, one of our most precious asset;
- solidarity of employees and sites.

Thus, as from 1 January 2008, all mainland France production site employees had joined this scheme, which offers high-quality benefits.

In 2012, negotiations were successfully pursued, enabling benefits in France to be harmonised and improved and contributions to be reduced for some employees.

The scheme is jointly financed by employees and ERAMET group companies, which make 54% of the contributions. It covers the employee and dependent family members.

Arrangements for healthcare cover, insurance cover and pensions are regularly audited and the results analysed so that optimal cover can be offered to the Group's employees.

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 for a group of managers has also been fully provided for. The estimated actuarial value of the plan for staff working on 31 December 2012 was €36.9 million.

Employee share ownership

In an effort to develop a sense of Group belonging worldwide and to share the value created, in 2009, the ERAMET group decided to implement worldwide bonus share plans, called EraShare. EraShare is a programme designed to develop employee shareholding within the ERAMET group in the 20 countries where the Group is represented. Therefore in 2009, the ERAMET group implemented a democratic plan to allocate bonus shares, which consisted of granting five bonus shares to each Group employee, regardless

of the country, Division, job or level of responsibility. The General Shareholders' Meeting of 13 May 2009 authorised the Company to implement a plan to allocate 85,000 bonus ERAMET shares to the 15,000 Group employees (excluding corporate officers).

Since July 2011 in France and Italy, employees have been entitled to all rights associated with ERAMET shares and this will be the case for other countries from July 2013. These rights include 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.

Three new plans to allocate bonus shares was implemented in 2010, 2011 and 2012, involving the same scope, and allowing two extra shares to be allocated to over 14,000 employees each year.

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, and can represent up to 15% of the wage bill of the company in question. All the discretionary profit-sharing agreements for the French sites were renegotiated in 2008 in order to raise the maximum discretionary profit-sharing from 12 to 15% of payroll.

Profit-sharing for 2011, paid in 2012, made it possible to pay out about 9% of the payroll in France. Thus, more than €7 million was paid to beneficiaries.

Equivalent provisions in Sweden are based on the ratio of total payroll to profit.

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.

In 2009 and 2010, the Group took steps to centralise saving account operations, via a call for tenders, in order to improve the quality of services, logistics and monitoring. The choice of placement made available to our staff was also reorganised

and extended. The FCPE mutual fund is now available to all the Group's employees in France. A range of diversified multi-enterprise FCPE mutual funds, reserved for Group employees and based on the existing setup, has been developed with an independent management company and implemented in the Group. Alongside these projects, the Group has worked on the design and implementation of a PERCO type of collective pension fund, with the social partners which obviously benefitted from the progress made in the logistics and financial management of the saving plans in the Group.

On 31 December 2012, 6,310 employees and former employees of ERAMET in France were members of an Employee Savings Plan, with total assets of about €62 million, *i.e.* an average of about €9,800 per saver. In 2011, the Group's French companies paid over €2.1 million top-up money into the Employee Savings Plan and the PERCO.

5.9.4. Comprehensive and constructive social dialogue

At a corporate level, the ERAMET group hosts two employee representative bodies:

- the Group Works Council, comprised of thirty-two delegates from companies operating under French labour law and, by extension, New Caledonian labour law, which meets once a year. In 2012, Management and all the trade unions representing this sector signed two important agreements; the first to endorse the creation of the body and the second to set out the operating procedures;
- the European Works Council, which is comprised of delegates from companies based in Europe (France, Belgium and Sweden) plus the representatives of New Caledonia and Norway, totalling 34 delegates in all. This Council meets once a year. Its operation was streamlined through the creation of a select committee which meets more often and in close cooperation with General Management and Human Resources Management, out of a desire for regular communication and information.

At local level, employees are represented in each of the countries in which the ERAMET group is located, with the exception of countries where ERAMET International has offices, where the size of teams, often less than 10 persons, is insufficient to set up representative bodies. Thus, more than 90% of Group employees are represented through representation, discussion and consultation bodies equivalent to Works Councils, Health, Safety and Working Conditions Committees or trade union organisations.

5.9.4.1. Social dialogue driven by market trends and competitiveness

Once again in 2012, the Alloys Division market performance was very mixed, and the mining sectors slowed down more markedly from the third quarter onwards.

In this context:

- Local Management kept up regular and sustained discussions with their social partners on the economic situation and its impact on results. In some cases, negotiations on redundancy plans and on the adaptation of working organisations took place.
- Centrally, support was provided *via* regular exchanges to monitor these cases within the framework of the Group Works Council for French cases and more generally with members of the European Works Council board for transnational cases and cases outside of France.

Management teams at the Nickel Division and the SLN (New Caledonia) pursued and fulfilled the objectives of improving competitiveness and working conditions and are now following a continuous improvement process aimed at the long-term pursuit of these productivity goals.

Teams at the Manganese Division continued their reorganisation in the different sectors of their activities:

- The Manganese Chemistry Business Unit completed its reorganisation process at the Belgian site in Tertre.
- Faced with economic and industrial difficulties, the Recycling Business Unit started to reorganise its activities in France (Valdi), in consultation with its partners.
- The Ore and Alloys Business Unit finalised the commissioning of its new industrial plant in China (Guillin) and accompanied the workforce reduction and mobility process.

Teams at the Alloys Division handled the very uneven order levels by:

- resizing the teams in all sectors of conventional high speed steels (Sweden, Great Britain and France);
- short-time working measures for activities related to tooling and conventional products;
- a substantial recruitment drive on sites that depend on aeronautic and energy markets.

5.9.4.2. Wage issues and purchasing power maintenance

Wage issues remained the main subject of negotiations in the Group. More than 35 wage negotiations were conducted by local Management teams and Trade Unions. These negotiations enabled more than 30 agreements to be reached worldwide (New Caledonia, Indonesia, Scandinavia, France, USA, Gabon, etc.).

5.9.4.3. Ongoing implementation of structural social policy

Efforts to implement and harmonise social security and employee saving plans continued, and in 2012 further negotiations with social partners were pursued and intensified at corporate level in mainland France.

Thus, in mainland France the following agreements were reached:

- an agreement to harmonise healthcare plans;
- six agreements related to gender equality;
- two profit-sharing schemes and amendments to harmonise the Group criterion for each mainland France agreement in force;
- several amendments to improve or maintain the level of company top-up to Company Savings Plans;
- these new measures come on top of the initiatives already underway on psychosocial risk prevention, the Senior Staff Plan and the plan to prevent difficult working conditions.

At international level, the teams also discussed and reached agreements on the following subjects:

- the organisation, hours and conditions of work (Sweden, Norway, UK, etc.);
- social security (cost of healthcare and/or provident schemes) at the Baltimore site and in Korea.

Thus, for the whole of the Group, over 140 negotiations were conducted in 2012, most of which led to an agreement.

5.9.4.4. Training elected representatives

Lastly, the Group's various entities provided training in economics and negotiating skills for their elected representatives when they took up their term of office.

5.9.5. Training

ERAMET pays particular attention to the development of its employees, and has established respect and **people development** as the Group's fourth value.

Integrating and improving our know-how, raising awareness of specific risks, sharing experience and best practices, developing a cross-company approach at Group level, promoting the application of our managerial methods and reaffirming our expertise and technical leadership—these are the challenges for the training programmes that are undertaken by the Group annually at all its sites.

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 2012, IMaGE (the *Institut du Management du Groupe ERAMET*) provided over 2,237 days of training. Almost 1,230 people followed these various training programmes in 2012. This school now offers several training courses aimed at integrating and developing managerial staff.

It follows on from the creation of the AMI (Alloys Management Institute) in the Alloys Division.

IMaGE offers Group **induction courses** and also **managerial development courses**.

Courses aimed at improving managerial skills were designed and widely implemented in 2012. For example, two two-day training courses on “Basic Management” and “Performance Based Management” were given. These training courses were given to almost 120 members of management in New Caledonia as part of an overall training programme. A pilot session of the same programme was also organised in Chongzhuo, China. A new module was also created on internal and external recruitment. It is designed for both Human Resources Managers and other Managers. This programme accompanies the new Human Resources Information System module (Talent@Work) dedicated to recruitment and internal mobility, and promotes objective selection practices and applicant feedback. The importance of non-discrimination is also stressed to course participants.

As is the case every year, the ERAMET Discovery Days brought together almost two hundred participants from all over the world who had joined the Group that year or who wanted to learn more about the organisation of the Group, its major projects and its strategy.

More than 20 Group executives and managers attended the ninth session of the ERAMET Leaders Program lasting one week. Since 2006, 179 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.

This year, for the first time ever, a development programme for the Group’s executives was offered. The ERAMET Executive Development Program is a twelve-day course given in English (5 days in the classroom in France and 7 days on a Learning Trip in India) in partnership with Duke Corporate Education. It aims to enhance the participants’ leadership skills and prepare them for their career within the Group. The second group of participants met in Paris at the beginning of November 2012 for the kick-off meeting. At the start of 2013, twenty ERAMET executives from six of the countries where the Group operates will take part in this programme.

As part of the **Leaders Programme**, IMaGE or AMI gave one-day introductory courses on **project management culture** to enable managers to share the same framework and vocabulary with regards the main concepts of project management. In 2013, a new Project Management module will be added to this programme to help managers understand project management tools. The pilot version of this second module was carried out at the end of 2012.

Likewise, a one-day course on **Benchmarking Awareness** has been given since 2011. A module on expert interviews as part of **Knowledge Management** is also available and a module on **Ongoing Improvement** is being prepared.

As part of the Zéphyr Programme, the Group put a great deal of effort into raising team awareness on Psycho-Social Risks.

The “Tuesday Training Workshops” continued in Paris. Employees from the different Divisions could sign up for short three-hour modules dedicated to specific subjects like office technology and person to person communication.

Lastly, in 2012, a great deal of training was provided to support the implementation of the SPRING computing project.

More specifically, within the Alloys Division, the AMI (Alloys Management Institute) provides training courses for managers at the Alloys Division to help them deal with the technological, economic and environmental changes affecting the various businesses and to help them achieve their development goals.

For this purpose and to help our managerial staff assume their responsibilities, more than 9,500 hours of training were given in 2012 (induction courses, basic management courses, personal development and time management courses).

At the same time, the Alloys Division provides sector-based courses adapted to each socio-professional category, each type of work station and each level of experience and expertise. Each course is accompanied by Health, Safety and Risk Control training. In 2012, 650 people followed these training courses.

Altogether, in 2012, ERAMET group employees received more than 393,166 hours of training, *i.e.* about 27.4 hours training per employee for the year. The numbers remain stable compared to 2011. In France, training costs in 2012 amounted to 3% of payroll expenditure, on average. They represented over 6% of payroll expenditure in New Caledonia, 2% in Gabon and between 1% and 11% of payroll expenditure in the other countries where the Group operates.

Thus, more than 1,000 employees, *i.e.* 70% of the total workforce, received training in 2012.

5.9.6. Performance monitoring

For several years, all members of Group management have had an annual assessment interview, 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 2012, more than 5,384 managerial and non-managerial staff had annual assessment interview. Indeed, many sites have started to extend the benefits of this system to non-managerial staff.

Since late 2010, Talent@Work, the Group's Human Resources information system, has made this supporting material available to executives on sites where the tool has been implemented.

Moreover, the document used for the 2012/2013 Annual Assessment Interview (EAA) has been modified to integrate changes in Group Values.

The widespread use of the EAA 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.

To ensure greater visibility and efficiency in career management processes, a working group was asked to draw up a Mobility and Development Charter. This was approved by Comex in December 2012 and will be distributed in 2013 together with an information leaflet, which is being prepared.

5.10. ATTESTATION OF COMPLETENESS AND LIMITED ASSURANCE REPORT OF ONE OF THE STATUTORY AUDITORS ON SELECTED SOCIAL AND ENVIRONMENTAL INFORMATION

Year ended 31 December 2012

This is a free translation into English of the Statutory Auditor's report issued in French and 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 auditing standards applicable in France.

For the attention of ERAMET group Executive Management

Pursuant to your request and in our capacity as Statutory Auditors of ERAMET, we hereby present you with our attestation of completeness on the consolidated social, environmental and other sustainable development information present in the management report prepared for the year ended 31 December 2012 pursuant to Article L. 225-102-1 of the French Commercial Code (*Code de commerce*) as well as our limited assurance report on a selection of such information presented in Chapter 5 of the reference document and identified by the sign (*).

Responsibility of the Company

The Board of Directors is responsible for preparing a management report including the consolidated social, environmental and corporate information provided for in Article R. 225-105-1 of the French Commercial Code (hereinafter the "Information"), prepared in accordance with the reporting criteria used by the ERAMET group (the "Reporting Criteria") and available from the Human Resources and Communication and Sustainable Development divisions.

Independence and quality control

Our independence is defined by regulatory texts, the profession's Code of Ethics as well as by the provisions set forth in Article L. 822-11 of the French Commercial Code. Furthermore, we have set up a quality control system that includes the documented policies and procedures that aim to ensure compliance with rules of ethics, professional standards and the applicable legal texts and regulations.

Responsibility of the Statutory Auditor

Based on our work, our responsibility is:

- to attest that the required Information is presented in the management report or, in the event of omission, is explained pursuant to the third paragraph of Article R. 225-105 of the French Commercial Code and Decree No. 2012-557 of 24 April 2012 (Attestation of inclusion);
- to express limited assurance on the fact that certain information selected by the ERAMET group, outlined in Chapter 5 of the reference document and identified by the sign (*) are presented, fairly, in all material aspects, in accordance with the Reporting Criteria (limited assurance report).

To assist us in conducting our work, we referred to the corporate responsibility experts of our Firms.

1. Attestation of completeness

We conducted the following procedures in accordance with professional standards applicable in France:

- We have compared the Information presented in the management report with the list set forth in Article R. 225-105-1 of the French Commercial Code.
- We have verified that the Information covered the consolidated scope, *i.e.*, the Company and its subsidiaries within the meaning of Article L. 233-1 of the French Commercial Code and the companies that it controls within the meaning of Article L. 233-3 of the French Commercial Code, subject to the limits set forth in chapter 5 of the Registration Document.
- In the event of omission of certain consolidated information, we have verified that explanations were provided in accordance with Decree No. 2012-557 of 24 April 2012.

Based on our work, we attest to the completeness of the required Information in the management report.

2. Limited assurance report on a selection of consolidated social and environmental information identified by the sign (*)

Nature and scope of procedures

We conducted our procedures in accordance with ISAE 3000 (International Standard on Assurance Engagements) and professional guidelines applicable in France.

We have carried out the following work to obtain limited assurance on the fact that the Information selected by the ERAMET group, presented in Chapter 5 of the Registration Document and identified by the sign (*), does not contain any material anomalies that would call into question its fairness, in all material aspects, in accordance with the Reporting Criteria. A higher level of assurance would have required more extensive work.

We performed the following procedures:

- We assessed the appropriateness of the Reporting Criteria with respect to its relevance, completeness, neutrality, clarity and reliability, by taking into consideration, when relevant, the sector's best practices;
- We have verified the set-up within the ERAMET group of a process to collect, compile, process and check the selected information with regard to its completeness and consistency. We have familiarized ourselves with the internal control and risk management procedures relating to the compilation of the information. We have conducted interviews with individuals responsible for social and environmental reporting.
- Concerning the selected quantitative information⁽¹⁾:
 - For the consolidating entity and controlled entities, we have set up analytical procedures and verified, using sampling techniques, the calculations as well as the consolidation of this information;
 - At the sites that we have selected based on their activity, their contribution to consolidated indicators, their location and a risk analysis, we have:
 - conducted interviews to verify the proper application of procedures and obtained information to perform our verifications;
 - conducted substantive tests, using sampling techniques, to verify the calculations performed and reconcile data with supporting evidence.

Conclusion

Based on our work, we did not identify any material anomaly likely to call into question the fact that the information selected by the ERAMET group, located in Chapter 5 of the reference document and identified by the sign (*) has been presented fairly, in all material aspects, in accordance with the Reporting Criteria.

Neuilly-sur-Seine, 21 February 2013

One of the Statutory Auditors

Deloitte & Associés

Alain Penanguer

Partner

(1) The Information is the following: [The contribution to Group data of the entities selected for our procedures represents 28% of total Headcount and between 23% and 76% of environmental data.] Total energy consumption; Energy CO₂ emissions; Total atmospheric dust emissions; Chemical oxygen demand in water; Hazardous waste; Total headcount at year-end (breakdown by geographical area and by Division, by type of contract, gender, socio-professional category); average age; seniority; employee management (new hires and terminations); accident frequency and severity rate.



6

FINANCIAL STATEMENTS

6.1. 2012 Consolidated financial statements	164
6.1.1. Financial statements	164
6.1.2. Notes to the consolidated financial statements	170
6.1.3. Report of the Statutory Auditors on the consolidated financial statements	243
6.2. 2012 separate financial statements	244
6.2.1. 2012 Income statement, Balance sheet	244
6.2.2. Notes to the separate financial statements	248
6.2.3. Table of subsidiaries and investments	267
6.2.4. Report of the Statutory Auditors on the annual financial statements	269
6.2.5. Statutory Auditors' special report on regulated agreements and commitments	270
6.2.6. Separate financial results over the past five financial years	272
6.3. Consolidated financial statements for 2011 and 2010	273
6.4. Dividend policy	273
6.4.1. Dividend payout arrangements	273
6.4.2. Allocation and distribution of earnings (Article 24 of the Articles of Association)	273
6.4.3. Dividend policy	274
6.5. Fees paid to the Statutory Auditors	274

6.1. 2012 CONSOLIDATED FINANCIAL STATEMENTS

6.1.1. Financial statements

6.1.1.1. Statement of comprehensive income

<i>(€ million)</i>	Notes	FY 2012	FY 2011	FY 2010
Sales	23.1	3,447	3,603	3,576
Other income	23.2	34	81	31
Cost of sales	-	(2,823)	(2,674)	(2,437)
Administrative and selling expenses	-	(200)	(174)	(155)
Research and development expenditure	-	(51)	(47)	(44)
EBITDA	-	407	789	971
Amortisation and depreciation of non-current assets	24.1	(245)	(230)	(225)
Impairment charges and provisions	24.2	(18)	(5)	(7)
Current operating profit/(loss)	-	144	554	739
Other operating income and expenses	25	(74)	(63)	(19)
Operating profit/(loss)	-	70	491	720
Net borrowing cost	26.1	8	22	3
Other financial income and expenses	26.2	(8)	8	(15)
Share in profit of associates	8	-	1	1
Income tax	27	(28)	(219)	(255)
Profit/(Loss) for the period	-	42	303	454
• Attributable to non-controlling interests	15	34	108	126
• Attributable to equity holders of the parent	-	8	195	328
Basic earnings per share (€)	28	0.31	7.42	12.43
Diluted earnings per share (€)		0.31	7.39	12.40
Profit/(Loss) for the period	-	42	303	454
Translation adjustments for financial statements of subsidiaries denominated in foreign currency	-	2	7	63
Change in revaluation reserve for hedging financial instruments	-	37	(51)	(20)
Change in fair value of held-for-sale financial assets	-	6	(10)	3
Income tax	27	(12)	21	6
Other components of comprehensive income	-	33	(33)	52
• Attributable to non-controlling interests	15	(4)	4	8
• Attributable to equity holders of the parent	-	37	(37)	44
TOTAL COMPREHENSIVE INCOME	-	75	270	506
• Attributable to non-controlling interests	-	30	112	134
• Attributable to equity holders of the parent	-	45	158	372

6.1.1.2. Statement of financial position

Assets

(€ million)	Notes	31/12/2012	31/12/2011	31/12/2010
Goodwill	3	173	210	172
Intangible assets	4	717	612	521
Property, plant and equipment	5	2,454	2,119	1,903
Investments in associates	8	33	23	22
Other non-current financial assets	9 & 10	100	87	86
Deferred tax	19	29	25	30
Other non-current assets	12	7	5	5
Non-current assets	-	3,513	3,081	2,739
Inventories	11	1,038	1,093	996
Trade receivables and other current assets	12	690	664	642
Current tax receivables	-	38	33	12
Derivatives	22	51	46	128
Other current financial assets	13	368	473	359
Cash and cash equivalents	13	621	911	1,227
Current assets	-	2,806	3,220	3,364
TOTAL ASSETS	-	6,319	6,301	6,103

Liabilities

(€ million)	Notes	31/12/2012	31/12/2011	31/12/2010
Share capital		81	81	81
Share premium		373	372	371
Revaluation reserve for available-for-sale assets		5	-	7
Hedging instrument revaluation reserve		4	(24)	10
Translation adjustments		32	28	24
Other reserves		2,538	2,579	2,465
Attributable to equity holders of the parent	14	3,033	3,036	2,958
Attributable to non-controlling interests	15	818	1,043	1,016
Shareholders' equity	-	3,851	4,079	3,974
Employee-related liabilities	16	131	129	123
Provisions	17	428	379	360
Deferred tax	19	380	406	342
Borrowings—long-term portion	20	311	151	203
Other non-current liabilities	21	28	37	33
Non-current liabilities	-	1,278	1,102	1,061
Provisions—short-term portion	17	30	29	29
Borrowings—short-term portion	20	230	80	88
Trade payables and other current liabilities	21	805	833	731
Current tax liabilities	-	72	77	149
Derivatives	22	53	101	71
Current liabilities	-	1,190	1,120	1,068
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	-	6,319	6,301	6,103

6.1.1.3. Statement of cash flows

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Operating activities			
Profit/(Loss) for period	42	303	454
Elimination of non-cash and non-operating income and expenses			
• Depreciation, amortisation and provisions	266	245	227
• Financial instruments	(11)	3	3
• Deferred tax	(41)	86	83
• Proceeds from asset disposals	2	(2)	4
• Share in profit of associates	-	(1)	(1)
Cash generated from operations	258	634	770
(Increase)/Decrease in inventories	64	(99)	(142)
(Increase)/Decrease in trade receivables	(2)	33	(82)
Increase/(Decrease) in trade payables	(79)	56	38
Change in other assets and liabilities	57	191	223
Interest income	19	21	15
Interest paid	(19)	(19)	(16)
Tax paid	(81)	(226)	(79)
Net change in current operating assets and liabilities	(41)	(43)	(43)
Net cash generated by operating activities	217	591	727
Investing activities			
Payments for non-current assets	(655)	(481)	(314)
Proceeds from non-current asset disposals	11	1	8
Capital grants received	-	-	-
(Proceeds from)/Repayment of borrowings	13	5	(4)
Net change in other current financial assets	105	(115)	46
Dividends received from associates	-	-	-
Impact of additions to consolidation scope ⁽¹⁾	(1)	(58)	(15)
Impact of removals from consolidation scope ⁽²⁾	(1)	-	-
Net cash used in investing activities	(528)	(648)	(279)
Financing activities			
Dividends paid to ERAMET S.A. shareholders	(59)	(92)	(47)
Dividends paid to non-controlling interests in consolidated companies	(260)	(94)	(105)
Share capital increases	2	1	31
Proceeds from treasury share sales/(Payments for purchases) ⁽³⁾	(1)	(41)	(5)
Changes of percentage interests in subsidiaries ⁽⁴⁾	(3)	52	86
Proceeds from borrowings	319	18	400
Repayment of borrowings	(5)	(71)	(397)
Net change in current financial assets and liabilities	32	(2)	-
Net cash used in financing activities	25	(229)	(37)
Exchange-rate impact	(4)	(30)	4
Increase/(Decrease) in cash and cash equivalents	(290)	(316)	415
Opening cash and cash equivalents	911	1,227	812
Closing cash and cash equivalents	621	911	1,227

The ERAMET group uses the net cash/net debt position concept, presented in Note 20.6, as an internal management and performance indicator:

Net cash (or net debt) position	448	1,153	1,295
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(1) Impact of new consolidations relates to:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Consolidation of Eralloys Holding A/S & Tinfos A/S	-	-	(2)
• Acquisition cost	-	-	(2)
• Cash acquired	-	-	-
Consolidation of Somivab	(1)	-	-
• Acquisition cost	-	-	-
• Cash acquired	(1)	-	-
Consolidation of Valdi	-	-	(13)
• Acquisition cost	-	-	(13)
• Cash acquired	-	-	-
Consolidation of TiZir Ltd	-	(58)	-
• Acquisition cost	-	(70)	-
• Cash acquired	-	12	-
TOTAL	(1)	(58)	(15)

(2) Impact of deconsolidations relates to:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
HeYe Erasteel Innovative Materials Ltd	(1)	-	-
TOTAL	(1)	-	-

(3) Changes in treasury shares include:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Purchases and sales—liquidity contract	2	(5)	1
Purchases and sales—purchasing agency instructions	(3)	(36)	(6)
Purchase options exercised by employees	-	-	-
TOTAL	(1)	(41)	(5)

(4) Changes in percentage interests in subsidiaries break down as follows:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Sale of 2.17% of Comilog S.A. shares	-	-	86
Sale of 1.37% of Comilog S.A. shares	-	52	-
Acquisition of 15% in Setrag S.A. shares	(3)	-	-
TOTAL	(3)	52	86

6.1.1.4. Statement of changes in equity

<i>(€ million)</i>	Number of shares	Share capital	Share premium	Reserves/ Assets available for sale	Reserves/ Hedging instruments	Translation adjustments	Other reserves	Attributable to equity holders of the parent company	Attributable to non- controlling interest	Total share- holders' equity
Shareholders' equity at 1 January 2010	26,369,813	80	341	6	24	(32)	2,116	2,535	970	3,505
Profit/(Loss) for the period	-	-	-	-	-	-	328	328	126	454
Translation adjustments of subsidiaries' financial statements denominated in foreign currency	-	-	-	-	-	56	-	56	7	63
Change in revaluation reserve for hedging instruments	-	-	-	-	(14)	-	-	(14)	1	(13)
Change in fair value of financial assets available for sale	-	-	-	2	-	-	-	2	-	2
Other components of comprehensive income	-	-	-	2	(14)	56	-	44	8	52
Total comprehensive income	-	-	-	2	(14)	56	328	372	134	506
Dividends paid—€1.80 per share	-	-	-	-	-	-	(47)	(47)	(105)	(152)
Share capital increases	143,653	1	30	-	-	-	-	31	-	31
Treasury shares	-	-	-	-	-	-	(5)	(5)	-	(5)
Share-based payment	-	-	-	-	-	-	5	5	-	5
Changes in percentage interests in subsidiaries	-	-	-	-	-	-	67	67	17	84
Other movements	-	-	-	(1)	-	-	1	-	-	-
Total transactions with shareholders	-	1	30	(1)	-	-	21	51	(88)	(37)
Shareholders' equity as at 31 December 2010	26,513,466	81	371	7	10	24	2,465	2,958	1,016	3,974
Profit/(Loss) for the period	-	-	-	-	-	-	195	195	108	303
Translation adjustments of subsidiaries' financial statements denominated in foreign currency	-	-	-	-	-	4	-	4	3	7
Change in revaluation reserve for hedging instruments	-	-	-	-	(34)	-	-	(34)	1	(33)
Change in fair value of financial assets available for sale	-	-	-	(7)	-	-	-	(7)	-	(7)
Other components of comprehensive income	-	-	-	(7)	(34)	4	-	(37)	4	(33)
Total comprehensive income	-	-	-	(7)	(34)	4	195	158	112	270
Dividends paid—€3.50 per share	-	-	-	-	-	-	(92)	(92)	(94)	(186)
Share capital increases	5,650	-	1	-	-	-	-	1	-	1
Treasury shares	-	-	-	-	-	-	(41)	(41)	-	(41)
Share-based payment	-	-	-	-	-	-	12	12	-	12
Changes in percentage interests in subsidiaries	-	-	-	-	-	-	41	41	9	50
Other movements	-	-	-	-	-	-	(1)	(1)	-	(1)
Total transactions with shareholders	-	-	1	-	-	-	(81)	(80)	(85)	(165)
Shareholders' equity as at 31 December 2011	26,519,116	81	372	-	(24)	28	2,579	3,036	1,043	4,079

<i>(€ million)</i>	Number of shares	Share capital	Share premium	Reserves/ Assets available for sale	Reserves/ Hedging instruments	Translation adjustments	Other reserves	Attributable to equity holders of the parent company	Attributable to non-controlling interest	Total shareholders' equity
Profit/(Loss) for the period	-	-	-	-	-	-	8	8	34	42
Translation adjustments of subsidiaries' financial statements denominated in foreign currency	-	-	-	-	-	4	-	4	(2)	2
Change in revaluation reserve for hedging instruments	-	-	-	-	28	-	-	28	(2)	26
Change in fair value of financial assets available for sale	-	-	-	5	-	-	-	5	-	5
Other components of comprehensive income	-	-	-	5	28	4	-	37	(4)	33
Total comprehensive income	-	-	-	5	28	4	8	45	30	75
Dividends paid—€2.25 per share	-	-	-	-	-	-	(59)	(59)	(260)	(319)
Share capital increases	24,102	-	1	-	-	-	-	1	1	2
Treasury shares	-	-	-	-	-	-	(1)	(1)	-	(1)
Share-based payment	-	-	-	-	-	-	14	14	-	14
Changes in percentage interests in subsidiaries	-	-	-	-	-	-	(3)	(3)	1	(2)
Other movements	-	-	-	-	-	-	-	-	3	3
Total transactions with shareholders	-	-	1	-	-	-	(49)	(48)	(255)	(303)
SHAREHOLDERS' EQUITY AS AT 31 DECEMBER 2012	26,543,218	81	373	5	4	32	2,538	3,033	818	3,851

Translation reserves recognise the conversion differences deriving from the translation of the financial statements of foreign subsidiaries into Euros. They also comprise the fair value changes of the net investment hedges of foreign subsidiaries (Notes 1.5 and 22).

Premiums essentially consist of issue premiums, representing the difference between the par value of the shares issued (Note 14) and the amount of the cash or in-kind contributions received on issue.

The change in the financial-instruments revaluation reserve is mainly due to the recognition of cash-flow hedges pursuant to IAS 32 and IAS 39. The contra-entry is made under "Hedging financial instruments", recognised as an asset or a liability depending on whether hedging losses or gains are involved (Note 22).

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 income statement (Note 22).

The ERAMET treasury shares are classified under "Other reserves" and recognised at purchase cost (Note 14) for an amount of -€54 million (unchanged from 31 December 2011).

The reserves called "Assets held for sale" include the cumulative changes to the fair value of the bonds classified as "Other current financial assets" (Note 13).

In accordance with the revised standards IFRS 3 and IAS 27, the "Percentage changes in interests in subsidiaries" correspond to the impacts of changes in the consolidation scope not entailing any change of control in the subsidiaries concerned. In 2011 and 2010, they only involved the disposal of 1.37% and 2.17% of Comilog S.A. shares to the State of Gabon for respectively €41 million and €67 million attributable to equity holders of the parent company, and €9 million and €17 million attributable to non-controlling interest (Note 2 and Note 15). In 2012, they involve the acquisition, by Comilog S.A., of 15% of the shares of the "Transgabonais" concession operator, Setrag S.A.

6.1.2. Notes to the consolidated financial statements

Notes to the financial statements

ERAMET is a French public limited company (*société anonyme*) managed by a Board of Directors, governed by Articles L. 225-17 and R. 225-1 *et seq.* of the French Commercial Code and by its Articles of Association. As required by law, the Company is audited by two incumbent Statutory Auditors and two alternate Statutory Auditors.

Via its subsidiaries and investments, the ERAMET group operates in the nickel and manganese mining and production sectors, as well as in the alloys production sector, in which it is amongst the

market leaders. A detailed description of the ERAMET group's activities is presented in Note 1.4 on business segment reporting.

ERAMET's shares have been traded on the Euronext Paris Deferred Settlement System (SRD) since 28 March 2006. On 2 January 2008, ERAMET joined the Euronext Paris N100 index.

The ERAMET group's consolidated financial statements for the year ended 31 December 2012 were reviewed by the Audit Committee on 19 February 2013, and approved by the Board of Directors on 21 February 2013. They will be submitted to the approval of the General Shareholders' Meeting of 15 May 2013.

Note 1. Accounting principles and measurement methods.....	171	Note 19. Deferred tax.....	211
Note 2. Scope of consolidation.....	180	Note 20. Borrowings	212
Note 3. Goodwill.....	183	Note 21. Trade and other payables.....	215
Note 4. Intangible assets.....	184	Note 22. Risk management and derivatives	216
Note 5. Property, plant and equipment	185	Note 23. Sales and other income.....	230
Note 6. Mining projects	186	Note 24. Depreciation, amortisation and provisions..	230
Note 7. Impairment of assets	187	Note 25. Other operating income and expenses	231
Note 8. Investments in associates	190	Note 26. Net borrowing cost and other financial income and expenses	231
Note 9. Non-consolidated subsidiaries.....	191	Note 27. Income tax.....	232
Note 10. Other investments	192	Note 28. Earnings per share.....	234
Note 11. Inventories	194	Note 29. Off-balance sheet commitments	235
Note 12. Trade and other receivables	195	Note 30. Other commitments.....	236
Note 13. Other current financial assets and cash and cash equivalents.....	196	Note 31. Related party transactions	237
Note 14. Shareholders' equity.....	198	Note 32. Workforce and personnel costs.....	238
Note 15. Non-controlling interests	201	Note 33. Statutory Auditors' fees.....	239
Note 16. Employee liabilities	202	Note 34. Other information.....	240
Note 17. Provisions	206	Note 35. Events after the reporting date.....	240
Note 18. Contingent liabilities	210	Note 36. Segment reporting.....	241

Note 1. Accounting principles and measurement methods

1.1. 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 2012 have been prepared in millions of Euros in accordance with IFRS (International Financial Reporting Standards) as adopted by the European Union at 31 December 2012.

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 2011 and available on the website: http://ec.europa.eu/internal_market/accounting/ias_en.htm#adopted-commission.

The new mandatory standards and interpretations applicable as from 1 January 2012 are:

- the amendment to IFRS 7 “Financial instruments—Disclosures” applicable on 1 July 2011 (1 January 2012 for companies whose financial year ends on 31 December).

These amendments to standards and interpretations do not apply to the Group or do not have a material impact on the Group’s annual consolidated financial statements at 31 December 2012.

The ERAMET group did not opt for the early application of the standards, interpretations and amendments that were not mandatory at 1 January 2012, namely:

- IAS 19 (revised) “Employee benefits” applicable as from 1 January 2013;
- IFRS 13 “Fair value measurement”, applicable as from 1 January 2013;
- amendment to IAS 12 “Recovery of underlying assets”, applicable as from 1 January 2013;
- interpretation of IFRIC 20 “Stripping costs in the production phase of a surface mine” applicable as from 1 January 2013;
- IAS 28 “Investments in associates and joint ventures” applicable as from 1 January 2014;
- IFRS 10 “Consolidated financial statements”, applicable as from 1 January 2014;
- IFRS 11 “Joint arrangements”, applicable as from 1 January 2014;
- IFRS 12 “Disclosure of interests in other entities” applicable as from 1 January 2014.

Standards not yet endorsed by the European Union:

- IFRS 9 “Financial instruments” applicable as from 1 January 2015.

The potential impact of the application of these changes in standards on the consolidated financial statements for the ERAMET group is as follows:

- IAS 19 (revised): the amount of the provision recognised under liabilities in the statement of financial position would increase offset in shareholders’ equity by the pre-tax amount of actuarial gains and losses and unrecognised past service cost totalling some €63 million (€65 million at 31 December 2011) (Note 16).
- IFRS 11: proportionally consolidated companies (Note 2) in these financial statements would be accounted for under the equity method.

The other standards and interpretations have no material impact on ERAMET’s consolidated financial statements.

1.1.1. Use of estimates and judgements

In preparing its financial statements under IFRS, the ERAMET group is required to make estimates and assumptions that affect the carrying amounts of some assets and liabilities and income and expenses, as well as the information provided in certain Notes.

The ERAMET group regularly reviews its estimates and assessments to take account of past experience and other factors that are deemed relevant having regard to economic conditions. As a result of changing assumptions and conditions, the amounts in future financial statements may differ from current estimates.

The main items affected by the changes in estimates are impairment tests, provisions for employee benefits, for site restoration, and deferred taxes. In principle, the ERAMET group reviews these estimates only once a year at each annual reporting date. However, when circumstances require, estimates may be updated at interim reporting dates.

Impairment losses: in accordance with IAS 36—Impairment of Assets, when events or economic changes in the markets in which the ERAMET group operates indicate the possibility of impairment losses on its goodwill, intangible assets and property, plant and equipment, these assets are subject to impairment tests to determine whether their carrying amount has fallen below their recoverable amount or value in use. Goodwill is impairment-tested at least once a year. The recoverable value is the higher of fair value less selling costs and the value in use. In the event that the recoverable amount is below the net carrying amount, an impairment loss is recognised for the difference. The value in use is determined by applying the method of future cash flows expected from the use of the assets, projected over a five-year period, to which a terminal value is added (Note 1.10).

Employee-related liabilities: ERAMET group companies offer their employees various long-term benefits such as retirement packages, pension plans and healthcare plans (Note 1.17). Under IAS 19—Employee benefits, all these liabilities are estimated on the basis of assumptions such as discount rates, rates of return on financial investments under these plans, salary increases, employee turnover rates and mortality tables. The Group generally updates these assumptions once a year and the most recent assumptions used are included in the specific note (Note 16).

Provisions for site restoration: ERAMET group companies must provide for their regulatory and constructive obligations with regard to the restoration of their mining sites at the end of operation. Accordingly, under IAS 16—Property, Plant and Equipment and IAS 37—Provisions, Contingent Liabilities and Contingent Assets, when a mining site is opened, a restoration provision is recognised, offsetting a dismantling asset. These provisions are estimated on the basis of forecast cash flows by maturity and discounted using inflation and discount rates determined in accordance with local economic conditions (Note 17.5). In the absence of regulatory and constructive obligations, the sites for which the end of operation is not determined are not provisioned (Note 1.19).

Deferred tax: Deferred tax assets recognised mainly relate to deductible temporary differences and tax loss carry-forwards in accordance with IAS 12—Income Taxes (Note 19). These deferred tax assets are recognised whenever it is likely that the ERAMET group will have sufficient future taxable profit to absorb these timing differences and tax losses. The estimate of the Group’s capacity to recover recognised deferred-tax assets is based in particular on the earnings forecasts drawn up by each tax entity (Note 1.18).

1.1.2. Changes in accounting methods, errors and estimates

A change in accounting methods is applied only where required under a standard or interpretation and where it provides for more reliable and more pertinent information. Accounting changes are applied retrospectively, except in the event of transitory provisions specific to the standard or interpretation. The financial statements affected by a change in accounting method are adjusted for all the periods presented, as though the new method had always been applied.

Once an error is detected, it is likewise adjusted retrospectively.

Changes to estimates are recognised prospectively; they affect the financial year in which they arise and, as the case may be, future financial years.

The changes in accounting methods, errors and changes to estimates occurring during the year are detailed in a specific note.

1.1.3. “Current” and “non-current” assets and liabilities

“Current” refers to assets and liabilities that are part of the operating cycle, regardless of their maturity, and other assets and liabilities with a maturity of less than one year from their balance sheet entry date. “Non-current” assets and liabilities comprise other assets and liabilities, namely those with maturities of over one year that are not part of the operating cycle.

1.2. Scope and method of consolidation

All material entities that ERAMET exclusively controls either directly or indirectly are fully consolidated. Companies over which ERAMET has significant influence and in which it directly or indirectly holds an interest of over 20% are accounted for under the equity method (Note 8). Jointly controlled companies (joint ventures) are consolidated proportionally.

The list of consolidated companies is provided in Note 2. Material transactions between consolidated companies are eliminated on consolidation.

1.3. Business combinations

The Group recognises business combinations pursuant to IFRS 3 (acquisitions prior to 1 January 2010) or IFRS 3 (Revised) (acquisitions from 1 January 2010). The assets, liabilities and contingent liabilities of an acquired company are measured at their fair value and valuation differences are charged to the relevant assets and liabilities, including the share of non-controlling interests. Any difference between the cost of the business combination and the share in the net fair value of the assets, liabilities and identifiable contingent liabilities is recognised as goodwill under balance sheet assets (Note 1.6).

When the ERAMET group acquires assets and liabilities from non-controlling interests in a company already controlled, no additional fair value adjustment is recognised and the difference between the purchase price and carrying amount of the net assets acquired is recognised in equity (Note 1.6).

1.4. Operating segments

In accordance with IFRS 8 “Operating Segments”, the segment reporting presented is prepared on the basis of the internal management data used by the Executive Committee, the Group’s main operational decision-making body, to analyse business performance and allocate resources.

An operating segment is a separate component of the Group that engages in the provision of distinct products and services and is exposed to risks and profitability that differ from the risks and profitability of other operating segments.

Each operating segment is monitored individually for internal reporting purposes on the basis of performance indicators that are common to all segments. The management data used to assess a segment’s performance are prepared in accordance with the IFRS principles applied by the Group for its consolidated financial statements.

The segments presented for the purposes of segment reporting are either operating segments or combinations of similar operating segments. These are the Nickel, Manganese and Alloys Divisions:

- the Nickel Division, including mining, production and sales subsidiaries focussed on nickel and its derivative applications (ferro-nickel, high purity nickel, cobalt and nickel salts, and cobalt and tungsten powders);
- the Manganese Division, including mining, production and sales subsidiaries focussed on manganese alloys (ferromanganese, silicomanganese and refined alloys) and manganese chemical derivatives (oxides, sulphate, chloride). The Manganese Division also includes subsidiaries that provide services to industry for the recovery and recycling of metals contained in oil-industry catalysts, electric batteries and acid solutions from the electronics industry;
- the Alloys Division, including subsidiaries that produce and market special high-performance steels, superalloys and pre-machined parts based on these materials or aluminium and titanium.

The column headed “Holding company and eliminations” comprises the Group’s corporate departments as well as the financial entities Metal Securities (treasury management) and Metal Currencies (exchange rate risk management), and Eras S.A., the captive reinsurance company. Commercial relationships between the Divisions are not material. The main relationships primarily arise from the billing of management fees and financial transactions.

Other relationships concern the reinsurance company Eras S.A. and the financial companies Metal Securities and Metal Currencies, all three of which are fully consolidated *via* the Holding Division (Note 2):

- Eras S.A. is a captive reinsurance company that acts as a primary insurer in certain reinsurance programmes.
- Metal Securities is a financial company responsible for pooling subsidiaries’ cash to optimise its investment with financial organisations outside the Group.
- Metal Currencies is a financial company responsible for managing the Group’s exchange rate risks.

1.5. Conversion 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 under IAS 21—The effects of changes in foreign exchange rates. Translation adjustments resulting from this translation are recognised in net income for the period (Notes 1.24 and 1.25), except those involving loans and borrowings between 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 are translated using the official exchange

rates at the end of the period for balance sheet items, except for shareholders’ equity, for which historical rates are applied. The items in the comprehensive income statement and the cash flow statement are translated at the average exchange rates for the period. Goodwill arising from an acquisition is considered part of the acquired entity and therefore denominated in its functional currency; it is then translated in the same way as the other balance sheet items. 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” (Note 26.2).

1.6. Goodwill

The cost of a business combination recognised when taking an interest is allocated to the fair value of the assets, liabilities and identifiable contingent liabilities of the acquired entity. The residual, unassigned part is recognised as “Goodwill” under balance sheet assets. Any resulting goodwill is allocated to the relevant cash generating units (CGU). Goodwill is not amortised as per IFRS 3 (acquisitions prior to 1 January 2010) and IFRS 3 (revised) (acquisitions from 1 January 2010), but is tested for possible impairment losses (Note 1.10). Goodwill is impairment-tested at least once a year at the annual reporting date. These impairment losses are not reversible.

If the cost of the business combination is less than the share in the net fair value of the assets, liabilities and contingent liabilities, the identification and measurement of the items acquired are reassessed and any remaining surplus (negative goodwill, or “badwill”) is recognised directly in income for the period under “Other operating income and expenses” (Note 25).

Since 1 January 2010, for the acquisition of additional interests in a company that is already controlled, the difference between the acquisition price and the carrying amount of the non-controlling interests acquired is recognised in equity.

Goodwill in associates is recognised under investments in associates (Note 8).

1.7. Intangible assets

1.7.1. Geology expenses

Geology, exploration, prospecting and mining research expenses incurred prior to operation are recognised as intangible assets under “Other intangible assets” pursuant to IFRS 6 (Note 4). Geology expenses for mining sites already in operation are recognised in income under “Research and development expenditure” (Note 1.24). In accordance with IFRS 6—Exploration for and Evaluation of Mineral Resources, royalties paid for mining prospecting and exploration are capitalised as intangible assets (Note 4). They are measured at acquisition cost less amortisation and any impairment losses.

1.7.2. Other intangible assets

Intangible assets are measured at acquisition cost and amortised on a straight-line basis or on the basis of work units in current operating profit/(loss) (Note 24.1).

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 (Note 4).

Computer software is amortised over a variable period not exceeding five years.

Intangible assets are allocated to cash generating units (CGUs) (Note 1.10). When the net carrying amount of an intangible asset exceeds its recoverable amount, an impairment loss is recognised (Note 1.10).

1.8. Research and development expenditure

Research and development expenditure includes expenses for scientific and technical activities necessary for the development and implementation of new manufacturing processes or the improvement of existing processes.

Development expenditure is capitalised where it satisfies the restrictive criteria set out in IAS 38—Intangible assets, namely, solely when the following conditions are fulfilled:

- the technical and industrial feasibility of the project has been proven,
- the intention is to finish the project and put the results of the project to use,
- the project is clearly identified and the costs attributed are broken down and measured reliably,
- the likelihood of obtaining future economic benefits has been demonstrated, and
- the technical, financial and other resources allocated for the development and use or sale of the intangible assets are available.

Any other research expenditure not satisfying the criteria of IAS 38—Intangible assets is expensed in the period in which it is recognised (Notes 1.24 and 4).

1.9. Property, plant and equipment

Items of property, plant and equipment are recognised in the balance sheet at acquisition or production cost (Note 5). Items of property, plant and equipment are depreciated on a straight-line basis over the estimated lifespan or useful life, based on the components of the asset, in current operating profit/(loss) (Note 1.24).

For reference:

■ Buildings	10-50 years
■ Industrial and mining facilities	5-50 years
■ Other intangible assets	2-10 years

Land is not depreciated.

Capital grants are recognised as deductions from the gross amounts of the items of property, plant and equipment in question. 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 recognised as an item of property, plant and equipment 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 attributable to the acquisition or production of an asset are incorporated in the asset's cost where they are significant.

A provision is recognised upon starting up operations for the restoration of mining sites, with counterpart recognition of component of an item of property, plant and equipment depreciated on a straight-line basis during the operation of the mine.

Mine stripping costs are capitalised under property, plant and equipment and depreciated on the basis of mined tonnage (Note 5).

Leases transferring the risks and benefits inherent in ownership (finance leases) to the Group are recognised as items of property, plant and equipment, offset by a debt (Note 18). 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, pursuant to IFRIC 4—Conditions for determining whether an arrangement contains a lease, and in accordance with IAS 17—Leases.

All items of property, plant and equipment were allocated to cash generating units (CGU) (Note 1.10). Where the net carrying amount of an item of property, plant and equipment exceeds its recoverable amount, an impairment loss is recorded (Note 1.10).

1.10. Impairment of assets

Pursuant to IAS 36—Impairment of assets, 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.

The impairment test consists of comparing the carrying amount of the assets with their recoverable amount.

Impairment losses are calculated as the difference between the recoverable and carrying amounts and recognised in the income for the period under “Other operating income and expenses” (Note 25). The recoverable amount is defined as the greater of the fair value less selling costs and the value in use. The fair value is the resale value determined, as appropriate, by reference to similar recent transactions or to appraisals carried out by independent appraisers with a view to disposal.

In order to determine the value in use, the Group uses the method of discounted future cash flows generated from their use. The data used to calculate the discounted forecast cash flows is taken from the annual budgets and multiyear plans prepared by management at the business segments in question. These plans are created on the basis of 5-year projections plus a terminal value corresponding to the capitalisation to infinity of the cash flows determined chiefly from the last year of the plan. The pre-tax discount rate used to determine the value in use is the weighted average cost of the Group’s capital, namely 11.5% for mining and 10% for metallurgical activities (compared to 11.5% and 10.5% previously).

Impairment tests are performed at the level of the cash generating units (CGUs). All intangible assets, including goodwill, and all items of property, plant and equipment are allocated to CGUs. Cash generating units (CGUs) are homogeneous groups of assets whose continuous use generates independent cash flows. The ERAMET group has determined its cash-generating units (CGUs) by reference to the various production sites of its three major business lines: nickel, manganese and alloys (Note 7).

1.11. Other non-current financial assets

Other non-current financial assets include available-for-sale financial assets (Notes 1.11.1 and 9) and other investments (Notes 1.11.2 and 10).

1.11.1. Financial assets held for sale

These assets mainly consist of non-consolidated investments (Note 8) and are measured at fair value. Investments in non-consolidated companies are recognised at their acquisition cost, less any impairment losses. Where those investments exhibit objective evidence of significant or lasting impairment, the impairment loss is recognised in net income for the period under “Other financial income and expenses” (Note 26.2).

Other investments are deemed to be available for sale assets and recognised at fair value. These investments are interests in companies over which the Group has no control or significant influence.

The fair value is measured on the basis of their listed share price or, if unavailable, using the discounted future cash flow method or, failing this, another appropriate method.

1.11.2. Other investments

Other investments (Note 10) relate to loans or current accounts extended to non-consolidated companies. 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 (definition in Note 1.14), less any impairment losses, offset in income for the period under “Other financial income and expenses” (Note 26.2).

Financial assets as defined in IFRS 7—Financial instruments, are derecognised when the Group no longer expects future cash flows and all the risks and rewards relating to these assets have been transferred.

1.12. Assets held for sale and discontinued operations

A non-current asset or a group of assets with the directly related liabilities, are considered as held for sale where their carrying amount will be recovered from their sale and not from their continued use. They must be immediately available and the sale highly likely. When several assets are intended for sale in a single transaction, the asset group is considered as a whole, including the related liabilities. The assets held for sale thereby determined are measured at the lesser of the carrying amount and the fair value less selling costs. Intangible assets and property, plant and equipment classified as held for sale are no longer depreciated.

A discontinued operation is defined as a material Group activity subject to disposal or classification in assets held for sale. The assets and liabilities relating to this operation are presented under a special item in the Group’s consolidated financial statements.

On each reporting date, the amount of assets held for sale must be reviewed to take into account any adjustments to their fair value less selling costs.

1.13. Inventories

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 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 “in-store” products 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. Capacity usage is established as sub-normal when the actual production volume is below 10% of normal production volume (or normal capacity).

1.14. Receivables and debts

Receivables and debts are measured upon initial recognition at fair value plus any transaction expenses and are subsequently re-measured at each reporting date at amortised cost using the effective interest rate method. The effective interest rate is the rate that precisely discounts the expected future cash movements. Foreign currency receivables and debts are re-measured at the rate prevailing at the period-end date. Resultant translation adjustments are recognised in the income statement as exchange differences under current operating profit/(loss) or net borrowing cost, depending on the type of receivable or debt.

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 net income for the period under “current operating profit/(loss)” (Note 23), reduces the nominal amount.

Receivables disposed of under a securitisation contract are derecognised in accordance with IAS 39—“Financial instruments: recognition and measurement” where the Group has transferred the contractual rights to receive the future cash flows and substantially all the risks and rewards attached to these assets have been transferred. Where the risks are retained without prejudicing deconsolidation of receivables, they remain recognised in the balance sheet under other operating receivables together with the related security deposits (Note 12).

Transfers with recourse against the transferor in the event of the debtor defaulting on payment preclude derecognition of receivables transferred and these assets are therefore retained in the balance sheet.

1.15. Other current financial assets

These assets primarily comprise securities (Note 13.1) that do not meet the criteria for cash equivalents defined in IAS 7. These securities are measured at fair value on their first recognition. The fair value used is the stock-market value for listed securities, and for unlisted securities, is based on estimates using specific financial criteria reflecting the particular situation of each stock (similar transactions or discounted value of future cash flows). Changes in the fair value of these investments are recognised in transferable equity under “Change in fair value of held-for-sale financial assets”. Where those assets exhibit objective evidence of significant or lasting impairment, the cumulative impairment loss, previously recognised in equity, is recognised in income for the period under “Other financial income and expenses” (Note 26.2).

1.16. Cash and cash equivalents

Cash includes cash in hand and demand deposits, excluding bank overdrafts, which appear under financial liabilities. Cash equivalents correspond to marketable securities and consist of investments held to meet short-term cash requirements and are not considered as held to maturity.

Marketable securities are recognised in the statement of financial position at their fair value in accordance with IAS 39—“Financial instruments”. To be considered a cash equivalent, they must be readily convertible to cash and subject to negligible risk of fluctuations in value. Fair value changes are recognised in net income for the period under “Net borrowing cost” (Note 26.1).

1.17. Employee liabilities

Defined contribution plans: for the defined contribution plans granted, employer contributions are expensed in the period to which they relate.

Defined benefit plans: ERAMET group companies offer their employees various long-term benefits, such as retirement packages or other additional post-employment benefits (pension plan or healthcare plan). The characteristics of these plans vary in line with the laws and regulations in force in each country and/or subsidiary.

At some companies, these liabilities are wholly or partly covered by policies taken out with insurance companies or pension funds. In this case, the liabilities and hedging assets are measured independently. The defined benefit pension plans are measured using the projected unit credit actuarial method. The provision recognised for the defined benefit pension plans represents the present value of the defined benefit liability adjusted for unrecognised actuarial gains and losses and unrecognised past service cost, less the fair value of plan assets.

Actuarial differences arise where the estimates differ from actual performance (for example, the expected value of plan assets versus the actual closing value) and where actuarial assumptions (such as the discount rate) are adjusted.

For long-term benefits (such as long-service bonuses), actuarial differences are recognised in the income statement at each reporting date. For post-employment benefits, actuarial differences are not recognised unless they represent over 10% of the higher of the present value of liabilities and the fair value of plan assets; this excess is amortised over the expected average remaining working life of employees in the plan (corridor method). Plan amendment costs are apportioned over the remaining vesting period.

1.18. Deferred tax

The amount of tax actually owed at the reporting date is adjusted for deferred tax, which is calculated using the liability method with regard to temporary differences between carrying amounts and tax amounts, as well as with regard to consolidation restatements. 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. Deferred tax is not discounted.

To assess the likelihood that these assets will be realised, the Group reviews the following information:

- future forecast profitability;
- extraordinary losses not expected to recur in the future;
- past taxable profits; and
- tax strategies.

Deferred tax assets and liabilities are recognised as balance sheet assets and liabilities in the statement of financial position (Note 18). Deferred tax is deemed to be non-current and classified as such.

In the consolidated balance sheet, deferred tax assets and liabilities are offset individually within each tax entity, *i.e.* individually within the legal entity or tax consolidation group (Note 19).

Deferred tax liabilities on investments in subsidiaries, associates and joint ventures are recognised unless where the Group can determine the timetable for the reversal of the related temporary differences. Provisions are made for non-recoverable levies on dividends planned in respect of the previous financial year.

1.19. Provisions

Provisions are made, where their amount can be reliably estimated, to cover all liabilities stemming 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.

Provisions for mining site restoration are made when the mining sites open.

Restoration costs are discounted over the period remaining until the expected end of operation of the mine and the effects of accretion expenses are recognised in net income for the period under "Other financial income and expenses" (Note 26.2).

As regards industrial sites, insofar as there are no plans to discontinue operations, no provision is made for site restoration.

Provisions are made for restructuring and redundancy costs where such measures have been planned in detail and announced before the reporting date or the start of implementation.

1.20. Recognition of financial instruments

Financial instruments are recognised in the financial statements in line with IAS 39—Financial instruments—Recognition and measurement.

Risks: the Group uses financial instruments to hedge certain risks. To manage its foreign currency risk, the 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 Group has defined and documented the hedging relationship and demonstrated its effectiveness. Overall interest-rate risk is managed using interest-rate swaps. Lastly, the Group also uses collars and swaps when hedging commodity purchases and sales (nickel, fuel oil, aluminium and electricity).

Measurement and presentation: derivatives are measured at their fair value upon initial recognition. Subsequently, the fair value of derivatives is reviewed 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 Group would receive (or pay) to unwind current contracts on the reporting date.

The fair value of commodity derivatives is estimated on the basis of market conditions. Derivatives are presented as assets or liabilities in the statement of financial position (Note 22).

Hedge accounting: 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 the income statement.

The 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 re-measured 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 operating profit/(loss).
- Cash flow hedge: the hedged item is not re-measured. Only the hedging instrument is re-measured at fair value. To offset the re-measurement, 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 recycled to net 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 ineligible for hedge accounting: the Company only uses these derivatives to hedge future cash flows. Changes in fair value are immediately recognised in net financial income.

In accordance with the revised IFRS 7, the fair values of financial instruments are ranked according to a three-level hierarchy:

- Level 1: Quoted prices (unadjusted) on an active market for like assets and liabilities;
- Level 2: Quoted 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.

1.21. Concession

The Transgabonais railway concession was recognised as follows: own property held by the company holding the concession is recognised as a balance sheet asset and depreciated over the shorter of its useful life or the remaining period of the concession. Return assets representing the assets contributed to the concession by the State that must be returned in kind upon expiry of the agreement are not recognised in the balance sheet. Assets acquired by the concession holder following the signing of the concession agreement that must be turned over to the State 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.

1.22. Income

Income mainly comprises the following:

- Sales, including the sale of merchandise, goods and services generated in the course of the Group's main business activities. This is a component of "current operating profit/(loss)" (Note 23).
- Other revenue includes other income assigned to current operating profit/(loss) (Note 23) such as translation adjustments on sales, lease income and insurance premiums received.
- Interest income recognised in net income for the period under "Net borrowing costs" (Note 26.1).
- Dividends included in net income for the period under "Other financial income and expenses" (Note 26.2).

The income recognition criteria by category are as follows:

- Sales and other income: income is recognised as revenue once the company has transferred the main risks and benefits inherent in ownership of the goods to the buyer. Sales are measured at the fair value of the consideration received or receivable. In the event of a deferred payment having a material impact on the calculation of the fair value, future payments are discounted accordingly.
- Interest: income is recognised for the amount of accrued interest.
- Dividends: income from investments in associates is recognised whenever the Group is entitled to receive payment as a shareholder.

1.23. Share-based payment

The various share subscription and purchase option plans (stock options), as well as bonus share plans established by the Group are all equity-settled plans. 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. In this regard, the Group uses the Black & Scholes or Monte Carlo mathematical valuation model.

During the vesting period, the total fair value thereby determined is apportioned on a straight-line basis over the full vesting period for the plan in question, 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 as a personnel cost, offset by an increase in shareholders' equity. When the options are exercised, the exercise price received by the Group is recognised in cash and offset in shareholders' equity.

1.24. Current operating profit/(loss) and other operating income and expenses

In accordance with paragraphs 88 and 89 of IAS 1, ERAMET presents its income statement using the composite "function and nature" approach, so as to comply with the Group's internal management reporting procedures. The ERAMET group specifically uses EBITDA and current operating profit/(loss) as performance indicators. EBITDA includes 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) includes EBITDA, depreciation, amortisation and provisions; it consists in particular of the cost of employee-related liabilities including the financial component, the cost of employee profit-sharing and translation adjustments between the rates upon recognition and those at the reporting date (trade receivables and payables).

Other operating income and expenses only include very limited, unusual, abnormal and infrequent income and expenses for particularly material amounts that the Group presents separately in its income statement in order to facilitate understanding of current operating performance. This item primarily consists of:

- restructuring costs;
- costs incurred for development projects whose profitability has yet to be demonstrated;
- capital gains and losses from sales of assets;
- impairment losses on goodwill, intangible assets and property, plant and equipment.

1.25. Net financial income

Net financial income consists of the following items:

- net borrowing costs, these being income statement items relating to balance sheet components of net borrowing, namely, financial liabilities and cash and cash equivalents;
- other financial income and expenses, such as dividends, provisions for securities, accretion expenses and gains/losses on instruments that are non-eligible as hedges under IAS 39.

1.26. Earnings per share

Basic earnings per share before dilution are obtained by dividing the Group profit/(loss) by the average number of shares outstanding during the period. This average number of shares outstanding excludes treasury shares.

Diluted earnings per share are obtained by adjusting Group profit/(loss) for the period and the number of shares for potentially dilutive effects, mainly represented by employee subscription and purchase option plans (stock options).

1.27. Risks

Environmental risks: where there is a legal or contractual obligation to restore mining sites, a restoration provision is made, offset by a dismantling asset. The provision is based on site-by-site estimates of the cost of this work, the total cost being apportioned over the life of the operation of the mine (Notes 1.9, 1.19, 6 and 17.5).

Provisions are made for any other environmental contingencies on the basis of estimated future costs without, however, making any allowance for insurance indemnities receivable (Note 17.5).

Market risks: to manage its interest rate and foreign currency risks, the Group has recourse to various financial instruments. 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 the income statement.

All transactions outstanding at the reporting date are recognised in the statement of financial position, with no set-off (Note 22).

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 (Note 20).

In addition, the Group uses financial instruments to limit its exposure to the currency risk on its sales and on certain dollar-denominated costs.

Interest rate risks: depending on market conditions and on forecast changes in net debt, the Group Finance Department monitors the breakdown between fixed and floating rate debt and cash investments. The financial instruments used are interest-rate swaps, caps and floors (Note 22).

Commodities risks: the Group holds derivative instruments for purposes of reducing its exposure. For this purpose, ERAMET mainly uses futures, combined call and put options (collars) and call options (Note 22).

Counterparty risks: the Group can be exposed to credit risk in the event of default by a counterparty. To limit this risk the Group collects and reviews information ahead of financial transactions from, e.g., rating agencies and published financial statements. No systematic arrangement is therefore in place to hedge counterparty risk (Note 22).

Liquidity risk: the Group is obliged to repay its financing borrowings, and to pay its other liabilities. To cover its liquidity risks, ERAMET has additional sources of finance consisting of credit lines and commercial-paper facilities (Note 22).

Note 2. Scope of consolidation

2.1. Changes in scope of consolidation

The scope of consolidation at 31 December 2012 changed as follows from 31 December 2011:

2.1.1. Consolidation of Somivab

The Gabonese company Somivab, 83% held by Comilog S.A. (Manganese Division) was fully consolidated as from 1 January 2012.

2.1.2. Acquisition of 15% in Setrag S.A.

In March and April 2012, Comilog S.A. (Manganese Division) acquired 15% of the "Transgabonais" railway concession operator Setrag S.A., raising its holding to 100%.

2.1.3. Bolera Minera S.A. capital increase

Following the increase in capital, fully subscribed by Eramine (Holding Division), the Argentinean company Bolera Minera S.A. is now 82%-owned and fully-consolidated (it was previously 50%-owned and consolidated proportionally).

2.1.4. HeYe operation

Erasteel (Alloys Division) and HeYe Special Steel Ltd, a Chinese company majority owned by AT&M Ltd (Advanced Technology Materials), both of which specialise in high-speed steels, entered into a strategic agreement in early 2012 for commercial co-operation world-wide and industrial co-operation in China. Under its terms:

- in March 2012, Erasteel acquired 10% of the capital of HeYe Special Steel Ltd for €14 million;
- in May 2012, following an increase in capital reserved for HeYe Special Steel Ltd, Erasteel sold 51% of its Chinese subsidiary, Erasteel Innovative Materials Ltd. That subsidiary, now named HeYe Erasteel Innovative Material Ltd, is 49% owned by the Group and equity consolidated as from 1 May 2012;
- the Chinese company Erasteel Trading Ltd, the Asiatic logistical hub, is wholly-owned by Erasteel and was created and fully consolidated in early 2012.

2.2. List of consolidated companies as at 31 December 2012

At 31 December 2012, the consolidation scope included 66 companies (at 31 December 2011: 68), 59 fully-consolidated companies, 5 proportionally-consolidated companies, and two equity-consolidated companies (as at 31 December 2011: 61 fully-consolidated companies, six proportionally-consolidated companies, and one equity-consolidated company).

Company	Country	Consolidation method	Percentage (%) of	
			control	interest
ERAMET	France	Consolidating	-	-
Nickel				
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 Minerals Pty Ltd	Australia	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
Unimin AG	Switzerland	Fully consolidated	100	100
Manganese				
ERAMET Holding Manganese	France	Fully consolidated	100	100
ERAMET Comilog Manganèse	France	Fully consolidated	100	81.86
ERAMET Marietta Inc.	US	Fully consolidated	100	100
ERAMET Norway A/S	Norway	Fully consolidated	100	100
Valdi	France	Fully consolidated	100	100
Eralloys Holding A/S	Norway	Fully consolidated	100	100
DNN Industrier A/S	Norway	Fully consolidated	100	100
Tinfos A/S	Norway	Equity method	33.35	33.35
Comilog S.A.	Gabon	Fully consolidated	63.71	63.71
Setrag S.A.	Gabon	Fully consolidated	99.96	63.66
Somivab	Gabon	Fully consolidated	83	52.88
Comilog Holding	France	Fully consolidated	100	63.71
Comilog International	France	Fully consolidated	100	63.71
Comilog Lausanne	Switzerland	Fully consolidated	100	63.71
Port Minéralier d'Owendo S.A.	Gabon	Fully consolidated	97.26	61.96
Erachem Comilog S.A.	Belgium	Fully consolidated	100	63.71
Comilog US	US	Fully consolidated	100	63.71
Gulf Chemical & Metallurgical Corp.	US	Fully consolidated	100	63.71
Bear Metallurgical Corp.	US	Fully consolidated	100	63.71
Gulf Chemical & Metallurgical Corp. Canada	Canada	Fully consolidated	100	63.71
Erachem Comilog Inc.	US	Fully consolidated	100	63.71
Comilog France	France	Fully consolidated	100	63.71
Comilog Dunkerque	France	Fully consolidated	100	63.71
Miner Holding BV	The Netherlands	Fully consolidated	100	63.71
Erachem Mexico S.A.	Mexico	Fully consolidated	100	63.71
TiZir Ltd	United Kingdom	Proportional consolidation	50	50
TiZir Titanium & Iron A/S	Norway	Proportional consolidation	50	50
TiZir Mauritius Ltd	Mauritius	Proportional consolidation	50	50

Company	Country	Consolidation method	Percentage (%) of	
			control	interest
Grande Côte Opérations S.A.	Senegal	Proportional consolidation	50	45
Comilog Asia Ltd	Hong Kong	Fully consolidated	100	92.74
Comilog Asia Ferro Alloys Ltd	Hong Kong	Fully consolidated	100	92.74
Guangxi Comilog Ferro Alloys Ltd	China	Fully consolidated	70	64.92
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 Shanghai Consultancy Services Co. Ltd	China	Fully consolidated	100	92.74
Alloys				
Erasteel	France	Fully consolidated	100	100
Erasteel Champagneole	France	Fully consolidated	100	100
Erasteel Kloster AB	Sweden	Fully consolidated	100	100
Erasteel Stubs Ltd	United Kingdom	Fully consolidated	100	100
Erasteel Inc.	US	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
Interforge	France	Fully consolidated	94	94
Aubert & Duval	France	Fully consolidated	100	100
UKAD	France	Proportional consolidation	50	50
Airforge	France	Fully consolidated	100	100
Holding company 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	82
Eramine Sud America S.A.	Argentina	Fully consolidated	100	100

All companies within the scope of consolidation share the same reporting date of 31 December.

Note 3. Goodwill

3.1. By category

(€ million)	31/12/2012	31/12/2011	31/12/2010
ERAMET Norway A/S	155	154	154
TiZir Mauritius Ltd	-	38	-
Valdi	8	8	8
Eurotungstène Poudres	6	6	6
Erasteel Stubs Ltd	-	-	-
Port Minéralier d'Owendo S.A.	-	-	-
Bear Metallurgical Corp.	-	-	-
Aubert & Duval	3	3	3
Other companies (less than €1 million)	1	1	1
TOTAL	173	210	172
<i>of which impairment losses</i>	<i>(31)</i>	<i>(31)</i>	<i>(31)</i>

3.2. Changes over the period

(€ million)	FY 2012	FY 2011	FY 2010
At beginning of period	210	172	161
Business combinations	(38)	36	10
Other changes in scope	-	-	-
Impairment losses in period	-	-	-
Translation adjustments and other movements	1	2	1
AT PERIOD END	173	210	172

The business combinations in 2010 consisted of the acquisition of Valdi and the additional payment for Eralloys Holding A/S, for €8 million and €2 million respectively.

The business combinations in the financial year 2011 concern the operation linked to the setting up of the TiZir Ltd joint venture company for the funding contributed by Mineral Deposits Ltd.

This business combination, which was temporarily recognised as goodwill, was recognised as an intangible asset under mining reserves following the allocation of the acquisition price in the first half of 2012, based on assessments by independent experts (Note 4).

No impairment loss was recognised at 31 December 2012.

Note 4. Intangible assets

4.1. By category

<i>(€ million)</i>	Gross amount	Amortisation & depreciation	Impairment losses	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Mining reserves	372	(69)	-	303	267	262
Expenses for geology, prospection and research	344	(17)	-	327	268	182
Software	63	(52)	-	11	5	3
Other intangible assets	73	(40)	-	33	44	59
Work in progress, down payments	45	(2)	-	43	28	15
TOTAL	897	(180)	-	717	612	521

4.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	612	521	432
Business combinations	44	20	2
Other changes in scope	-	-	-
Capital expenditure for the period	96	84	78
Disposals for the period	(3)	(7)	-
Amortisation, depreciation and impairment losses for the period	(17)	(16)	(8)
Translation adjustments and other movements	(15)	10	17
AT PERIOD END	717	612	521
• Gross amount	897	776	662
• Amortisation & depreciation	(180)	(164)	(139)
• Impairment losses	-	-	(2)

The mining deposits include Gabon (Manganese Division), New Caledonia and Indonesia (Nickel Division) representing respectively €32 million, €13 million and €215 million (€34 million, €13 million and €219 million at 31 December 2011), and Senegal (Manganese Division) representing €43 million after the allocation of the acquisition price in 2012, following the creation of the TiZir Ltd joint venture in early October 2011 (Note 3).

Geology, prospecting and research expenses are recognised as capitalised costs (geology, exploration, prospecting, technical and economic research expenses) in connection with the Weda Bay project representing €300 million (€243 million at 31 December 2011) and for the TiZir project in Senegal representing €20 million (unchanged from 31 December 2011) (Note 6).

Investments include the expenses incurred for mining projects (geology, exploration, prospecting, and technical and economic research expenses allocated to "Other intangible assets").

Investments over the period (€96 million) were primarily comprised of expenses in Indonesia (Weda Bay project) of €63 million (€64 million in 2011) and €5 million on software (€1 million in 2011).

Business combinations for the financial year 2010 concern the company Valdi acquired early 2010.

In 2011, they consisted of the creation of the TiZir Ltd joint venture accounting for research and development expenditure of €19 million and the mining reserves in Senegal of €1 million. The goodwill of €38 million (Note 3) calculated during the operation was allocated to the mining reserves after the acquisition price was allocated in 2012 (Note 2).

No impairment loss was recognised in 2012.

4.3. Research and development expenditure – expenses during the period

(€ million)	31/12/2012	31/12/2011	31/12/2010
Non-capitalised research and development expenditure	51	47	44
of which geological expenses:			
• Nickel	12	12	14
• Manganese	-	-	-
Percentage of sales	1.5%	1.3%	1.2%

Ordinary expenses for mining sites already opened or in operation (Nickel and Manganese Divisions) are not capitalised and represent expenses in the financial year in which they are incurred.

Note 5. Property, plant and equipment

5.1. By category

(€ million)	Gross amount	Amortisation & depreciation	Impairment losses	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Land and buildings	955	(501)	(59)	395	358	378
Industrial and mining facilities ⁽¹⁾	3,095	(1,799)	(66)	1,230	1,106	1,058
Other Property, plant & equipment	674	(415)	-	259	211	219
Work in progress, down payments	571	(1)	-	570	444	248
TOTAL	5,295	(2,716)	(125)	2,454	2,119	1,903
(1) of which:						
• Capital grants deducted				-	-	-
• Dismantling assets—site restoration (Note 16.4)				118	98	88

5.2. Change over the period

(€ million)	FY 2012	FY 2011	FY 2010
At beginning of period	2,119	1,903	1,795
Business combinations	(10)	6	9
Other changes in scope	-	-	(2)
Capital expenditure for the period	545	408	248
Disposals for the period	(6)	(12)	(4)
Amortisation, depreciation and impairment losses for the period	(237)	(228)	(205)
Translation adjustments and other movements	43	42	62
AT PERIOD END	2,454	2,119	1,903
• Gross amounts	5,295	4,754	4,363
• Amortisation & depreciation	(2,716)	(2,508)	(2,346)
• Impairment losses	(125)	(127)	(114)

In 2011, impairment losses of €17 million were recognised in the Manganese Division, mainly involving the “Recycling” business.

In 2012, business combinations concerned the consolidation of the Gabonese company Somivab (Manganese Division) and the sale of the Chinese company Erasteel Innovative Materials Ltd (Alloys Division) (Note 2).

5.3. Breakdown of main strategic capital expenditure programmes

(€ million)	FY 2012	FY 2011	FY 2010
Nickel production expansion—Le Nickel-SLN	-	-	3
Manganese production expansion—Comilog S.A.	19	13	7
CMM plant—Comilog S.A.	80	39	15
TiZir project in Senegal—Grande Côte Opérations S.A.	108	7	-
New Gulin plant—Guilin Comilog Ferro Alloys Ltd	16	50	15
Titanium ingot processing plant—UKAD	1	14	11
TOTAL	224	123	51

The main capital expenditure programmes are financed from cash and borrowings.

The amount of finance leased non-current assets in the balance sheet breaks down as follows:

(€ million)	Gross amount	Amortisation & depreciation	Impairment losses	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
40,000 ton press—Airforge	77	(23)	-	54	58	61
Industrial facilities—Aubert & Duval	15	(14)	-	1	1	2
Administrative buildings—Aubert & Duval	7	(4)	-	3	3	3
53 th floor, Tour Montparnasse—ERAMET	5	(3)	-	2	2	2
TOTAL	104	(44)	-	60	64	68

Future finance lease payments are presented in Note 20—Borrowings.

Note 6. Mining projects

6.1. Weda Bay project in Indonesia

Since May 2006, the ERAMET group has been involved in a project to develop a world-class nickel deposit at the Halmahera site in Weda Bay, Indonesia.

The final investment decision should be made following the results of the final technical and economic feasibility studies of the project in 2014.

The net value of the Weda Bay assets breaks down as follows:

(€ million)	31/12/2012	31/12/2011	31/12/2010
Mining reserves	215	219	213
Expenses for geology, prospection and research	300	243	176
Property, plant and equipment	15	13	5
TOTAL ASSETS	530	475	394

Capitalised project expenditure mainly consists of the geology, exploration and prospecting costs, and the costs of technical and economic studies.

The project's recoverable value is regularly measured on the basis of studies of the project's cost, its potential markets and nickel price forecasts.

ERAMET'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

Antam Pt Group which owns 10% of the Pt Weda Bay Nickel, the owner of the deposit.

Pt Antam has several purchase options allowing it to increase its interest, the terms and conditions of exercise of which are given in Note 30—Other commitments.

Furthermore, ERAMET 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 17.5—Other contingencies and losses.

6.2. TiZir project in Senegal and Norway

On 27 July 2011, ERAMET 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 agreement was signed on 25 October 2011. The joint venture company and its subsidiaries are consolidated proportionally to 50% as from 1 October 2011.

The net value of the project's assets breaks down as follows:

(€ million)	31/12/2012	31/12/2011	31/12/2010
Goodwill	-	38	-
Mining reserves	42	1	-
Expenses for geology, prospection and research	20	20	-
Property, plant and equipment—Senegal	138	34	-
Intangible assets—Norway	1	-	-
Property, plant and equipment—Norway	20	19	-
TOTAL ASSETS	221	112	-

The acquisition price allocation was established by independent experts and recognised as intangible assets under mining reserves. It was limited to the contributions by Minerals Deposits Ltd (MDL) owing to the application of interpretation SIC 13—Jointly-controlled entities—Non-monetary contributions by venturers.

Note 7. Impairment of assets

7.1. Estimates and judgements

At 31 December 2012, the ERAMET group is broken down into 18 cash generating units (CGUs) corresponding to the different production sites of the three Divisions:

- 3 CGUs in the Nickel Division;
- 13 CGUs in the Manganese Division;

- 2 CGUs in the Alloys Division.

All assets, including mining assets and goodwill, are allocated to a cash-generating unit (CGU) (Note 1.10). Goodwill included in the net book value of cash-generating units (CGU), tested on 31 December 2012 are as follows:

(€ million)	31/12/2012		31/12/2011		31/12/2010	
	Net amount	Of which impairment	Net amount	Of which impairment	Net amount	Of which impairment
Cash generating units						
Nickel Division	6	-	6	-	6	-
• “Powders” business	6	-	6	-	6	-
Manganese Division	163	(14)	200	(14)	162	(14)
• “Recycling” business	8	(2)	8	(2)	8	(2)
• Port Minéralier d’Owendo S.A.	-	(10)	-	(10)	-	(10)
• Erachem Mexico	-	(2)	-	(2)	-	(2)
• Norwegian business (incl. Tinfos)	155	-	154	-	154	-
• TiZir Ltd and its subsidiaries	-	-	38	-	-	-
Alloys Division	4	(17)	4	(17)	4	(17)
• High-speed steel business	-	(9)	-	(9)	-	(9)
• Aubert & Duval	4	(8)	4	(8)	4	(8)
TOTAL	173	(31)	210	(31)	172	(31)

The change in the net value of goodwill stems mainly from translation adjustments and the allocation to intangible assets or to property, plant and equipment after the acquisition price was allocated (Note 3).

Indication of impairment loss: the existence of events calling for impairment loss testing is determined following the opinion of the Group's general management, based on several criteria. Impairment loss indicators correspond mainly to the following changes and variations:

- business (economic environment, markets);
- interest rate;
- technological level;
- asset obsolescence and performance.

An impairment loss test is carried out on the cash-generating units (CGU) or on the individual assets concerned when these indicators show an adverse change.

The data and assumptions used to carry out impairment tests on non-current assets in cash generating units (CGUs) are as follows:

- **Recoverable value:** the recoverable value of a cash-generating unit (CGU) or of an individual asset is the higher of the fair value less the costs of sale and its value in use.

The value in use, determined using the method of discounted future cash flows generated from the use of the assets, is the measurement basis preferred by the Group.

- **Cash flow statement:** the cash flows used for measuring the value in use result from the multiyear plans (5-year plans) prepared by management, plus a terminal value. The terminal value is the capitalisation to infinity of the cash flows in the last year of the multiyear plan.

The cash flows consist of the operating cash flow adjusted for changes in working capital requirement and investments. The growth rates used are the same as those used in budgets and the growth rates to infinity used for the terminal values are between 0% and 2%, depending on the CGU.

- **Discount rate:** the discount rate used to calculate the value in use is the weighted average cost of capital, which is:
 - 11.5% for mining activities (unchanged from 2011);
 - 10% for metallurgical activities (compared to 10.5% en 2011).

The gearing applied is the average gearing for the segment. Country risk was factored in for the Group's mining activity in Gabon and New Caledonia in the same proportion.

7.2. Annual test for impairment loss

The items tested consist of goodwill, intangible assets and property, plant and equipment of the cash-generating units (CGU) or of the individual assets concerned.

Impairment losses were recognised on goodwill of €31 million (unchanged from 2011) (Note 3) and on property, plant & equipment of €125 million (compared with €118 million at 31 December 2011) (Note 5).

Impairment losses and changes in these losses stem mainly from the following factors:

(€ million)	FY 2012				FY 2011				FY 2010			
	Total	Goodwill	Intangibles	PP&E	Total	Goodwill	Intangibles	PP&E	Total	Goodwill	Intangibles	PP&E
At beginning of period	(158)	(31)	-	(127)	(145)	(31)	-	(114)	(145)	(31)	-	(114)
(Impairment)/Net reversals for the period	(2)	-	-	(2)	(2)	-	-	(2)	10	-	-	10
Translation adjustments and other movements	4	-	-	4	(11)	-	-	(11)	-	-	-	-
AT PERIOD END	(156)	(31)	-	(125)	(158)	(31)	-	(127)	(135)	(31)	-	(104)
Allocated:												
• "Recycling" business	(49)	(2)	-	(47)	(46)	(2)	-	(44)	(2)	(2)		
• High-speed steel business	(44)	(9)	-	(35)	(46)	(9)	-	(37)	(9)	(9)		
• Special products business	(26)	-	-	(26)	(27)	-	-	(27)		-		
• Erachem Comilog S.A.	(8)	-	-	(8)	(9)	-	-	(9)		-		
• Guangxi Comilog Ferro Alloys Ltd	(4)	-	-	(4)	(2)	-	-	(2)		-		
• Other CGU	(20)	(20)	-	-	(20)	(20)	-	-	(20)	(20)		
Cash generating units (CGU)	(151)	(31)	-	(120)	(150)	(31)	-	(119)	(31)	(31)	-	
Individual assets	(5)	-	-	(5)	(8)	-	-	(8)	(2)	-	(2)	

Cash generating units

Impairment losses in the Manganese Division correspond mainly to the "Recycling" business for which impairment was recognised since the financial year 2008, and the "Special products" business in the United States for which impairment was recognised since 2003 (Notes 5 and 23).

In 2009, impairment losses in the Alloys Division mainly concerned Erasteel's "High-speed steel" business (Notes 3, 5 and 24).

Individual assets

The impairment of individual assets mainly concerns the closure of a production line in Sweden in the Alloys Division with no significant change compared to earlier financial years.

No other material impairment losses were recognised at 31 December 2012.

7.3. Sensitivity

Sensitivity is determined by reference to changes in future cash flows and discount rates.

The 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 cash-generating units (CGU) concerned are as follows:

- cash-generating units (CGU) involving sizeable goodwill;
- cash-generating units (CGU) whose test result is negative or positive to a non-significant extent.

The cash-generating unit (CGU) Aubert & Duval in the Alloys Division was tested on 31 December 2012 using the data from the medium-term plan (2015 milestone). This plan combined several objectives: business growth, particularly in the aeronautics sector, productivity gains and reduction in overheads. A 5% deviation from assumptions for each of the three objectives taken separately would not change the test results. In addition, impairment would not be recognised for a change of over 0.5% in the discount rate, as also a 0.5% decrease in long-term growth rate in like operating conditions.

In the case of the Norway business CGU, represented by ERAMET Norway A/S in the Manganese Division, the various scenarios of price sensitivity, business level and discount rate do not call for impairment.

For the Comilog Dunkerque CGU and the China CGU in the Manganese Division, a 1% increase in the discount rate and a decrease in the projected gross margin would lead to impairment.

No additional impairment was recorded for the financial year 2012, for the Recycling business CGU of the Manganese Division in the United States. A 1% increase in the discount rate or a 10% fall in business or a 5% decrease in prices would call for additional impairment.

Note 8. Investments in associates

8.1. By category

<i>(€ million)</i> Companies	Country	% interest	Share of profit/(loss)	Share of shareholders' equity		
				31/12/2012	31/12/2011	31/12/2010
Tinfos A/S	Norway	33.35%	1	24	23	22
HeYe Erasteel Innovative Materials Ltd	China	49%	(1)	9	-	-
TOTAL			-	33	23	22

Following the sale of 51% of Erasteel Innovative Materials Ltd during the HeYe operation (Note 2), this company was equity-consolidated as from 1 May 2012.

8.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	23	22	21
Business combinations	9	-	-
Other changes in scope	-	-	-
Capital expenditure for the period	-	-	-
Disposals for the period	-	-	-
Share of profit/(loss) for the period	-	1	1
Dividends paid	-	-	-
Translation adjustments and other movements	1	-	-
AT PERIOD END	33	23	22

Note 9. Non-consolidated subsidiaries

9.1. By category

(€ million) Countries	Country	% interest	Gross amount	Impairment losses	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Brown Europe	France	100%	8	-	8	8	8
HeYe Special Steel Ltd	China	10%	14	-	14	-	-
Cooltech	France	10%	2	(2)	-	2	-
Metallied	Spain	51%	1	(1)	-	1	-
Aubert & Duval USA Inc. (formerly HTM Inc.)	US	100%	3	(1)	2	2	1
Erasteel GmbH	Germany	100%	3	(1)	2	1	1
ERAMET Alloys UK Ltd	Great Britain	100%	4	-	4	4	4
Aubert & Duval Mold and Die Technology	China	85%	3	(1)	2	2	2
Stahlschmidt GmbH	Germany	100%	3	-	3	3	3
La Petite-Faye	New Caledonia	100%	2	-	2	2	2
Exeltium	France	-	3	-	3	3	3
Somivab	Gabon	-	-	-	-	2	2
ERAMET Research	France	100%	1	-	1	1	1
ERAMET Ingénierie	France	100%	1	-	1	1	1
Other companies (less than €1 million)	-	-	39	(32)	7	8	6
TOTAL			87	(38)	49	40	34

Non-consolidated subsidiaries are mainly controlled companies and are recognised in the balance sheet at their acquisition cost less any impairment provision.

Since the Group is unable to measure fair value reliably, this is measured on the basis of the Group's share in the net equity.

Investments in the controlled companies discussed earlier are not consolidated since they have no material impact on the Group financial statements. These investments are recognised at the acquisition cost or for the value of the equity interest held in them on the date of their deconsolidation. Tinfos International A/S, an international company trading in metallurgical products, was sold in early January 2010 for €16 million.

9.2. Changes over the period

(€ million)	FY 2012	FY 2011	FY 2010
At beginning of period	40	34	50
Business combinations	(1)	-	(16)
Other changes in scope	-	-	-
Capital expenditure for the period	16	4	4
Disposals for the period	-	(1)	(4)
Impairment losses for the period recognised through profit and loss	(3)	1	-
Impairment for the period recognised in equity	-	-	-
Translation adjustments and other movements	(3)	2	-
AT PERIOD END	49	40	34

Simplified financial statements (corporate data) for the main controlled but non-consolidated companies at 31 December 2011 are set out below:

<i>(€ million)</i> (Basis: financial statements as at 31 December 2011)	Stahlschmidt GmbH	Erasteel GmbH	ERAMET Alloys UK Ltd	Forges de Monplaisir	Brown Europe	Ades	ERAMET Ingénierie	ERAMET Research
Sales	25	18	8	4	14	10	9	19
Current operating profit/(loss)	(1)	-	(1)	-	-	-	-	1
Profit/(Loss) for period	(1)	-	1	-	1	-	-	5
Non-current assets	1	1	-	1	5	-	-	13
Working capital requirement	2	2	2	1	7	3	-	2
Shareholders' equity	(1)	(1)	(6)	(3)	(17)	(2)	(5)	(12)
Provisions	(1)	-	-	-	-	-	-	(1)
Net borrowings	(1)	(2)	4	1	5	(1)	5	(2)

These companies are mainly sales and research & development entities, the services of which are wholly for the ERAMET group, and the industrial subsidiaries of ERAMET Holding Alliages (shaping, wire-drawing and drawing of metallurgical products).

Note 10. Other investments

10.1. By category

<i>(€ million)</i>	Gross amount	Impairment losses	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Deposits and guarantees	39	(13)	26	18	23
Pension-plan assets	12	-	12	2	1
Employee loans	4	-	4	4	5
Current accounts—Tinfos International A/S	-	-	-	8	9
Current accounts—ERAMET International & subsidiaries	1	-	1	-	1
Financial investments/US pensions	-	-	-	2	2
Current accounts—A&D Mold and Die Technology	2	-	2	2	2
Current accounts—Stahlschmidt GmbH	5	(4)	1	1	1
Current accounts—Metallied	1	-	1	-	-
Current accounts—ERAMET Research	1	-	1	2	4
Current accounts—Somivab	-	-	-	-	1
Other loans and current accounts	4	(1)	3	8	3
TOTAL	69	(18)	51	47	52

Other investments relate to loans or current accounts granted to non-consolidated companies.

10.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	47	52	50
Business combinations	-	-	-
Other changes in scope	-	-	-
Changes in cash	(7)	(5)	4
Impairment losses for the period	1	(1)	3
Translation adjustments and other movements	10	1	(5)
AT PERIOD END	51	47	52
Breakdown of impairment losses:			
• At beginning of period	(19)	(18)	(19)
• Impairment losses	1	(1)	-
• Reversals of impairment, used	-	-	3
• Reversals of impairment, unused	-	-	-
• Translation adjustments and other movements	-	-	(2)
• At period end	(18)	(19)	(18)

10.3. By currency

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Euro	33	26	31
US dollar	10	5	3
CFA franc	1	1	1
Pacific franc	6	6	7
Norwegian krone	1	9	10
TOTAL	51	47	52

10.4. By interest rate

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Interest-free	26	15	25
Fixed interest rates	1	13	25
Variable interest rates	24	19	2
TOTAL	51	47	52

Interest-free items mainly relate to deposits and guarantees and certain loans to employees.

Note 11. Inventories

11.1. By category

<i>(€ million)</i>	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Raw materials	325	326	341
Merchandise and finished products	398	394	327
Work in progress and semi-finished products	282	344	296
Consumables and spare parts	33	29	32
TOTAL	1,038	1,093	996
of which: impairment losses	(104)	(103)	(106)

Impairment provisions mainly relate to raw materials and merchandise and finished products. Inventories pledged to secure liabilities appear in Note 29—Off-balance sheet commitments.

11.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	1,093	996	824
Business combinations	4	-	3
Other changes in scope	-	(11)	-
Changes in working capital requirement	(63)	95	132
Impairment losses for the period	(1)	4	10
Translation adjustments and other movements	5	9	27
AT PERIOD END	1,038	1,093	996
Breakdown of impairment losses:			
• At beginning of period	(103)	(106)	(113)
• Impairment losses	(54)	(45)	(48)
• Reversals of impairment, used	53	49	57
• Reversals of impairment, unused	-	-	-
• Translation adjustments and other movements	-	(1)	(2)
• At period end	(104)	(103)	(106)

Following poor trading in 2009, in 2010 the Group matched market upturn by increasing its production levels. This was reflected in a €172 million increase in gross inventories. In 2011, the three Divisions, and in particular the Alloys Division, continued their efforts to increase production. Gross inventories rose €94 million. The ratio of inventories to sales rose to 111 days from 102 days in

2010. In 2012, the Manganese and Nickel Divisions adjusted their sales according to their respective productions, and inventories remained stable. The Alloys Division cut back its inventories in connection with its improvement plan. The Group's gross inventories were thus reduced by €42 million. The inventories-to-sales ratio was 110 days compared to 111 days in 2011.

Note 12. Trade and other receivables

12.1. By category

<i>(€ million)</i>	Gross amount	Impairment losses	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Trade receivables	439	(6)	433	431	465
Payroll and tax receivables	94	(1)	93	93	80
Other operating receivables	171	(47)	124	78	51
Receivables on non-current assets	26	-	26	32	28
Dividends receivable	-	-	-	-	-
Prepaid expenses	21	-	21	35	23
TOTAL	751	(54)	697	669	647
• Non-current assets	7	-	7	5	5
• Current assets	744	(54)	690	664	642

12.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	669	647	519
Business combinations	1	-	3
Other changes in scope	-	(1)	5
Changes in working capital requirement	56	56	37
Impairment losses for the period	(18)	(16)	25
Translation adjustments and other movements	(11)	(17)	58
AT PERIOD END	697	669	647
Breakdown of impairment losses on receivables:			
• At beginning of period	(62)	(51)	(76)
• Impairment losses	(21)	(20)	(10)
• Reversals of impairment, used	3	4	34
• Reversals of impairment, unused	-	-	-
• Business combinations	-	-	-
• Translation adjustments and other movements	26	5	1
• At period end	(54)	(62)	(51)

The bulk of trade and other receivables are due in less than one year. Other non-current receivables of €7 million compared to €5 million at 31 December 2011, relate to a Setrag S.A. receivable vis-à-vis the Gabonese State in connection with the concession agreement. In 2010, trade receivables had risen €101 million on the back of the recovery following the 2009 recession. In 2011, trade receivables were down €18 million in the Nickel Division, as a result of a slight improvement in collection times, and €36 million in the Manganese Division in line with the fall in sales. In the Alloys Division, trade receivables were up €22 million (+26%) automatically reflecting the rise in sales (+19%). At the Group level, trade receivables decreased by €33 million and the ratio of trade receivables to sales reduced by 3 days to 52 days. In 2012, trade receivables rose by €31 million in the Manganese Division owing

to increased collection times. It decreased by €16 million in the Nickel Division owing to a fall in sales, and by €11 million in the Alloys Division due to the measures taken to cut down collection times and the volume of past due receivables, with a rise in sales. Trade receivables remained stable at the Group level, and the ratio of trade receivables to sales improved by 3 days to 55 days.

In 2012, the Group's wholly-owned subsidiary Aubert & Duval renewed the debt securitisation agreement it had concluded on 5 July 2007 with a bank with ceilings of €90 million and USD50 million. This contract provided for the securitisation during a five-year period of receivables from major customers, located primarily in Europe and North America.

The receivables thereby assigned were derecognised for the following amounts:

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Trade receivables—Invoices assigned	(99)	(86)	(78)
Trade receivables—Invoices reconsolidated	8	7	6
Other operating receivables—Security deposit	11	16	18

The reconsolidated trade receivables offset by financial liabilities relate to risks of trade disputes representing 8% of assigned receivables.

The security deposit is used to cover the commitments given by Aubert & Duval to the finance company and is returned upon the settlement of the operation; it comprises the reserves that serve to cover credit, late payment and dilution risks.

Note 13. Other current financial assets and cash and cash equivalents

13.1. Other current financial assets

13.1.1. By category

<i>(€ million)</i>	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Other current financial assets	368	473	359
TOTAL	368	473	359

Other current financial assets consisted of bonds issued by some twenty listed European companies.

13.1.2. Change over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	473	359	405
Business combinations	-	-	-
Other changes in scope	-	-	-
Capital expenditure for the period	-	124	-
Disposals for the period	(111)	-	(49)
Impairment losses for the period recognised through profit and loss	-	-	-
Change in fair value recognised in equity	6	(10)	3
Translation adjustments and other movements	-	-	-
AT PERIOD END	368	473	359

At 31 December 2010, the change was a positive €3 million. In 2011, a negative change of €10 million was recorded. At 31 December 2012, the change was a positive €6 million.

13.2. Cash and cash equivalents

13.2.1. By category

(€ million)	Net amount 31/12/2012	Net amount 31/12/2011	Net amount 31/12/2010
Cash	70	120	95
Cash equivalents	551	791	1,132
TOTAL	621	911	1,227

13.2.2. By currency

(€ million)	31/12/2012	31/12/2011	31/12/2010
Euro	558	806	1,137
US dollar	39	74	27
Yuan Ren Min Bi (China)	17	11	40
Norwegian krone	3	10	16
Other currencies	4	10	7
TOTAL	621	911	1,227

13.2.3. By interest rate

(€ million)	31/12/2012	31/12/2011	31/12/2010
Interest free	29	63	15
Fixed interest rates	271	30	28
Variable interest rates	321	818	1,184
TOTAL	621	911	1,227

Interest-free items mainly consist of non-interest-bearing sight deposits.

Cash includes cash in hand and at bank. Cash equivalents, mainly managed by Metal Securities, consist mostly of money-market securities totalling €217 million (compared with €332 million at 31 December 2011) bearing interest based on the EONIA index

rate (EURIBOR OverNight Index Average), and negotiable debt securities totalling €292 million (compared with €426 million at 31 December 2011) whose interest is linked to the EONIA index.

The change from one period to the next is analysed *via* a cash flow statement drawn up using the indirect method.

Note 14. Shareholders' equity

14.1. Changes in share capital

The share capital is composed of 26,543,218 fully paid-up shares with a €3.05 par value each, broken down as follows:

Breakdown	FY 2012				FY 2011				FY 2010			
	Share capital		Voting rights		Share capital		Voting rights		Share capital		Voting rights	
	%	No. of shares	%	No. of shares	%	No. of shares	%	No. of shares	%	No. of shares	%	No. of shares
Registered shares												
Sorame and Compagnie d'Études Industrielles du Rouvray (CEIR)	37.06	9,835,834	46.20	15,342,929	37.00	9,811,091	43.94	19,417,098	36.89	9,781,091	43.73	19,384,006
AREVA	-	-	-	-	25.68	6,810,317	30.70	13,567,594	25.69	6,810,317	30.61	13,567,594
Fonds Stratégique d'Investissement	25.66	6,810,317	20.51	6,810,317	-	-	-	-	-	-	-	-
S.T.C.P.I.	4.03	1,070,586	6.45	2,141,172	4.04	1,070,586	4.85	2,141,172	4.04	1,070,586	4.83	2,141,172
ERAMET S.A.	1.02	270,499	-	-	0.98	259,546	-	-	0.39	103,851	-	-
ERAMET S.A. share fund	0.20	52,373	0.25	83,511	0.13	33,854	0.13	56,464	0.12	31,138	0.11	50,748
Other	1.49	394,652	2.17	721,391	1.38	364,722	1.90	839,468	1.35	356,915	1.86	824,459
Total registered shares	69.45	18,434,261	75.58	25,099,320	69.20	18,350,116	81.51	36,021,796	68.47	18,153,898	81.14	35,967,979
Other bearer shares	30.55	8,108,957	24.42	8,108,957	30.80	8,169,000	18.49	8,169,000	31.53	8,359,568	18.86	8,359,568
TOTAL NUMBER OF SHARES	100.00	26,543,218	100.00	33,208,277	100.00	26,519,116	100.00	44,190,796	100.00	26,513,466	100.00	44,327,547
• Shares with single voting rights	74.89%	19,878,159	59.86%	19,878,159	33.36%	8,847,436	20.02%	8,847,436	32.81%	8,699,385	19.63%	8,699,385
• Shares with double voting rights	25.11%	6,665,059	40.14%	13,330,118	66.64%	17,671,680	79.98%	35,343,360	67.19%	17,814,081	80.37%	35,628,162

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 composed 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;

- Fonds Stratégique d'Investissement (FSI), 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 (amendment of 13 July 2009).

Since 1 January 2002, registered shares meeting the required conditions have qualified for double voting rights.

Dividends paid

	FY 2012	FY 2011	FY 2010
Net dividends (€ per share)	2.25	3.50	1.80
Total return (€ per share)	2.25	3.50	1.80
TOTAL NET DISTRIBUTION (€ million)	59	92	47

The dividends paid during the first half of 2012 in respect of the 2011 financial year amounted to €59 million. This represented a net dividend per share of €2.25 (dividends paid in 2011 in respect of the 2010 financial year amounted to €92 million, namely €3.50 per share).

The ERAMET S.A. parent company's distributable reserves amounted to €1,369 million prior to the appropriation of 2012 earnings (€1,086 million at 31 December 2011).

Treasury shares

At 31 December 2012, ERAMET held 270,499 treasury shares (259,546 shares at 31 December 2011). 62,554 shares (83,596 shares at 31 December 2011) were purchased under a liquidity contract entered into with Exane BNP Paribas and were not yet registered at the date of drafting this table. In November 2010, Exane BNP Paribas was instructed to buy back 170,000 shares for the purposes of a bonus share award to employees; 23,610 shares were purchased in the financial year 2010 and 146,390 in the financial year 2011. In 2012, ERAMET purchased 42,253 shares. The total amount of buybacks was charged to shareholders' equity.

The table below summarises the treasury share transactions:

		Price support	Grants to employees	Other purposes	Total
Position at 31 December 2009		49,626	32,106	-	81,732
As a percentage of share capital	26,369,813	0.19%	0.12%	-	0.31%
Purchases		269,075	23,610	-	292,685
Sales		(270,566)	-	-	(270,566)
Position at 31 December 2010		48,135	55,716	-	103,851
As a percentage of share capital	26,513,466	0.18%	0.21%	-	0.39%
Allocated to stock options/bonus shares:					
• grants/bonus shares—2009 plans		-	(25,397)	-	(25,397)
• grants/bonus shares—2010 & 2011 plans		-	(759)	-	(759)
Purchases		320,912	146,390	-	467,302
Sales		(285,451)	-	-	(285,451)
Position at 31 December 2011		83,596	175,950	-	259,546
As a percentage of share capital	26,519,116	0.32%	0.66%	-	0.98%
Allocated to stock options/bonus shares:					
• grants/bonus shares—2010 plans		-	(9,526)	-	(9,526)
• grants/bonus shares—2011 & 2012 plans		-	(732)	-	(732)
Purchases		181,098	42,253	-	223,351
Sales		(202,140)	-	-	(202,140)
POSITION AT 31 DECEMBER 2012		62,554	207,945	-	270,499
As a percentage of share capital	26,543,218	0.24%	0.78%	-	1.02%

14.2. Share subscription and purchase options, bonus shares

14.2.1. Subscription options

	Date of General Shareholders' Meeting	Date of Board meeting	Subscription price	No. of beneficiaries		Awarded at outset	Exercised or lapsed		Lapsed in 2012	Still to be exercised as from 01/01/2013	No. of beneficiaries at 01/01/2013	Expiration date of plans
				at outset	at 1 Jan. 2012		before 01/01/2012	Exercised in 2012				
1	23/05/2002	15/12/2004	64.63 EUR	81	20	130,000	(105,898)	(24,102)	-	-	-	15/12/2012
TOTAL						130,000	(105,898)	(24,102)	-	-		

Exercisable only as from 12 December 2006. The shares may not be sold before 14 December 2008.

The exercise of 24,102 subscription options during the financial year at an average price of €64.63 contributed to the increase in shareholders' equity offset in cash by the creation of the same number of shares.

14.2.2. Bonus shares

(1)	Date of General Shareholders' Meeting	Date of Board meeting	Subscription price	No. of beneficiaries		Awarded at outset	Subscribed or lapsed		Lapsed in 2012	Expired in 2012	Still to be exercised as from 01/01/2013	No. of beneficiaries at 01/01/2013	Expiration date of plans
				at outset	at 1 Jan. 2012		before 01/01/2012	Definitively awarded in 2012					
1	11/05/2005	25/04/2007	free	1	-	10,000	(10,000)	-	-	-	-	-	-
2	11/05/2005	23/07/2007	free	61	-	16,000	(16,000)	-	-	-	-	-	-
3	13/05/2009	29/07/2009	free	14,766	8,631	73,830	(30,675)	-	(8,515)	-	34,640	6,928	29/07/2013
4	20/05/2010	20/05/2010	free	14,405	13,605	28,810	(1,600)	(9,526)	(712)	-	16,972	8,486	20/05/2014
5	20/05/2010	20/05/2010	free	162	159	65,008	(6,095)	-	(500)	-	58,413	156	20/05/2015
6	20/05/2010	16/02/2011	free	14,298	13,848	28,596	(900)	(732)	(58)	-	26,906	13,453	16/02/2015
7	20/05/2010	16/02/2011	free	205	201	71,665	(6,382)	-	(700)	-	64,583	196	16/02/2016
8	20/05/2010	15/02/2012	free	14,318	-	28,636	-	-	(1,298)	-	27,338	13,669	15/02/2016
9	20/05/2010	15/02/2012	free	201	-	89,885	-	-	(560)	-	89,325	198	15/02/2017
TOTAL						412,430	(71,652)	(10,258)	(12,343)	-	318,177		

(1) Final vesting date: 3 = 29 July 2011 France and 29 July 2013 Worldwide, 4 = 20 May 2012 and 20 May 2014, 5 = 20 May 2013 and 20 May 2015, 6 = 16 February 2013 and 16 February 2015, 7 = 16 February 2014 and 16 February 2016, 8 = 15 February 2014 and 15 February 2016 and 9 = 15 February 2015 and 15 February 2017.

The shares cannot be sold prior to: 3 = 29 July 2013, 4 = 20 May 2014, 5 = 20 May 2015, 6 = 16 February 2015, 7 = 16 February 2016, 8 = 15 February 2016 and 9 = 15 February 2017.

14.3. Share-based payments

Share-based payments relate only to stock option plans and bonus shares granted to employees. They represented a €15 million expense (€13 million at 31 December 2011) recognised in income under current operating profit/(loss).

The applicable rules are common to all plans:

- the rights vesting or grant date is the date of the decision of the Board of Directors;
- the exercise period follows a lock-in period of two years for French employees and of four years for foreign employees, as from the date of grant.

All the plans are equity-settled. The subscription option plans established at the Board of Directors' meeting on 15 December 2004 (plan No. 1, Note 14.2.1) and all the bonus share plans (plans No. 1 to 4, and 6, Note 14.2.2) are not subject to performance conditions. Their fair value is measured using the Black & Scholes method.

A bonus share plan was established on 20 May 2010 (plan No. 5, Note 14.2.2), another on 16 February 2011 (plan No. 7, Note 14.2.2), and yet another on 15 February 2012 (plan No. 9, Note 14.2.2), with two performance conditions attached to the shares—one intrinsic condition based on ERAMET's financial performance and one external condition based on the ERAMET stock performance. The fair value of these plans was measured using the Monte Carlo model.

They are apportioned on a straight-line basis over the vesting period of the plan under personnel costs and offset by an increase in shareholders' equity.

Plan measurement: 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 payout ratio based on the average of the past five years.

The results of each plan based on the above assumptions are shown in the table below:

Number of options	Exercise price (€)	Maturity ^(*) (years)	Expected volatility	Risk-free rate	Average dividend yield	Fair value of option (€)	Accounting expense of plans over 3 years					
							Total	FY 2012	FY 2011	FY 2010		
(€ million)												
Plan No. 1— Note 14.2.2.	France	10,000	free	2+2	40.75%	4.15%	3%	155.19	1.6	-	-	-
Plan No. 2— Note 14.2.2.	France	16,000	free	2+2	40.75%	4.15%	3%	194.10	3.1	-	-	-
Plan No. 3— Note 14.2.2.	France	24,430	free	2+2	-	2.5%	2.35%	151.48	3.5	-	1.0	1.7
	World	46,115	free	4+0	-	2.5%	2.35%	145.00	6.4	1.6	1.6	1.6
Plan No. 4— Note 14.2.2.	France	9,930	free	2+2	-	0.79%	2.5%	174.88	1.6	0.3	0.8	0.5
	World	18,886	free	4+0	-	0.79%	2.5%	180.02	3.3	0.8	0.8	0.5
Plan No. 2— Note 14.2.2.	France	48,230	free	3+2	-	0.79%	2.5%	⁽¹⁾	6.8	2.3	2.3	1.4
	World	16,778	free	4+0	-	0.79%	2.5%	⁽²⁾	2.4	0.6	0.6	0.4
Plan No. 6— Note 14.2.2.	France	9,870	free	2+2	-	1.99%	2%	235.09	2.2	1.1	1.0	-
	World	18,744	free	4+0	-	2.35%	2%	235.93	4.2	1.1	0.9	-
Plan No. 7— Note 14.2.2.	France	53,650	free	3+2	-	1.99%	2%	⁽³⁾	10.1	3.4	2.9	-
	World	18,015	free	4+0	-	2.35%	2%	⁽⁴⁾	3.4	0.8	0.8	-
Plan No. 8— Note 14.2.2.	France	10,248	free	2+2	-	0.90%	2%	100.21	1.0	0.4	-	-
	World	18,388	free	4+0	-	1.33%	2%	109.80	1.9	0.4	-	-
Plan No. 9— Note 14.2.2.	France	65,930	free	3+2	-	0.90%	2%	⁽⁵⁾	5.6	1.6	-	-
	World	23,955	free	4+0	-	1.33%	2%	⁽⁶⁾	2.2	0.5	-	-
TOTAL									59.3	14.9	12.7	6.1

(*) Maturity = vesting period + lock-in period.

(1) Each bonus share awarded to French beneficiaries was measured at €187.05 with the intrinsic condition and €113.02 with the external condition.

(2) Each bonus share awarded to foreign beneficiaries was measured at €194.86 with the intrinsic condition and €117.74 with the external condition.

(3) Each bonus share awarded to French beneficiaries was measured at €249.87 with the intrinsic condition and €151.28 with the external condition.

(4) Each bonus share awarded to foreign beneficiaries was measured at €255.38 with the intrinsic condition and €154.62 with the external condition.

(5) Each bonus share awarded to French beneficiaries was measured at €109.38 with the intrinsic condition and €72.24 with the external condition.

(6) Each bonus share awarded to foreign beneficiaries was measured at €118.85 with the intrinsic condition and €78.49 with the external condition.

Note 15. Non-controlling interests

15.1. By category

(% million)	% minority interest	31/12/2012		31/12/2011	31/12/2010
		Profit/(Loss)	Total	Total	Total
Le Nickel-SLN	44%	(12)	499	711	683
Comilog S.A.	36.29%	43	268	284	278
Strand Minerals Inc.	33.4%	(2)	36	39	40
Pt Weda Nickel Ltd	10%	-	14	15	15
Guangxi Comilog Ferro Alloys Ltd	30%	6	-	(6)	(2)
Interforge	6%	-	2	1	1
Other companies	-	(1)	(1)	(1)	1
TOTAL		34	818	1,043	1,016

15.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	1,043	1,016	970
Business combinations	-	-	-
Other changes in scope	-	-	-
Dividends paid	(260)	(94)	(105)
Capital increase	1	-	-
Profit/(Loss) for the period	34	108	126
Change in revaluation reserve for hedging financial instruments	(2)	1	1
Changes of percentage interests in subsidiaries	1	9	17
Translation adjustments and other movements	1	3	7
AT PERIOD END	818	1,043	1,016

In 2010 and 2011, the changes in interest percentages reflected the disposal of respectively 2.17% and 1.37% of Comilog S.A. shares to the Gabonese State.

Note 16. Employee liabilities

ERAMET group companies offer their employees various long-term benefits in accordance with the rules and practices in force in the countries where they operate. An actuarial appraisal of the Group's companies was carried out using the standard actuarial framework (assumptions and methods) defined by the Group. This appraisal of liabilities is performed each year on a multi-annual basis (two or three years, except for non-recurring events requiring a new appraisal on a case-by-case basis).

The ERAMET group's commitments in connection with defined benefit plans break down as follows: the US (36% of liabilities), France (33% of liabilities), Norway (16% of liabilities) and New Caledonia (8% of liabilities).

The Group's main liabilities in respect of employee benefits are as follows:

■ France:

- Retirement packages providing for the payment of a lump sum determined on the basis of length of service and final salary.
- Healthcare for employees and pensioners at ERAMET's Sandouville site (plan closed since 15 September 2009).
- Long-service bonuses: payment of a lump sum varying depending on the site after 20, 30, 35 and 40 years' service.
- Supplementary pension plan for certain senior managers of ERAMET.

■ New Caledonia:

- Retirement packages providing for the payment of a lump sum determined on the basis of length of service and final salary.
- Loyalty bonuses paid after ten years' seniority and then every five years, calculated as a percentage of the basic salary.

- Long-service bonuses: lump-sum payment after 20, 30, 35 and 40 years of service (reduced to 15 years, 22 years and 6 months, 26 years and 3 months, and 30 years if the employee's work location is outside mainland France).
- Allocation of flight tickets whose number, value and frequency vary according to occupational category.

■ Norway:

- Long-service bonuses: payment of a lump sum to all employees after 25, 30, 40 and 50 years of service and upon retirement.
- Retirement indemnities: payment of an employee retirement annuity based on the employee's terminal salary and seniority at the time of retirement.
- Early retirement plan: defined benefit plan covering employees 62 to 67 years of age following agreement between the employer and employees.
- Supplementary pension plan: three defined benefit plans covering employees 67 years of age and over.

■ United States:

- Pension plans providing for the payment of a pension, the amount of which depends on length of service at the time of retirement (at age 62 or 65, depending on the plan). Possibility of early retirement and eligibility for disability benefits based on length of service and the plan in question.
- Healthcare for pensioners of certain sites, part of a closed plan.
- Life insurance plan for employees of certain sites.

Main actuarial assumptions and methods:

The Group's liabilities are measured by independent actuaries in line with IAS 19—Employee benefits. The actuarial assumptions used (employee turnover, mortality rate, retirement age, salary trends, etc.) vary according to the prevailing demographic and economic conditions in the countries in which the plan is in force. In the Euro zone, in Norway as of the financial year 2012, in the United Kingdom and in the United States, the discount rates were

determined on the basis of AA10+ corporate bonds. In countries where the listed private bond market is not sufficiently liquid, as in Norway prior to the financial year 2012 or in Sweden, the discount rates are determined on the basis of government bond yield.

The expected return on plan assets was calculated by taking into account the structure of the investment portfolio for each country.

The following actuarial assumptions are used for measurement:

As at 31 December 2012	Discount rate	Inflation rate	Pay increase rate	Return on plan assets
Euro zone	3%	2%	3%-3.75%	3%-4.5%
Norway	4%	2.1%	3.6%	3.6%
US	3.45%-3.75%	2.3%	3%-3.5%	7%-8%
New Caledonia	4.05%	1.8%	3%	3%

As at 31 December 2011	Discount rate	Inflation rate	Pay increase rate	Return on plan assets
Euro zone	4.75%	2%	3%-3.75%	3.5%-4.5%
Norway	2.4%	2.5%	4.5%	4.8%
US	4.2%-4.4%	2.2%	3.5%	7%-8%
New Caledonia	4.75%	3%	4%	3.5%

As at 31 December 2010	Discount rate	Inflation rate	Pay increase rate	Return on plan assets
Euro zone	4.9%	2%	3.1%	4%
Norway	3.75%	2.3%	4.25%	3.8%-3.9%
US	5%-5.3%	2.3%	3.5%	8%
New Caledonia	4.9%	3%	4%	4%

The measurement results are as follows:

(<i>€ million</i>)	Actuarial value of liabilities			Fair value of plan assets			Financial position (surplus)/deficit		
	FY 2012	FY 2011	FY 2010	FY 2012	FY 2011	FY 2010	FY 2012	FY 2011	FY 2010
Pension plans	256	249	216	183	163	155	73	86	61
Retirement indemnities	103	101	95	49	47	45	54	54	50
Long-service bonuses and awards	29	25	25	-	-	-	29	25	25
Healthcare plans	26	27	25	-	-	-	26	27	25
TOTAL	414	402	361	232	210	200	182	192	161

(<i>€ million</i>)	Unrecognised actuarial gains/(losses)			Unrecognised past service cost			Balance sheet provisions (assets)/liabilities		
	FY 2012	FY 2011	FY 2010	FY 2012	FY 2011	FY 2010	FY 2012	FY 2011	FY 2010
Pension plans	(54)	(55)	(27)	-	-	(2)	19	31	32
Retirement indemnities	-	1	-	(7)	(8)	(9)	47	47	41
Long-service bonuses and awards	-	-	-	-	-	-	29	25	25
Healthcare plans	(2)	(3)	(1)	-	-	-	24	24	24
TOTAL	(56)	(57)	(28)	(7)	(8)	(11)	119	127	122
• Provisions							131	129	123
• Pension-plan assets/Other financial assets (Note 10)							12	2	1

Total liabilities amounted to €414 million at 31 December 2012 (€402 million at 31 December 2011) and the fair value of plan assets to €232 million at 31 December 2012 (€210 million at 31 December 2011). The net position of the plans representing a deficit of €182 million at 31 December 2012 (€192 million at 31 December 2011) and the recognised net provision of €119 million (€127 million at 31 December 2011) does not account for the impacts of changes to the plans (€63 million at 31 December 2012). The greater of actuarial differences exceeding

10% of the present value of the liability in respect of defined benefits and 10% of the fair value of plan assets at the previous reporting date is apportioned over the remaining working life of plan members. In the event of changes to the plan, the past service cost is apportioned on a straight-line basis over the average remaining period until the corresponding rights vest for employees. Liabilities for which there are no covering assets amount to €93 million (€87 million at 31 December 2011).

The pension funds are invested as follows:

(<i>€ million</i>)	FY 2012		FY 2011		FY 2010	
Equities	57	25%	57	27%	64	32%
• Europe	15	6%	19	9%	20	10%
• North America	41	18%	37	18%	41	21%
• New Caledonia	1	0%	1	0%	3	2%
Bonds	152	66%	132	63%	117	59%
• Europe	90	39%	76	36%	72	36%
• North America	54	23%	48	23%	39	20%
• New Caledonia	8	3%	8	4%	6	3%
Other investments	23	10%	21	10%	19	10%
• Europe	21	9%	19	9%	18	9%
• North America	1	0%	1	0%	-	-
• New Caledonia	1	0%	1	0%	1	1%
TOTAL	232	100%	210	100%	200	100%

The pension fund asset allocation policy depends on country-specific practices.

The table below breaks down the provision by component as applying to 2012:

<i>(€ million)</i>	Present value of liabilities	Fair value of plan assets	Financial position (surplus)/ deficit	Unrecognised actuarial gains/(losses)	Unrecognised past service costs	Balance sheet— Provisions (assets)/ liabilities
Position at 31 December 2009	338	188	150	(19)	(7)	124
Business combinations	-	-	-	-	-	-
Other changes in scope	-	-	-	-	-	-
Expenses recognised	31	11	20	(8)	(4)	8
• Service cost	9	-	9	-	-	9
• Net interest expense	17	-	17	-	-	17
• Return on plan assets	-	11	(11)	(1)	-	(12)
• Amortisation of actuarial gains and losses	6	-	6	(6)	-	-
• Amortisation of past service cost	7	-	7	-	(4)	3
• Other	(8)	-	(8)	(1)	-	(9)
Contributions paid	(22)	(9)	(13)	-	-	(13)
Translation adjustments and other movements	14	10	4	(1)	-	3
Position at 31 December 2010	361	200	161	(28)	(11)	122
Business combinations	-	-	-	-	-	-
Other changes in scope	-	-	-	-	-	-
Expenses recognised	57	11	46	(26)	2	22
• Service cost	10	-	10	-	-	10
• Net interest expense	16	-	16	-	-	16
• Return on plan assets	-	11	(11)	-	-	(11)
• Amortisation of actuarial gains and losses	29	-	29	(26)	-	3
• Amortisation of past service cost	-	-	-	-	2	2
• Other	2	-	2	-	-	2
Contributions paid	(21)	(4)	(17)	-	-	(17)
Translation adjustments and other movements	5	3	2	(3)	1	-
Position at 31 December 2011	402	210	192	(57)	(8)	127
Business combinations	-	-	-	-	-	-
Other changes in scope	-	-	-	-	-	-
Expenses recognised	34	16	18	1	1	20
• Service cost	11	-	11	-	-	11
• Net interest expense	16	-	16	-	-	16
• Return on plan assets	-	12	(12)	-	-	(12)
• Amortisation of actuarial gains and losses	10	5	5	1	-	6
• Amortisation of past service cost	-	-	-	-	1	1
• Other	(3)	(1)	(2)	-	-	(2)
Contributions paid	(23)	6	(29)	-	-	(29)
Translation adjustments and other movements	1	-	1	-	-	1
POSITION AT 31 DECEMBER 2012	414	232	182	(56)	(7)	119

The breakdown of actuarial differences on the basis of experience is presented below:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Actuarial value of liabilities	414	402	361
Fair value of plan assets	232	210	200
(Surplus)/Deficit	182	192	161
Experience gains and losses on liabilities	-	1	(4)
Other gains or losses on liabilities	(10)	31	11
Experience gains and losses on assets	5	(2)	1
Other gains and losses on assets	-	-	-

A one percentage point increase in medical expenses would result in the liability changing by around €2 million but with no material impact on the expense for the period, primarily in the United States.

The impact on the liability of a 0.25% increase in the discount rate or the inflation rate would be -€11 million and +€4 million

respectively, with no major impact on the expense for the financial year.

The amount of provisions for expected contributions and for benefits to be paid by the Group for 2013 in respect of post-employment plans is estimated at €10 million.

Note 17. Provisions

17.1. By category

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Personnel	14	19	25
Environmental contingencies and site restoration	355	307	283
Other contingencies and losses	89	82	81
TOTAL	458	408	389
• Long-term portion	428	379	360
• Short-term portion	30	29	29

17.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	408	389	343
Business combinations	-	-	-
Other changes in scope	-	-	-
Provisions/(Reversals) for the period	18	(3)	23
• Provisions for the period	39	20	42
• (Reversals) for the period, used	(32)	(32)	(24)
• (Reversals) for the period, unused	-	(2)	(5)
• Accretion expenses	11	11	10
Dismantling assets	34	18	20
Translation adjustments and other movements	(2)	4	3
AT PERIOD END	458	408	389

17.3. Personnel

(€ million)	31/12/2012	31/12/2011	31/12/2010
Restructuring and redundancy plans	12	16	21
Other payroll contingencies and losses	2	3	4
TOTAL	14	19	25
• Long-term portion	9	11	15
• Short-term portion	5	8	10

Restructuring and redundancy plans: All restructuring and redundancy costs are fully provisioned whenever the IFRS criteria are satisfied.

These provisions break down as follows:

(€ million)	31/12/2012	31/12/2011	31/12/2010
Erachem Comilog S.A. redundancy plan	5	8	7
Aubert & Duval redundancy plan	4	4	5
Erasteel redundancy plan (Commentry site)	-	2	7
Other restructuring and redundancy plans—Manganese Division	3	2	2
Other restructuring and redundancy plans—Alloys Division	-	-	-
TOTAL	12	16	21

The changes over the period were as follows:

(€ million)	FY 2012	FY 2011	FY 2010
At beginning of period	16	21	5
Business combinations	-	-	-
Other changes in scope	-	-	-
Provisions/(Reversals) for the period	(4)	(5)	16
• Provisions for the period	4	3	17
• (Reversals) for the period, used	(8)	(8)	(1)
• (Reversals) for the period, unused	-	-	-
Translation adjustments and other movements	-	-	-
AT PERIOD END	12	16	21

The increase in provisions for restructuring at 31 December 2010 (€21 million compared to €5 million at 31 December 2009) relate to the Manganese and Alloys Divisions (in France and in Belgium). At 31 December 2011, the implementation of redundancy plans, mainly in the Alloys Division in France, helped reduce the amount of

restructuring costs that had previously been set aside (€16 million as against €21 million at 31 December 2010). In 2012, the redundancy plans implemented in the Manganese Division in Belgium helped reduce provisions (€12 million compared to €16 million at 31 December 2011).

Other labour contingencies and losses: These provisions relate primarily to disputes with employees and social security bodies, which changed as follows:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	3	4	5
Business combinations	-	-	-
Other changes in scope	-	-	-
Provisions/(Reversals) for the period	(1)	(1)	(1)
• Provisions for the period	1	1	1
• (Reversals) for the period, used	(2)	(2)	(2)
• (Reversals) for the period, unused	-	-	-
Translation adjustments and other movements	-	-	-
AT PERIOD END	2	3	4

17.4. Environmental contingencies and site restoration

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Environmental contingencies	30	30	30
Site restoration ⁽¹⁾	325	277	253
TOTAL	355	307	283
<i>(1) of which provisions with future asset dismantling costs as counterpart</i>	251	215	184
• Long-term portion	344	299	277
• Short-term portion	11	8	6

Environmental contingencies

The provision amounted to €30 million at 31 December 2012 (unchanged from 31 December 2011) and mainly concerned the Manganese Division (€18 million compared to €16 million at 31 December 2011) and the Alloys Division (€6 million compared to €7 million at 31 December 2011).

In 2009, a subsidiary of the Group, the American company GCMC (Gulf Chemical & Metallurgical Corporation), started negotiations with TCEQ (Texas Commission on Environmental Quality) regarding the terms of its operating permit. The authorities identified a certain

number of necessary corrective measures and notified GCMC thereof. In February 2011, the Attorney General of the State of Texas initiated enforcement proceedings against GCMC with the District Court of Travis County (Texas), mainly with regard to the corrective measures demanded by TCEQ. On 15 June 2011, the District Court of Travis County ruled that GCMC had fulfilled its obligations set out in the settlement agreement signed by the parties in May 2011. A civil procedure and discussions are still ongoing with the local authorities with a view to settling this case. A provision of €5 million, proportionate to the assessed risk, has been made under environmental contingencies.

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	30	30	28
Business combinations	-	-	-
Other changes in scope	-	-	-
Provisions/(Reversals) for the period	-	(4)	2
• Provisions for the period	4	2	5
• (Reversals) for the period, used	(4)	(6)	(3)
• (Reversals) for the period, unused	-	-	-
Translation adjustments and other movements	-	4	-
AT PERIOD END	30	30	30

Site restoration

Site restoration for mining sites currently in operation involved Le Nickel-SLN in New Caledonia (Nickel Division) for €239 million (31 December 2011: €202 million), Comilog S.A. in Gabon (Manganese Division) for €34 million (31 December 2011: €28 million) and since 2006 ERAMET Marietta Inc. in the US for €24 million (31 December 2011: €21 million). The increase in the provision for New Caledonia is due to the re-measurement of certain dismantling costs and the increase in the areas to be treated. In 2009, a provision of €7 million was made for the possible closure of the Doniambo plant at a 30-year time horizon. In 2010

and 2011, additional provisions of €11 million and €9 million respectively were recognised in Gabon, offset by a dismantling asset. At Boulogne-sur-Mer, provisions were recognised in 2003 and 2007 for regulatory and constructive obligations with regard to the demolition and restoration of the site following the decision to shut down the plant (Note 17.5).

Site reconditioning costs are discounted over the residual period up to the scheduled mine closure date, such period not extending beyond 2040 in New Caledonia, 2032 in Gabon and 2074 in the United States.

These provisions are discounted based on the following actuarial assumptions:

	At 31 December 2012		At 31 December 2011	
	Discount rate	Inflation rate	Discount rate	Inflation rate
US	5%	3%	5%	2.2%
New Caledonia	4.05%	1.5%	4.75%	1.5%
Gabon	5.35%	3%	6.2%	3%

A one percentage point increase or decrease in the discount rate would result in a €38 million decrease and an €46 million increase in provisions.

The Group has no decommissioning fund as defined by IFRIC 5.

(€ million)	FY 2012	FY 2011	FY 2010
At beginning of period	277	253	226
Business combinations	-	-	-
Other changes in scope	-	-	-
Provisions/(Reversals) for the period	15	8	6
• Provisions for the period	16	2	2
• (Reversals) for the period, used	(12)	(3)	(6)
• (Reversals) for the period, unused	-	(2)	-
• Accretion expenses	11	11	10
Dismantling assets	34	18	20
Translation adjustments and other movements	(1)	(2)	1
AT PERIOD END	325	277	253

17.5. Other contingencies and losses

The other provisions for contingencies and losses include, in particular, €45 million (\$60 million) for financial risks associated with the put options granted by ERAMET to Mitsubishi Corporation in connection with the disposal of 33.4% of the shares in Strand Minerals Pte Ltd. In parallel with the sale agreements, ERAMET 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. These options may be exercised during specific windows. The option deadline was extended from end-December 2012 to

end-September 2013, unless agreed otherwise by the parties. The exercise price of these options is an agreed price that varies in line with the circumstances provided for in the contracts (between USD118 million and USD58 million) 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 ERAMET at fair value in the event of a change in control at ERAMET. In return, ERAMET 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. This provision will be reversed when the final project investment decision is made.

The other provisions split across the three Divisions cover miscellaneous contingencies, including the €5 million cost of closing the Boulogne-sur-Mer plant (unchanged from end-2011), commercial contingencies/disputes (€8 million as in end-2011), various supplier

lawsuits in New Caledonia for €3 million (compared with €1 million at 31 December 2011) and provisions for tax contingencies of €7 million (unchanged from 31 December 2011).

(€ million)	FY 2012	FY 2011	FY 2010
At beginning of period	82	81	79
Business combinations	-	-	-
Other changes in scope	-	-	-
Provisions/(Reversals) for the period	8	(1)	
• Provisions for the period	14	12	17
• (Reversals) for the period, used	(6)	(13)	(12)
• (Reversals) for the period, unused	-	-	(5)
• Accretion expenses	-	-	-
Translation adjustments and other movements	(1)	2	2
AT PERIOD END	89	82	81

17.6. Ongoing disputes

To the best of the Company's knowledge, there are no other extraordinary situations (except for the Carlo Tassara France proceedings described in paragraph 33—Additional information) or disputes likely to have a material impact on the financial position, results or assets of the Company or Group.

Note 18. Contingent liabilities

Four NGOs (non-governmental organisations), an inhabitants' protest group ("*collectif d'habitants*") and a former *député* (Member of Parliament) filed a number of applications in February and March 2011 with the Libreville Court of First Instance, instituting various civil proceedings in Gabon, seeking damages from Comilog S.A. and ERAMET for alleged environmental harm caused as a result of the operation of the Moanda mining site. On 13 November 2012, the Libreville Court of First Instance, in response to the demand of Comilog S.A. and the other defendants, declined territorial competence. The applicant appealed against that decision. The submissions made by the applicants do not bear out their claims. It should be recalled that in all of its subsidiaries the ERAMET group complies with the applicable environmental standards, including in Gabon, and undertakes all environmental actions in line with the Group charter detailed in the 2012 Registration Document.

A dispute arose on the determination of the financial terms applicable as from 1 January 2012 for the supply of electricity by Enercal to Le Nickel-SLN pursuant to the 1956 concession agreement for the operation of its Doniambo metallurgy plant in Nouméa, New Caledonia. Given the failure to reach agreement despite negotiations between the parties, the arbitration procedure provided for in the agreement was initiated in December 2011, and an arbitral tribunal was constituted.

In December 2012, an arbitral award was made with no impact on the 2012 financial statements, and parties are jointly examining the terms of this decision and its consequences as of July 2013.

Arbitration proceedings were commenced before the International Chamber of Commerce (ICC) with Sacinter, former shareholder of the company Port Minéralier d'Owendo S.A. (PMO), whose shares were purchased by Comilog S.A. in 2008. An arbitral tribunal was constituted in early 2012. The parties filed their briefs in early 2013. The date of the arbitral hearing has not yet been fixed.

Comilog S.A. is undergoing a tax audit for 2007 to 2010. Two tax assessment notices were received in 2011 and 2012 with respect to these four financial years. Following the company's responses in 2012, a notice was received on 24 January 2013 followed by a collection notice on 5 February 2013. The company disputes virtually all of the assessments and will soon file a claim. At this stage in the proceedings, the outcome of these tax audits cannot be predicted.

Note 19. Deferred tax

19.1. By category

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Difference between tax and consolidated amounts of non-current assets	147	152	136
Restatement of tax entries	244	281	257
Other timing differences	157	145	152
Hedging instruments	14	14	25
Elimination of gains/(losses) on internal disposals	15	11	-
Planned intra-Group dividend payments	53	44	26
Deferred tax liabilities	630	647	596
Timing differences	142	143	157
Tax loss carry-forwards ⁽¹⁾	91	66	68
Elimination of gains/(losses) on internal disposals	30	28	40
Hedging instruments	12	26	19
Difference between tax and consolidated amounts of non-current assets	4	3	-
Deferred tax assets	279	266	284
NET DEFERRED TAX – LIABILITIES/(ASSETS)	351	381	312
(1) Unrecognised deferred tax assets	84	71	62
Capitalised deferred tax assets	91	66	68

The increase in deferred taxes in 2011, as was the case in 2010, relating to the restatement of tax-related entries was due to the funding of regulated provisions in Gabon, New Caledonia and France. In 2012, their figures decreased in these countries.

Other temporary differences recognised at 31 December 2012, representing €15 million in net liabilities (€157 million in liabilities and €142 million in assets) mainly relate to inventory measurement (net liability: €14 million), finance leasing (net liability: €11 million), reinsurance underwriting provisions (net liability: €10 million), unrealised gains on UCITS (net liability: €5 million), employee benefits (net asset: €31 million).

In 2011, the increase in net deferred tax assets on hedging instruments mainly arises from the lowering of currency hedging positions. In 2012, the decrease in hedging positions on commodities (fuel oil and nickel) and the increase in currency hedging positions account for the increased net deferred tax liabilities under hedging instruments (Note 22).

The proposed intra-Group dividend payments mainly consist of provisions for withholding tax on future dividend payments. The 2011 increase mainly arises from the exceptional payout of Comilog S.A. dividends planned for 2012. The 2012 increase stems mainly from the exceptional payout of Le Nickel-SLN dividends planned for 2013.

19.2. Changes over the period

<i>(€ million)</i>	Liability	Asset	Net FY 2012	Net FY 2011	Net FY 2010
At 1 January	647	266	381	312	229
Business combinations	-	-	-	(1)	1
Other changes in scope	-	-	-	-	-
Deferred tax offset in shareholders' equity	-	(12)	12	(21)	(6)
Deferred tax on profit/(loss) for the period	(21)	20	(41)	86	82
Translation adjustments and other movements	4	5	(1)	5	6
AT PERIOD END	630	279	351	381	312
Net deferred tax after offsetting by tax entity					
• Deferred tax assets			29	25	30
• Deferred tax liabilities			380	406	342

Pursuant to IAS 12, deferred tax assets and liabilities have been presented separately in the balance sheet after offsetting within each tax entity, with aging being restated accordingly. Except for tax consolidation in France (Note 19.3) and the United States (Note 19.4), every company is an independent tax entity.

19.3. Tax consolidation in France

Tax losses of €109 million mainly arose during the 2009 and 2010 financial years, with deferred tax of €37 million being recognised. No tax losses arising in earlier financial years remained outstanding. In addition, the net position of deferred tax arising from tax consolidation in France is a liability of €71 million (€171 million in liabilities and €100 million in assets) compared to the €50 million liability (€164 million in liabilities and €114 million in assets) at 31 December 2011.

19.4. Tax consolidation in the United States

The tax consolidation in the United States reported a net-of-tax liability of €5 million (€20 million in liabilities and €15 million in assets) compared to a net liability of €4 million (€27 million in liabilities and €23 million in assets) at 31 December 2011. The tax loss carryforwards were generated in 2009, in 2011 and in 2012 amounting to €47 million, and represent a deferred tax asset of €16 million, of which only €4 million was recognised.

Note 20. Borrowings

20.1. By category

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Bank loans ⁽¹⁾	302	78	125
Bank overdrafts and creditor banks	28	28	26
Finance lease liabilities	31	36	41
Other borrowings and financial liabilities	180	89	99
TOTAL	541	231	291
<i>(1) of which commercial paper</i>	35	15	-

ERAMET has had a commercial paper programme since 2005. The amount of commercial paper issued is included under "Bank loans".

Certain borrowings are subject to financial ratios or covenants are given in Note 22.3.4—Liquidity risks.

The sharp rise in borrowings in 2012 mainly reflects the financing of the metallurgical investment project in Gabon (Note 29) and of the mining project in Senegal (Notes 6 and 29).

20.2. By currency

(€ million)	31/12/2012	31/12/2011	31/12/2010
Euro	186	108	76
US dollar	238	16	15
CFA franc	22	24	25
British pound	2	4	3
Norwegian krone	60	58	120
Other currencies	33	21	52
TOTAL	541	231	291

20.3. By maturity

(€ million)	31/12/2012	31/12/2011	31/12/2010
Less than one year	230	80	88
One to five years	231	129	157
Over five years	80	22	46
TOTAL	541	231	291

ERAMET enjoys confirmed medium and long-term credit facilities (with maturities ranging from one to five years). The unused amounts of these credit facilities on the reporting date would allow the Group to refinance its short-term debt on a longer-term basis.

(€ million)	31/12/2012	31/12/2011	31/12/2010
Unused confirmed credit facilities ⁽¹⁾	800	800	600
Unissued commercial paper	365	385	400
Repos ⁽²⁾	136	180	210

(1) Bank covenants relating to these credit facilities are wholly satisfied. The covenants relate to the ratio of the Group's net debt to shareholders' equity. The confirmed credit facility was renewed and increased to €981 million on 18 January 2013.

(2) Based on the criteria associated with the repo programme (Note 20.3.4—Liquidity risks), only €136 million in bonds would be eligible.

20.4. By interest rate

(€ million)	31/12/2012	31/12/2011	31/12/2010
Interest-free	21	8	1
Fixed interest rates	266	55	56
• Under 5%	81	16	-
• 5%-10%	185	39	56
• Over 10%	-	-	-
Variable interest rates	254	168	234
• Under 5%	252	109	117
• 5%-10%	2	59	115
• Over 10%	-	-	2
TOTAL	541	231	291

20.5. Finance lease liabilities

<i>(€ million)</i>	31/12/2012		31/12/2011		31/12/2010	
	Nominal value	Present value	Nominal value	Present value	Nominal value	Present value
Less than one year	6	5	6	5	6	5
One to five years	22	22	24	23	24	22
Over five years	4	4	8	8	14	14
TOTAL	32	31	38	36	44	41
Interest expense	-	1	-	2	-	3
TOTAL	32	32	38	38	44	44

Finance lease liabilities mainly relate to capital expenditure on the 40,000-ton press in Pamiers (Airforge—Alloys Division) of €40 million, mainly arising on capital expenditure in 2006.

20.6. Net cash or debt position

20.6.1. By category

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Borrowings and financial liabilities	(541)	(231)	(291)
Bonds—Other current financial assets	368	473	359
Cash equivalents	551	791	1,132
Cash	70	120	95
TOTAL	448	1,153	1,295

20.6.2. Statement of cash flows and net debt

(€ million)	FY 2012	FY 2011	FY 2010
Operating activities			
EBITDA	407	789	971
Elimination of non-cash and non-operating income and expenses	(149)	(155)	(201)
Cash generated from operations	258	634	770
Net change in current operating assets and liabilities	(41)	(43)	(43)
Net cash generated by operating activities	217	591	727
Investing activities			
Industrial capital expenditure	(641)	(492)	(326)
Net financial disposals/(investments)	(19)	(65)	76
Proceeds from non-current asset disposals	4	3	5
Changes in receivables and payables on non-current assets	7	12	4
Changes in scope and loans	13	17	(11)
Dividends received from associates	-	-	-
Net cash used in investing activities	(636)	(525)	(252)
Cash flows from financing activities			
Dividends paid	(287)	(186)	(152)
Share capital increases	2	1	31
Change in working capital requirement arising from financing activities	-	(2)	-
Net cash used in financing activities	(285)	(187)	(121)
Exchange-rate impact	(1)	(21)	(5)
Increase/(Decrease) in net cash or borrowings	(705)	(142)	349
Opening net cash/(debt) position	1,153	1,295	946
Closing net cash/(debt) position	448	1,153	1,295

Note 21. Trade and other payables

21.1. By category

(€ million)	31/12/2012	31/12/2011	31/12/2010
Trade payables	400	473	408
Tax and payroll liabilities	219	217	215
Other operating liabilities	104	109	83
Payables on non-current assets	63	62	48
Payables to associates—dividends	32	-	1
Unearned income	15	9	9
TOTAL	833	870	764
• Non-current liabilities	28	37	33
• Current liabilities	805	833	731

Most of the trade and other payables are due in less than one year. The €28 million in debts (€37 million at 31 December 2011) recognised under non-current liabilities mainly relate to Setrag S.A.'s 25-year debt to the Gabonese State for the purchase of own property and a portion of the spare parts inventory for €6 million (compared to €10 million at 31 December 2011).

Since the sale of 33.4% of Strand Minerals Pte Ltd shares to Mitsubishi Corporation, the non-current liabilities include the debt of USD27 million (€22 million) for the Indonesian mining project expenses (Note 6).

21.2. Changes over the period

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At 1 January	870	764	626
Business combinations	6	-	6
Other changes in scope	-	(24)	4
Changes in working capital requirement	(14)	198	160
Translation adjustments and other movements	(29)	(68)	(32)
AT PERIOD END	833	870	764

Foreign-currency denominated debt is translated at the closing rate.

Note 22. Risk management and derivatives

21.1. Financial instruments included in the statement of financial position

<i>(€ million)</i>	31/12/2012 Statement of financial position	Breakdown by type of instrument				
		Fair value through P&L	Available- for-sale assets	Loans and receivables	Liabilities at amortised cost	Derivatives
Investment securities	49	-	49	-	-	-
Other non-current financial assets	51	-	-	51	-	-
Other non-current assets	7	-	-	7	-	-
Trade receivables	433	-	-	433	-	-
Other current assets	295	-	-	295	-	-
Derivatives	51	-	-	-	-	51
Other current financial assets	368	-	368	-	-	-
Cash and cash equivalents	621	621	-	-	-	-
ASSETS	1,875	621	417	786	-	51
Borrowings—long-term portion	311	-	-	-	311	-
Other non-current liabilities	28	-	-	28	-	-
Borrowings—short-term portion	230	28	-	-	202	-
Trade payables	400	-	-	400	-	-
Other current liabilities	477	-	-	477	-	-
Derivatives	53	-	-	-	-	53
LIABILITIES	1,499	28	-	905	513	53

	31/12/2011 Statement of financial position	Breakdown by type of instrument				
		Fair value through P&L	Available- for-sale assets	Loans and receivables	Liabilities at amortised cost	Derivatives
<i>(€ million)</i>						
Investment securities	40	-	40	-	-	-
Other non-current financial assets	47	-	-	47	-	-
Other non-current assets	5	-	-	5	-	-
Trade receivables	431	-	-	431	-	-
Other current assets	266	-	-	266	-	-
Derivatives	46	-	-	-	-	46
Other current financial assets	473	-	473	-	-	-
Cash and cash equivalents	911	911	-	-	-	-
ASSETS	2,219	911	513	749	-	46
Borrowings—long-term portion	151	-	-	-	151	-
Other non-current liabilities	37	-	-	37	-	-
Borrowings—short-term portion	80	28	-	-	52	-
Trade payables	473	-	-	473	-	-
Other current liabilities	437	-	-	437	-	-
Derivatives	101	-	-	-	-	101
LIABILITIES	1,279	28	-	947	203	101

	31/12/2010 Statement of financial position	Breakdown by type of instrument				
		Fair value through P&L	Available- for-sale assets	Loans and receivables	Liabilities at amortised cost	Derivatives
<i>(€ million)</i>						
Investment securities	34	-	34	-	-	-
Other non-current financial assets	52	-	-	52	-	-
Other non-current assets	5	-	-	5	-	-
Trade receivables	465	-	-	465	-	-
Other current assets	189	-	-	189	-	-
Derivatives	128	-	-	-	-	128
Other current financial assets	359	-	359	-	-	-
Cash and cash equivalents	1,227	1,227	-	-	-	-
ASSETS	2,459	1,227	393	711	-	128
Borrowings—long-term portion	203	-	-	-	203	-
Other non-current liabilities	33	-	-	33	-	-
Borrowings—short-term portion	88	26	-	-	62	-
Trade payables	408	-	-	408	-	-
Other current liabilities	477	-	-	477	-	-
Derivatives	71	-	-	-	-	71
LIABILITIES	1,280	26	-	918	265	71

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 (Note 1.11.1), except for the shares in companies that are controlled but not consolidated, amounting to €49 million (Notes 1.11.1, 1.15 and 9). Other financial assets are measured at amortised cost calculated using the effective interest rate (EIR) (Note 1.11.2).

Borrowings are recognised at amortised cost calculated using the effective interest rate or EIR (Note 1.14). Securities and borrowings may, as appropriate, be interest-rate hedged and the portion linked to interest-rate changes is re-measured; their fair value is close to their value shown in the balance sheet, owing to their small amount and the hedges (Notes 20 and 22.4.2).

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 (Notes 12 and 21).

Fair value of financial instruments broken down by fair-value category:

<i>(€ million)</i>	31/12/2012 Value in the balance sheet	Breakdown by fair value category		
		Level 1	Level 2	Level 3
Available-for-sale assets	368	368	-	-
Derivatives	51	-	51	-
ASSETS	419	368	51	-
Derivatives	53	-	53	-
LIABILITIES	53	-	53	-

<i>(€ million)</i>	31/12/2011 Value in the balance sheet	Breakdown by fair value category		
		Level 1	Level 2	Level 3
Available-for-sale assets	473	473	-	-
Derivatives	46	-	46	-
ASSETS	519	473	46	-
Derivatives	101	-	101	-
LIABILITIES	101	-	101	-

<i>(€ million)</i>	31/12/2010 Value in the balance sheet	Breakdown by fair value category		
		Level 1	Level 2	Level 3
Available-for-sale assets	359	359	-	-
Derivatives	128	-	128	-
ASSETS	487	359	128	-
Derivatives	71	-	71	-
LIABILITIES	71	-	71	-

22.2. Impact of financial instruments on income

(€ million)	FY 2012 Effects on profit/(loss)	Financial income and (expenses)	Fair value	Translation adjustments	Gain (loss) on disposal	Net impairment
Investment securities	4	7	-	-	-	(3)
Other financial assets	(5)	(5)	-	(1)	-	1
Derivatives	(48)	-	(48)	-	-	-
Cash/net financial liabilities	6	(2)	-	(1)	9	-
TOTAL	(43)	-	(48)	(2)	9	(2)

(€ million)	FY 2011 Effects on profit/(loss)	Financial income and (expenses)	Fair value	Translation adjustments	Gain (loss) on disposal	Net impairment
Investment securities	25	6	-	-	18	1
Other financial assets	(2)	(1)	-	-	-	(1)
Derivatives	25	-	25	-	-	-
Cash/net financial liabilities	19	-	(2)	12	9	-
TOTAL	67	5	23	12	27	-

(€ million)	FY 2010 Effects on profit/(loss)	Financial income and (expenses)	Fair value	Translation adjustments	Gain (loss) on disposal	Net impairment
Investment securities	(2)	2	-	-	(4)	-
Other financial assets	-	(3)	-	-	-	3
Derivatives	9	-	9	-	-	-
Cash/net financial liabilities	3	(1)	-	1	3	-
TOTAL	10	(2)	9	1	(1)	3

The financial revenue from investments in associates consists of dividends. The gains or losses on currency and commodity hedges are for the most part recognised in current operating profit/(loss)

(Note 1.24). The portion that is not eligible for hedging pursuant to IAS 39 is recognised in "other financial income and expenses" (Notes 1.25 and 26.2).

Breakdown of hedges—assets:

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Financial instrument assets ⁽³⁾	10	5	53
Financial instruments—currency hedges	36	27	24
Financial instruments—interest-rate hedges	-	-	-
Financial instruments—commodity hedges	5	14	51
TOTAL	51	46	128

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	46	128	90
Business combinations	-	-	-
Changes in hedging instruments for the period—shareholders' equity ⁽¹⁾	(6)	4	(24)
Changes in hedging instruments for the period—financial income/loss ⁽²⁾	6	(37)	37
Changes in financial instrument assets ⁽³⁾	5	(49)	25
AT PERIOD END	51	46	128

Breakdown of hedges—liabilities:

<i>(€ million)</i>	31/12/2012	31/12/2011	31/12/2010
Financial instrument liabilities ⁽³⁾	16	17	15
Financial instruments—currency hedges	19	70	5
Financial instruments—interest-rate hedges	13	10	7
Financial instruments—commodity hedges	5	4	44
TOTAL	53	101	71

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
At beginning of period	101	71	26
Business combinations	-	-	-
Changes in hedging instruments for the period—shareholders' equity ⁽¹⁾	(43)	63	(8)
Changes in hedging instruments for the period—financial income/loss ⁽²⁾	(5)	(34)	40
Changes in financial instrument liabilities ⁽³⁾	-	1	13
AT PERIOD END	53	101	71

(1) The impact corresponds to the effective portion of the change in fair value of derivatives used to hedge foreign currencies, interest rates and commodities.

(2) The impact corresponds to the ineffective portion of the change in fair value of derivatives used to hedge foreign currencies, interest rates and commodities.

(3) 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".

22.3. Risk management

The Group uses derivative financial instruments to control its exposure to foreign currency, interest-rate and commodity risks. The Executive Committee delegated 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 (Notes 1.5 and 2).

22.3.1. Foreign currency risks

ERAMET 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 to Group Treasury its exposure in currencies other than its functional currency. 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.

The breakdown of the hedging portfolio by currency is shown below:

As at 31 December 2012

<i>(foreign currency unit million)</i>	2012 sales			2013 sales			2014 sales and beyond		
	Amount	Currency	Rate	Amount	Currency	Rate	Amount	Currency	Rate
Commercial hedges									
EUR/USD	224	USD	1.32	522	USD	1.31	84	USD	1.26-1.30
EUR/NOK	3	EUR	7.35	73	EUR	7.58	-	-	-
EUR/GBP	(2)	GBP	0.81	(6)	GBP	0.84	-	-	-
GBP/USD	-	USD	1.63	2	USD	1.59	-	-	-
GBP/SEK	-	GBP	12.49	1	GBP	10.69	-	-	-
JPY/SEK	71	JPY	0.10	150	JPY	0.08	-	-	-
EUR/SEK	(12)	EUR	8.55	-	-	-	-	-	-
USD/SEK	10	USD	6.65	9	USD	6.63	-	-	-
EUR/JPY	139	JPY	100.50	100	JPY	106.10	-	-	-
Other hedges									
EUR/USD	415	USD	1.33						
EUR/SEK	(20)	EUR	10.15						
EUR/NOK	(452)	NOK	8.05						
EUR/GBP	5	GBP	0.81						
USD/CNY	(372)	CNY	6.41						
USD/MXN	9	USD	14.67						

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 associated 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 its foreign currency exposure: forwards/futures and options.

Balance sheet risks: ERAMET manages foreign currency risks to the balance sheet, primarily related to the U.S. dollar, by issuing financial liabilities denominated in the same currency as the net assets in question, or *via* currency swaps.

ERAMET also uses a foreign currency swap, with a nominal amount of USD232 million, to hedge the foreign currency risk on the conversion of the net assets of Weda Bay Minerals Inc., denominated in US dollars.

As at 31 December 2011

<i>(foreign currency unit million)</i>	2011 sales			2012 sales			2013 sales and beyond		
	Amount	Currency	Rate	Amount	Currency	Rate	Amount	Currency	Rate
Commercial hedges									
EUR/USD	159	USD	1.41	770	USD	1.36	268	USD	1.33-1.23
EUR/NOK	25	EUR	7.76	24	EUR	8.15	10	EUR	8.49
EUR/GBP	(1)	GBP	0.92	6	GBP	0.86	3	GBP	0.86
GBP/USD	1	USD	1.59	-	-	-	-	-	-
GBP/SEK	2	GBP	10.49	-	-	-	-	-	-
JPY/SEK	58	JPY	0.09	-	-	-	-	-	-
EUR/SEK	(13)	EUR	8.89	-	-	-	-	-	-
USD/SEK	19	USD	6.70	15	USD	6.84	-	-	-
EUR/JPY	143	JPY	111.21	75	JPY	114.91	-	-	-
Other hedges									
EUR/USD	393	USD	1.35						
EUR/SEK	(22)	EUR	10.01						
EUR/NOK	(588)	NOK	8.64						
EUR/CAD	11	CAD	1.37						
USD/CNY	438	CNY	6.41						
USD/MXN	12	USD	14.20						
	(12)	MXN	13.25						

As at 31 December 2010

<i>(foreign currency unit million)</i>	2010 sales			2011 sales			2012 sales and beyond		
	Amount	Currency	Rate	Amount	Currency	Rate	Amount	Currency	Rate
Commercial hedges									
EUR/USD	329	USD	1.36	1,018	USD	1.32	253	USD	1.25-1.39
EUR/NOK	12	EUR	8.28	112	EUR	8.36	20	EUR	8.36-8.49
EUR/GBP	-	-	-	4	GBP	0.85	-	-	-
GBP/USD	1	USD	1.56	-	-	-	-	-	-
GBP/SEK	2	GBP	10.79	-	-	-	-	-	-
JPY/SEK	57	JPY	0.08	-	-	-	-	-	-
EUR/SEK	12	EUR	9.14	-	-	-	-	-	-
USD/SEK	25	USD	7.13	-	-	-	-	-	-
EUR/JPY	69	JPY	121.70	-	-	-	-	-	-
Other hedges									
EUR/USD	284	USD	1.35						
	(5)	EUR	1.50						
EUR/SEK	(22)	EUR	9.83						
EUR/NOK	1,736	NOK	8.22						
EUR/GBP	23	GBP	0.89						
USD/CNY	344	CNY	6.53						

At 31 December 2012, the fair value of currency hedges covering transactional risks represented a €17 million asset (31 December 2011: net liability of €43 million).

Foreign currency-denominated sales and purchases (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, receivables, payables and bank account balances are restated at the hedging rate indicated by the Group's Treasury Department. Any differences between:

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

are recognised by each company under current operating profit/(loss) on sales (under "Translation adjustments on sales" – Note 23.2) or purchases (under "Cost of goods sold").

A change of plus or minus 10% in the rates of the principal currencies to which ERAMET is exposed would have a pre-tax impact on the hedges recognised in equity of +€53 million should exchange rates rise and approximately -€73 million should those rates fall.

The notional amount of currency hedging contracts breaks down as follows:

As at 31 December 2012

<i>(foreign currency units million)</i>	FY 2012			
	Forward/future sales	Forward/future purchases	Call options	Put options ⁽¹⁾
Currency against EUR				
• USD ⁽¹⁾	1,024	142	419	323
• JPY	261	22	-	-
• GBP	5	6	3	4
• NOK	136	589	-	-
Currency against NOK				
• EUR ⁽²⁾	43	-	58	33
Currency against SEK				
• JPY	257	36	-	-
• GBP	2	1	-	-
• USD	16	1	6	4
• EUR	-	32	-	-
Currency against USD				
• CNY	-	33	340	599
Currency against GBP				
• USD	2	-	-	-
Currency against MXN				
• USD	9	-	-	-

(1) Not including USD85 million in exotic call options and USD70 million in exotic put options.

(2) Not including USD10 million in exotic call options and USD7 million in exotic put options.

As at 31 December 2011

<i>(foreign currency units million)</i>	FY 2011			
	Forward/future sales	Forward/future purchases	Call options	Put options
Currency against EUR				
• USD ⁽¹⁾	978	128	1,127	743
• JPY	218	-	-	-
• GBP	4	8	4	7
• NOK	-	588	-	-
• CAD	11	-	-	-
Currency against NOK				
• EUR	59	-	-	-
Currency against SEK				
• JPY	75	18	-	-
• GBP	2	-	-	-
• USD	34	-	-	-
• EUR	-	35	-	-
Currency against USD				
• MXN	-	12	-	-
• CNY	-	159	280	559
Currency against GBP				
• USD	1	-	-	-
Currency against MXN				
• USD	12	-	-	-

(1) Not including USD176 million in exotic call options and USD69 million in exotic put options.

As at 31 December 2010

<i>(foreign currency units million)</i>	FY 2010			
	Forward/future sales	Forward/future purchases	Call options	Put options
Currency against EUR				
• USD ⁽¹⁾	1,048	73	1,001	1,058
• JPY	69	-	-	-
• GBP	26	4	2	4
• NOK	343	1,393	-	-
Currency against NOK				
• EUR	81	-	85	62
Currency against SEK				
• JPY	57	-	-	-
• GBP	2	-	-	-
• USD	21	3	8	7
• EUR	-	34	-	-
Currency against USD				
• EUR	-	5	-	-
• CNY	-	344	-	-

(1) Not including USD155 million in exotic put options.

The pre-tax impact on shareholders' equity and earnings of financial instruments hedging foreign currency risks is shown below:

(€ million)	Currency hedges					
	FY 2012		FY 2011		FY 2010	
	Transaction risks	Balance sheet risks	Transaction risks	Balance sheet risks	Transaction risks	Balance sheet risks
At beginning of period	(55)	28	57	24	56	(32)
Change in unexpired hedging portion ⁽¹⁾	16	-	(51)	-	15	-
Change in ineffective portion via income ⁽²⁾	11	-	(9)	-	-	-
Change in effective portion via income ⁽³⁾	39	-	(52)	-	(14)	-
Translation adjustments and other movements	-	4	-	4	-	56
At period end	11	32	(55)	28	57	24
Changes recognised in shareholders' equity:						
• Fair value reserve	-	-	-	-	-	-
• Hedging reserve	55	-	(103)	-	1	-
• Translation adjustments	-	4	-	4	-	56
TOTAL	55	4	(103)	4	1	56
Changes recognised via income:						
• Current operating profit	(39)	-	52	-	14	-
• Net financial income	11	-	(9)	-	-	-
TOTAL	(28)	-	43	-	14	-

(1) The impact corresponds to the change in fair value of the new currency instruments hedging future flows, and the currency instruments hedging future flows that were contracted during the financial year and were still outstanding at the year-end.

(2) The impact corresponds to the change in fair value of currency hedging instruments settled during the financial year (including option premiums).

(3) The impact on net financial income corresponds to the fair value of currency instruments ineligible as hedges.

22.3.2. Interest rate risks

The Group looks at 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.

At 31 December 2012, as in 2011, the Group had no interest rate hedges in place on its gross debt.

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" (Note 13.1) and are hedged using interest rate futures (fixed rates against floating rates). Other cash surpluses managed by Metal Securities are primarily invested in floating-rate instruments linked to the EONIA (Euro OverNight Index Average) rate (Note 13.2).

The Group's surplus cash is invested short-term, and its exposure to a 10 basis point decline in interest rates would have a negative pre-tax impact of less than €1 million on the net borrowing cost.

The pre-tax impact on shareholders' equity and earnings of financial instruments hedging interest rate risks is shown below:

<i>(€ million)</i>	Currency hedges		
	FY 2012	FY 2011	FY 2010
At beginning of period	(10)	(7)	(10)
Change in unexpired hedging portion ⁽¹⁾	3	-	(3)
Change in ineffective portion via income ⁽²⁾	-	-	-
Change in effective portion via income ⁽³⁾	(6)	(3)	6
Translation adjustments and other movements	-	-	-
At period end	(13)	(10)	(7)
Changes recognised in shareholders' equity:			
• Fair value reserve	-	-	-
• Hedging reserve	(3)	(3)	3
• Translation adjustments	-	-	-
TOTAL	(3)	(3)	3
Changes recognised via income:			
• Current operating profit	-	-	-
• Net financial income	6	3	(6)
TOTAL	6	3	(6)

(1) The impact corresponds to the change in fair value of the new interest-rate instruments hedging future flows, and the interest-rate instruments hedging future flows that were contracted during the financial year and were still outstanding at the year-end.

(2) The impact corresponds to the change in fair value of currency hedging instruments settled during the financial year (including option premiums).

(3) The impact on net financial income corresponds to the fair value of interest-rate instruments ineligible as hedges.

22.3.3. 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, 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 A/S for electricity.

The exposure to manganese and coke is not hedged since there is no organised (over the counter) market in these commodities.

Hedges are put in place with a horizon of 1 to 4 years, depending on the commodities, and on the basis of the budget. Only a portion of planned consumption or production is hedged (as an example, 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 2012, the fair value of hedges set up for the various commodities is virtually zero, whereas it represented a net asset of €10 million at 31 December 2011:

- €6 million asset for nickel at 31 December 2011;
- €5 million asset for fuel oil at 31 December 2011;
- €1 million liability for electricity at 31 December 2011.

The main commodities contracts outstanding are set out below:

As at 31 December 2012

(tons)	FY 2012		
	Swaps	Call options	Put options
Nickel	182	-	-
Fuel oil	42,720	36,000	36,000

As at 31 December 2011

(tons)	FY 2011		
	Swaps	Call options	Put options
Nickel	894	504	1,190
Fuel oil	66,760	15,000	16,000

As at 31 December 2010

(tons)	FY 2010		
	Swaps	Call options	Put options
Nickel	1,224	4,740	6,450
Fuel oil	189,755	63,208	48,583

The pre-tax impact on shareholders' equity and earnings of financial instruments relating to commodity risks is shown below:

(€ million)	Commodity and energy risk hedging											
	FY 2012				FY 2011				FY 2010			
	Nickel	Fuel oil	Aluminium	Electricity	Nickel	Fuel oil	Aluminium	Electricity	Nickel	Fuel oil	Aluminium	Electricity
At beginning of period	6	5	-	(1)	(4)	5	-	6	14	5	2	(3)
Change in unexpired hedging portion ⁽¹⁾	(19)	(12)	-	-	(8)	(23)	-	(1)	5	-	(2)	6
Change in ineffective portion via income ⁽²⁾	-	-	-	-	7	(1)	-	-	(5)	-	-	2
Change in effective portion via income ⁽³⁾	13	7	-	1	10	24	-	(6)	(4)	-	-	1
Translation adjustments and other movements	-	-	-	-	1	-	-	-	(14)	-	-	-
At period end	-	-	-	-	6	5	-	(1)	(4)	5	-	6
Changes recognised in shareholders' equity:												
• Fair value reserve	-	-	-	-	-	-	-	-	-	-	-	-
• Hedging reserve	(6)	(5)	-	1	3	1	-	(7)	(13)	-	(2)	7
• Translation adjustments	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	(6)	(5)	-	1	3	1	-	(7)	(13)	-	(2)	7
Changes recognised via income:												
• Current operating profit	(13)	(7)	-	(1)	(10)	(24)	-	6	4	-	-	(1)
• Net financial income	-	-	-	-	7	(1)	-	-	(5)	-	-	2
TOTAL	(13)	(7)	-	(1)	(3)	(25)	-	6	(1)	-	-	1

(1) The impact corresponds to the change in fair value of the new commodity instruments hedging future flows, and the commodity instruments hedging future flows that were contracted during the financial year and were still outstanding at the year-end.

(2) The impact corresponds to the change in fair value of commodity hedging instruments settled during the financial year (including option premiums).

(3) The impact on net financial income corresponds to the fair value of commodity instruments ineligible as hedges.

A change of plus or minus 20% in commodity prices would have no material pre-tax impact on the hedges recognised through shareholders' equity.

A change of plus or minus 10% in nickel prices would impact sales for the 2012 financial year by plus or minus USD91 million (€71 million).

22.3.4. Liquidity risks

The Group is not exposed to liquidity risks because of its clearly positive net cash position. Cash surpluses are mostly transferred to Metal Securities, the Group's special purpose entity responsible for pooling and investing Group cash surpluses.

Besides, the Group has two additional sources of financing, as required, from a revolving credit facility and the issue of commercial paper.

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, for €896 million. 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 (Note 20—Borrowings).

Commercial paper: in 2005, ERAMET set up a €400 million commercial paper programme, €35 million of which was raised in 2012 (€15 million was raised in 2011).

Repos: on 21 December 2012, ERAMET renewed its commitment to set up a repo programme. The drawdown amount is €136 million with a revolving three-month maturity. This facility is confirmed. At 31 December 2012, €60 million was used.

In addition, while its net cash position is clearly positive, the Group is liable to repay its borrowings, primarily comprising finance leases and bank borrowings following the acquisition in early August 2008 of the Norwegian company Eralloys Holding A/S (Note 20), its other liabilities and derivatives for all of which, the schedule is set out below:

<i>(€ million)</i>	Statement of financial position	Future payment schedule			Total
		Less than one year	One year to five years	More than five years	
Bank loans	302	134	104	122	360
Bank overdrafts and creditor banks	28	28	-	-	28
Finance lease liabilities	31	6	22	4	32
Other borrowings and financial liabilities	180	103	59	22	184
TOTAL BORROWINGS	541	271	185	148	604
Derivatives	53	39	1	-	40
Trade and other payables	833	805	23	6	834
Current tax liabilities	72	72	-	-	72
TOTAL OTHER FINANCIAL LIABILITIES	958	916	24	6	946

The schedule of future receipts on financial assets is set out below:

<i>(€ million)</i>	Statement of financial position	Future receipts schedule			Total
		Less than one year	One year to five years	More than five years	
Other current financial assets	368	369	-	-	369
Cash and cash equivalents	621	625	-	-	625
TOTAL CASH AND CASH EQUIVALENTS	989	994	-	-	994
Derivatives	51	30	4	-	34
Trade and other receivables	697	690	-	7	697
Current tax receivables	38	38	-	-	38
TOTAL OTHER FINANCIAL ASSETS	786	758	4	7	769

Where appropriate, financial liabilities are covered by banking covenants at Group level or locally; the main covenants are described below:

Company	Type of credit facility		Ratio	Amount
ERAMET	Revolving credit line	Net borrowings/Shareholders' equity	<1	EUR981 million
Comilog S.A.	Bank loans	Net borrowings/Shareholders' equity	<1.15	USD217 million
		Net cash flow/Debt servicing	>2	
TiZir Ltd	Bank loans	Net borrowings/Shareholders' equity	<35%	USD75 million
		Net cash flow/Debt servicing	>2.5	

In addition to the two ratios shown, one relative to debt (USD30 million) subscribed for by Comilog S.A. was subject to the following ratio: sales to ERAMET Norway A/S/debt servicing >150%.

The borrowing subscribed for by TiZir Ltd is also governed by the following covenant: condition to maintain a liquidity of at least USD15 million.

On 31 December 2012, all these covenants were fulfilled.

22.3.5. Credit or counterparty risks

The Group is exposed to several types of counterparty risks: they arise from its customers and its financial partners because of its cash surpluses 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 credit manager for each Group Division.

The age of the Group's trade receivables and overdue receivables is shown below:

(<i>€ million</i>)	31/12/2012		31/12/2011		31/12/2010	
	Gross amount	Impairment losses	Gross amount	Impairment losses	Gross amount	Impairment losses
On-time or not due	339	-	354	-	393	-
Delays:						
• less than a month	66	(1)	58	(1)	62	(1)
• one to three months	17	-	14	-	12	(1)
• three to six months	6	-	5	-	1	(1)
• six to nine months	3	-	1	-	-	-
• nine to twelve months	2	(1)	1	(1)	-	-
• over one year	6	(4)	4	(4)	2	(2)

No material unpaid or impaired receivables have been renegotiated.

22.3.6. Equity risks

ERAMET and its subsidiaries do not speculate in the stock markets; the equities held relate to unlisted controlled companies entirely related to the Group's activities (Note 8). At 31 December 2012, ERAMET held 270,499 treasury shares (259,546 shares at 31 December 2011), representing an investment recognised as a €54 million deduction from shareholders' equity (unchanged from

31 December 2011) (Note 14). ERAMET's shares have been traded on the Euronext Paris Deferred Settlement System (SRD) since 28 March 2006, and since 2 July 2007, it has been included in the N150 index. There is thus a risk related to the volatility of its share price should that price be lower than the net carrying amount.

It should be noted that at 31 December 2012, the capital loss with respect to the market value of the treasury stock portfolio stood at €24 million (€30 million at 31 December 2011).

Note 23. Sales and other income

23.1. Sales

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Sales of goods	3,346	3,511	3,480
Sales of services	101	92	96
TOTAL	3,447	3,603	3,576

Consolidated sales for 2012 decreased by 4.3%, amounting to €3,447 million compared to €3,603 million in 2011. The decline in sales mainly results from the fall in manganese and nickel ore prices.

23.2. Other income

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Translation adjustments on sales	3	64	11
Other	34	17	20
TOTAL	37	81	31

The “Translation adjustments on sales” item includes the differences between the monthly exchange rate used to recognise sales and the monthly exchange rate used to recognise receipts as well as the differences between the contractual exchange rate for settling hedge (or guaranteed rate) positions and the monthly exchange rate used to recognise receipts.

Note 24. Depreciation, amortisation and provisions

24.1. Depreciation, amortisation and provisions on non-current assets

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Intangible assets	(7)	(5)	(8)
Property, plant & equipment	(228)	(215)	(207)
Intangible assets—acquisition price allocation	(8)	(8)	(8)
PP&E—acquisition price allocation	(2)	(2)	(2)
TOTAL	(245)	(230)	(225)

24.2. Provisions

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Pension and related liabilities	(11)	(10)	(8)
Other payroll contingencies and losses	2	1	1
Environmental contingencies	1	5	(1)
Site restoration	(5)	4	3
Other contingencies and losses	(5)	(5)	(2)
TOTAL	(18)	(5)	(7)

Note 25. Other operating income and expenses

(€ million)	FY 2012	FY 2011	FY 2010
Niobium project	(28)	(9)	(6)
Lithium project	(8)	(6)	(1)
Other projects	(10)	(14)	(8)
Development projects	(46)	(29)	(14)
Restructuring and redundancy plans	(19)	(20)	(18)
Losses on impairment tests	(1)	1	11
Employee benefits	(1)	(3)	9
Other items	(7)	(12)	(7)
Other financial income and expenses	(28)	(34)	(5)
TOTAL	(74)	(63)	(19)

Restructuring and redundancy plans: in 2010, additional provisions of €10 million were recognised in the Manganese and Alloys Divisions. In 2011, a further €5 million in provisions was recognised in the Manganese and Alloys Divisions. In 2012, additional expenses of €19 million were recognised in the Manganese and Alloys Divisions.

Losses on impairment tests: in 2009, an impairment test was carried out on the “High-speed steel” business of Erasteel (Alloys Division) and an exceptional impairment loss of €47 million was recognised on the non-current assets (Notes 3, 4, 5 and 7). In 2010, in view of both the appreciable recovery in the activity and the business reorganisation measures instituted, a reversal of €10 million was recognised. In 2011, a further €18 million was recognised in net impairment losses on the recycling business assets in the Manganese Division.

Employee benefits: the adjustments in employee benefits mainly reflect the effects of the modifications and cancellations of employee benefits or plans. In 2010 and 2011, these adjustments applied to the Norwegian subsidiaries of the Manganese Division.

Other items: in 2010, the “other items” related to trade and tax disputes of €5 million in the Nickel and Manganese Divisions. In 2011, tax and employee-related disputes accounted for €6 million in the Nickel and Alloys Divisions, and €3 million was recognised in the Manganese Division for scrapped property, plant and equipment. In 2012, the “other items” mainly consisted of €3 million in scrapped property, plant and equipment in the Nickel Division, and €4 million in environmental lawsuits in the Manganese Division.

Note 26. Net borrowing cost and other financial income and expenses

26.1. Net borrowing cost

(€ million)	FY 2012	FY 2011	FY 2010
Interest income	19	21	15
Interest expense	(19)	(19)	(16)
Net income on marketable securities	9	9	3
Changes in fair value of marketable securities	-	(2)	-
Net translation adjustments	(1)	13	1
TOTAL	8	22	3

26.2. Other financial income and expenses

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Investment and dividend income	7	6	2
Gains (losses) on the disposal of investments in associates	-	18	(4)
Net additions to/reversals of financial provisions	(3)	1	3
Accretion expenses	(11)	(11)	(10)
Financial instruments ineligible as hedges	11	(3)	(3)
Securitisation financial expense	(2)	(2)	(2)
Other	(10)	(1)	(1)
TOTAL	(8)	8	(15)

Accretion expenses relate to provisions for mining site restoration (Note 17.4).

The financial instruments that do not qualify as hedges correspond to the portion of hedging instruments (currencies/commodities/interest rates) recognised in income pursuant to IAS 32 and 39 (Note 22).

In 2011, the gains on the disposal of investments in associates relate mainly to the capital gain following the contribution of TiZir Titanium & Iron A/S shares to the TiZir Ltd joint venture. In 2012, the “other items” included the effects of cancelling currency hedges following the downward revision of sales and purchase budgets of €5 million.

Note 27. Income tax

27.1. By category

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Current tax	(69)	(133)	(172)
Deferred tax	41	(86)	(83)
TOTAL	(28)	(219)	(255)

27.2. Effective tax rate

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Operating profit/(loss)	70	491	720
Net borrowing cost	8	22	3
Other financial income and expenses	(8)	8	(15)
Pre-tax profit/(loss) for period of consolidated companies	70	521	708
Standard tax rate in France (%)	34.43%	34.43%	33.33%
Theoretical tax expense	(24)	(179)	(236)
Impact on theoretical tax of:			
• permanent differences between accounting and taxable profit	55	42	31
• standard tax differences in foreign countries	(1)	-	4
• reduced tax rates	2	1	4
• tax credits	1	5	7
• unrecognised or limited deferred tax assets	(19)	(13)	5
• tax audits	14	-	-
• miscellaneous items	2	(1)	(4)
Actual tax expense before dividend payout	30	(145)	(189)
Effective tax rate	43%	(28)%	(27)%
Impact on theoretical tax of:			
• withholding tax on dividends	(43)	(60)	(51)
• shares of overheads	(15)	(14)	(15)
Actual tax charge	(28)	(219)	(255)
EFFECTIVE TAX RATE	(40)%	(42)%	(36)%

The income tax rate applied in France is currently 34.43%.

Permanent differences are primarily represented by the portion of the provision for reconstituting mining reserves in New Caledonia and Gabon, definitively allocated to investments.

The "Standard tax differences in foreign countries" relates to the impact of the current income tax rate applicable in the foreign countries where Group subsidiaries are located.

The main rates are shown below:

<i>(%)</i>	FY 2012
Sweden	26.3%
Norway	28%
US	35%
New Caledonia	35%
Gabon	35%
China	12.5%-25%

The withholding tax on payouts and the portions of overheads mainly relate to the dividend payments made during the financial year and planned over the next financial year by ERAMET's foreign subsidiaries, pursuant to IAS 12. This primarily involves Le Nickel-SLN in New Caledonia and Comilog S.A. in Gabon.

In 2012, the €19 million unrecognised tax loss carry-forwards mainly concerned the Manganese Division (Setrag S.A., "Recycling" business and Chinese subsidiaries) and the Alloys Division (foreign subsidiaries).

In 2011, the €13 million unrecognised tax loss carry-forwards mainly concerned the Manganese Division (Setrag S.A., Comilog France and Chinese subsidiaries). In 2010, the €7 million

unrecognised tax loss carry-forwards mainly concerned the Manganese Division (Setrag S.A., Erachem Comilog S.A., Chinese subsidiaries, the "Recycling" business and Comilog France). In the Manganese Division (Erachem Comilog S.A.) and the Alloys Division ("High-speed steel" business), deferred tax assets relating to temporary differences previously impaired were recognised for €12 million.

The total of €14 million allocated to "Tax audits" relate to the adjustment received by ERAMET in connection with the tax reassessment in New Caledonia, recognized in 2009. The various components mainly concern tax adjustments prior to the financial year.

The income tax on the other components of comprehensive income breaks down as follows:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Translation adjustments for financial statements of subsidiaries denominated in foreign currency	-	-	-
Change in financial instrument revaluation reserve	(10)	18	7
Change in fair value of held-for-sale financial assets	(2)	3	(1)
TOTAL	(12)	21	6

Note 28. Earnings per share

	FY 2012			FY 2011			FY 2010		
	Net profit/(loss)	Number of shares	Earnings per share	Net profit/(loss)	Number of shares	Earnings per share	Net profit/(loss)	Number of shares	Earnings per share
Basic earnings per share	8	26,259,108	0.31	195	26,307,370	7.42	328	26,419,691	12.43
• Subscription options	-	-	-	-	15,947	-	-	29,752	-
• Bonus share grants	-	108,886	-	-	97,389	-	-	33,137	-
Instruments deemed anti-dilutive ⁽¹⁾	-	-	-	-	-	-	-	-	-
DILUTED EARNINGS PER SHARE	8	26,367,994	0.31	195	26,420,706	7.39	328	26,482,580	12.40

(1) Where basic earnings per share are negative, the diluted earnings per share are deemed equal to the latter, the instruments being thus considered anti-dilutive.

On 31 December 2011, 24,102 subscription options were outstanding (29,752 at 31 December 2010). These potential subscription shares, 15,947 in number, were included for their diluting effect in the calculation of diluted net profit per share. Treasury shares,

allocated to bonus share plans (Note 14), numbering 108,886, were included for their diluting effect in the calculation of diluted net profit per share. ERAMET has not issued any other financial instruments that would be likely to dilute earnings per share.

The base number of shares represents the weighted average number of shares for the period, less the weighted number of treasury shares:

	Ordinary shares		Treasury shares		Shares outstanding	
	At year-end	Weighted average	At year-end	Weighted average	At year-end	Weighted average
Number of shares at 31 December 2009	26,369,813	26,369,813	81,732	81,732	26,288,081	26,288,081
Purchases and sales—liquidity contract	-	-	(1,491)	2,312	1,491	(2,312)
Purchases and sales—buyback instructions	-	-	23,610	1,031	(23,610)	(1,031)
Shares issued for dividend payments	129,965	129,965	-	-	129,965	129,965
Subscription options exercised by employees	13,688	4,988	-	-	13,688	4,988
Bonus shares granted to employees	-	-	-	-	-	-
Number of shares at 31 December 2010						
• Weighted average	-	26,504,766	-	85,075	-	26,419,691
• At period end	26,513,466	26,513,466	103,851	103,851	26,409,615	26,409,615
Purchases and sales—liquidity contract	-	-	35,461	11,138	(35,461)	(11,138)
Purchases and sales—buyback instructions	-	-	146,390	104,822	(146,390)	(104,822)
Subscription options exercised by employees	5,650	3,090	-	-	5,650	3,090
Bonus shares granted to employees	-	-	(26,156)	(10,625)	26,156	10,625
Number of shares at 31 December 2011						
• Weighted average	-	26,516,556	-	209,186	-	26,307,370
• At period end	26,519,116	26,519,116	259,546	259,546	26,259,570	26,259,570
Purchases and sales—liquidity contract	-	-	(26,992)	(8,909)	26,992	8,909
Purchases and sales—buyback instructions	-	-	42,253	15,517	(42,253)	(15,517)
Subscription options exercised by employees	24,102	3,631	-	-	24,102	3,631
Bonus shares granted to employees	-	-	(4,308)	(2,515)	4,308	2,515
Number of shares at 31 December 2012						
• Weighted average	-	26,522,747	-	263,639	-	26,259,108
• At period end	26,543,218	26,543,218	270,499	270,499	26,272,719	26,272,719

Note 29. Off-balance sheet commitments

(€ million)	31/12/2012	31/12/2011	31/12/2010
Commitments given			
Endorsements, guarantees and deposits	236	116	97
Collateral security:	36	22	39
• Property, plant and equipment	9	2	2
• Inventories	13	10	19
• Receivables and other assets	14	10	18
Commitments received			
Endorsements, guarantees and deposits	37	134	128
Collateral security	None	None	None
Credit facilities	800	800	600

The above table does not include current business orders (from customers or with suppliers, or non-current asset orders).

Since 2009, the endorsements, guarantees and deposits given correspond to the bank guarantee given to the Southern Province of New Caledonia by Le Nickel-SLN in earnest of environmental supervision of the Doniambo site, any servicing works and the restoration of the site after its closure. A site restoration provision was recognised for a portion of these commitments (Note 17.4).

The increase in 2012 in endorsements, guarantees and deposits given stems mainly from the bank guarantee given to finance the TiZir project in Senegal and investments in the Alloys Division. The decline in commitments received mainly reflects the repayment guarantee of the prepaid amount for building Comilog S.A.'s "Moanda Metallurgical Complex".

Moanda Metallurgy Complex (CMM) investment project—Comilog S.A.: Comilog S.A. entered into an EPC—Open Book contract with TCC (a Chinese engineering firm) for an amount of 1.3 bn renminbi (CNY), equivalent to USD209 million, for the supply of the equipment for and construction of the CMM. The contract states that TCC shall issue its invoices in dollars on the basis of the USD/CNY exchange rate applicable on the dates the various invoices are issued. The payments under this contract began in November 2010 and amounted to USD128 million at 31 December 2012. Payments will continue as the project moves ahead, with it currently being scheduled for completion at end 2013. In order to limit its exposure to fluctuations in the USD-CNY exchange rate, Comilog S.A. has set up a USD-CNY hedging programme involving forwards/futures and options. At 31 December 2012, in line with the options taken for the programme as a whole, the maximum hedging was for USD234.7 million with CNY/USD at 6.439, whereas the minimum hedging was for USD194.3 million with CNY/USD at 6.441. Outstanding hedges under this programme ranged between a minimum of USD58.1 million and a maximum of USD98.5 million.

A loan of USD157 million was contracted from BNP Paribas and ICBC (Chinese financial institution), relating to the setting-up of the project. At end December 2012, USD97 million was drawn down on that loan. The loan agreement was signed on 10 September 2010. The guarantees by the Gabonese State and ERAMET (for 25% and 75% of the amount respectively) were given in end 2011. The future drawdowns on the loan will be made until mid-2014. Two other loans were contracted from BNP Paribas and BGFI (Gabonese bank) of USD30 million each. The funds were drawn down entirely in 2012.

Investment project in Senegal through the TiZir Ltd joint venture: ERAMET, together with its partner Mineral Deposit Ltd (MDL), is developing a mineral sands project in Senegal. Each partner has committed, on top of the initial funds put in, to contribute USD137.5 million in capital (of this USD63.6 million had been paid in at 31 December 2011 and USD50 million at 31 December 2012 by ERAMET). The partners were also party to a mutual USD25 million guarantee covering certain specific contingencies. Additionally, ERAMET has committed to granting a shareholder loan of USD45 million to TiZir Ltd.

"Transgabonais" railway concession—Setrag S.A.: under the terms of the November 2005 agreement, signed for an initial period of 30 years, Setrag S.A., 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 S.A., is committed to ensuring that the necessary funding is made available for the capital expenditure required to achieve the operating capacity targets.

Operating leases: operating leases whose amounts recognised in income totalled €59 million (at 31 December 2011: €51 million) mainly related to real-estate leases and vehicle leases, particularly in New Caledonia and Gabon.

Note 30. Other commitments

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 stock 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 at the exercise date, 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 at the exercise date, the shareholding value will be assigned by independent experts.

Agreement to increase the Gabonese Republic's interest in Comilog S.A.: after approval by its Board of Directors on 14 October 2010, ERAMET signed an agreement with the Gabonese Republic on 20 October 2010, increasing the Gabonese Republic's shareholding in Comilog S.A.; before the agreement, ERAMET's interest was 67.25%, with 25.4% held by the Gabonese Republic, and the remainder in the hands of various private investors.

Under this agreement, from 2010 to 2015, ERAMET will transfer in stages to the Gabonese Republic an additional interest 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 stage (2010-2011) consists in transferring an interest of 3.54% in the capital of Comilog S.A.

During the period from 2012 to 2015, the Gabonese Republic will acquire the remaining 6.46% from ERAMET according to terms and procedures to be determined at the time.

On 31 December 2010, the first-stage transfer covering the period 2010-2011, of 50,583 shares representing 2.17% of the share capital of Comilog S.A. was completed and recognised in equity in the Group financial statements. In June 2011, ERAMET transferred 31,935 shares representing 1.37%.

Note 31. Related party transactions

Related-party transactions include the main ordinary transactions with non-consolidated controlled companies (Notes 1.11.1 and 9) and associates (Note 8).

To the best of the Group's knowledge, there were no transactions with shareholders holding over 5% of the share capital. Details of related-party transactions in 2012 are provided below.

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Sales			
• Non-consolidated controlled subsidiaries	36	29	31
• Associates	-	-	-
Other related parties	12	30	30
Cost of sales, administrative and selling expenses			
• Non-consolidated controlled subsidiaries	(7)	(5)	(5)
• Associates	-	-	-
Net borrowing cost			
• Non-consolidated controlled subsidiaries	-	-	-
• Associates	-	-	-

In 2012, the balance sheet assets and liabilities resulting from related-party transactions were as follows:

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Trade and other receivables			
• Non-consolidated controlled subsidiaries	12	11	7
• Associates	-	-	-
Trade and other payables			
• Non-consolidated controlled subsidiaries	7	4	4
• Associates	-	-	-
Net financial assets (liabilities)			
• Non-consolidated controlled subsidiaries	(2)	(5)	7
• Associates	-	-	-

ERAMET does not in any way guarantee related-party debts.

In 2012, the gross compensation and benefits to directors and members of the Executive Committee included in the Group's profit/(loss) for the period were as follows:

<i>(€ thousand)</i>	FY 2012	FY 2011	FY 2010
Short-term benefits			
• Fixed remuneration	2,920	2,824	2,700
• Variable remuneration	1,499	1,267	1,779
• Directors' fees	633	587	595
Other benefits			
• Post-employment benefits	565	222	73
• Retirement indemnities	-	-	-
• Share-based payment	2,548	2,443	1,741
TOTAL	8,165	7,343	6,888

Note 32. Workforce and personnel costs

32.1. Average workforce by Division

	FY 2012	FY 2011	FY 2010
Nickel	3,045	3,035	3,022
Manganese	6,293	6,418	6,433
Alloys	4,638	4,588	4,566
Holding company and miscellaneous	191	161	135
TOTAL	14,167	14,202	14,156

32.2. Workforce by Division at end of period

	31/12/2012	31/12/2011	31/12/2010
Nickel	2,999	3,061	3,012
Manganese	5,870	6,318	6,419
Alloys	4,607	4,656	4,554
Holding company and miscellaneous	201	173	138
TOTAL	13,677	14,208	14,123

32.3. Personnel costs by category

<i>(€ million)</i>	FY 2012	FY 2011	FY 2010
Wages and salaries	(466)	(441)	(423)
Profit-sharing	(8)	(16)	(18)
Other personnel expenses	(195)	(184)	(167)
Employee benefits	9	(5)	5
Share-based payment	(15)	(13)	(6)
TOTAL	(675)	(659)	(609)
Personnel costs—temporary staff	(34)	(28)	(13)
Personnel costs—income statement	(709)	(687)	(622)
Total wage bill as % of sales (including temporary staff)	21%	19%	17%
Average personnel cost (excluding temporary staff) <i>(€ thousand)</i>	(48)	(46)	(43)

Note 33. Statutory Auditors' fees

The fees paid for the legally mandated auditing of the separate and consolidated financial statements and for other work (consultancy and services), whether directly related or not are provided below:

<i>(€ thousand)</i>	FY 2012	FY 2011	FY 2010
Statutory audit, certification, examination of individual and consolidated financial statements	2,847	2,466	2,596
• Ernst & Young	1,285	1,198	1,284
• Deloitte & Associés	1,404	1,157	1,188
• Other	158	111	124
Other services directly relating to the statutory audit	166	170	159
• Ernst & Young	97	113	73
• Deloitte & Associés	45	57	61
• Other	24	-	25
Other services provided	1,466	951	618
• Ernst & Young	328	357	223
• Deloitte & Associés	1,029	475	233
• Other	109	119	162
TOTAL	4,479	3,587	3,373

In 2011, the other tasks in the Statutory Auditors' assignment mainly include fees for reviewing risk mapping and environmental data under Grenelle II.

The other tasks mainly relate to tax-related services carried out abroad by the members of our Statutory Auditors' network.

The directly-related tasks in 2012 were mainly audits performed for the Group's acquisition projects. The other tasks mainly relate to services carried out abroad by the members of our Statutory Auditors' network.

Note 34. Other information

Carlo Tassara France (a company belonging to Mr. Romain Zaleski's group) holds 3,394,146 shares in ERAMET (equivalent to 12.87% of its capital at 31 December 2009), on the basis of an estimate using the latest declaration of the crossing of a significant shareholding threshold by that company (No. 207C0134 of 17 January 2007).

On 17 December 2009, Carlo Tassara France summoned SIMA, SORAME and CEIR, as well as the members of the Duval family, to appear before the Paris Commercial Court. The summons specifies that these proceedings are being brought in the presence of ERAMET. In its writ of summons, Carlo Tassara France claims first, that the SIMA group's presentation to the ERAMET shareholders in 1999 misled those shareholders by concealing from them the indebtedness of SMC, a 38.5%-owned subsidiary of SIMA, consolidated not fully, but by the equity method (as an associate company), whereas SIMA is stated to have concealed from both the appraisal auditors for the transfer of assets (*commissaires aux apports*) and the ERAMET shareholders that it had full control of that subsidiary. Secondly, Carlo Tassara France challenges the terms on which ERAMET financed SMC through the intermediary of SIMA from 1999 to 2002 (at which date, SMC filed for bankruptcy), by loans alleged to have been granted unlawfully for lack of their having received prior authorisation from the ERAMET Board of Directors; the claimant also requests the Court to find that those loans proved prejudicial to ERAMET and is applying to have Messrs. Édouard, Georges, Patrick and Cyrille Duval found jointly and severally liable to pay ERAMET a total sum of €76.4 million in damages.

Carlo Tassara France 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, as well as the return by the holders of those shares of the dividends earned since 1999 and estimated by Carlo Tassara France 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. ERAMET points out that the SIMA share contribution was approved by the ERAMET Extraordinary General Shareholders' Meeting on 21 July 1999, based on the report of two Appraisers appointed by the President of the Paris Commercial Court, the report of the Board of Directors of ERAMET, the appendix to which was approved by the COB (French Securities and Exchange Commission) on 6 July 1999 (document no. E 99-944) and the opinion as regards fairness attached to that document E.

In September 2010, the defendants lodged submissions in reply to the claims of Carlo Tassara France.

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. The case was heard on 15 January 2013 in the Paris Court of Appeal. Judgement was reserved.

Note 35. Events after the reporting date

To the best of the Company's knowledge, there are no events to report after the reporting date.

Note 36. Segment reporting

36.1. By business segment

<i>(€ million)</i>	Nickel	Manganese	Alloys	Holding Div. & interco eliminations	Total
FY 2012					
External sales	893	1,557	994	3	3,447
Inter-segment sales	5	3	3	(11)	-
Sales	898	1,560	997	(8)	3,447
Cash generated from operations	45	246	11	(44)	258
EBITDA	53	357	40	(43)	407
Current operating profit/(loss)	(40)	236	(8)	(44)	144
Other operating income and expenses	-	-	-	-	(74)
Operating profit/(loss)	-	-	-	-	70
Net borrowing cost	-	-	-	-	8
Other financial income and expenses	-	-	-	-	(8)
Share in profits of equity-consolidated associates	-	-	-	-	-
Income tax	-	-	-	-	(28)
Attributable to non-controlling interests	-	-	-	-	(34)
Attributable to equity holders of the parent	-	-	-	-	8
Non-cash expenses	(79)	(105)	(38)	6	(216)
• Depreciation and amortisation	(88)	(111)	(47)	(1)	(247)
• Provisions	(14)	(7)	1	11	(9)
• Impairment losses	(1)	(8)	-	-	(9)
Industrial capital expenditure (intangible assets, property, plant and equipment)	146	399	84	12	641
TOTAL BALANCE SHEET ASSETS (current and non-current)	2,385	2,904	1,182	(152)	6,319
TOTAL BALANCE SHEET LIABILITIES (current and non-current, ex-shareholders' equity)	991	1,282	794	(599)	2,468
FY 2011					
External sales	983	1,709	909	2	3,603
Inter-segment sales	6	4	1	(11)	-
Sales	989	1,713	910	(9)	3,603
Cash generated from operations	249	364	43	(22)	634
EBITDA	269	499	57	(36)	789
Current operating profit/(loss)	189	388	16	(39)	554
Other operating income and expenses	-	-	-	-	(63)
Operating profit/(loss)	-	-	-	-	491
Net borrowing cost	-	-	-	-	22
Other financial income and expenses	-	-	-	-	8
Share in profits of equity-consolidated associates	-	-	-	-	1
Income tax	-	-	-	-	(219)
Attributable to non-controlling interests	-	-	-	-	(108)
Attributable to equity holders of the parent	-	-	-	-	195
Non-cash expenses	(128)	(154)	(29)	(20)	(331)
• Depreciation and amortisation	(81)	(105)	(39)	(3)	(228)
• Provisions	(12)	5	7	(1)	(1)
• Impairment losses	-	(19)	3	-	(16)
Industrial capital expenditure (intangible assets, property, plant and equipment)	141	245	100	6	492
TOTAL BALANCE SHEET ASSETS (current and non-current)	2,830	2,604	1,217	(350)	6,301
TOTAL BALANCE SHEET LIABILITIES (current and non-current, ex-shareholders' equity)	982	997	826	(583)	2,222

<i>(€ million)</i>	Nickel	Manganese	Alloys	Holding Div. & interco eliminations	Total
FY 2010					
External sales	958	1,853	763	2	3,576
Inter-segment sales	7	5	1	(13)	-
Sales	965	1,858	764	(11)	3,576
Cash generated from operations	229	518	56	(33)	770
EBITDA	269	656	76	(30)	971
Current operating profit/(loss)	194	548	29	(32)	739
Other operating income and expenses	-	-	-	-	(19)
Operating profit/(loss)	-	-	-	-	720
Net borrowing cost	-	-	-	-	3
Other financial income and expenses	-	-	-	-	(15)
Share in profits of equity-consolidated associates	-	-	-	-	1
Income tax	-	-	-	-	(255)
Attributable to non-controlling interests	-	-	-	-	(126)
Attributable to equity holders of the parent	-	-	-	-	328
Non-cash expenses	(82)	(211)	(40)	17	(316)
• Depreciation and amortisation	(78)	(100)	(41)	(2)	(221)
• Provisions	(10)	(5)	(14)	12	(17)
• Impairment losses	-	(2)	13	-	11
Industrial capital expenditure (intangible assets, property, plant and equipment)	124	130	69	3	326
TOTAL BALANCE SHEET assets (current and non-current)	2,630	3,030	1,007	(564)	6,103
TOTAL BALANCE SHEET liabilities (current and non-current, ex-shareholders' equity)	842	1,043	630	(386)	2,129

The ERAMET group did not create any new business combinations of its business segments in 2012 (as also in 2011).

36.2. By geographic region

<i>(€ million)</i>	France	Europe	North America	Asia	Oceania	Africa	South America	Total
Sales (sales destination)								
FY 2012	455	1,143	686	992	29	84	58	3,447
FY 2011	337	1,261	676	1,193	30	66	40	3,603
FY 2010	324	1,274	642	1,201	32	77	26	3,576
Industrial capital expenditure (intangible assets, property, plant and equipment)								
FY 2012	104	36	48	118	69	265	1	641
FY 2011	106	38	27	122	61	138	-	492
FY 2010	76	32	28	75	50	64	1	326
TOTAL BALANCE SHEET ASSETS (current and non-current)								
FY 2012	2,512	778	363	869	904	892	1	6,319
FY 2011	2,799	823	368	783	903	624	1	6,301
FY 2010	2,952	840	400	700	846	365	-	6,103

6.1.3. Report of the Statutory Auditors on the consolidated financial statements

Year ended 31 December 2012

This is a free translation into English of the Statutory Auditors' report on the consolidated financial statements issued in French and it is provided solely for the convenience of English-speaking users.

The Statutory Auditors' report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions or disclosures.

This report also includes information relating to the specific verification of information given in the Group's management report.

This report should be read in conjunction with and construed in accordance with French law and professional auditing standards applicable in France.

To the 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 2012, on:

- the audit of the accompanying consolidated financial statements of ERAMET;
- the justification of our assessments;
- the specific verification required by law.

These consolidated financial statements have been approved by the Board of Directors. Our role is to express an opinion on these consolidated financial statements based on our audit.

I. Opinion on the consolidated 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 about whether the consolidated financial statements are free of material misstatement. An audit involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at 31 December 2012 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

II. Justification of our assessments

In accordance with the requirements of article L. 823-9 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

Intangible and tangible assets

Your Group performs annual impairment tests on goodwill and also assesses its long-term assets if there is an indication of impairment. The tests are performed under the conditions described in note 1.10 to the consolidated financial statements. We analyzed the methods for implementing these impairment tests as well as the cash flow forecasts and the consistency of the assumptions used by your Group.

In addition, as mentioned in note 6.1 to the consolidated financial statements, the costs for geology, exploration and studies for the Weda Bay project are recorded in assets. We reviewed the methods used to capitalize the expenses, their recoverable value, and the information provided in this note to the consolidated financial statements.

Provisions

As stated in notes 1.19 and 17 to the consolidated financial statements, your Group is required to perform estimates and to make assumptions concerning provisions for liabilities and charges. Our work consisted in assessing the approaches used and the documentation provided, in particular on the provisions for the rehabilitation of mining sites. On these bases, we assessed the reasonableness of these estimates.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.

III. Specific verification

As required by law we have also verified in accordance with professional standards applicable in France the information presented in the Group's management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

Neuilly-sur-Seine and Paris—La Défense, 21 February 2013

The Statutory Auditors

Deloitte & Associés
French original signed by:
Alain Penanguer

Ernst & Young et Autres
French original signed by:
Aymeric de La Morandière

6.2. 2012 SEPARATE FINANCIAL STATEMENTS

6.2.1. 2012 Income statement, Balance sheet

6.2.1.1. Income statement

<i>(€ thousand)</i>	Notes	FY 2012	FY 2011
Operating income			
Sales of goods and merchandise		805,780	972,550
Income from ancillary activities		74,525	71,040
Sales	16	880,306	1,043,590
Change in inventories of finished products and work in-progress		(6,145)	2,262
Capitalised production		8,980	4,485
Operating subsidies		18	46
Reversal of provisions, excess depreciation and amortisation and expense transfers		25,090	46,530
Other income		0	18
Other income		27,942	53,341
TOTAL INCOME		908,247	1,096,931
Operating expenses			
Purchases of goods		554,090	689,067
Change in inventory (merchandise)		(102)	10,666
Raw materials and other supplies purchased		186,509	207,585
Change in inventory (raw materials and supplies)		2,312	6,947
External purchases and expenses		112,032	82,030
Taxes other than on income		5,431	4,771
Wages and salaries		31,548	29,004
Payroll charges		27,845	50,215
Depreciation and amortisation charged		6,239	5,049
Provisions for losses on current assets		4,539	4,221
Provisions for contingencies and losses		11,097	43,640
Other expenses		2,099	2,849
TOTAL EXPENSES		943,639	1,136,044
Operating profit/(loss)		(35,392)	(39,113)
Net financial income	19	317,148	334,779
Profit/(Loss) before tax and extraordinary items		281,756	295,667
Extraordinary items	20	13,228	39,203
Employee profit-sharing & incentives		(1,712)	(3,569)
Income tax	17	27,790	9,641
PROFIT/(LOSS) FOR THE PERIOD		321,062	340,942

6.2.1.2. Balance sheet

Assets

<i>(€ thousand)</i>	Notes	Carrying amounts	Depreciation, amortisation and provisions	31/12/2012 Net amounts	31/12/2011 Net amounts
Intangible assets					
Patents, rights and similar assets		9,585	9,456	129	293
Non-current assets in progress		19,496		19,496	12,183
Subtotal		29,081	9,456	19,625	12,476
Property, plant and equipment					
Land		1,131		1,131	1,131
Buildings		24,504	17,916	6,588	7,023
Technical installations, machinery and equipment		65,708	49,783	15,924	12,042
Other		13,234	9,030	4,204	3,085
Non-current assets in progress		1,125		1,125	604
Down payments		88		88	88
Subtotal		105,790	76,730	29,060	23,974
Non-current financial assets					
Investments in associates		1,593,790	314,484	1,279,306	1,227,006
Receivables on investments in associates	5	773,157		773,157	647,442
Other capitalised investments		54,323	47,468	6,855	7,924
Other		28,899	13,343	15,556	3,829
Subtotal		2,450,169	375,295	2,074,874	1,886,200
Non-current assets	4	2,585,040	461,481	2,123,559	1,922,650
Inventories and work in progress					
Raw materials and other supplies		38,872	4,539	34,333	36,964
Work in progress		11,311		11,311	9,306
Semi-finished and finished products		18,954		18,954	27,105
Merchandise		32,443		32,443	32,341
Subtotal	10	101,581	4,539	97,042	105,716
Down payments made on orders		250		250	3,418
Operating receivables					
Trade receivables		77,579	769	76,809	94,451
Other receivables		75,185	18,327	56,857	43,375
Subtotal	5&10	152,763	19,097	133,666	137,826
Cash and cash equivalents	6	3,610		3,610	4,121
Accruals					
Prepaid expenses		2,854		2,854	3,579
Deferred debt issue costs		2,980		2,980	3,973
Subtotal	7	5,834		5,834	7,552
Current assets		264,039	23,636	240,403	258,633
TOTAL ASSETS		2,849,079	485,117	2,363,962	2,181,283

Liabilities

<i>(€ thousand)</i>	Notes	31/12/2012	31/12/2011
Share capital		80,957	80,883
Issue, merger and contribution premiums		373,337	371,853
Legal reserve		8,088	8,087
Regulated reserves			
Other reserves		253,839	253,839
Retained earnings		742,009	460,147
Profit/(Loss) for the period		321,062	340,942
Net assets	8	1,779,292	1,515,751
Regulated provisions	11	66,057	82,129
Shareholders' equity		1,845,349	1,597,879
Provisions for contingencies		17,071	15,983
Provisions for losses		6,761	6,930
Provisions for contingencies and losses	11	23,833	22,914
Long-term borrowings			
Borrowings from and payables to credit institutions		35,878	15,533
Miscellaneous borrowings		460	419
Inter-company current accounts		309,322	422,888
Subtotal		345,660	438,841
Down payments received on current orders		198	1,061
Operating payables			
Trade payables		122,550	99,089
Tax and payroll liabilities		15,263	17,516
Miscellaneous liabilities			
Liabilities on non-current assets and related payables		2,055	2,001
Other liabilities		9,034	1,963
Accruals			
Unearned income		20	20
Liabilities	13&14	494,780	560,490
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		2,363,962	2,181,283

6.2.1.3. Cash flow statement

<i>(€ thousand)</i>	FY 2012	FY 2011
Operating activities		
Profit/(Loss) for period	321,062	340,942
Elimination of non-cash and non-operating income and expenses	(15,589)	219,457
Cash generated from operations	305,473	560,399
Change in operating working capital requirement	42,355	(117,123)
Net cash generated by operating activities	347,828	443,276
Cash flows from investing activities		
Net payments for non-current financial assets	(56,229)	61,491
Payments for non-current intangible assets, PP&E	(19,331)	(12,903)
Proceeds from non-current asset disposals	1,796	52,365
Change in other receivables and debts	2,359	(6,992)
Net cash used in investing activities	(71,405)	93,961
Cash flows from financing activities		
Dividends paid to ERAMET S.A. shareholders	(59,078)	(92,173)
Share capital increases	1,558	365
Change in working capital requirement arising from financing activities	(517)	373
Net cash used in financing activities	(58,037)	(91,435)
DECREASE/(INCREASE) IN NET BORROWINGS	218,385	445,803
Net cash/(borrowings) at 1 January	212,722	(233,081)
NET CASH/(BORROWINGS) AT 31 DECEMBER	431,107	212,722

6.2.1.4. Highlights

Sales

Sales of metallurgical products fell by 12.6% compared with 2011, in line with the decrease in the secured average price on the LME that dropped from USD10.6/lb in 2011 to USD8.3/lb in 2012.

Over the same period, tonnages sold rose by some 6.6% to 56.8 thousand tons in 2012 (53.3 thousand tons in 2011).

Operating profit/(loss)

Operating loss was relatively stable compared to 2011, decreasing from (€39) million in 2011 to (€35) million in 2012; it includes the provision recognised for bonus share plans.

Net financial income

Net financial income consisted primarily of dividends received from subsidiaries (Nickel: €226.4 million, Manganese: €78.9 million).

Net foreign exchange losses amounted to €4.8 million in 2012 compared to a net gain of €2.2 million at end 2011.

Extraordinary items

Extraordinary items mainly comprised the reversal of the €17.7 million provision for price increase in 2006.

Changes to investments in associates

ERAMET S.A. holds a 19.8% interest, amounting to €52.6 million, in Weda Bay Minerals Singapore PTE Ltd, founded in 2012.

Changes in the cash position

Net cash comprised receivables on investments in associates and cash & cash equivalents, less borrowings and inter-company current accounts. The net cash position rose from €212.7 million to €431.1 million, mainly as a result of the Nickel and Manganese dividend payouts.

6.2.2. Notes to the separate financial statements

Note 1. Reminder of principles.....	249	Note 16. Sales.....	259
Note 2. Change in methods	249	Note 17. Increases and reductions in future tax liabilities.....	260
Note 3. Rules and methods applied to the various balance sheet and income statement line items	249	Note 18. Tax consolidation.....	261
Note 4. Non-current assets.....	251	Note 19. Net financial income.....	262
Note 5. Schedule of receivables	253	Note 20. Extraordinary items.....	262
Note 6. Cash & cash equivalents	253	Note 21. Workforce	263
Note 7. Prepaid expenses and accrued income.....	253	Note 22. Off-balance-sheet commitments.....	263
Note 8. Shareholders' equity.....	254	Note 23. Risk management.....	263
Note 9. Treasury shares.....	255	Note 24. Property finance leases	264
Note 10. Provisions for impairment of current assets	255	Note 25. Consolidation of the corporate financial statements.....	264
Note 11. Provisions under liabilities	256	Note 26. Compensation of management and supervisory bodies	265
Note 12. Employee-related liabilities.....	257	Note 27. Share subscription and purchase options, bonus shares	265
Note 13. Breakdown of liabilities and maturity schedule	258	Note 28. Individual training rights	265
Note 14. Breakdown of liabilities and accrued expenses	258	Note 29. Other information.....	266
Note 15. Items relating to associates.....	259	Note 30. Events after the reporting date.....	266

Accounting principles, rules and methods

The ERAMET S.A. Board of Directors closed the financial statements for the year ended 31 December 2012 on 21 February 2013.

Note 1. Reminder of principles

The financial statements were prepared in accordance with the general chart of accounts as amended by Regulation 99-03 of 29 April 1999 issued by CRC (French Accounting Regulations Committee—*Comité de la réglementation comptable*).

The general accounting conventions were applied, adhering to the principle of prudence, and in accordance with the basic

assumptions: going concern, permanence of accounting methods and matching principle, with observance of the rules for drawing up and presenting annual financial statements.

The historical cost method is the basic method used to measure items.

Note 2. Change in methods

There has been no change in method compared to 31 December 2011.

Note 3. Rules and methods applied to the various balance sheet and income statement line items

3.1. Property, plant and equipment and intangible assets

The gross amount of assets is the amount at which the items were first recognised in the Company's balance sheet and includes any expenses required to bring them into working order. These items have not been re-measured. Unused assets or assets with fair market values lower than the carrying amount are, as a general rule, impaired by 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 asset's useful life.

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, and computer equipment:	3-8 years.

The impact of any difference between the straight-line and declining balance depreciation methods is recognised *via* excess depreciation.

3.2. 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. 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 their gross amount, an impairment loss is recognised for the difference.

3.3. Ongoing development projects

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 Other Receivables if they are to be billed back to the Divisions, 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.

3.4. 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.

3.5. Receivables and debts

Foreign currency receivables and debts are re-measured at the closing rate or at the forward hedging rate, as the case may be.

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.

3.6. Investment securities

Investment securities are measured at acquisition cost, with provisions for impairment loss being recognised where their net asset value is lower. Unrealised capital gains are not recognised.

3.7. 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 long-term benefits such as retirement indemnities or 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 appraisal date.

The expected long-term return on assets was calculated by taking into account the structure of the investment portfolio.

The following actuarial assumptions are used for measurement:

	2012	2011	2010	2009
Discount rate	3.00%	4.75%	4.90%	5.00%
Inflation rate	2.00%	2.00%	2.00%	2.10%
Rate of increase in salaries	3.00%	3.00%	3.10%	3.10%
Return on plan financial assets	3.00%	3.50%	4.00%	4.50%

Employee bonus share plan

The Company has seven ongoing bonus share plans:

- one plan approved by the Board of Directors' meeting of 29 July 2009 for 70,880 shares;
- two plans approved by the General Shareholders' Meeting of 20 May 2010 for 28,816 and 65,008 shares;
- two plans approved by the Board of Directors' meeting of 16 February 2011 for 28,614 and 71,665 shares;
- two plans approved by the Board of Directors' meeting of 15 February 2012 for 28,620 and 89,720 shares;

The corresponding provision was measured on the basis of the value of treasury shares (207,945 shares) and the stock price on 31 December 2012 (for 110,232 shares).

The provision was staggered over the vesting period (two or three 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.

On 29 July 2011, the shares of the plan dated 29 July 2009 were definitively granted to the employees of French companies.

On 20 May 2012, the shares of the plan dated 20 May 2010 with no performance condition, were definitively granted to the employees of French companies.

3.8. 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 in ownership of the goods.

Note 4. Non-current assets

Acquisition values

<i>(€ thousand)</i>	Acquisition values 31/12/2011	Acquisitions	Disposals, scrapping and adjustments	Acquisition values 31/12/2012
Intangible assets				
Patents, rights and similar assets	9,058	527		9,585
Non-current assets in progress ⁽¹⁾	12,183	9,639	(2,325)	19,496
Subtotal	21,240	10,166	(2,325)	29,081
Property, plant and equipment				
Land	1,131			1,131
Buildings	23,710	794		24,504
Technical installations, machinery and equipment	60,133	5,575		65,708
Other	11,237	807	1,191	13,234
Non-current assets in progress	605	1,994	(1,474)	1,125
Down payments	88			88
Subtotal	96,904	9,170	(283)	105,790
Non-current financial assets				
Investments in associates ⁽²⁾	1,541,490	52,570	(270)	1,593,790
Receivables on investments in associates	647,442	182,515	(56,801)	773,157
Other capitalised investments ⁽³⁾	54,204	3,691	(3,572)	54,323
Other ⁽⁴⁾	17,172	2,517	9,210	28,899
Subtotal	2,260,307	241,293	(51,432)	2,450,169
TOTAL	2,378,451	260,629	(54,040)	2,585,040

(1) Non-current assets connected with the IT infrastructure (€7.5 million at 31 December 2012, €5.6 million at 31 December 2011) and the development of hydrometallurgical technology (€11.5 million at 31 December 2012, €6.4 million at 31 December 2011).

(2) Acquisition of Weda Bay Mineral Singapore PTE Ltd for €52.6 million.

(3) The "Other capitalised investments" line relates to treasury shares.

The increase is due to the purchase of 42,253 shares for €3.7 million as part of buyback instructions given to EXANE BNP Paribas in July 2012. These shares (balance of 207,945 shares at 31 December 2012) are intended to be distributed as part of a bonus share plan (see Section 3.7).

The reduction reflects the awarding of bonus shares under the 2010 plan to employees of French companies for €1.3 million, and the decrease in the number of shares acquired via the price support agreement for €2.3 million.

Provisions have been funded for the full value of the treasury shares set aside to cover the requirements of the bonus share plans (€44.3 million at 31 December 2012).

A provision of €3.2 million was made for the other treasury shares held under the price support agreement (including a provision reversal of €1.3 million during the financial year), given that the stock market price at 31 December 2012 was under the portfolio price.

(4) The increase is due to the €2.3 million increase in the funds allocated to the price support agreement, as the number of shares acquired decreased by the same amount (see Section 3 above).

The adjustment is due to a pension scheme asset that was recognised following an excess payment of defined benefit supplementary pension plan contributions.

Depreciation, amortisation and provisions

<i>(€ thousand)</i>	Depreciation, amortisation and provisions 31/12/2011	Depreciation, amortisation and provisions	Reversals of depreciation, amortization and provisions	Disposals, retirements and adjustments	Depreciation, amortisation and provisions 31/12/2012	Carrying amounts 31/12/2012
Intangible assets						
Concessions, patents, licences, trademarks, processes, rights and similar assets	8,764	692			9,456	129
Non-current assets in progress ⁽¹⁾	0				0	19,496
Subtotal	8,764	692	0	0	9,456	19,625
Property, plant and equipment						
Land	0				0	1,131
Buildings	16,687	1,229			17,916	6,588
Technical installations, machinery and equipment	48,091	3,432	(1,740)		49,783	15,924
Other	8,151	886		(7)	9,030	4,204
Non-current assets in progress	0				0	1,125
Down payments						88
Subtotal	72,930	5,546	(1,740)	(7)	76,730	29,060
Non-current financial assets						
Investments in associates	314,484				314,484	1,279,306
Receivables on investments in associates	0				0	773,157
Other capitalised investments ⁽³⁾	46,280		(1,250)	2,438	47,468	6,855
Other ⁽⁵⁾	13,343				13,343	15,556
Subtotal	374,107	0	(1,250)	2,438	375,295	2,074,874
TOTAL	455,801	6,239	(2,990)	2,431	461,481	2,123,559

(1) Non-current assets connected with the IT infrastructure (€7.5 million at 31 December 2012, €5.6 million at 31 December 2011) and the development of hydrometallurgical technology (€11.5 million at 31 December 2012, €6.4 million at 31 December 2011).

(2) Acquisition of Weda Bay Mineral Singapore PTE Ltd for €52.6 million.

(3) The "Other capitalised investments" line relates to treasury shares.

The increase is due to the purchase of 42,253 shares for €3.7 million as part of buyback instructions given to EXANE BNP Paribas in July 2012. These shares (balance of 207,945 shares at 31 December 2012) are intended to be distributed as part of a bonus share plan (see Section 3.7).

The reduction reflects the awarding of bonus shares under the 2010 plan to employees of French companies for €1.3 million, and the decrease in the number of shares acquired via the price support agreement for €2.3 million.

Provisions have been funded for the full value of the treasury shares set aside to cover the requirements of the bonus share plans (€44.3 million at 31 December 2012).

A provision of €3.2 million was made for the other treasury shares held under the price support agreement (including a provision reversal of €1.3 million during the financial year), given that the stock market price at 31 December 2012 was under the portfolio price.

(4) The increase is due to the €2.3 million increase in the funds allocated to the price support agreement, as the number of shares acquired decreased by the same amount (see Section 3 above).

The adjustment is due to a pension scheme asset that was recognised following an excess payment of defined benefit supplementary pension plan contributions.

(5) A €13.4 million provision was made in 2009 for the option purchased on a project to exploit a manganese deposit in Namibia, since the project was abandoned.

Note 5. Schedule of receivables

<i>(€ thousand)</i>	Gross amount 31/12/2012	1 year or less	Over 1 year	Reminder 31/12/2011
Receivables on investments in associates ⁽¹⁾	773,157	773,157		647,442
Pension plan assets ⁽²⁾	9,518	9,518		308
Other investments	19,381	19,381		16,864
Trade receivables	77,579	74,150	3,429	95,220
Other receivables ⁽³⁾	75,185	75,185		59,972
Prepaid expenses	2,854	2,854		3,579
TOTAL	957,673	954,244	3,429	823,385

(1) Receivables on investments in associates: loans to Group companies:

<i>(€ thousand)</i>	31/12/2012	31/12/2011
Strand Minerals Ltd	320,344	242,418
ERAMET Holding Alliances (formerly SIMA)	252,057	197,269
Erasteel SAS	104,603	80,557
Weda Bay Minerals, Inc. (Canada)	0	51,094
CFED	68,002	70,893
Comilog S.A.	21,814	
GCMC	0	447
ERAMET Research	1,095	1,633
Eramine SAS	5,242	3,130
TOTAL	773,157	647,442

(2) Excess payment of defined benefit supplementary pension plan contributions.

(3) Other receivables include, amongst other things, a tax consolidation receivable net of income tax of €23.6 million and payments of €18.9 million on development projects, likely to be billed back to the Divisions should they succeed, for which a provision of €18.3 million has been made.

Note 6. Cash & cash equivalents

Solely composed of demand bank accounts.

Note 7. Prepaid expenses and accrued income

<i>(€ thousand)</i>	31/12/2012	31/12/2011
Prepaid expenses ⁽¹⁾	2,854	3,579
Deferred debt issue costs	2,980	3,973
Translation adjustments: loss	0	0
TOTAL	5,834	7,552

(1) Prepaid insurance premiums totalled €2.4 million (compared with €1.6 million at 31 December 2011). Nickel hedging premiums dropped from €1.6 million at 31 December 2011 to 0 at 31 December 2012.

Note 8. Shareholders' equity

The share capital breaks down as follows:

	31/12/2012	31/12/2011
AREVA	0.00%	25.68%
F.S.I.	25.66%	0.00%
SORAME/CEIR	37.05%	37.00%
STCPI	4.03%	4.04%
Miscellaneous	33.26%	33.28%
TOTAL	100%	100%

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 composed 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;

- Fonds Stratégique d'Investissement (FSI), 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 (amendment of 13 July 2009).

ERAMET's distributable reserves amounted to €1,369 million prior to the allocation of 2012 earnings (€1,086 million at 31 December 2011).

(€ thousand)	Number of shares	Share capital	Premiums, reserves and retained earnings	Profit for financial year	Total
Shareholders' equity as at 31 December 2010	26,513,466	80,866	1,039,638	146,112	1,266,616
Dividends paid				(92,173)	(92,173)
Carried forward to retained earnings and reserves			53,939	(53,939)	0
Withholding tax					0
Other transactions					0
Share capital increases in cash	5,650	17	348		365
Share capital increases by incorporation of reserves					0
Contributions in cash					0
Dividends paid in shares					0
Share capital increases in kind					0
Profit/(Loss) for the 2011 financial year				340,942	340,942
Shareholders' equity as at 31 December 2011	26,519,116	80,883	1,093,925	340,942	1,515,751
Dividends paid				(59,078)	(59,078)
Carried forward to retained earnings and reserves			281,864	(281,864)	0
Withholding tax					0
Other transactions					0
Share capital increases in cash	24,102	74	1,484		1,558
Share capital increases by incorporation of reserves					0
Contributions in cash					0
Dividends paid in shares					0
Share capital increases in kind					0
Profit/(Loss) for the 2012 financial year				321,062	321,062
SHAREHOLDERS' EQUITY AS AT 31 DECEMBER 2012	26,543,218	80,957	1,377,273	321,062	1,779,292

The share capital is comprised of 26,543,218 fully paid-up ordinary shares (26,519,116 ordinary shares at 31 December 2011) with a par value of €3.05.

Note 9. Treasury shares

The table below summarises the treasury share transactions:

		Price support	Grants to employees	Other purposes	Total
Position at 31 December 2009		49,626	32,106	-	81,732
As a percentage of share capital	26,369,813	0.19%	0.12%	-	0.31%
Purchases		269,075	23,610	-	292,685
Sales		(270,566)	-	-	(270,566)
Position at 31 December 2010		48,135	55,716	-	103,851
As a percentage of share capital	26,513,466	0.18%	0.21%	-	0.39%
Allocated to stock options/bonus shares:					
• grants/bonus shares—2009 plans		-	(25,397)	-	(25,397)
• grants/bonus shares—2010 and 2011 plans		-	(759)	-	(759)
Purchases		320,912	146,390	-	467,302
Sales		(285,451)	-	-	(285,451)
Position at 31 December 2011		83,596	175,950	-	259,546
As a percentage of share capital	26,519,116	0.32%	0.66%	-	0.98%
Allocated to stock options/bonus shares:					
• grants/bonus shares—2010 plans		-	(9,526)	-	(9,526)
• grants/bonus shares—2011 and 2012 plans		-	(732)	-	(732)
Purchases		181,098	42,253	-	223,351
Sales		(202,140)	-	-	(202,140)
POSITION AT 31 DECEMBER 2012		62,554	207,945	-	270,499
As a percentage of share capital	26,543,218	0.24%	0.78%	-	1.02%

The balance of 270,499 shares corresponds to:

- 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;
- shares intended to be awarded under the bonus share plans.

Note 10. Provisions for impairment of current assets

(€ thousand)	31/12/2011	Additions	Reversals	31/12/2012
Raw materials				
Other supplies ⁽¹⁾	4,221	318		4,539
Trade receivables	769			769
Miscellaneous receivables ⁽²⁾	16,597	3,632	(1,902)	18,327
TOTAL	21,587	3,951	(1,902)	23,636

(1) Full provisions are made for items in spare parts inventories that are short of one year's supply.

(2) The additions to provisions are recognised mainly in the expenses recorded under Other receivables on the Lithium exploration and operation project. The provision reversal is due to discontinued development projects for which a provision had been made.

Note 11. Provisions under liabilities

(€ thousand)	31/12/2011	Additions	Reversals		Reclassification	31/12/2012
			Used during financial year	Unused in financial year		
Provisions for price increases ⁽¹⁾	69,668		(17,766)			51,902
Excess amortisation and depreciation ⁽²⁾	12,461	2,704	(1,009)			14,155
Provisions for restoring mining deposits	0					0
Total regulated provisions	82,129	2,704	(18,775)	0	0	66,057
Foreign currency losses						
Employees ⁽³⁾	5,820	2,259	(11,061)		9,210	6,228
Environment ⁽⁴⁾	810	25	(352)			484
Sector contingencies	0					0
Taxes	0					0
Other provisions for contingencies ⁽⁵⁾	15,967		(4,309)			11,658
Other provisions for losses ⁽⁶⁾	316	8,838	(1,253)		(2,438)	5,463
Total provisions for contingencies and losses	22,914	11,122	(16,975)	0	6,772	23,833
PROVISIONS FOR LIABILITIES	105,042	13,826	(35,751)	0	6,772	89,890

(1) Reversal of the provision made against the 2006 price increase.

(2) Net excess tax depreciation of €1.7 million, primarily for acquisition costs capitalised with Tinfos shares.

(3) 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 31 December 2012. The excess payment of defined benefit supplementary pension plan contributions was reclassified under Other investments.

(4) Provision to clear the drainage channel at the Sandouville plant before its sale back to Port Autonome du Havre (Le Havre Port Authority). The provision was partially reversed as a portion of the works was completed during the financial year.

(5) The provision for financial contingencies mainly relates to the potential loss on the Metal Securities bond portfolio secured by ERAMET.

(6) The provision for losses was recognised in connection with the bonus share plans approved by the Board of Directors' meeting on 29 July 2009, by the General Shareholders' Meeting on 20 May 2010, by the Board of Directors' meeting on 16 February 2011, and by the Board of Directors' meeting on 10 May 2012 (see Chapter 3.7).

Note 12. Employee-related liabilities

<i>(€ thousand)</i>	Fair value of plan assets	Actuarial value of bonds	Financial position Surplus/(Deficit)
Pension plan	51,982	58,561	(6,579)
Retirement indemnities	2,213	6,062	(3,849)
Long-service bonuses and awards		3,273	(3,273)
Healthcare plans		3,703	(3,703)
TOTAL	54,195	71,599	(17,404)

<i>(€ thousand)</i>	Unrecognised actuarial (Gains)/Losses	Unrecognised past services	Balance sheet provision (Assets)/Liabilities
Pension plan	15,030		(8,451)
Retirement indemnities	3,269	1,266	(686)
Long-service bonuses and awards			3,273
Healthcare plans	1,129		2,574
TOTAL	19,428	1,266	(3,290)

Actuarial assumptions:

Discount rate	3%
Inflation rate	2%
Salary increase rate	3%-3.75%
Return on plan financial assets	3%

Breakdown of pension fund investments:

<i>(€ thousand)</i>	Equities	Bonds	Other investments	Total
Amount	3,685	45,361	5,149	54,195
Percentage	6.8%	83.7%	9.5%	100.0%

<i>(€ thousand)</i>	FY2012
At 1 January	5,513
Expenses recognised	2,669
• Service cost	1,361
• Net interest expense	2,375
• Return on plan assets	(1,519)
• Amortisation of actuarial gains and losses and past service cost	452
• Other	
Contributions paid	(11,472)
Translation adjustments and other movements	
AT PERIOD END	(3,290)

The (€3.3) million balance breaks down into a €6.2 million provision for contingencies and losses and pension plan assets of €9.5 million in the balance sheet of ERAMET S.A. at 31 December 2012.

Note 13. Breakdown of liabilities and maturity schedule

Net amount (€ thousand)	31/12/2012	Up to 1 year	From one to not more than 5 years	From five years
Borrowings from credit institutions ⁽¹⁾	35,878	35,878		
Miscellaneous long-term borrowings ⁽²⁾	309,782	309,782		
Trade payables ⁽³⁾	122,550	122,548	2	
Tax and payroll liabilities	15,263	15,263		
Liabilities on non-current assets and related payables	2,055	2,055		
Other miscellaneous liabilities ⁽⁴⁾	9,034	9,034		
Unearned income	20	20		
TOTAL	494,582	494,580	2	0

(1) Bank borrowings include €35 million in commercial paper issued by ERAMET.

(2) ERAMET is financed by Metal Securities, its 87.92%-owned subsidiary. At 31 December 2012, it amounted to €307 million (compared to €423 million at 31 December 2011), primarily due to the substantial dividend payout in the Nickel Division.

(3) The Company's Supplier payables outstanding from more than 60 days as of the invoice date amount to €92,000.

(4) In 2012, the tax-consolidated French subsidiaries paid corporate income tax instalments to ERAMET S.A. exceeding the corporate income tax payable by €6.9 million.

Miscellaneous borrowings

Net amount (€ thousand)	31/12/2012	31/12/2011
Current accounts with Metal Securities	307,407	422,888
Borrowing from Weda Bay Minerals, Inc.	1,915	
Deposits received	460	419
TOTAL	309,782	423,307

Note 14. Breakdown of liabilities and accrued expenses

Gross amount (€ thousand)	31/12/2012	31/12/2011
Miscellaneous borrowings	309,782	423,307
Trade payables	122,550	99,089
Tax and payroll liabilities	15,263	17,516
Liabilities on non-current assets	2,055	2,001
Other miscellaneous liabilities	9,034	1,963
Unearned income	20	20
TOTAL	458,704	543,896

Note 15. Items relating to associates

Net amount (€ thousand)	31/12/2012	31/12/2011
Balance sheet		
Investments in associates	1,593,335	1,540,805
Financial receivables	773,157	647,442
Trade receivables	11,159	14,841
Miscellaneous receivables	12,365	570
Miscellaneous financial borrowings	(309,782)	(423,307)
Trade payables	94,010	68,911
Other liabilities	(14,334)	(965)
Income statement		
Operating income	72,615	128,581
Operating expenses	(730,326)	(833,606)
Financial income	325,245	574,214
Financial expenses	(2,902)	(6,842)

Note 16. Sales

(€ thousand)	Total	France	International
Sales of goods and merchandise ⁽¹⁾	805,780	28,593	777,187
Income from ancillary activities	74,525	29,363	45,163
SALES	880,306	57,955	822,350

(1) Sales include a foreign currency loss of €7.7 million resulting primarily from USD hedging.

Note 17. Increases and reductions in future tax liabilities

<i>(€ thousand)</i>	31/12/2012	31/12/2011
Increases in taxable base		
• Regulated provisions	66,057	82,129
• Translation adjustment losses at close		
• Deferred expenses		
Reductions in taxable base		
• Provisions not deductible during the financial period	(315,792)	(324,311)
• Accrued expenses	(321)	(413)
• Translation adjustment gains at close		
• Unrealised financial income		
• Tax loss carry-forwards	(108,559)	(94,376)
Reductions in taxable base	(358,615)	(336,971)
Increase in future taxation	(123,471)	(116,019)
	34%	34%

Breakdown of income tax

<i>(€ thousand)</i>	Gross amount	Tax owed	Profit/(Loss) for period
Current profit/(loss)	281,756		281,756
Extraordinary items	13,228		13,228
Employee profit-sharing and incentives	(1,712)		(1,712)
Effects of tax consolidation and research tax credit		27,790	27,790
TOTAL	293,272	27,790	321,062

Income tax

The tax consolidation agreement signed between 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 income tax contribution to ERAMET as Group parent company. The subsidiaries retain their losses to determine the amount of the income tax contribution they should pay ERAMET.

As a result of tax consolidation, the income tax line item broke down as follows: an income tax expense of €25.4 million for the tax group (of which €12.4 million in tax credits for 2012, €0.4 million in adjustments to the 2011 Group tax credits, and €12.7 million reimbursed by the State for the double taxation following the SLN tax audit), €12.9 million in tax consolidation revenue (2012 income tax of consolidated subsidiaries) and (€10.6) million in tax consolidation expenses [including tax credits passed back to the subsidiaries: (€0.3) million in adjustment for 2011 and (€10.3) million in research tax credit for 2012].

Note 18. Tax consolidation

All French subsidiaries that are at least 95%-owned are consolidated for tax purposes, ERAMET being the Group parent.

Tax consolidation in France comprises the following companies:

Tax-consolidated companies	31/12/2012	31/12/2011	31/12/2010
Consolidated companies			
ERAMET	x	x	x
Metal Securities	x	x	x
ERAMET Holding Nickel (EHN)	x	x	x
Eramine	x	x	x
Eurotungstène Poudres	x	x	x
ERAMET Holding Manganèse (EHM)	x	x	x
ERAMET Holding Alliages (formerly SIMA)	x	x	x
ERAMET Alliages	x	x	x
Aubert & Duval (AD)	x	x	x
Airforge	x	x	x
Erasteel	x	x	x
Erasteel Commentry			x
Erasteel Champagne	x	x	x
Valdi	x	x	
Non-consolidated companies			
ERAMET International	x	x	x
ERAMET Ingénierie (formerly TEC)	x	x	x
ERAMET Research (formerly CRT)	x	x	x
Forges de Monplaisir	x	x	x
Supa	x	x	x
Transmet	x	x	x
Brown Europe	x	x	x
Metal Securities Investissement	x	x	
AD TAF	x	x	
Campus Alliages	x		

Tax group losses utilisable at 31 December 2012 amounted to €108.6 million.

Note 19. Net financial income

(€ thousand)	31/12/2012	31/12/2011
Dividends from associates ⁽¹⁾	305,323	558,855
Interest from associates ⁽²⁾	19,989	15,403
Other dividends and interest	702	(883)
Reversal of provisions ⁽³⁾	5,309	
Foreign currency gains ⁽⁴⁾		7,452
Financial income	331,322	580,828
Depreciation and amortisation expense and addition to provisions ⁽³⁾		(229,699)
Interest and similar expenses ⁽⁵⁾	(9,370)	(11,071)
Foreign currency gains ⁽⁴⁾	(4,804)	(5,278)
Net losses on disposal of marketable securities		
Financial expenses	(14,175)	(246,048)
NET FINANCIAL INCOME	317,148	334,779

(1) Dividends from the Nickel Division (€226.4 million) and the Manganese Division (78.9 million).

(2) Interest income on Group current account loans (€20 million).

(3) Reversal of provision for financial contingencies covering the potential loss on the Metal Securities bond portfolio secured by ERAMET: €4.1 million and reversal of provision for treasury shares held under the price support agreement: €1.3 million.

In 2011, net addition to provision for financial contingencies covering the potential loss on the Metal Securities bond portfolio secured by ERAMET: (€8.3) million, addition to provisions for Erallloys shares representing (€195) million and for Tinfos amounting to (€22) million, and addition to provisions for treasury shares held under the price support agreement: (€4.4) million.

(4) Net exchange loss of (€4.8) million resulting mainly from the remeasurement of the Group's loans and borrowings in foreign currencies.

(5) Interest expenses relate to the interest on Metal Securities financing of (€3.8) million, (€2.8) million in expenses relative to the syndicated credit facility, and write-off of a (€2) million financial debt in favour of Eramine.

Note 20. Extraordinary items

(€ thousand)	31/12/2012	31/12/2011
Hedging gains	0	1
Gains on share capital transactions ⁽¹⁾	1,796	52,671
Reversal of provisions and expense transfer ⁽²⁾	21,677	796
Non-recurring income	23,473	53,468
Hedging losses	(14)	2
Expenses on share capital transactions ⁽¹⁾	(3,895)	(4,435)
Extraordinary depreciation and amortisation expense and addition to provisions ⁽³⁾	(6,336)	(9,831)
Extraordinary expenses	(10,245)	(14,264)
EXTRAORDINARY ITEMS	13,228	39,203

(1) Sale of ERAMET Alliages (Alloys) shares to ERAMET Holding Alliages for €0.6 million, recognition of IT expenses for (€1.4) million, and net carrying amount of the shares awarded to the employees in French companies under the 2010 bonus share plan accounting for (€1.3) million.

In June 2011, sale of 31,935 Comilog S.A. shares to the Gabonese State, generating a gain of €49.2 million, and net carrying amount of the shares awarded to the employees in French companies under the 2009 bonus share plan: (€1) million.

(2) Reversal of the 17.7 million provision for price increase, of the €1 million regulated provisions to cover Sandouville assets, reversal of the €1.3 million provision made for the bonus share plan following the granting of shares under the 2010 plan to employees in French companies, and reversal of the €1.6 million provision made in 2011 for restoration works planned in the Tour Montparnasse premises, which were not carried out.

(3) Additions to regulated provisions totalling (€2.7) million and additions to provisions for sundry receivables totalling (€3.6) million, mainly for the Lithium exploration and operation project.

Note 21. Workforce

	FY 2012	FY 2011
Management	201	190
Supervisory staff	240	230
Workforce at end of period	441	420
Average number of employees	432	402

Note 22. Off-balance-sheet commitments

(€ thousand)	31/12/2012	31/12/2011
Commitments given		
Endorsements, guarantees and deposits	54,816	941
Collateral security	None	None
Forward/future sales in USD	172,644	173,229
Commitments received		
Endorsements, guarantees and deposits	None	None
Collateral security	None	None
Multi-currency syndicated loan	800,000	800,000
Forward/future purchases in USD		0
Reciprocal commitments		
Currency hedge via <i>Metal</i> Currencies	54,170	68,216

The above table does not include current business orders or liabilities stemming from orders for non-current assets under capital expenditure programmes.

Note 23. Risk management

Note 23.1. Foreign currency 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 provide currency hedging according to the loan repayment schedules. At 31 December 2012, only the loan to Strand Minerals Indonesia was currency-hedged.

Note 23.2. Commodity risk

ERAMET is exposed to commodity price volatility, impacting its sales. ERAMET hedges part of its nickel sales on the basis of 1- or 2-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 2012, 137 tons were hedged for a fair value of (USD120,000) (for the record, in 2011: 1,298 tons for a fair value of +USD7,338,000). ERAMET mainly uses futures, combined calls and puts and purchase options.

Note 23.3. Credit or counterparty risk

ERAMET's counterparty risks mainly arise on its commercial transactions and hence, on 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 counterparty 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.

Note 23.4. Interest rate risk

At 31 December 2012, ERAMET had no interest rate hedges covering its net debt. Its surpluses invested with Metal Securities are remunerated at (floating) market rates.

Note 23.5. Liquidity risk

Measured Group-wide, ERAMET's financial situation renders it relatively immune to liquidity risk: In fact, ERAMET S.A.'s net cash position at 31 December 2012 stood at €431.7 million (as opposed to a net debt of €212.7 million at 31 December 2011). 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 any of the following three 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 convention under which a total of €85 million is maintained at the 2017 maturity and a total of €896 million will fall due in 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: ERAMET group net debt position/ERAMET group shareholders' equity <1.

Commercial paper

In 2005, ERAMET set up a €400 million commercial paper programme of which €35 million was raised at 31 December 2012.

Repos

On 21 December 2012, ERAMET renewed its commitment to set up a repo programme. The drawdown amount is €136 million with a revolving three-month maturity. This facility is confirmed. At 31 December 2012, €60 million was used.

Note 24. Property finance leases

Not applicable.

Note 25. Consolidation of the corporate financial statements

The Company is consolidated within the ERAMET group, of which it is the parent company.

Note 26. Compensation of management and supervisory bodies

(€ thousand)	FY 2012	FY 2011
Short-term benefits		
• Fixed remuneration	2,920	2,824
• Variable remuneration	1,499	1,267
• Directors' fees	429	379
Other benefits		
• Post-employment benefits	565	0
TOTAL	5,412	4,470

The ten highest paid individuals received a total of €5.3 million in 2012.

Note 27. Share subscription and purchase options, bonus shares

	Date of the Shareholders' Meeting	Date of the Board meeting	Subscription price	No. of beneficiaries		Granted at outset	Exercised or lapsed prior to 01/01/2012	Exercised in 2012	Lapsed in 2012	Still to be exercised as from 01/01/2013	Number of beneficiaries at 01/01/2013	Expiry of plans
				at outset	at 01/01/2012							
1	23/05/2002	15/12/2004	64.63 EUR	81	20	130,000	(105,898)	(24,102)	-	-	-	15/12/2012
TOTAL						130,000	(105,898)	(24,102)	-	-		

Exercisable only as from 12 December 2006. The shares may not be sold before 14 December 2008.

(1)	Date of the Shareholders' Meeting	Date of the Board meeting	Subscription price	No. of beneficiaries		Granted at outset	Subscribed or lapsed prior to 01/01/2012	Granted finally in 2012	Lapsed in 2012	Obsolete in 2012	Still to be exercised as from 01/01/2013	Number of beneficiaries at 01/01/2013	Expiry of plans
				at outset	at 01/01/2012								
1	11/05/2005	25/04/2007	free	1	-	10,000	(10,000)	-	-	-	-	-	-
2	11/05/2005	23/07/2007	free	61	-	16,000	(16,000)	-	-	-	-	-	-
3	13/05/2009	29/07/2009	free	14,766	8,631	73,830	(30,675)	-	(8,515)	-	34,640	6,928	29/07/2013
4	20/05/2010	20/05/2010	free	14,405	13,605	28,810	(1,600)	(9,526)	(712)	-	16,972	8,486	20/05/2014
5	20/05/2010	20/05/2010	free	162	159	65,008	(6,095)	-	(500)	-	58,413	156	20/05/2015
6	20/05/2010	16/02/2011	free	14,298	13,848	28,596	(900)	(732)	(58)	-	26,906	13,453	16/02/2015
7	20/05/2010	16/02/2011	free	205	201	71,665	(6,382)	-	(700)	-	64,583	196	16/02/2016
8	20/05/2010	15/02/2012	free	14,318	-	28,636	-	-	(1,298)	-	27,338	13,669	15/02/2016
9	20/05/2010	15/02/2012	free	201	-	89,885	-	-	(560)	-	89,325	198	15/02/2017
TOTAL						412,430	(71,652)	(10,258)	(12,343)	-	318,177		

(1) Final vesting date: 3 = 29 July 2011 France and 29 July 2013 Worldwide, 4 = 20 May 2012 and 20 May 2014, 5 = 20 May 2013 and 20 May 2015, 6 = 16 February 2013 and 16 February 2015, 7 = 16 February 2014 and 16 February 2016, 8 = 15 February 2014 and 15 February 2016 and 9 = 15 February 2015 and 15 February 2017.

The shares cannot be sold prior to: 3 = 29 July 2013, 4 = 20 May 2014, 5 = 20 May 2015, 6 = 16 February 2015, 7 = 16 February 2016, 8 = 15 February 2016 and 9 = 15 February 2017.

Note 28. Individual training rights

Individual training rights vesting over a full year amount to 20 hours per full-time employee and pro rata for employees working part-time or hired during the year.

Taking into account the size of the workforce at 31 December 2012, individual training rights amounted to 31,452 hours (32,015 hours at 31 December 2011).

Note 29. Other information

Carlo Tassara France (a company belonging to Mr. Romain Zaleski's group) holds 3,394,146 shares in ERAMET (equivalent to 12.87% of its capital at 31 December 2009), on the basis of an estimate using the latest declaration of the crossing of a significant shareholding threshold by that company (No. 207C0134 of 17 January 2007).

On 17 December 2009, Carlo Tassara France summoned SIMA, SORAME and CEIR, as well as the members of the Duval family, to appear before the Paris Commercial Court. The summons specifies that these proceedings are being brought in the presence of ERAMET. In its writ of summons, Carlo Tassara France claims first, that the SIMA group's presentation to the ERAMET shareholders in 1999 misled those shareholders by concealing from them the indebtedness of SMC, a 38.5%-owned subsidiary of SIMA, consolidated not fully, but by the equity method (as an associate company), whereas SIMA is stated to have concealed from both the appraisal auditors for the transfer of assets (*commissaires aux apports*) and the ERAMET shareholders that it had full control of that subsidiary. Secondly, Carlo Tassara France challenges the terms on which ERAMET financed SMC through the intermediary of SIMA from 1999 to 2002 (at which date, SMC filed for bankruptcy), by loans alleged to have been granted unlawfully for lack of their having received prior authorisation from the ERAMET Board of Directors; the claimant also requests the Court to find that those loans proved prejudicial to ERAMET and is applying to have Messrs. Édouard, Georges, Patrick and Cyrille Duval found jointly and severally liable to pay ERAMET a total sum of €76.4 million in damages.

Carlo Tassara France 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, as well as the return by the holders of those shares of the dividends earned since 1999 and estimated by Carlo Tassara France 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. ERAMET points out that the SIMA share contribution was approved by the ERAMET Extraordinary General Shareholders' Meeting on 21 July 1999, based on the report of two Appraisers appointed by the President of the Paris Commercial Court, the report of the Board of Directors of ERAMET, the appendix to which was approved by the COB (French Securities and Exchange Commission) on 6 July 1999 (document no. E 99-944) and the opinion as regards fairness attached to that document E.

In September 2010, the defendants lodged submissions in reply to the claims of Carlo Tassara France.

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. The case was heard on 15 January 2013 in the Paris Court of Appeal. Judgement was reserved.

Agreement to increase the Gabonese Republic's interest in Comilog S.A.

After approval by its Board of Directors on 14 October 2010, ERAMET signed an agreement with the Gabonese Republic on 20 October 2010, increasing the Gabonese Republic's shareholding in Comilog S.A.; before the agreement, ERAMET's interest was 67.25%, with 25.4% held by the Gabonese Republic, and the remainder in the hands of various private investors.

Under this agreement, from 2010 to 2015, ERAMET will transfer in stages to the Gabonese Republic an additional interest 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 stage (2010-2011) consists in transferring an interest of 3.54% in the capital of Comilog S.A.

During the period from 2012 to 2015, the Gabonese Republic will acquire the remaining 6.46% from ERAMET according to terms and procedures to be determined at the time.

On 31 December 2010, the first-stage transfer covering the period 2010-2011, of 50,583 shares representing 2.17% of the share capital of Comilog S.A. was completed and recognised in equity in the Group financial statements. In June 2011, ERAMET transferred 31,935 shares representing 1.37%.

Note 30. Events after the reporting date

To the best of the Company's knowledge, no other events have occurred since the reporting date.

6.2.3. Table of subsidiaries and investments

As at 31 December 2012

<i>(€ thousand or foreign currency units thousands, except XAF million)</i>	Share capital	Own funds other than capital	Share of capital held	Gross carrying value of shares held	Net carrying value of shares held	Loans and advances granted and not repaid	Endorsements and guarantees given	Dividends collected in FY	Sales of past FY	Profit/(Loss) of past FY closing
	Currency	Currency	%	EUR	EUR	EUR	EUR	EUR	Currency	Currency
I. Detailed information on each stock (gross amount exceeding 1% of the Company's share capital)										
Subsidiaries (at least 50% of share capital owned)										
Eras	EUR	2,000	0	100.00	1,986	1,986			0	0
ERAMET Ingénierie	EUR	525	4,179	100.00	838	838			9,097	131
ERAMET Research	EUR	1,410	10,438	100.00	1,161	1,161	1,095		19,225	4,559
ERAMET International	EUR	160	2,567	100.00	892	892			10,790	476
ERAMET Holding Nickel	EUR	227,104	23,617	100.00	229,652	229,652		226,394	0	234,386
Weda Bay Mineral Inc	USD	35,505	22,701	100.00	3,616	3,616			0	332
Weda Bay Mineral Singapore Ltd	USD	347,743	(8)	19.75	52,570	52,570			0	(8)
ERAMET Holding Manganese	EUR	310,156	288,049	100.00	310,156	310,156		44,943	0	112,223
Eralloys Holding	NOK	12,800	1,575,510	100.00	419,445	224,445			698	11,883
ERAMET Holding Alliages (formerly SIMA)	EUR	148,000	13,697	100.00	329,584	325,100	252,057		4,985	3,652
Erasteel	EUR	15,245	62,645	100.00	143,169	50,169	104,603		171,799	(12,413)
					1,493,069	1,200,585				
Investments in associates (between 10% and 50% owned)										
Comilog	XAF	40,812	362,247	23.22	53,407	53,407		33,849	313,687	45,400
Tinfos	NOK	3,088	192,428	33.35	46,751	24,751		68	62,744	17,399
					100,158	78,158				
II. General information on other stocks (gross amount at most equal to 1% of the Company's share capital)										
• French subsidiaries	EUR				107	107	5,242			
• Foreign subsidiaries	EUR									
• Investments in associates	EUR				456	456		54,470	69	
TOTAL					1,593,790	1,279,306	362,997	54,470	305,323	

	SIREN business identifier	Address of registered office
I. 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
ERAMET Research	301 608 634	1, avenue Albert-Einstein BP 120 78193 Trappes
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	14 th 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 associates (between 10% and 50% owned)		
Comilog	N/A	Compagnie Minière de l'Ogooué Z.I. de Moanda BP 27-28 Gabon
Tinfos	N/A	O. H. Holtas gate 21 — N-3678 Notodden Norway

6.2.4. Report of the Statutory Auditors on the annual financial statements

Year ended 31 December 2012

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking users. The Statutory Auditors' report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the opinion on the Company financial statements and includes an explanatory paragraph discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the Company financial statements taken as a whole and not to provide separate assurance on individual account captions or on information taken outside of the Company financial statements. This report should be read in conjunction and construed in accordance with French law and professional auditing standards applicable in France.

To the Shareholders,

In accordance with our appointment as Statutory Auditors at your Shareholders' Meetings, we hereby report to you for the year ended 31 December 2012 on:

- the audit of the accompanying financial statements of ERAMET;
- the justification of our assessments;
- the specific procedures and disclosures required by law.

The financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements, based on our audit.

I. Opinion on the financial statements

We conducted our audit in accordance with professional standards applicable in France. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, using sample testing techniques or other selection methods, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made, as well as evaluating the overall financial statement presentation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

In our opinion, the financial statements give a true and fair view of the financial position and the assets and liabilities of the Company

as of 31 December 2012 and the results of its operations for the period then ended in accordance with accounting principles generally accepted in France.

II. Justification of our assessments

Pursuant to Article L. 823-9 of the French Commercial Code (*Code de commerce*) governing the justification of our assessments, we hereby report on the following:

As indicated in Note 3.2 "Accounting policies and methods" to the financial statements, equity interests in subsidiaries are measured taking into account the value of the net assets held and the profitability outlook. Our procedures consisted in assessing the financial information and the assumptions upon which these estimates were based and in reviewing the calculations performed by your Company. On these bases, we assessed the reasonableness of these estimates.

These assessments were performed as part of our audit approach for the financial statements taken as a whole and therefore contributed to the expression of our opinion in the first part of this report.

III. Specific procedures and disclosures

We have also performed the other procedures required by law, in accordance with professional standards applicable in France.

We have no matters to report regarding the fair presentation and consistency with the financial statements of the information given in the management report of the Board of Directors and the documents addressed to the shareholders in respect of the financial position and the financial statements.

We verified the consistency of disclosures provided pursuant to the requirements of Article L. 225-102-1 of the French Commercial Code on remuneration and benefits paid to corporate officers and any other commitments made in their favour, with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies controlling your Company or controlled by it. Based on these procedures, we attest to the accuracy and fair presentation of this information.

Pursuant to the law, we have verified that the management report contains the appropriate disclosures as to the identity of and voting rights held by shareholders.

Paris-La Défense and Neuilly-sur-Seine, 21 February 2013

The Statutory Auditors

Ernst & Young et Autres
French original signed by:
Aymeric de La Morandière

Deloitte & Associés
French original signed by:
Alain Penanguer

6.2.5. Statutory Auditors' special report on regulated agreements and commitments

Shareholders' Meeting held to approve the financial statements for the year ended 31 December 2012

This is a free translation into English of the Statutory Auditors' special report on regulated agreements and commitments with third parties that is issued in the French language and is provided solely for the convenience of English speaking readers. This report on regulated agreements and commitments should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France. It should be understood that the agreements reported on are only those provided by the French Commercial Code (Code de commerce) and that the report does not apply to those related party transactions described in IAS 24 or other equivalent accounting standards.

To the Shareholders,

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 and conditions of those agreements 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 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 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 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

We hereby inform you that we have not been advised of any agreement or commitment authorized during the year to be submitted to the approval of the Shareholders' Meeting pursuant to Article L. 225-38 of the French Commercial Code.

Agreements and commitments previously approved by the Shareholders' Meeting

Agreements and commitments approved during prior years and having continuing effect in 2012

Pursuant to Article R. 225-30 of the French Commercial Code, we have been informed that the following agreements and commitments, previously approved by Shareholders' Meetings of prior years, have had continuing effect during the year.

With Le Nickel-SLN

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.

Terms and conditions:

These services are remunerated based on actual costs incurred by ERAMET to perform such services, plus an 8% margin. In 2012, the amount invoiced totaled €7,908,460, compared to €8,589,000 in 2011.

Persons concerned holding a directorship or a general management position in both companies:

Patrick Buffet, Édouard Duval, Bertrand Madelin and Michel Quintard.

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.

Terms and conditions:

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. The total amount invoiced by Le Nickel-SLN to ERAMET was €724,872,148 in 2012, compared to €829,976,643 in 2011.

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 marketing the finished products. The total amount invoiced to Le Nickel-SLN was €26,657,960 in respect of 2012, compared to €26,910,523 in 2011.

Persons concerned holding a directorship or a general management position in both companies:

Patrick Buffet, Édouard Duval, Bertrand Madelin and Michel Quintard.

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 benefits plan

Nature, purpose and terms and conditions:

The Board of Directors meeting of 17 February 2010 authorized Messrs. Patrick Buffet, Georges Duval, Bertrand Madelin and Philippe Vecten, corporate officers, to join the Group's complementary health, disability and death plan.

Defined benefits retirement plan

Nature, purpose and terms and conditions:

This plan, the so-called Article 39 plan, is applicable to all ERAMET group corporate officers and continued without modification during fiscal year 2012.

Paris-La Défense and Neuilly-sur-Seine, 21 February 2013

The Statutory Auditors

Ernst & Young et Autres
French original signed by:
Aymeric de La Morandière

Deloitte & Associés
French original signed by:
Alain Penanguer

6.2.6. Separate financial results over the past five financial years

	2008	2009	2010	2011	2012
Share capital at year-end					
a) Share capital (€)	79,956,455	80,427,930	80,866,071	80,883,304	80,956,815
b) Number of shares issued	26,215,231	26,369,813	26,513,466	26,519,116	26,543,218
Transactions and profit/(loss) for the year (€ thousand)					
a) Sales ex. tax	1,033,393	751,791	1,067,012	1,043,590	880,306
b) Profit/(Loss) before tax, employee profit-sharing, depreciation, amortisation and provisions	152,814	106,182	127,381	608,704	278,523
c) Income tax	(20,076)	(6,433)	(9,900)	(9,641)	(27,790)
d) Employee profit-sharing	0	0	0	0	0
e) Profit/(Loss) after tax, employee profit-sharing, depreciation, amortisation and provisions	148,159	(29,942)	146,112	340,942	321,062
f) Proposed dividend	137,630	47,466	92,797	59,668	34,506
Earnings per share (€)					
a) Profit/(Loss) after tax, employee profit-sharing, but before depreciation, amortisation and provisions	7	4	5	23	12
b) Profit/(Loss) after tax, employee profit-sharing, depreciation, amortisation and provisions	6	(1)	6	13	12
c) Proposed dividend per share	5	2	4	2	1
Personnel					
a) Average number of employees	369	383	381	402	432
b) Total wage bill (€ thousand)	26,331	27,350	30,873	32,573	33,259
c) Amounts paid out in employee benefits (€ thousand)	11,250	15,478	22,105	50,189	27,845

6.3. CONSOLIDATED FINANCIAL STATEMENTS FOR 2011 AND 2010

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 2011 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 2011 Registration Document filed with the AMF on 29 March 2012;
- b) the 2010 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 2010 Registration Document filed with the AMF on 5 April 2011.

The sections of the 2011 and 2010 Registration Documents not included are therefore either of no relevance to investors or covered elsewhere in this Registration Document.

The two abovementioned Registration Documents can be found on the Company's website (www.eramet.com) and on that of AMF (www.amf-france.org).

6.4. DIVIDEND POLICY

6.4.1. Dividend payout arrangements

Dividends are paid annually at the times and in the places specified by the General Shareholders' Meeting, or failing that by the Board of Directors, within nine months of the end of the financial year. Properly paid dividends 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 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 during the first 20 days of January of each year following the year in which they are time-barred, pursuant to the provisions of Articles L. 27 and R. 46 of the French Public Property Code.

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."

Breakdown of 2012 earnings allocation

The proposed allocation of the 2012 earnings can be found in the second resolution of the upcoming General Shareholders' Meeting, in Chapter 8 of this document.

6.4.3. Dividend policy

6.4.3.1. Policy applied

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, are sometimes offered at the shareholder's option.

Amount of dividend

In recent years, the Company has endeavoured to pay a regular and substantial dividend. The proposed dividend is €1.30 per share.

Dividends paid out over the past few years

	2012	2011	2010	2009	2008
Number of shares receiving dividends	26,543,218	26,519,116	26,513,466	26,369,813	26,215,231
Net profit/(loss), Group share	€8 million	€195 million	€328 million	(€265) million	€694 million
Dividends per share	€1.30	€2.25	€3.50	€1.80	€5.25
TOTAL PAYOUT	€34.5 million	€59.7 million	€92.8 million	€47 million	€137.6 million

6.4.3.2. Outlook

The Company intends to continue to follow the policy applied over the past years.

6.5. FEES PAID TO THE STATUTORY AUDITORS

Full details of the fees paid for the past three years to the various audit firms, with the breakdown by type of service, can be found in Note 33 to the consolidated financial statements.



7

CORPORATE AND SHARE-CAPITAL INFORMATION

7.1. Market in the Company's shares	276
7.1.1. Market on which shares are listed	276
7.1.2. Share price performance	276
7.1.3. Securities services	279
7.2. Share capital	280
7.2.1. Subscribed capital	280
7.2.2. Securities not representing share capital.....	280
7.2.3. Changes in share capital.....	280
7.2.4. Changes in ownership structure over the past three years	280
7.2.5. Share ownership	280
7.2.6. Stock option plan and bonus shares	283
7.2.7. Summary table of financial authorisations.....	284
7.2.8. Description of the share buyback programme	285
7.3. Company information	287
7.3.1. Company name (Article 2 of the Articles of Association).....	287
7.3.2. Company registration number	287
7.3.3. Date of incorporation and term of the Company (Article 5 of the Articles of Association) ..	287
7.3.4. Registered office (Article 4 of the Articles of Association)	287
7.3.5. Legal form and applicable legislation	287
7.3.6. Statutory auditing of the Company (Article 19 of the Articles of Association).....	287
7.3.7. Corporate object (Article 3 of the Articles of Association)	287
7.3.8. Financial year (Article 23 of the Articles of Association)	288
7.3.9. Shareholders' General Meeting	288
7.3.10. Transfer of shares	289
7.3.11. Identification of shareholders.....	289
7.3.12. Factors likely to influence a public offer	290
7.4. Shareholders' agreements	291
7.4.1. Decision and notification No. 212C0486 of 12 April 2012	291
7.4.2. Decision and notification No. 209C1013 of 21 July 2009.....	292

7.1. MARKET IN THE COMPANY'S SHARES

7.1.1. Market on which shares are listed

The Company's shares were floated on the Second Market of the Paris Bourse (at a price of 310 Francs, approximately equivalent to €47.26) on 29 September 1994, following the decision of the Combined Ordinary and Extraordinary General Meeting of Shareholders on 15 June 1994 to carry out a five-to-one split.

With effect from 26 June 1995, the shares were transferred to the Official List (monthly settlement segment).

The Company's shares are traded on the NYSE Euronext Paris market (ISIN code: FR0000131757) where ERAMET is included in segment A.

The stock is included in the Euronext Paris CAC MID 60 index. At the end of 2007, ERAMET joined the DJ STOXX 600 index.

No shares in any other Group company are traded on any other stock exchange.

7.1.2. Share price performance

The ERAMET share underwent contrasted changes in performance in 2012, with its highest price at €139 per share in February, and its lowest at €75.95 per share in the month of May 2012. After this date, it generally remained in a bullish channel till the end of the year.

Overall, the ERAMET share increased by 17% in 2012, closing the year at €110.95 per share, with a market capitalisation of about €2.9 billion. In the same period, CAC 40 increased by 15.2%, while the Stoxx 600 Europe Basic Resources index increased by a mere 4%.

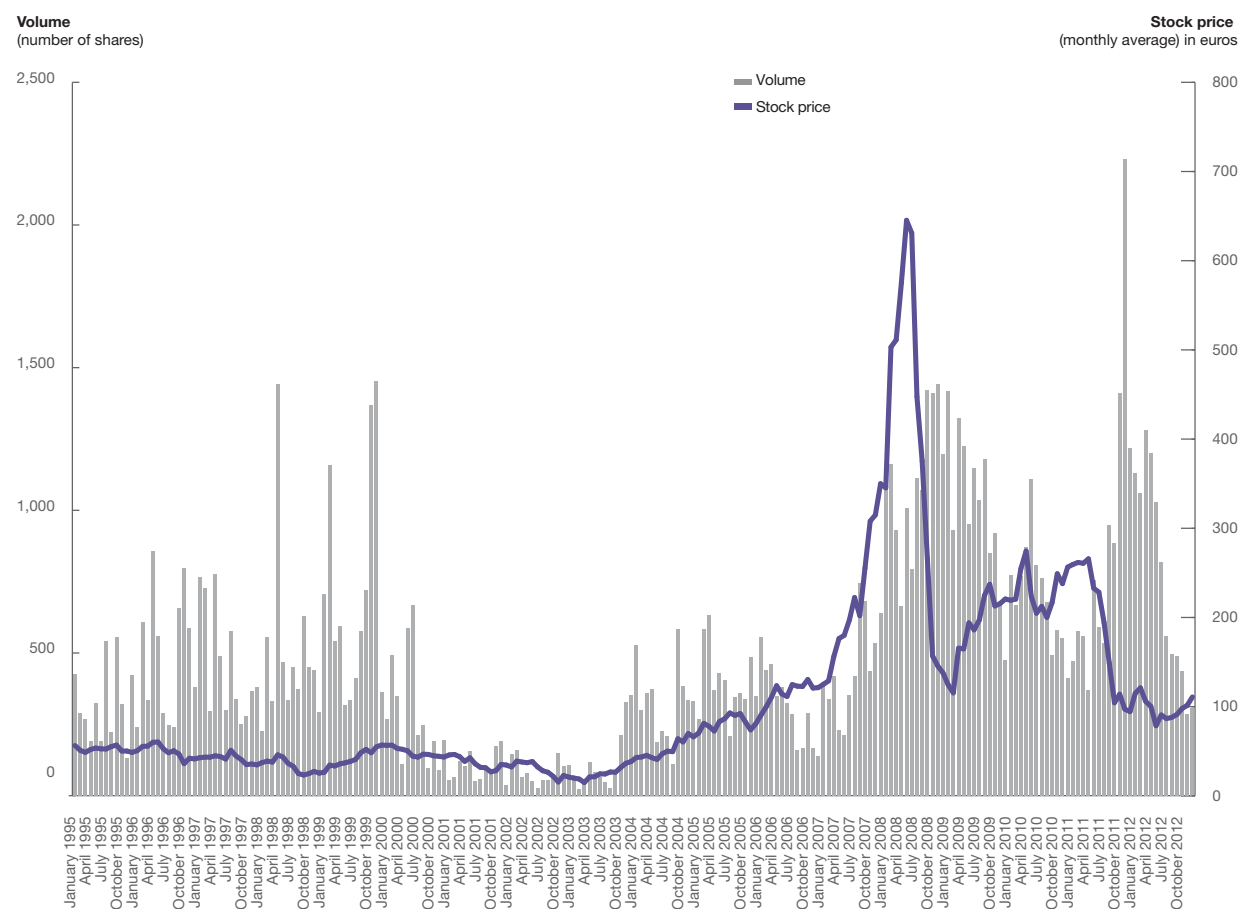
7.1.2.1. EraShare programme continued for ERAMET group employees

In 2012, the EraShare programme continued with the awarding of two bonus ERAMET shares to each employee of the Group, following from 5 shares granted per employee in 2009, and 2 shares granted per employee in 2010 and in 2011.

7.1.2.2. Financial communications

The Group's financial communications continued through new and existing media: the Registration Document, the business report, and the Group website www.eramet.com was fully renewed. The half-year and annual results are published as webcasts in English and French. The geographical coverage of the road shows was widened to include several European countries and participation in certain conferences was stepped up.

Changes in trading volumes and ERAMET share price performance



Stock market data

	Price (€)		Year ended 31/12	Stock-market capitalisation at 31/12 (€ million)	Number of shares traded (daily average)
	Extremes for the period High	Extremes for the period Low			
1994*	57.93	47.26	52.59	771	37,385
1995*	58.39	41.31	48.78	743	15,673
1996*	61.89	34.91	41.47	643	23,981
1997*	53.20	33.08	34.76	542	22,172
1998*	47.72	22.11	25.60	399	24,176
1999*	58.75	23.15	57.00	1,393	33,810
2000*	61.75	41.90	43.55	1,076	14,100
2001	47.80	22.00	34.60	855	4,664
2002	39.80	13.90	21.05	527	4,928
2003	38.60	14.50	38.50	985	5,834
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

* Recalculated in Euros.

	Price (€)			Number of
	Low	High	Average <i>(end of period)</i>	shares traded <i>(monthly average)</i>
2012				
December	100.50	114.15	109,27	305.3
November	92.40	102.40	98.21	284.1
October	90.40	105.00	96.89	438
September	85.68	107.00	95.57	490.4
August	82.01	93.00	88.09	496.5
July	80.00	96.79	87.13	560.1
June	77.50	95.24	86.50	818.3
May	75.95	102.75	86.68	1,029
April	92.00	109.80	100.95	1,201
March	102.25	122.50	111.29	1,280
February	115.45	139.90	125.81	1,060
January	94.97	124.50	113.02	1,130.9
2011				
December	86.80	104.15	94.54	1,218,964
November	80.05	113.95	98.75	2,233,782
October	96.70	127.10	108.02	1,409,007
September	103.05	150.00	124.79	883,210
August	132.00	196.65	148.75	947,185
July	190.00	231.70	212.60	532,776
June	208.65	236.35	221.75	596,236
May	226.40	267.50	240.60	2,120,666
April	253.50	273.85	265.29	371,891
March	230.00	268.80	255.15	560,001
February	251.75	278.50	265.15	575,457
January	249.00	266.50	256.76	476,163
2010				
December	265.00	238.50	256.27	411,443
November	277.00	234.30	253.93	552,238
October	255.35	218.15	236.75	585,637
September	222.15	199.00	214.35	490,807
August	228.10	193.70	210.61	678,536
July	230.50	198.25	215.08	761,711
June	236.80	201.00	218.52	945,600
May	274.00	203.75	233.71	1,110,292
April	298.40	250.20	277.46	874,592
March	258.95	221.15	235.37	769,847
February	231.30	203.15	220.07	668,710
January	260.95	215.20	236.05	772,721

			Price (€)	Number of shares traded
	Low	High	Average (end of period)	(monthly average)
2009				
December	216.60	234.15	221.816	474,492
November	207.00	230.50	221.510	664,166
October	210.00	272.30	244.570	919,131
September	213.55	248.80	231.111	850,553
August	190.00	244.00	211.362	1,179,815
July	153.51	204.00	182.722	1,035,733
June	175.00	238.50	199.005	1,148,573
May	161.30	204.74	186.854	1,004,671
April	153.75	195.00	177.945	1,229,638
March	109.02	185.00	144.122	1,321,855
February	108.00	149.50	131.51	932,017
January	122.00	193.00	149.32	1,422,169
2008				
December	115.00	149.50	130.150	1,211,461
November	96.06	175.00	131.021	1,443,299
October	131.12	278.79	186.849	1,410,394
September	240.72	375.98	308.481	1,423,270
August	318.03	450.99	361.961	1,090,663
July	400.00	634.99	485.971	1,116,959
June	563.72	655.80	611.596	794,622
May	561.20	669.98	629.300	1,191,992
April	473.30	595.00	536.614	665,791
March	402.00	560.00	503.747	934,809
February	328.00	509.96	418.39	1,168,588
January	249.00	367.90	318.37	1,101,950

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 CAPITAL

7.2.1. Subscribed capital

7.2.1.1. Amount and shares

At 1 January 2012, share capital amounted to €80,956,814.90, in the form of 26,543,218 fully paid-up shares in the same class with a par value of €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 balance of redeemed and unredeemed share capital, paid 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

Details of share capital are given in Note 14.1 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. Changes in ownership structure over the past three years

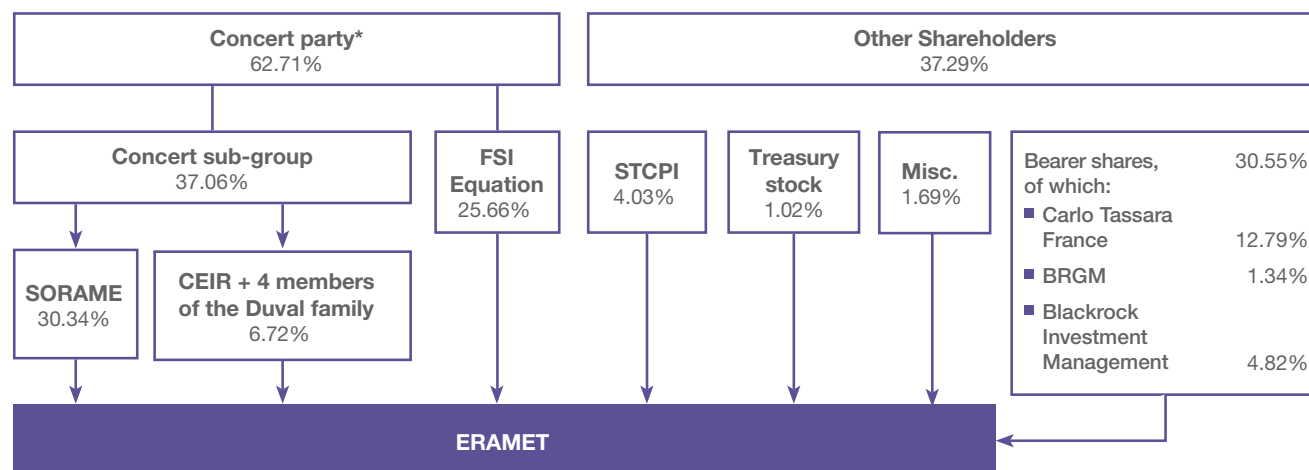
On 16 May 2012, Fonds Stratégique d'Investissement (FSI) (*via* its subsidiary FSI Equation) acquired 6,810,317 shares from Areva, representing 25.68% of ERAMET's share capital.

7.2.5. Share ownership

The known ownership of the Company's share capital over the past three financial years is taken from a study carried out at 31 December of each year by the bank responsible for maintaining the share register, notified declarations of significant-shareholding threshold crossings as well as the exercise of still-valid options and bonus shares.

7.2.5.1. Ownership structure

Company shareholders as at 31 December 2012 (% of shares)



* Pursuant to a shareholders' agreement, subject of the AMF decision and notification No. 212C0486 published on 12 April 2012.

7.2.5.2. As at 31 December 2012 (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	Number of shares	Percentage of share capital	Number of votes	Percentage of actual voting rights
SORAME ⁽¹⁾ (Société de Recherche et d'Applications Métallurgiques)	8,051,838	30.34%	13,558,933	40.83%
CEIR ⁽¹⁾ (Compagnie d'Études Industrielles de Rouvray)	1,783,996	6.72%	1,783,996	5.37%
Total for the SORAME/CEIR⁽¹⁾ concert sub-group	9,835,834	37.06%	15,342,929	46.20%
FSI Equation ⁽¹⁾	6,810,317	25.66%	6,810,317	20.51%
Total concert party (SORAME/CEIR/FSI)⁽¹⁾	16,646,151	62.71%	22,153,246	66.71%
STCPI (Société Territoriale Calédonienne de Participation Industrielle)	1,070,586	4.03%	2,141,172	6.45%
Employees (ERAMET share fund)	52,373	0.20%	83,511	0.25%
ERAMET treasury shares	270,499	1.02%	0	0.00%
Corporate officers	17,560	ns%	33,506	ns%
Carlo Tassara France (Romain Zaleski group company) ⁽²⁾	3,394,146	12.79%	3,394,146	10.22%
BRGM ⁽³⁾	356,044	1.34%	356,044	1.07%
BlackRock Investment Management UK Ltd ⁽³⁾	1,280,694	4.82%	1,280,694	3.86%
Other	3,455,165	13.09%	3,765,958	11.3%
TOTAL SHARES	26,543,218	100.00%	33,208,277	100.00%
TOTAL REGISTERED SHARES	18,434,261	69.45%	25,099,320	75.58%
TOTAL BEARER SHARES	8,108,957	30.55%	8,108,957	24.42%

(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.

7.2.5.3. As at 31 December 2011 (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	Number of shares	Percentage of share capital	Number of votes	Percentage of actual voting rights
SORAME⁽¹⁾ (Société de Recherche et d'Applications Métallurgiques)	8,027,095	30.27%	15,849,106	35.87%
CEIR⁽¹⁾ (Compagnie d'Études Industrielles de Rouvray)	1,783,996	6.73%	3,567,992	8.07%
Other individuals in the concert party (Cyrille, Georges, Édouard and Patrick Duval)	2,289	ns%	4,512	ns%
Total for the SORAME/CEIR⁽¹⁾ concert sub-group	9,813,380	37.00%	19,421,610	43.95%
AREVA⁽¹⁾	6,810,317	25.68%	13,567,594	30.70%
Total concert party (sub-concert group/AREVA)⁽¹⁾	16,623,697	62.69%	32,989,204	74.65%
STCPI (Société Territoriale Calédonienne de Participation Industrielle)	1,070,586	4.04%	2,141,172	4.85%
Employees (ERAMET share fund)	33,854	0.13%	56,464	0.13%
ERAMET treasury shares	259,546	0.98%	0	0.00%
Corporate officers (excluding concert party)	15,087	ns%	18,010	ns%
Carlo Tassara France (Romain Zaleski group company) ⁽²⁾	3,394,146	12.80%	3,394,146	7.68%
BRGM ⁽³⁾	356,044	1.34%	356,044	0.81%
M&G Investment Management Ltd ⁽⁴⁾	353,627	1.33%	353,627	0.80%
BlackRock Investment Management (UK) Ltd ⁽⁵⁾	1,161,174	4.38%	1,161,174	2.63%
Other	3,251,355	12.26%	3,403,538	7.7%
TOTAL SHARES	26,519,116	100.00%	44,190,796	100.00%
TOTAL REGISTERED SHARES	18,350,116	69.20%	36,021,796	81.51%
TOTAL BEARER SHARES	8,169,000	30.80%	8,169,000	18.49%

(1) SORAME, CEIR and AREVA are party to a Shareholders' Agreement constituting a concert party, which was the subject of notice No. 199C0577 from France's Financial Markets Board on 18 May 1999.

(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 identifiable bearer share (TPI) survey.

(4) Estimate on the basis of the most recent Thomson Reuters survey. M&G Investment Management Ltd, a subsidiary of Prudential plc, stated that Prudential plc controlled 524,779 shares as from November 2011.

(5) Estimate on the basis of the most recent Thomson Reuters survey. Blackrock Investment Management (UK) Ltd stated that BlackRock Global Funds controlled 816,868 shares as from 29 November 2011, and that BlackRock Inc controlled 1,357,908 shares (5.12% of the capital) as from 16 February 2012 and 1,303,888 shares (4.92% of the capital) as from 13 March 2012.

7.2.5.4. As at 31 December 2010 (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	Number of shares	Percentage of share capital	Number of votes	Percentage of actual voting rights
SORAME⁽¹⁾ (Société de Recherche et d'Applications Métallurgiques)	7,997,095	30.16%	15,816,014	35.68%
CEIR⁽¹⁾ (Compagnie d'Études Industrielles de Rouvray)	1,783,996	6.73%	3,567,992	8.05%
Other individuals in the concert party (Cyrille, Georges, Édouard and Patrick Duval)	2,283	ns%	3,504	ns%
Total for the SORAME/CEIR⁽¹⁾ concert sub-group	9,783,374	36.90%	19,387,510	43.74%
AREVA⁽¹⁾	6,810,317	25.69%	13,567,594	30.61%
Total concert party (sub-concert group/AREVA)(1)	16,593,691	62.59%	32,955,104	74.34%
STCPI (Société Territoriale Calédonienne de Participation Industrielle)	1,070,586	4.04%	2,141,172	4.83%
Employees (ERAMET share fund)	31,138	0.12%	50,748	0.11%
ERAMET treasury shares	103,851	0.39%	0	0.00%
Corporate officers (excluding concert party)	14,045	ns%	16,836	ns%
Carlo Tassara France (Romain Zaleski group company) ⁽²⁾	3,394,146	12.80%	3,394,146	7.66%
BRGM ⁽³⁾	356,044	1.34%	356,044	0.80%
M&G Investment Management Ltd ⁽⁴⁾	1,507,277	5.68%	1,507,277	3.40%
BlackRock Investment Management (UK) Ltd ⁽³⁾	1,044,297	3.94%	1,044,297	2.36%
Other	2,398,391	9.1%	2,861,923	6.45%
TOTAL SHARES	26,513,466	100.00%	44,327,547	100.00%
TOTAL REGISTERED SHARES	18,153,898	68.47%	35,967,979	81.14%
TOTAL BEARER SHARES	8,359,568	31.53%	8,359,568	18.86%

(1) SORAME, CEIR and AREVA are party to a Shareholders' Agreement constituting a concert party, which was the subject of notice No. 199C0577 from France's Financial Markets Board on 18 May 1999.

(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 identifiable bearer share (TPI) survey.

(4) Estimate on the basis of the most recent identifiable bearer share (TPI) survey. In March 2009, M&G Investment Management Ltd, a subsidiary of Prudential plc, stated that, as from 24 March 2009, Prudential plc controlled 792,995 shares.

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.

7.2.5.5. Foreseeable changes in voting rights

At 31 December 2012, a total of 11,290,000 registered shares, which were registered for less than two years, did not have double voting rights. If those shares were to enjoy double voting rights, the total of double voting rights would be increased to 36,452,000 plus the single voting rights of bearer shares, making 8,108,957 additional rights at 31 December 2012.

7.2.6. 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 2012, whose plan details are given in Note 25 to the ERAMET separate financial statements set out in Chapter 6 of this document, are shares in existence. There are no current stock options.

7.2.7. Summary table of financial authorisations

Summary table of existing 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	11 May 2011 (Resolution 23)
Term of delegation	26 months until 10 July 2013
Use of the authorisation	None

B. By issuing shares, various transferable securities and/or subscription warrants, with waiver of shareholders' preferential subscription rights

By the EGM for an amount of €24,000,000	11 May 2011 (Resolution 25)
Term of delegation	26 months until 10 July 2013
Use of the authorisation	None

C. By capitalising reserves, earnings, premiums or other capitalisable items

By the EGM for an amount of €24,000,000	11 May 2011 (Resolution 24)
Term of delegation	26 months until 10 July 2013
Use of the authorisation	None

D. 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, paragraph 6 of the French Commercial Code

By the EGM for 10% of the share capital, in an amount of €8,086,607	11 May 2011 (Resolution 26)
Term of delegation	26 months until 10 July 2013
Use of the authorisation	None

Total issues limit (total A+B+C+D)

By the EGM	11 May 2011 (Resolution 27)
Maximum amount	€24,000,000
Use of the authorisations	None

Share capital increase reserved for employees

E. By the EGM

Term of delegation	11 May 2011 (Resolution 29)
Maximum amount	26 months until 10 July 2013
Use of the authorisation	€500,000
	None

Share-capital reduction

F. By the EGM

Term of delegation	11 May 2011 (Resolution 22)
Maximum amount	26 months until 10 July 2013
Use of the authorisation	10% of share capital
	None

Bonus share awards (Art. L. 225-197-1 and L. 225-197-2 of the French Commercial Code)

By the EGM	15 May 2012
Maximum total number	550,000 shares
Length of authorisation	38 months until 14 July 2015
Used in 2013	0
Balance available	550,000

Draft resolutions will be submitted to the vote of the Shareholders' General Meeting called for 15 May 2013 to authorise the renewal of the delegation of authority to increase and reduce the share capital (see the text of the draft resolutions in Chapter 8 of this document).

7.2.8. Description of the share buyback programme

7.2.8.1. Report on the 2012 buyback programme

The Combined Ordinary and Extraordinary General Meeting of Shareholders on 15 May 2012 authorised the Company to buy back its own shares representing up to 10% of the share capital, for a maximum purchase price of €500 per share, thereby authorising a maximum total expenditure of €1,325,955,500 by the Company. This authorisation expires at the Ordinary General Shareholders' Meeting called to approve the financial statements for the 2012 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 22nd resolution put to the Shareholders' General Meeting of 11 May 2011 authorising a reduction in the Company's capital for a period of 26 months.

7.2.8.2. 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 2012.

	Shares in the share capital	Price support	Awards to employees	Total
Position at 31 December 2011		83,596	175,950	259,546
As a percentage of share capital	26,519,116	0.32%	0.66%	0.98%
Bonus share awards				
• 2010 award plan			(9,526)	(9,526)
• 2011 and 2012 award plans			(732)	(732)
Purchases		181,098	42,253	223,351
Sales		(202,140)		(202,140)
POSITION AT 31 DECEMBER 2012	26,543,218	62,554	207,945	270,499
As a percentage of share capital		0.24%	0.78%	1.02%

Over the course of the year, 223,351 shares were purchased at an average share price of €96.81 and 202,140 shares were sold at an average price of €100.18.

The carrying amount of the portfolio of 270,499 shares with a par value of €3.05 each, held at 31 December 2012, was €54,302,775.91, with a market value at that same date of €110.95 per share, representing a total of €30,011,864.05.

The Company did not use any derivatives during the year.

7.2.8.3. 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 2012, the following resources were available on the liquidity account: 62,454 ERAMET shares and €5,035,294.

7.2.8.4. Description of the 2013 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 buyback programme. This programme, which falls within the scope of Article L. 225-209 of the French Commercial Code, shall be put to the General Shareholders' Meeting of 15 May 2013, deliberating under the quorum and majority requirements for ordinary General Shareholders' Meetings.

Number of shares and proportion of capital held by the Company

At 31 December 2012, the Company's capital comprised 26,543,218 shares.

On that date, the Company held 270,499 treasury shares, equivalent to 1.2% of the share capital.

Breakdown by purpose of the equity securities held by the Company

As at 31 December 2012, the 270,499 treasury shares held by the Company were allocated as follows by goal:

- share price support (liquidity contract): 62,564 shares;
- grants to employees: 207,945 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 24th resolution put to the Shareholders' General Meeting of 15 May 2013 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 2012, representing 2,654,321 shares, before deduction of the treasury shares held by the Company.

ERAMET shares are listed in segment A of Euronext Paris (ISIN code: FR0000131757).

The intended maximum purchase price is €500 per share.

The intended maximum total amount to be used in these purchases is €1,327,160,500 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 2013 financial year.

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.

- NAF code: 515 C.
- Business sector: exploring for and operating mining deposits of any kind, metallurgy of all metals and alloys and trading thereof.

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.fr

7.3.5. Legal form and applicable legislation

ERAMET is a French public limited company (*société anonyme*) managed by a Board of Directors, governed by Articles L. 224-1 *et seq.* of the French Commercial Code (legislative and regulatory part) and by 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 exploration for, acquisition, leasing, disposal, concession and operation of all mines and quarries of any kind whatsoever;
- the processing, transformation and trading of all ores, mineral and metal substances and their by-products, alloys and any derivatives;
- the manufacture and marketing of all products in which the abovementioned materials or substances are components;
- more generally, any transactions directly or indirectly related to the above objects or that may aid the development of 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 option, manage and operate directly or indirectly any industrial or commercial establishments, plants, construction sites and premises whatsoever, and any movable and tangible objects;
- obtain or acquire any patents, licences, processes and trade-marks, operate, transfer or contribute them, 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. The Company 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. Shareholders’ General 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 Department 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. In both cases, these formalities must be completed by midnight, Paris time, at least three 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 only be cancelled 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 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.

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 Shareholders' Ordinary General Meetings, by the bare owner at Shareholders' Extraordinary General 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 listed on regulated markets.

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.

7.3.11.3. Published declarations of significant-shareholding threshold crossings

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 the upward crossing of 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 the upward crossing of 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 SORAME-CEIR-AREVA shareholders' agreement.
23/05/2012	212C0647	Declaration of crossing above a significant-shareholding threshold by FSI.

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 its 9th resolution, the Shareholders' General Meeting on 15 May 2012 gave the Board discretion, for the period laid down by law, to make use, within the statutory provisions, namely in the event that the reciprocity clause in Article L. 233-33 of the French Commercial Code were to apply, of the various powers delegated to it under resolutions 23 to 26 of the General Meeting of 11 May 2011, to issue shares, miscellaneous marketable securities and/or subscription warrants with or without shareholders' preferential subscription right, "in the event that one or more takeover bids or public exchange offers are made for the securities issued by the Company". The renewal of this authorisation shall be put to the vote at the General Meeting on 15 May 2013.

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. 212C0486, the Company, as of 16 May 2012, is under the majority control of a declared concert party of shareholders comprised of:

- 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;
- Fonds Stratégique d'Investissement (FSI), via its subsidiary FSI Equation.

By an amendment dated 21 March 2013, the parties to the shareholders' agreement agreed that, as from the annual shareholders' meeting to be held in 2013, the Board of Directors shall comprise 5 directors proposed by SORAME/CEIR, 3 directors proposed by FSI, 5 directors who must be individuals, of which three are proposed by the SORAME/CEIR concert sub-group and two are proposed by FSI on the grounds of their competence and their independence, 2 directors proposed by Société Territoriale Calédonienne de Participation Industrielle (hereinafter "STCPI"), one proposed on a joint agreement by SORAME/CEIR and FSI 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 5 directors proposed by SORAME/CEIR, 3 directors proposed by FSI, 4 directors who must be individuals, of which 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, 2 directors proposed by Société Territoriale Calédonienne de Participation Industrielle (hereinafter "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.

(1) It is stated that, in this event, the parties are not required to reach an agreement and can exercise their voting rights freely, and notably that the parties have not laid down any power of veto.

- **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's 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 SORAME 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.

(...)

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 signed on 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 terminated by either party serving notice one month before the expiration 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.



8

GENERAL SHAREHOLDERS' MEETING – WORDING OF DRAFT RESOLUTIONS

8.1. Explanatory Note	296
8.2. Wording of draft resolutions – within the remit of the Ordinary General Shareholders' Meeting	298
8.3. Wording of the draft resolutions – within the remit of the Extraordinary General Shareholders' Meeting	301
8.4. Statutory Auditors' reports on the resolutions presented to the General Shareholders' Meeting	308
8.4.1. Statutory Auditors' report on the issue of ordinary shares and marketable securities with retention and/or waiver of preferential subscription rights.....	308
8.4.2. Statutory Auditors' report on the share capital increase reserved for employees who are members of a corporate savings plan or a Group retirement plan	310
8.4.3. Statutory Auditors' report on the capital decrease by the cancellation of purchased shares	311

8.1. EXPLANATORY NOTE

We have set out below, for your attention, an explanatory note regarding the resolutions proposed for voting at your General Meeting.

The **first two 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 **third 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 2012. Having already received approval from a General Shareholders' Meeting, those agreements will not be submitted to a vote at this Meeting.

The **fourth resolution** proposes to the General Meeting the allocation of earnings and the setting of a dividend of €1.30 per share.

Resolutions five to eight concern ratification of the co-option of directors, which took place on 25 May 2012 when the Fonds Stratégique d'Investissement (FSI) acquired its shareholding in ERAMET, namely: FSI-Equation represented by Thomas Devedjian, Caroline Grégoire-Sainte-Marie (independent director), Thierry Le Hénaff (independent director) and Claude Tendil.

Resolutions nine and ten concern renewal of the directorships of Mr. Le Hénaff and Mr. Quintard, whose current terms of office end on the date of this Meeting.

Resolutions eleven and twelve make provision, subject to modification of the maximum number of directors that the Company may have, for the appointment of Mr. Michel Antseleve, Special Advisor and *Chargé de Mission* for the President of the Gabonese Republic and the Department Head of Mines, Hydrocarbons, Energy and Water Resources and Mr. Frédéric Tona, independent Consultant. **Resolution thirteen** alters, subject to modification of the maximum number of directors that the Company may have, the overall amount of directors' fees to reflect the new number of Board members, bringing the total sum to €700,000.

The **fourteenth resolution**, pursuant to Article L. 225-209 of the French Commercial Code, requests the General Shareholders' Meeting to authorise the Board to renew the Company's share buyback programme, pursuant to 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 €500 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.

The **fifteenth, sixteenth, seventeenth, eighteenth, nineteenth and twentieth resolutions** propose the renewal of authorisations previously agreed by the General Shareholders' Meeting of 11 May 2011 permitting the Board of Directors to carry out one or more capital increases:

- by incorporation of reserves or earnings up to a maximum par value of €24,000,000 (fifteenth resolution);
- in cash with a preferential subscription right, up to a maximum par value of €24,000,000 (sixteenth resolution);
- in cash with no preferential subscription right, up to a maximum par value of €16,000,000, *via* a public offer (seventeenth resolution);
- in cash with no preferential subscription right, up to a maximum par value of €16,000,000, *via* a private placement (eighteenth resolution);
- in cash with no preferential subscription right, up to a maximum par value of €16,000,000, *via* the issue of securities, by subsidiaries, granting access to the Company's share capital (nineteenth resolution);
- as consideration for capital contributions in kind with no preferential subscription right, up to a maximum 10% of the share capital (twentieth resolution).

The powers delegated under **resolutions sixteen to twenty** are subject to an overall par value limit of €24,000,000 (that is, slightly less than one third of the share capital) proposed in the **twenty-first resolution**. The aim of this resolution is to renew the scheme approved by the General Shareholders' Meeting of 11 May 2011.

In the **twenty-second resolution**, it is proposed that the capital increase authorisations specified in the **fifteenth to twenty-first resolutions** of this General Shareholders' Meeting – authorisations to increase share capital by the incorporation of reserves (15th), with preferential subscription rights (16th), with no preferential subscription rights by a public offer (17th) or by a private placement (18th), by subsidiaries (19th) or as consideration for capital contributions in kind (20th), up to a par value limit of €24 million for resolutions sixteen to twenty (that is, slightly less than one third of share capital) – may be used during a public offer for purchase or share swap in the event of applicability of the reciprocity clause provided by law (article L. 233-33 of the French Commercial Code when the Company is the subject of a public offer undertaken by entities of which at least one does not apply the provisions related to approval or confirmation by a General Shareholders' Meeting of defence measures during an offer period and the suspension of authorities granted prior to the start of the offer period). Scope for such use of those authorisations is limited to eighteen months, and accordingly, it is proposed to renew authorisation of that use until the General Shareholders' Meeting called to approve the financial statements for 2013.

The **twenty-third resolution** proposes a capital increase reserved for employees for a maximum amount of €500,000 (0.6% of the share capital), in compliance with the statutory obligation arising when a General Shareholders' Meeting is called to vote to authorise a capital increase in cash (L. 225-129-6 of the French Commercial Code). This proposal is for the same amount as the authorisation given by the General Shareholders' Meeting of 11 May 2011, the latter authorisation having remained unutilised. At 31 December 2012, employees hold approximately 0.13% of the share capital under collective management.

The **twenty-fourth resolution** is intended to renew, upon expiry, the authorisation to reduce share capital by up to a maximum 10%, in compliance with statutory provisions.

The Board of Directors

The **twenty-fifth resolution** proposes modification of the current wording of article 10 of the Articles of Association, providing for a maximum number of seventeen directors instead of fifteen. This alteration addresses the intention of having a representative of the Gabon Republic on the Board and of appointing an additional independent director.

The **twenty-sixth resolution** authorises fulfilment of the formalities involved in implementing the other resolutions passed by combined Ordinary and Extraordinary General Shareholders' Meeting.

8.2. WORDING OF DRAFT RESOLUTIONS – WITHIN THE REMIT OF THE ORDINARY GENERAL SHAREHOLDERS' MEETING

First resolution (2012 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 2012, 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 (2012 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 2012, 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.

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 Meetings, approves the allocation of earnings as proposed by the Board of Directors:

- Income for the past financial year was
€321,062,156.34
- Plus retained earnings at 31 December 2012^(*)
€742,008,903.08

The General Shareholders' Meeting resolves to allocate:

- To the legal reserve: €7,351.11
- leaving: €1,063,063,708.31

The General Shareholders' Meeting resolves to distribute:

- an amount of €1.30 per share, specifically, for 26,543,218 shares comprising the share capital at 31 December 2012;
- a sum of €34,506,183.40
- leaving retained earnings of: €1,028,557,524.91**

The dividend will be detached on 17 May 2013 and paid out from 23 May 2013. If, when the dividend is paid out, any new shares have been created as a result of the exercise of subscription options or the creation of bonus shares for beneficiary employees, the dividend corresponding to those shares will automatically be deducted from retained earnings.

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:

	2009	2010	2011	2012
Number of shares subject to dividends	26,369,813	26,513,466	26,519,116	26,543,218
Dividend	€1.80	€3.50	€2.25	€1.30

^(*) The retained earnings include €589,801.50 corresponding to the amount of the dividend voted but not paid, in respect of ERAMET's treasury shares on the date of payment of the dividend in 2012.

Fifth resolution (Ratification of the co-option of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, ratifies the co-option of FSI-Equation represented by Thomas Devedjian, as director, which took place at the Board of Directors' meeting of 25 May 2012. FSI-Equation replaces AREVA, which resigned, for its remaining term of office, namely, until the end of the General Shareholders' Meeting called to approve the financial statements for the 2014 financial year, scheduled to take place in 2015.

Sixth resolution (Ratification of the co-option of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, ratifies the co-option of Claude Tendil as director, which took place at the Board of Directors' meeting of 25 May 2012. Mr. Tendil replaces Gilbert Lehmann, who resigned, for his remaining term of office, namely, until the end of the General Shareholders' Meeting called to approve the financial statements for the 2014 financial year, scheduled to take place in 2015.

Seventh resolution (Ratification of the co-option of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, ratifies the co-option of Caroline Grégoire-Sainte-Marie as director, which took place at the Board of Directors' meeting of 25 May 2012. Ms. Grégoire-Sainte-Marie replaces Frédéric Tona, who resigned, for his remaining term of office, namely, until the end of the General Shareholders' Meeting called to approve the financial statements for the 2014 financial year, scheduled to take place in 2015.

Eighth resolution (Ratification of the co-option of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, ratifies the co-option of Thierry Le Hénaff as director, which took place at the Board of Directors' meeting of 25 May 2012. Mr. Le Hénaff replaces Jean-Hervé Lorenzi,

who resigned, for his remaining term of office, namely, until the end of the General Shareholders' Meeting called to approve the financial statements for the 2012 financial year, scheduled to take place in 2013.

Ninth resolution (Reappointment of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, renews the directorship, expiring at this meeting, of Thierry Le Hénaff for a four-year term, that is, until the General Shareholders' Meeting called to approve the financial statements for the 2016 financial year, scheduled to take place in 2017.

Tenth resolution (Reappointment of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, renews the directorship, expiring at this meeting, of Michel Quintard for a four-year term, that is, until the General Shareholders' Meeting called to approve the financial statements for the 2016 financial year, scheduled to take place in 2017.

Eleventh resolution (Appointment of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings and subject to adoption of the twenty-fifth resolution (modification of article 10 of the Articles of Association), appoints Mr. Michel Antseleve as a director of the Board, for a four-year term, that is, until the General Shareholders' Meeting called to approve the financial statements for the 2016 financial year, scheduled to take place in 2017.

Twelfth resolution (Appointment of a director)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings and subject to adoption of the twenty-fifth resolution (modification of article 10 of the Articles of Association), appoints Mr. Frédéric Tona as a director of the Board, for a four-year term, that is, until the General Shareholders' Meeting called to approve the financial statements for the 2016 financial year, scheduled to take place in 2017.

Thirteenth resolution (Directors' fees)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings and subject to adoption of the twenty-fifth resolution (modification of article 10 of the Articles of Association), fixes the maximum amount of directors' fees which may be allocated annually to the Board of Directors at €700,000. This provision shall be applicable for the first time to fees paid during the 2013 financial year.

Fourteenth 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 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 Company share purchase option plan pursuant to the provisions 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 in respect of their profit-sharing or the implementation of any employee savings scheme, under legally prescribed conditions and, in particular, by Articles L. 3332-1 *et seq.* of the French Labour Code;
- cancel those shares, in accordance with the **twenty-fourth resolution** of this General Shareholders' Meeting, authorising a reduction of 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 **€500** per share.

This authorisation is granted for a period expiring at the General Shareholders' Meeting called to approve the 2013 financial statements.

Based on the number of shares comprising the Company's share capital at **31 December 2012**, assuming a price of **€500** per share, the maximum theoretical investment would amount to €1,327,160,500.

The Board of Directors is granted full powers for the purposes of implementing this resolution, which it may sub-delegate, in order to:

- place all stock market orders, enter into all agreements, particularly with regard to the keeping of share purchase and sale records;
- lodge all filings with the AMF;
- assign or reassign the acquired shares to various objectives in line with the applicable legal or regulatory provisions;
- complete all formalities and, in general, do whatever may be necessary.

8.3. WORDING OF THE DRAFT RESOLUTIONS – WITHIN THE REMIT OF THE EXTRAORDINARY GENERAL SHAREHOLDERS’ MEETING

Fifteenth resolution (Authorisation granted to the Board of Directors with regard to the incorporation of reserves, earnings, premiums or other items that may be capitalised)

Having noted the report of the Board of Directors, the General Shareholders’ Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders’ Meetings by application of article L. 225-130 of the French Commercial Code and in accordance with the provisions of articles L. 225-129-2 and L. 225-130 of the French Commercial Code:

1. authorises the Board of Directors to increase the Company’s share capital, on one or more occasions, in the proportion and at such times as it shall see fit, either by incorporating reserves, earnings, premiums or other items that may be capitalised, or by combining it with a cash capital increase carried out by application of the **sixteenth** Resolution, and in the form of a bonus share grant or an increase in the par value of existing shares, or a combination of both;
2. resolves that the maximum par value of capital increases that may be undertaken, immediately or in the future, pursuant to this authorisation, is fixed at €24,000,000.
3. resolves that the Board of Directors shall be fully empowered, with the right to sub-delegate such powers in the legally prescribed manner, to implement this authorisation in order to:
 - establish all the terms and conditions of authorised transactions and, in particular, set the amount and nature of the reserves and premiums to be incorporated into the share capital, set the number of new shares to be issued or the amount by which the par value of existing shares in the share capital is to be increased, decide on a date, which may even be retrospective, from which new shares will be entitled to dividends or the date on which the increased par value will take effect and, where appropriate, allocate all charges to the share premiums, in particular the cost of carrying out share issues;
 - decide, if necessary, in the event of a distribution of bonus shares, pursuant to the provisions of Article L 225-130 of the French Commercial Code, that fractions shall not be negotiable and that the corresponding shares shall be sold, the proceeds of the sale being allocated to the rights holders within a maximum of 30 days following the entire number of allocated shares being registered to them;

- and, in general, carry out any useful or requisite actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This authorisation, which renders any prior authorisation ineffective, is valid for a period of twenty-six months from the date of this General Shareholders’ Meeting.

Sixteenth resolution (Authorisation granted to the Board of Directors with regard to increasing the share capital by issuing ordinary shares or any other marketable securities granting access to the share capital, with shareholders’ preferential subscription rights upheld)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, in accordance with the provisions of articles L. 225-129-2 and L. 228-92 of the French Commercial Code, the General Shareholders’ Meeting, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders’ Meetings, authorises the Board of Directors, granting it additional powers to sub-delegate under legally prescribed conditions, to make decisions to increase the Company’s share capital, at its sole discretion, by issuing, on one or several occasions, in or outside France, immediately or in the future, marketable securities granting rights over a fraction of the Company’s share capital, in the form of:

- a) ordinary shares in the Company, by issuing new shares to be subscribed in cash or by offsetting debt, with or without an issue premium;
- b) marketable securities other than shares giving direct or indirect rights, *via* conversion, swap, redemption, presentation of a warrant or any other form of allocation, at any time or on specific dates, to securities which, in this respect, shall be issued to represent a fraction of the Company’s share capital. These marketable securities may be in the form of convertible bonds, bonds with share subscription warrants, bonds redeemable in shares, or any other form that does not breach the applicable legal provisions.

These marketable securities may be issued in Euros, in a foreign currency or in a monetary unit established with reference to a basket of currencies;

- c) warrants granting their holders the right to subscribe for securities representing a fraction of the Company's share capital, it being hereby stipulated that the issue of such warrants may take place, either by subscription for cash or by a bonus grant and that, moreover, said warrants may be issued on their own or combined with the shares and marketable securities referred to in (a) and (b) above which are issued simultaneously.

The maximum par value of capital increases that may be undertaken, immediately or in the future, pursuant to this authorisation is fixed at €24,000,000. If necessary, the par value of any additional shares that may be issued will be added to that upper limit, in the event of further financial transactions, to preserve the rights of holders of marketable securities granting access to the share capital. This amount will be included in the overall ceiling established in the **twenty-first** resolution.

The owners of existing shares on the issue date for cash of the securities referred to in (a), (b) and (c) shall be entitled, as of right and in proportion to the number of shares they own at that time, to a preferential right to subscribe for those securities; the Board of Directors shall set the terms and timeframes within which shareholders may exercise their subscription rights, for each issue, in line with applicable legal provisions.

The Board of Directors may introduce a right of subscription for excess shares for shareholders, which shall be exercised in proportion to their rights and up to the amount subscribed for.

If the subscriptions as of right and, where applicable, the subscriptions for excess shares, do not take up the whole share, security or warrant issue, the Board of Directors may limit the issue, in the legally prescribed manner, to the amount of subscriptions received or may freely allocate the shares, securities or warrants which have not been subscribed for as of right and, where applicable, unsubscribed excess shares, or even offer all or part thereof to the general public; the Board of Directors may use the abovementioned powers, or some of them, in any order it sees fit.

In the event that the issue of securities gives entitlement to the allocation of shares on presentation of a warrant, the Board of Directors shall be fully empowered to set the terms and conditions under which the Company shall be entitled to buy subscription warrants on the stock market at any time or during specific periods, in order to cancel them.

The General Shareholders' Meeting acknowledges that the decision to issue marketable securities granting access to the Company's share capital involves a waiver on the part of shareholders of their preferential subscription right in respect of the shares that the securities issued grant a right to, pursuant to application of the provisions of article L. 225-132 of the French Commercial Code.

The General Shareholders' Meeting fully empowers the Board of Directors, with the right to sub-delegate those powers in the

legally prescribed manner, to implement this authorisation, on one or several occasions, in order to:

- establish the terms and conditions for capital increases and decide upon dates and procedures for issues of securities carried out pursuant to this resolution;
- set the opening and closing dates for subscriptions, the price, the vesting date for securities issued, the payment terms for the shares and timeframes for such payment;
- charge, if it deems fit, the expenses, duties and fees arising from the share issues against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each increase;
- and, in general, carry out any useful or requisite actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This authorisation, which renders any prior authorisation ineffective, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Seventeenth resolution (Authorisation granted to the Board of Directors with regard to increasing the share capital by issuing ordinary shares or any other marketable securities granting access to the share capital, with shareholders' preferential subscription rights withdrawn, as part of a public offer)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, and in accordance with the provisions of articles L. 225-129-2, L. 225-135, L. 225-136 and L. 228-92 of the French Commercial Code, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders' Meetings, authorises the Board of Directors, granting it additional powers to sub-delegate under legally prescribed conditions, to make decisions to increase the Company's share capital, involving the corresponding withdrawal of shareholders' preferential subscription rights, by issuing, on one or several occasions, in or outside France:

- a) new ordinary shares in the Company to be subscribed for in cash or by offsetting debt, with or without issue premium;

b) securities other than shares giving direct or indirect rights, via conversion, swap, redemption, presentation of a warrant or any other form of allocation, at any time or on specific dates, to securities which, in this respect, shall be issued to represent a fraction of the share capital. These marketable securities may be in the form of convertible bonds, bonds with share subscription warrants, bonds redeemable in shares, or any other form that does not breach the applicable legal provisions. These marketable securities may be issued in Euros, in a foreign currency or in a monetary unit established with reference to a basket of currencies;

c) warrants that give their holders the right to subscribe for securities representing a portion of the Company's share capital, on the understanding that these warrants may be issued alone or attached to both the shares and securities mentioned in (a) and (b) above issued simultaneously.

The maximum par value of increases to the Company's share capital that may be undertaken, immediately or in the future, pursuant to this delegation of authority, is fixed at €16,000,000. If necessary, the par value of any additional shares that may be issued will be added to that upper limit, in the event of further financial transactions, to preserve the rights of holders of marketable securities granting access to the share capital. This amount will be included in the overall ceiling established in the **twenty-first** resolution.

The securities mentioned under (a), (b) and (c) above may be issued to compensate securities that may be contributed to the Company as part of a stock swap satisfying the terms of Article L. 225-148 of the French Commercial Code.

The General Shareholders' Meeting decides to withdraw shareholders' preferential right to subscribe for ordinary shares in the Company or marketable securities granting access to the Company's share capital, issued pursuant to this resolution, and decides to offer these securities as part of a public offer under the conditions and up to the maximum limits prescribed by law and regulations, on the understanding that the Board of Directors may introduce a preferential right for shareholders to subscribe for shares as of right and/or for excess shares, over all or part of the issue, within the timeframe and under the conditions that it will establish in accordance with legal and regulatory provisions, which must be exercised in proportion to the number of ordinary shares held by each shareholder; it is further understood that such preferential right shall not give rise to the creation of any marketable or transferable rights.

The General Shareholders' Meeting acknowledges that this resolution involves a waiver on the part of shareholders of their preferential subscription right in respect of the ordinary shares that the securities issued on the basis of this authority would grant a right to.

The General Shareholders' Meeting decides that (i) the issue price of ordinary shares will be at least equal to the minimum amount prescribed by laws and regulations in force at the time of application of this authorisation, following adjustment, if necessary, to take into account differences in vesting dates, and that (ii) the issue price of marketable securities granting access to the Company's share capital will be such that the amount immediately received by the Company, plus any amount that may subsequently be received by the Company will, for each ordinary share issued as

a consequence of the issuance of these marketable securities, be at least equal to the minimum stipulated in sub-section (i) here above, following any adjustment of that amount to take into account differences in vesting dates;

The General Shareholders' Meeting fully empowers the Board of Directors, with the right to sub-delegate in the legally prescribed manner, to implement this authorisation, on one or several occasions, in order to:

- establish the terms and conditions for capital increases and decide upon dates and procedures for issues of securities carried out pursuant to this resolution;
- set the opening and closing dates for subscriptions, the price, the vesting date for securities issued, the payment terms for the shares and timeframes for such payment;
- charge, if it deems fit, the expenses, duties and fees arising from the share issues against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each issue;
- and, in general, carry out any useful or requisite actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This authorisation, which renders any prior authorisation ineffective, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Eighteenth resolution (Authorisation granted to the Board of Directors with regard to increasing the share capital by issuing ordinary shares or any other marketable securities granting access to the share capital, with shareholders' preferential subscription rights withdrawn, as part of an offer specified in section II of article L. 411-2 of the French Monetary and Financial Code)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, and in accordance with the provisions of articles L. 225-129-2, L. 225-135, L. 225-136 and L. 228-92 of the French Commercial Code, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders' Meetings, authorises the Board of Directors, granting it additional powers to sub-delegate under legally prescribed conditions, to make decisions to increase the Company's share capital, involving a corresponding withdrawal of shareholders'

preferential subscription rights, by issuing, on one or several occasions, in or outside France:

- a) new ordinary shares in the Company to be subscribed for in cash or by offsetting debt, with or without issue premium;
- b) securities other than shares giving direct or indirect rights, via conversion, swap, redemption, presentation of a warrant or any other form of allocation, at any time or on specific dates, to securities which, in this respect, shall be issued to represent a fraction of the share capital. These marketable securities may be in the form of convertible bonds, bonds with share subscription warrants, bonds redeemable in shares, or any other form that does not breach the applicable legal provisions. These marketable securities may be issued in Euros, in a foreign currency or in a monetary unit established with reference to a basket of currencies;
- c) warrants that give their holders the right to subscribe for securities representing a portion of the Company's share capital, on the understanding that these warrants may be issued alone or attached to both the shares and securities mentioned in (a) and (b) above issued simultaneously.

In the event that the issue of securities gives entitlement to the allocation of shares on presentation of a warrant, the Board of Directors shall be fully empowered to set the terms and conditions under which the Company shall be entitled to buy subscription warrants on the stock market at any time or during specific periods, in order to cancel them.

The maximum par value of increases to the Company's share capital that may be undertaken, immediately or in the future, pursuant to this authorisation, is fixed at €16,000,000. If necessary, the par value of any additional shares that may be issued will be added to that upper limit, in the event of further financial transactions, to preserve the rights of holders of marketable securities granting access to the share capital. This amount will be included in the overall ceiling established in the **twenty-first** resolution.

The General Shareholders' Meeting decides to withdraw shareholders' preferential right to subscribe for ordinary shares or marketable securities granting access to the Company's share capital, issued pursuant to this resolution, and decides to offer these securities as part of an offer specified in section II of article L. 411-2 of the French Monetary and Financial Code, under the conditions and up to the maximum limits prescribed by law and regulations, on the understanding that the Board of Directors may introduce a preferential right for shareholders to subscribe for shares as of right and/or for excess shares, over all or part of the issue, within the timeframe and under the conditions that it will establish in accordance with legal and regulatory provisions; such rights must be exercised in proportion to the number of ordinary shares held by each shareholder and shall not give rise to the creation of any marketable or transferable rights.

The General Shareholders' Meeting acknowledges that this resolution involves a waiver on the part of shareholders of their preferential subscription right in respect of the ordinary shares that the securities issued on the basis of this authority would grant a right to.

The General Shareholders' Meeting decides that (i) the issue price of ordinary shares will be at least equal to the minimum amount prescribed by laws and regulations in force at the time of appli-

cation of this authorisation, following adjustment, if necessary, to take into account differences in vesting dates, and that (ii) the issue price of marketable securities granting access to the Company's share capital will be such that the amount immediately received by the Company, plus any amount that may subsequently be received by the Company will, for each ordinary share issued as a consequence of the issuance of these marketable securities, be at least equal to the minimum stipulated in sub-section (i) here above, following any adjustment of that amount to take into account differences in vesting dates;

The General Shareholders' Meeting fully empowers the Board of Directors, granting it the right to sub-delegate in the legally prescribed manner, to implement this authorisation, on one or several occasions, in order to:

- establish the terms and conditions for capital increases and decide upon dates and procedures for issues of securities carried out pursuant to this resolution;
- set the opening and closing dates for subscriptions, the price, the vesting date for securities issued, the payment terms for the shares and timeframes for such payment;
- charge, if it deems fit, the expenses, duties and fees arising from the share issues against the corresponding share premium amount and deduct from that amount the sums required to bring the legal reserve to one-tenth of the new share capital following each issue;
- and, in general, carry out any useful or requisite actions, in particular, the execution of agreements, the fulfilment of any acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.

This authorisation, which renders any prior authorisation ineffective, is valid for a period of twenty-six months from the date of this General Shareholders' Meeting.

Nineteenth resolution (Authorisation granted to the Board of Directors with regard to the issue of ordinary shares resulting from the issue, by subsidiaries of the Company, of marketable securities granting access to the Company's share capital)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, and in accordance with the provisions of articles L. 225-129 to L. 225-129-6, L. 225-132, L. 225-136, and L. 228-91 to L. 228-93 of the French Commercial Code, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders' Meetings, delegates authority to the Board of Directors so that it may:

(i) authorise, in accordance with article L. 228-93 of the French Commercial Code, the issue by a company or companies in which ERAMET directly or indirectly holds over half the share capital (the “Subsidiary” or “Subsidiaries”), on one or several occasions, both in and outside France, with the Company’s consent, of all marketable securities granting rights, either immediately or in the future, over existing or future ordinary shares of the Company;

(ii) decide, as a consequence, to issue further ordinary shares in the Company, on one or several occasions, both in and outside France, with or without an issue premium, which the marketable securities that may be issued by the Subsidiaries, as referred to in paragraph (i) here above, would grant a right to.

The General Shareholders’ Meeting acknowledges that this decision automatically involves a waiver on the part of shareholders of their preferential subscription right in respect of the ordinary shares of the Company that the securities issued on the basis of this authority would grant a right to, in favour of holders of any such marketable securities that may be issued by the Subsidiaries.

The General Shareholders’ Meeting acknowledges that the Company’s shareholders do not have a preferential subscription right to marketable securities issued by the Subsidiaries, as referred to in paragraph (i) here above.

The General Shareholders’ Meeting decides that the maximum par value of increases to the Company’s share capital that may be undertaken, immediately or in the future, pursuant to this authorisation, is fixed at €16,000,000. If necessary, the par value of any additional shares that may be issued will be added to that upper limit, in the event of further financial transactions, to preserve the rights of holders of marketable securities granting access to the share capital. This amount will be included in the overall ceiling established in the **twenty-first** resolution.

The General Shareholders’ Meeting decides that in the event that the Board of Directors makes use of this authorisation, the sum paid to the Company, at the time of the issue or subsequently, for each ordinary share issued as a consequence of the issuance of the marketable securities referred to in paragraph (i) here above, must be at least equal to the weighted average share price over the three stock market sessions immediately preceding fixing of the issue price of the marketable securities referenced in paragraph (i) here above, which may be reduced by a discount of up to 5% following any adjustment to that weighted average to take into account differences in vesting dates.

The General Shareholders’ Meeting grants all powers to the Board of Directors, with the right to sub-delegate, in order to implement this resolution, with the agreement of the Boards of Directors, Executive Boards or other management or administrative bodies of the issuer Subsidiaries, in accordance with French law and regulations and, as the case may be, applicable foreign law and regulations and, in particular, to:

- set the amounts to be issued, the kind of marketable securities to be created, their features and issuance procedures (including payment conditions for the Company’s ordinary shares), and the vesting date, retrospective or otherwise, of shares to be created;
- charge expenses arising from the capital increase against the corresponding share premium amount and deduct from that

amount the sums required to bring the legal reserve to one-tenth of the new share capital following each capital increase;

- take all measures and enter into any agreements or arrangements required to achieve the successful conclusion of the intended issues, execute the capital increases and all consequent formalities and make any necessary amendments to the Articles of Association by application of this authorisation, in accordance with the terms of the report from the Board of Directors addressed to this Meeting and, in general, do whatever may be necessary.

This authorisation, which renders any prior authorisation ineffective, is valid for a period of twenty-six months from the date of this General Shareholders’ Meeting.

Twentieth resolution (Authorisation granted to the Board of Directors with regard to increasing the share capital by issuing shares or any other marketable securities granting access to the share capital, as consideration for capital contributions in kind in respect of shares or securities granting access to the share capital, with shareholders’ preferential subscription rights withdrawn)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, and in accordance with the provisions of the last sub-section of article L. 225-147 of the French Commercial Code, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders’ Meetings, the General Shareholders’ Meeting:

1. fully empowers the Board of Directors to compensate, up to a maximum of 10% of the share capital, contributions in kind granted to the Company consisting of equity securities or securities granting access to share capital, where the provisions of Article L. 225-148 of the French Commercial Code are not applicable, by issuing, on one or more occasions, both in and outside France, ordinary shares or marketable securities granting access to the Company’s share capital;
2. resolves, insofar as this is necessary, to withdraw shareholders’ preferential subscription rights in respect of the shares and marketable securities that will be issued, in favour of the holders of shares or marketable securities that are the subject of contributions in kind;
3. acknowledges that the decision to issue marketable securities granting access to the Company’s share capital involves a waiver on the part of shareholders of their preferential subscription right in respect of the shares that the securities issued grant a right to, pursuant to application of the provisions of article L. 225-132 of the French Commercial Code;

4. resolves that the par value of any capital increases decided by virtue of this resolution shall be included in the overall ceiling established in the **twenty-first** resolution of this Meeting;
5. decides that the Board of Directors shall have all powers to implement this resolution and, in particular, to approve the report of the Asset Transfer Auditors (*"commissaires aux apports"*), establish all the terms and conditions of issues, draw up the list of contributors, the value of the contributions and the list of securities contributed, record the resulting capital increase(s), allocate all charges to the contribution premium(s), particularly the costs or taxes incurred in carrying out the transactions or the sums necessary to raise the legal reserve to its maximum and, in general, carry out any useful or necessary actions, in particular, the execution of agreements, the fulfilment of acts or formalities to document the capital increase or increases, the corresponding modification of the Articles of Association and the completion of any formalities required so that the shares issued may be admitted to trading.
6. sets the period of validity during which the Board of Directors may make use of this authorisation at 26 months from the date of this Meeting.

Twenty-first resolution (Ceiling applicable to issues)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders' Meetings, resolves that the capital increases that may result from the use of the authorisations governing the issue of shares, other marketable securities and warrants, as provided for in resolutions **sixteen to twenty** here above, whether immediate or deferred, may not exceed a maximum par value of €24,000,000, plus the total amount of additional capital increases required in order to preserve the rights of holders of marketable securities granting an entitlement, in any form whatsoever, to shares representing a fraction of the share capital.

Twenty-second resolution (Entitlement to use the authorisations during public offer periods)

The General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings, expressly authorises the Board of Directors to make full or partial use, pursuant to legal provisions, of the various authorisations granted under resolutions **fifteen to twenty-one** here above, in the event that one or more public offers, including those involving stock swaps, were to be made with regard to securities issued by the Company.

This authorisation will expire at the General Shareholders' Meeting called to approve the 2013 financial statements.

Twenty-third resolution (Authorisation granted to the Board of Directors with regard to a capital increase reserved for employees with shareholders' preferential subscription rights withdrawn)

Having noted the report from the Board of Directors and the special report from the Statutory Auditors, and adopting resolutions in accordance with the provisions of articles L. 225-129, L. 225-129-6 and L. 225-138-1 of the French Commercial Code and articles L. 3332-18 to L. 3332-24 of the French Labour, the General Shareholders' Meeting delegates to the Board of Directors, which may in turn sub-delegate, the powers required to increase the Company's share capital, on one or several occasions, by a maximum par value of **€500,000**, *via* the issue of new shares for cash reserved for employees and former employees of the Company and of its affiliated companies, within the meaning of article L. 225-180 of the French Commercial Code, who are members of an employee savings plan or pension scheme.

The Meeting resolves to withdraw shareholders' preferential right to subscribe to the ordinary shares to be issued, in favour of these employees and former employees, in the event that they are granted as bonus shares on the basis of this resolution.

This authorisation is granted for a period of twenty-six months from the date of this Meeting.

The subscription price of the shares shall be set in accordance with the provisions of Articles L. 3332-18 *et seq.* of the French Labour Code.

Twenty-fourth resolution (Authorisation to reduce the share capital by cancelling 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 and in accordance with article L. 225-209 of the French Commercial Code authorises, subject to prior approval by the General Shareholders' Meeting of the **fourteenth** resolution concerning authorisation to trade in the Company's shares, the Board of Directors, granting it additional powers to sub-delegate under legally prescribed conditions, to reduce the Company's share capital by cancelling, on one or several occasions, all or part of the shares acquired in accordance with the provisions of article L. 225-209 of the French Commercial Code.

The General Shareholders' Meeting bestows all powers on the Board of Directors in order to decide upon the cancellation of shares, record the share capital reduction, allocate the difference between the buyback value of the cancelled shares and their par value to the premiums and available reserves, make corresponding amendments to the Articles of Association and, generally, do whatever is necessary and complete all formalities.

This authorisation is valid for 26 months from the date of this General Shareholders' Meeting, up to a maximum of 10% of the Company's share capital in any 24-month period. It supersedes any previous authorisation having the same purpose.

Twenty-fifth resolution (Amendment to article 10 of the Articles of Association – Board of Directors)

Having noted the report from the Board of Directors, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Extraordinary General Shareholders' Meetings, resolves to amend paragraphs 1 and 6 of Article 10 of the Articles of Association, in relation to the Board of Directors, with the text set out here below.

Current version

1. The Company is administered by a Board comprised of no more than fifteen members.
6. The term of office for directors is four years. It expires upon conclusion of the General Shareholders' Meeting called to approve the financial statements for the financial year held during the fourth year following the year of their appointment. All outgoing directors are eligible for re-election, subject to the provisions concerning the age limit. Notwithstanding the provisions of the fourth paragraph here above, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings may, at the request of the Board of Directors, reappoint directors who are over 70 years of age, although such reappointment may only occur once. The application of articles 11.4 and 11.6 here above may not cause the composition of the Board to include more than one-third of members who are over 70 years of age. Consequently, the eldest Board member or member(s) shall be deemed to have resigned from office at the subsequent General Shareholders' Meeting.

New version

1. The Company is administered by a Board comprised of no more than seventeen members.
6. The term of office for directors is four years. It expires upon conclusion of the General Shareholders' Meeting called to approve the financial statements for the financial year held during the fourth year following the year of their appointment. All outgoing directors are eligible for re-election, subject to the provisions concerning the age limit. Notwithstanding the provisions of the fourth paragraph here above, the General Shareholders' Meeting, adopting resolutions under the conditions of quorum and majority required for Ordinary General Shareholders' Meetings may, at the request of the Board of Directors, reappoint directors who are over 70 years of age, although such reappointment may only occur once. The application of articles **10.4 and 10.6** here above may not cause the composition of the Board to include more than one-third of members who are over 70 years of age. Consequently, the eldest Board member or member(s) shall be deemed to have resigned from office at the subsequent General Shareholders' Meeting.

The rest of article 10 remains unchanged.

Twenty-sixth 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.

8.4. STATUTORY AUDITORS' REPORTS ON THE RESOLUTIONS PRESENTED TO THE GENERAL SHAREHOLDERS' MEETING

8.4.1. Statutory Auditors' report on the issue of ordinary shares and marketable securities with retention and/or waiver of preferential subscription rights

Combined Shareholders' Meeting of 15 May 2013 – 16th, 17th, 18th, 19th, 20th, 21st and 22nd resolutions

This is a free translation into English of the Statutory Auditors' report issued in French and 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 auditing standards applicable in France.

To the Shareholders,

As Statutory Auditors of your Company (the "Company") and pursuant to the procedures set forth in Articles L. 228-92 and L. 225-135 *et seq.* of the French Commercial Code (*Code de commerce*), we hereby report to you on the proposed delegation of powers to the Board of Directors to perform various issues of ordinary shares and marketable securities, which are subject to adoption by the shareholders.

Your Board of Director proposes, based on its report:

- that shareholders delegate to it, for a period of 26 months, the power to decide the following transactions and set the final terms and conditions of these issues and, when necessary, asks that you waive your preferential subscription rights:
 - issue of (a) ordinary shares, (b) marketable securities other than shares conferring entitlement, directly or indirectly, by conversion, exchange, redemption, presentation of a warrant or any other manner, to the allocation, at any time or at set dates, of securities that, for this purpose, will be issued to represent a share of the Company's share capital and (c) warrants that confer on their holders the right to subscribe for securities representing a share of the Company's share capital, with retention of preferential subscription rights (16th resolution);
 - issue of (a) ordinary shares, (b) marketable securities other than shares conferring entitlement, directly or indirectly, by conversion, exchange, redemption, presentation of a warrant or any other manner, to the allocation, at any time or at set dates, of securities that, for this purpose, will be issued to represent a share of the Company's share capital and (c) warrants that confer on their holders the right to subscribe for securities representing a share of the Company's share capital, with waiver of preferential subscription rights, by public offering, it being specified that these securities may be issued in consideration for securities contributed to the Company as part of a public exchange offer on securities

satisfying the conditions set forth in Article L. 225-148 of the French Commercial Code (17th resolution);

- issue of (a) ordinary shares, (b) marketable securities conferring entitlement, directly or indirectly, by conversion, exchange, redemption, presentation of a warrant or any other manner, to the allocation, at any time or at set dates, of securities that, for this purpose, will be issued to represent a share of the Company's share capital and (c) warrants that confer on their holders the right to subscribe for securities representing a share of the Company's share capital, with waiver of preferential subscription rights, in connection with an offer referred to in Section II of Article L. 411-2 of the French Monetary Code (*Code monétaire et financier*) (18th resolution);
- issue of ordinary shares, resulting from the issue by one or more companies in which the Company holds, directly or indirectly, more than 50% of the share capital, of marketable securities conferring entitlement to the Company's ordinary shares. Shareholders take due note that this decision involves the waiver of their preferential subscription rights in favour of holders of the marketable securities likely to be issued by the subsidiaries (19th resolution).
- that shareholders delegate to it, for a period of 26 months, the authority to decide the terms and conditions of an issue of ordinary shares or marketable securities conferring entitlement to the Company's share capital, in consideration for contributions in kind granted to the Company and comprised of equity securities or securities conferring entitlement to share capital, with waiver of preferential subscription rights (20th resolution).

The total par value amount of share capital increases likely to be carried out immediately or in the future may not exceed €24,000,000 pursuant to the 16th resolution, €16,000,000 pursuant to the 17th, 18th and 19th resolutions and 10% of the share capital pursuant to the 20th resolution, subject to an overall maximum par value amount of share capital increases performed pursuant to the delegations granted in resolutions 16 to 20 of €24,00,000 pursuant to the 21st resolution.

Your Board of Directors also proposes, in the 22nd resolution that you grant it the power to use these delegations in the event of a tender offer for cash or shares on the Company's securities; this authorization is given for a period expiring at the Shareholders' Meeting called to approve the financial statements for fiscal year 2013.

It is the responsibility of the Board of Directors to prepare a report in accordance with Articles R. 225-113 *et seq.* of the French Commercial Code. Our role is to express an opinion on the fair presentation of the quantified information extracted from the accounts, on the proposed waiver of preferential subscription rights and on certain other information concerning these transactions, contained in this report.

We performed the procedures that we deemed necessary in accordance with the professional guidelines of the French Institute of Statutory Auditors (*Compagnie nationale des Commissaires aux comptes*) relating to this type of engagement. These procedures consisted in verifying the content of the Board of Directors' report in respect of these transactions and the terms and conditions governing the determination of the issue price of equity securities to be issued.

Subject to a subsequent review of the terms and conditions of proposed issues, we have no comments on the terms and conditions governing the determination of the issue price of equity

securities to be issued presented in the Board of Directors' report in connection with the 17th, 18th and 19th resolutions.

Furthermore, as the report does not include information on the terms and conditions governing the determination of the issue price of equity securities to be issued pursuant to the 16th and 20th resolutions, we cannot express an opinion on the issue price calculation inputs.

As the final terms and conditions of the issues have not been determined, we do not express an opinion thereon and, as such, on the proposed waiver of preferential subscription rights submitted for your approval in the 17th, 18th, 19th and 20th resolutions.

In accordance with Article R. 225-116 of the French Commercial Code, we will issue an additional report on the use of these delegations by your Board of Directors in the event of issues of marketable securities conferring entitlement to the Company's share capital or in the event of issues with waiver of preferential subscription rights.

Paris—La Défense and Neuilly-sur-Seine, 21 February 2013

The Statutory Auditors

Ernst & Young et Autres
French original signed by:
Aymeric de La Morandière

Deloitte & Associés
French original signed by:
Alain Penanguer

8.4.2. Statutory Auditors' report on the share capital increase reserved for employees who are members of a corporate savings plan or a Group retirement plan

Combined Shareholders' Meeting of 15 May 2013 – 23rd resolution

This is a free translation of the original French text and 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 auditing standards.

To the Shareholders,

As Statutory Auditors of your Company and in accordance with the procedures provided for in Articles L. 225-135 *et seq.* of the French Commercial Code (*Code de commerce*), we hereby report to you on the proposed share capital increase through the issue of ordinary shares with a maximum par value amount of €500,000, with waiver of your preferential subscription rights, reserved for current and former employees of the Company and affiliated companies within the meaning of Article L. 225-180 of the French Commercial Code, that are members of a corporate savings plan or a Group retirement plan. You are being asked to vote on this transaction.

Shareholders are asked to approve this share capital increase pursuant to Article L. 225-129-6 of the French Commercial Code and Article L. 3332-18 *et seq.* of the French Labour Code (*Code du travail*).

Your Board of Directors recommends that, based on its report, you confer on it, for a period of 26 months, the authority to set the terms and conditions of this transaction and proposes that

you waive your preferential subscription rights to the shares to be issued.

It is the Board of Directors' responsibility to prepare a report in accordance with Articles R. 225-113 and R. 225-114 of the French Commercial Code. Our role is to express an opinion on the fairness of the quantified data extracted from the financial statements, on the proposed waiver of preferential subscription rights and on certain other information pertaining to the issuance as presented in this report.

We performed the procedures that we considered necessary in accordance with the professional guidelines of the French National Institute of Statutory Auditors (*Compagnie nationale des Commissaires aux comptes*) applicable to this engagement. Such procedures consisted in verifying the content of the Board of Directors' report as it relates to this transaction and the terms and conditions governing the determination of the issue price of shares.

Subject to our subsequent review of the terms and conditions of the proposed capital increase, we have no comments to make on the procedures for determining the issue price of the ordinary shares to be issued as presented in the Board of Directors' report.

As the final terms and conditions of the share capital increase have not been determined, we do not express an opinion thereon and, consequently, on the proposed waiver of preferential subscription rights on which you are being asked to vote.

In accordance with Article R. 225-116 of the French Commercial Code, we will issue an additional report on the use of this delegation by your Board of Directors.

Paris—La Défense and Neuilly-sur-Seine, 21 February 2013

The Statutory Auditors

Ernst & Young et Autres
French original signed by:
Aymeric de La Morandière

Deloitte & Associés
French original signed by:
Alain Penanguer

8.4.3. Statutory Auditors' report on the capital decrease by the cancellation of purchased shares

Combined Shareholders' Meeting of 15 May 2013 – 24th resolution

This is a free translation into English of the Statutory Auditors' report issued in French and 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 auditing standards applicable in France.

To the Shareholders,

As Statutory Auditors of your Company and in accordance with the procedures provided for in Article L. 225-209 of the French Commercial Code (*Code de commerce*) in the event of a decrease in share capital by the cancellation of purchased shares, we hereby report to you on our assessment of the reasons for and the terms and conditions of the proposed decrease in share capital.

Shareholders are requested to confer all necessary powers on the Board of Directors, during a period of 26 months starting from the day of this Shareholders' Meeting, to cancel, on one or more occasions, up to a maximum of 10% of its share capital

by 24-month period, the shares purchased by the Company pursuant to the authorization to purchase its own shares under the provisions of the above-mentioned Article; this purchase authorization is proposed pursuant to the condition precedent of the prior approval by General Shareholders' Meeting of the 14th resolution authorizing the purchase by your Company of its own shares.

We performed the procedures that we considered necessary in accordance with the professional guidelines of the French National Institute of Statutory Auditors (*Compagnie nationale des Commissaires aux comptes*) applicable to this engagement. Our procedures consisted, in particular, in verifying the fairness of the reasons for and the terms and conditions of the proposed decrease in share capital, and ensuring that it does not interfere with the equal treatment of shareholders.

We have no comments on the reasons for and the terms and conditions of the proposed decrease in share capital, it being recalled that this transaction may only be carried out if your Shareholders' Meeting approves the 14th resolution authorizing the purchase by your Company of its own shares.

Neuilly-sur-Seine and Paris—La Défense, 21 February 2013

The Statutory Auditors

Deloitte & Associés

French original signed by:

Alain Penanguer

Ernst & Young et Autres

French original signed by:

Aymeric de La Morandière



9

ADDITIONAL INFORMATION

9.1. Persons responsible for the Reference Document.....	314
9.1.1. Name and positions of persons responsible	314
9.1.2. Declaration by the persons responsible for the Reference Document	314
9.2. Statutory Auditors	315
9.2.1. Incumbent Statutory Auditors.....	315
9.2.2. Alternate Statutory Auditors	315
9.3. Financial information	315
9.3.1. Name of the person responsible for information release.....	315
9.3.2. Terms and timetabling of information release.....	316
9.3.3. List of financial-information releases including press releases.....	316
9.4. List of reports	317
9.5. Table of correspondence with the annual financial report.....	318
9.6. Table of concordance with European Regulation 809-2004.....	319
9.7. Glossary	322
9.7.1. Processes	322
9.7.2. Products.....	322
9.8. Addresses of the consolidated subsidiaries.....	323

9.1. PERSONS RESPONSIBLE FOR THE REFERENCE DOCUMENT

9.1.1. Name and positions of persons responsible

Patrick Buffet

Chairman and CEO of ERAMET.

Jean-Didier Dujardin

Chief Financial Officer

9.1.2. Declaration by the persons responsible for the Reference Document

We declare that to the best of our knowledge, and after having taken all reasonable measures in this regard, the information in this Reference Document is accurate and does not contain any omission that could affect its scope.

We declare that to our knowledge the financial statements have been prepared 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 Sections 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 view of the business developments, earnings and financial position of the Company and of all companies within the scope of consolidation as well as a description of the main risks and uncertainties they face.

The Statutory Auditors have provided us with a letter of completion of assignment in which they state that they checked the information relating to the financial position and the financial statements presented in this Reference Document and that they read the document in its entirety.

A report of the statutory auditors on the consolidated 2010 financial statements set out in the 2010 Reference Document appears on page 218 of that Document. That report contains an observation on the first-time adoption of IFRS 3 “business combinations” and IAS 27 “Consolidated and Separate Financial Statements”, the impacts of which are described in notes 1.1 “General principles and compliance declaration” and 2 “Consolidation perimeter” of the Notes to the 2010 consolidated financial statements. The 2011 and 2012 consolidated financial statements did not contain any reserve or observation.

Executed in Paris, on 27 March 2013

Jean-Didier Dujardin
Chief Financial Officer

Patrick Buffet
Chairman and CEO

9.2. STATUTORY AUDITORS

The Company's individual and consolidated financial statements are audited by the Statutory Auditors listed below:

9.2.1. Incumbent Statutory Auditors

9.2.1.1. Ernst & Young and Others

Address: Tour First – 1, place des Saisons 92400 Courbevoie, France, entry No. 438 476 943 in the Nanterre trade and corporate register (RCS).

Partner responsible for the audit: Aymeric de La Morandière.

Date of appointment: Shareholders' General Meeting of 13 May 2009.

Term expiry date: Shareholders' General Meeting called in 2015 to approve the financial statements for 2014.

9.2.1.2. Deloitte & Associés

Address: 185, avenue Charles de Gaulle, 92254 Neuilly-sur-Seine Cedex, entry No. 572 028 041 in the Nanterre Trade and Corporate Register (RCS).

Partner responsible for the audit: Alain Penanguer.

Date of appointment: Shareholders' General Meeting of 11 May 2005, for renewal at the Shareholders' General Meeting of 13 May 2009.

Term expiry date: Shareholders' General Meeting called in 2015 to approve the financial statements for 2014.

9.2.2. Alternate Statutory Auditors

9.2.2.1. Auditex

Address: Tour First – 1, place des Saisons 92400 Courbevoie, entry No. 377 652 938 in the Nanterre trade and corporate register (RCS).

Date of appointment: Shareholders' General Meeting of 13 May 2009.

Term expiry date: Shareholders' General Meeting called in 2015 to approve the financial statements for 2014.

9.2.2.2. Cabinet BEAS (Bureau d'Études Administratives Sociales et Comptables)

Address: 7/9, Villa-Houssay -92524 Neuilly-sur-Seine Cedex, entry No. 315 172 445 in the Nanterre Trade and Corporate Register (RCS).

Date of appointment: Shareholders' General Meeting of 11 May 2005, for renewal at the Shareholders' General Meeting of 13 May 2009.

Term expiry date: Shareholders' General Meeting called in 2015 to approve the financial statements for 2014.

9.3. FINANCIAL INFORMATION

9.3.1. Name of the person responsible for information release

Person responsible: Mr. Philippe Joly.
Position: Group Director of Financial Communication and Economic Studies
Address: ERAMET
Tour Maine Montparnasse
33, avenue du Maine
75755 Paris Cedex 15
Telephone: +33 (0)1 45 38 42 02

9.3.2. Terms and timetabling of information release

Frequency: in accordance with the regulations, ERAMET publishes its annual and interim results and releases its quarterly sales.

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.com> – in the Investors section), and released in accordance with the AMF regulations.

The Articles of Association, Meeting minutes, separate and consolidated financial statements, reports of the Statutory 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 ERAMET's 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.

9.3.2.1. 2013 diary

Publication of the 2012 annual sales and results:	Friday, 22 February 2013	(before trading)
Publication of first-quarter sales:	Tuesday, 30 April 2013	(before trading)
Shareholders' General Meeting:	Wednesday, 15 May 2013	
Publication of first half-year sales and results:	Monday, 29 July 2013	(before trading)
Publication of third-quarter sales:	Tuesday, 29 October 2013	(before trading)

9.3.3. List of financial-information releases including press releases

21 March 2013: Proposition to the shareholders to appoint two new directors

19 March 2013: Paris Court of Appeal's order dated 19 March 2013

22 February 2013: 2012 annual results

6 November 2012: Statement of intent regarding the Prony and Creek Pernod deposits

30 October 2012: Renewal of the Le Nickel-SLN Shareholders' Agreement

25 October 2012: Third-quarter sales

22 October 2012: Aubert & Duval: inauguration of "investments for the future"

30 July 2012: Results for first half-year 2012

25 May 2012: New composition of the ERAMET Board of Directors

15 May 2012: Shareholders' General Meeting of 15 May 2012

26 April 2012: Sales for first quarter 2012

20 April 2012: Joint covenant to lock in the Company's shares (Article 787-B of the CGI)

9 March 2012: New Group websites

16 February 2012: 2011 annual results

10 January 2012: Renewal of the Le Nickel-SLN shareholders' agreement

Publications in the BALO compulsory legal notices bulletin

Announcement of the Shareholders' General Meeting:	30 March 2012
Notice calling the Shareholders' General Meeting:	27 April 2012
Notice of approval of financial statements without amendment:	25 May 2012

9.4. LIST OF REPORTS

Financial year ended on 31 December 2012

Internal reports

	Section
Report by the Chairman of the ERAMET Board of Directors – Financial Year 2012	4.2

External reports

	Section
Statutory Auditors' Report on the 2012 consolidated financial statements	6.1.3.
Statutory Auditors' Report on the 2012 annual financial statements	6.2.4.
The Statutory Auditors' Special Report on related-party agreements and regulated commitments in 2012	6.2.5.
Statutory Auditors' Report drawn up pursuant to Article L 225-235 of the French Commercial Code on the report of the Chairman of the ERAMET Board of Directors – 2012 Financial Year	4.4
Statutory Auditors' Report on the resolutions submitted to the Shareholders' General Meeting	8

9.5. TABLE OF CORRESPONDENCE WITH 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.

No.	Annual financial report information	Registration Document
1	Senior managers' declaration attesting to the truthfulness and accuracy of information	Section 9.1
2	Consolidated financial statements	Section 6.1.
3	Report by the Statutory Auditors on the consolidated financial statements – Financial year ended 31 December 2012	Section 6.1.3.
4	Separate parent-company financial statements – Financial Year ended 31 December 2012	Section 6.2
5	Statutory Auditors' Report on the annual financial statements – Financial year ended 31 December 2012	Sections 6.2.4.and 6.2.5.
6	Management report: <ul style="list-style-type: none"> • Business activities • Financial commentary • Research and Development • Organisation chart • Information on workforce and management remuneration • Environmental information • Table of delegations of powers to increase share capital • Factors likely to influence a public offer • Share buybacks 	Sections 1, 2 & 4 Section 1 Section 2 Section 2 Sections 4 and 5 Section 5 Section 7 Section 7 Section 7
7	Fees paid to the Statutory Auditors	Section 6.1
8	Report by the Chairman of the ERAMET Board of Directors Report of the Statutory Auditors drawn up pursuant to Article L. 225-235 of the French Commercial Code on the report of the Chairman of the ERAMET Board of Directors	Section 4

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.

Section	Information	Registration Document
1	Persons responsible	9.1
1.1	Persons responsible	9.1
1.2	Declaration by the persons responsible	9.1
2	Statutory Auditors	9.2
2.1	Information on the Statutory Auditors	9.2
2.2	Changes	Not applicable
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	1.2,4
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	4.1
7.2	Major subsidiaries	2.1
8	Real property, production sites, plant and equipment	
8.1	Property, plant and equipment	2.7
8.2	Environmental aspects of such plant and equipment	5.4
9	Examination of financial position and earnings	
9.1	Financial position	1.2
9.2	Operating profit	1.2
10	Cash, cash equivalents 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	2.8
12	Information on trends	
12.1	Trends	1
12.2	Any likely influence	1

Section	Information	Registration Document
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	
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	5.9
17.2	Profit sharing and options to subscribe shares	5.9
17.3	Employee profit sharing	5.9
18	Principal shareholders	
18.1	Shareholders	7.2
18.2	Voting rights	7.2
18.3	Shareholding 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

Section	Information	Registration Document
21	Additional information	
21.1	Registered capital	7.2
21.1.1	Convertible or exchangeable securities, or securities with subscription warrants	7.2
21.1.2	Subscribed capital	7.2
21.1.3	Other non-equity shares	7.2
21.1.4	Treasury shares	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 28 Consolidated financial statements
21.2	Certificate of incorporation and articles of association	7.3
21.2.1	Corporate object	7.3
21.2.2	Corporate-governance bye-laws	4.2
21.2.3	Rights and privileges attaching 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	Significant-shareholding thresholds	7.3
21.2.8	Conditions governing the amendments to the Articles of Association	7.3
22	Significant contracts	3
23	Third-party information, statements by experts and declarations of interest	
23.1	Declarations of interest	not applicable
23.2	Certificate	not applicable
24	Public-access documents	9
25	Information on equity investments	2 and 6

9.7. GLOSSARY

9.7.1. Processes

Acid leaching

Exploiting nickel oxide ores (laterites) by dissolving them in acid.

Alloy metallurgy

- Air metallurgy: melting is performed in an arc furnace, followed by metallurgical processing to add other alloying metals, remove impurities and obtain the required chemical composition.
- Vacuum metallurgy: this smelting process is used for high-stress alloys (nitrogen content, alloy elements reactive to oxygen, etc.). It is performed in VIM vacuum induction furnaces (vacuum induction melting).
- Remelting: this is essential for certain critical parts used in aerospace and energy. This process better controls segregations and inclusion morphology, as well as lowering the gas content, thus significantly increasing the mechanical-reliability properties.
- Powder metallurgy: manufacturing alloys with highly advanced characteristics by spraying a liquid-metal jet then compacting the powder so obtained at very high pressure and at high temperature.

Closed die-forging

Complex shaping of a pre-forged blank between two hollowed dies in a single, slow stroke.

Forging

Plastic deformation of metal between two flat tools. Forging produces parts with simple geometry.

Hydrometallurgy

Reduction of metal oxides and chemical metal-oxide separation (dissolution with an attacking agent, then extraction by solvent or electrolysis).

Ore beneficiation

Used by Le Nickel-SLN, this innovative technology uses sorting by grain size and density to increase ore content in order to exploit a larger proportion of the deposit and hence, increase the lifespan of reserves.

Press

Industrial tool use for closed die-forging (defined earlier). Its power is measured in thousands of tonnes.

Pyrometallurgy

Reduction of metal oxides and metal-oxide separation by melting (blast furnace or electric furnace).

Rolling

Reducing the thickness of an ingot, bar or sheet, etc., by passing it between rotating cylinders in a rolling mill.

9.7.2. Products

Alloys

Metallic materials composed of different metals with special properties making them suitable for specific uses, such as wear or corrosion resistance, mechanical strength at high temperatures, etc.

Cobalt and tungsten powders

These products are used, in particular, to make hardened carbides for machining metal and for diamond tools used to cut stone and building materials.

Electrolytic Manganese Dioxide (EMD)

Active agent in alkaline disposable batteries.

Ferroalloys

Alloys containing iron and at least one other metal added to the liquid metal during the steel manufacturing process so as to adjust the composition to procure the required properties.

Grades

Different kinds of steel obtained by varying the metal alloys used in their composition in order to obtain specific characteristics. Each grade is suited to particular needs.

High-speed steels

Very strong, wear-resistant steels, with a high degree of hardness both cold and under heat, mainly used to manufacture cutting tools (bits, taps, cutters and saws, etc.) for metal machining.

Long products

Semi-finished products made of alloys with advanced characteristics, and used in further processing.

Manganese

Consumed in alloy form (ferromanganese, silicomanganese), this metal is used in steel making in the proportion of 6 to 7% in order to improve its hardness, abrasion resistance, elasticity and surface condition when rolled. It is also used for deoxidation/desulphurisation in the manufacturing process. Other applications: chemistry, disposable and rechargeable batteries, electronic circuits, fertilisers, aluminium hardener, etc.

Nickel

An essential element in alloys, this metal confers numerous properties to steel according to grade: resistance to atmospheric corrosion when combined with chromium (stainless steel), resistance to high temperatures, ductility, mechanical strength, electrical resistance, magnetic properties, etc. Nickel can be recycled indefinitely.

Superalloys

Alloys of several metals with nickel generally predominant (nickel-based superalloys), with advanced characteristics of mechanical strength at high temperatures and corrosion resistance. Superalloys are used to manufacture parts for the aeronautics and space industry, energy production, the chemical industry and environmental preservation.

9.8. ADDRESSES OF THE CONSOLIDATED SUBSIDIARIES

	Nickel	Manganese	Alloys	Holding Co.	Consolidation method	Percentage interest
ARGENTINA						
Bolera Minera Avenida Cordoba 1233, Piso 2, Ciudad de Buenos Aires Argentina				✓	Full consolidation	82.00%
Eramine Sud America Avenida Cordoba 1233, Piso 2, Ciudad de Buenos Aires Argentina				✓	Full consolidation	100.00%
AUSTRALIA						
Weda Bay Minerals Pty Ltd (Nickel) Unit 5, 46 Hillside Crescent Hamilton QLD 4007 PO Box 508 Fortitude Valley QLD 4006 Australia	✓				Full consolidation	100.00%
BELGIUM						
Erachem Comilog SPRL Rue du Bois 7334 Saint-Ghislain Belgium			✓		Full consolidation	63.71%
CANADA						
Gulf Chemical and Metallurgical Canada Corporation P. O. Box 3510 55418 Range Road 214 Fort Saskatchewan, Alberta Canada			✓		Full consolidation	63.71%
Weda Bay Minerals Inc. (Nickel) 14 th Floor, 220 Bay Street Toronto Ontario, M5J 2W4 Canada	✓				Full consolidation	100.00%
CHINA						
Comilog Far East Development Ltd Comilog Asia Ltd Comilog Asia Ferro Alloys Ltd ERAMET Comilog Shanghai Consultancy Services Co. Ltd 2929 Sun Hung Kai Centre 30 Harbour Road, Wanchai Hong Kong			✓			92.74%
ERAMET Comilog Shanghai Trading Co. Ltd Units 01-02 26/F Aurora Plaza 99 Fucheng Road Pudong, Shanghai China			✓		Full consolidation	92.74%
HeYe Erasteel Innovative Material Co Ltd 321 Zhongnam Second Street Tianjin Economic and Technical Development Area China			✓		Equity consolidation	49%
Erasteel Trading Ltd			✓		Full consolidation	100.00%
Guangxi ERAMET Comilog Chemicals Chongzuo Industrial Zone Chongzuo City (Province of Guangxi) China		✓			Full consolidation	92.74%

	Nickel	Manganese	Alloys	Holding Co.	Consolidation method	Percentage interest
Guangxi Comilog Ferro Alloys Ltd Fenghuang Town, Laibin County Guangxi Province 546102 China		✓			Full consolidation	64.92%
Guilin Comilog Ferro Alloys Ltd Sanjie Industrial Zone Sanjie, Lingchuan, Guilin, Guangxi China		✓			Full consolidation	92.74%
FRANCE						
Airforge 75, boulevard de la Libération BP 173 09102 Pamiers Cedex France 33 (0) 4 77 40 36 47 33 (0) 5 61 68 44 24/22			✓		Full consolidation	100.00%
Aubert & Duval Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42			✓		Full consolidation	100.00%
Comilog Dunkerque Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 53 91 24 05		✓			Full consolidation	63.71%
Comilog France Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 53 91 24 05		✓			Full consolidation	63.71%
Comilog Holding Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42		✓			Full consolidation	63.71%
Comilog International Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42		✓			Full consolidation	63.71%
ERAMET Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42					Consolidating entity	
ERAMET Alliages Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42			✓		Full consolidation	100.00%
ERAMET Comilog Manganèse Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42		✓			Full consolidation	81.86%

	Nickel	Manganese	Alloys	Holding Co.	Consolidation method	Percentage interest
ERAMET Holding Alliages Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 40 88 20 55			✓		Full consolidation	100.00%
ERAMET Holding Nickel Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42	✓				Full consolidation	100.00%
ERAMET Holding Manganèse Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42			✓		Full consolidation	100.00%
Eramine Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42				✓	Full consolidation	100.00%
Erasteel Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42			✓		Full consolidation	100.00%
Erasteel Champagne 23, rue Georges-Clemenceau BP 104 39300 Champagnole France 33 (0) 3 84 52 64 44			✓		Full consolidation	100.00%
Eurotungstène 9, rue André-Sibellas BP 152X 38042 Grenoble Cedex 9 France 33 (0) 4 76 70 54 54	✓				Full consolidation	100.00%
Interforge Z.I. de la Maze BP 75 63501 Issoire France 33 (0) 4 73 89 07 83			✓		Full consolidation	94.00%
Metal Currencies Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42				✓	Full consolidation	100.00%
Metal Securities Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42				✓	Full consolidation	100.00%

	Nickel	Manganese	Alloys	Holding Co.	Consolidation method	Percentage interest
UKAD Tour Maine Montparnasse 33, avenue du Maine 75755 Paris Cedex 15 France 33 (0) 1 45 38 42 42			✓		Proportional consolidation	50.00%
Valdi 1, boulevard de la Boissonnette 42110 Feurs France 33 (0) 4 77 27 40 92		✓			Full consolidation	100.00%
GABON						
Comilog S.A. Compagnie Minière de l'Ogooué Z.I. de Moanda BP 27-28 Gabon 00 24166 10 00		✓			Full consolidation	63.71%
PMO (Port Minéralier d'Owendo) Compagnie Minière de l'Ogooué Z.I. de Moanda BP 27-28 Gabon 00 241 66 10 00		✓			Full consolidation	61.96%
Setrag Société d'Exploitation du Transgabonais BP 578 Libreville Gabon 00 241 70 80 49		✓			Full consolidation	63.66%
Somivab Société de Mise en Valeur de Bois Immeuble Ogar 3, boulevard Triomphal Libreville Gabon 00 241 66 10 00		✓			Full consolidation	52.88%
INDONESIA						
Pt Weda Bay Nickel Wisma Raharja 8 th Floor Jl. TB. Simatupang, Kav. 1 Cilandak Timur – Jakarta Selatan 12560 Indonesia +62 (21) 788 49 866	✓				Full consolidation	59.94%
LUXEMBOURG						
Eras S.A. 6B Route de Trève L-2633 Luxembourg				✓	Full consolidation	100.00%
MAURITIUS						
TiZir Mauritius Ltd		✓			Proportional consolidation	50.00%
MEXICO						
Erachem Mexico Carretera Tampico Valles km 28 Tamos, Panuco, Vert. CP 92018 Mexico City Mexico 52-1 210 27 62		✓			Full consolidation	63.71%

	Nickel	Manganese	Alloys	Holding Co.	Consolidation method	Percentage interest
NEW CALEDONIA						
Cominc BP E5 98848 Nouméa Cedex New Caledonia 687-24 55 55	✓				Full consolidation	56.00%
Société Le Nickel-SLN BP E5 98848 Nouméa Cedex New Caledonia 687-24 55 55	✓				Full consolidation	56.00%
Poum SAS 98848 Nouméa Cedex New Caledonia 687-24 55 55	✓				Full consolidation	56.00%
NORWAY						
ERAMET Norway A/S P.O. Box 82 N-3901 Porsgrunn Norway 47 35 56 18 00			✓		Full consolidation	100.00%
Eralloys Holding A/S Vollsveien 13H P.O. Box 103 N-1325 Lysaker Norway 47 67 10 3425			✓		Full consolidation	100.00%
Tinfos A/S O. H. Holtas gate 21 N-3678 Notodden Norway 47 53 65 25 00			✓		Equity consolidation	33.35%
DNN Industrier A/S Gl Oddavei 6 N-5770 Tyssedal Postal C/O Tinfos A/S O. H. Holtas Gate 21 N-3678 Notodden Norway 47 53 65 25 00			✓		Full consolidation	100%
Tizir Titanium & Iron A/S Gl Oddavei 6 N-5770 Tyssedal Norway 47 53 65 25 00			✓		Proportional consolidation	50%
SENEGAL						
Grande Côte Operations SA Rue 26 N'Gor Dakar			✓		Proportional consolidation	45.00%
SINGAPORE						
Strand Minerals (Indonesia) Pte Ltd 8 Marina Boulevard, #05-02 Marina Bay Financial Centre Tower 1, Singapore 018981. Singapore	✓				Full consolidation	66.66%
Weda Bay Minerals (Singapore) Pte Ltd 8 Marina Boulevard, #05-02 Marina Bay Financial Centre Tower 1, Singapore 018981. Singapore	✓				Full consolidation	100.00%
SWEDEN						
Erasteel Kloster AB Box 100 815 82 Söderfors Sweden 46 (0) 293 17 000			✓		Full consolidation	100.00%

ADDITIONAL INFORMATION

	Nickel	Manganese	Alloys	Holding Co.	Consolidation method	Percentage interest
SWITZERLAND						
Comilog Lausanne Avenue C.F. Ramuz 43 1009 Pully Switzerland 41 21 – 729 45 03		✓			Full consolidation	63.71%
Unimin Holding GmbH Industriestraße 47 6304 Zug Switzerland	✓				Full consolidation	100.00%
THE NETHERLANDS						
Miner Holding BV Rokin 55 Amsterdam The Netherlands		✓			Full consolidation	63.71%
UNITED KINGDOM						
Erasteel Stubs Ltd Causeway Avenue Warrington WA4 6QB United Kingdom 44 (0) 1925 41 3870			✓		Full consolidation	100.00%
TiZir Ltd 3 More London Riverside London SE1 2AQ United Kingdom		✓			Proportional consolidation	50.00%
UNITED STATES						
Bear Metallurgical Corp. 302 Midway Road P.O. Box 2290 Freeport Texas 77541 United States 1-979 233 7882		✓			Full consolidation	63.71%
Comilog US 610 Pittman Road MD 21226 Baltimore, Maryland United States 1-410 636 71 26		✓			Full consolidation	63.71%
ERAMET Marietta Inc. P.O. Box 299 State Route 7 South Marietta Ohio 45750-0299 United States 1-740 374 1000		✓			Full consolidation	100.00%
Erachem Comilog Inc. 610 Pittman Road Baltimore Maryland MD 21226-1788 United States 1-410 789 8800		✓			Full consolidation	63.71%
Erasteel Inc. 95 Fulton Street Boonton NJ 07005 – 1909 United States 1-973 335 8400			✓		Full consolidation	100.00%
Gulf Chemical and Metallurgical Corp. 302 Midway Road P.O. Box 2290 Freeport Texas 77541 United States 1-979 233 7882		✓			Full consolidation	63.71%