2016 Registration Document

AND ANNUAL FINANCIAL REPORT

vallourec

SMART TUBULAR SOLUTIONS

Contents

Registration Document

including the annual financial report

Fiscal year 2016

AUTORITÉ
DES MARCHÉS FINANCIERS

AMF

The original version of this Registration Document (*document de référence*) in French was filed with the French securities regulator (Autorité des Marchés Financiers) on 21 March 2017 in accordance with Article 212-13 of its General Regulations. It may be used in connection with a financial transaction if supplemented by an Information Notice authorized by the French securities regulator (*Autorité des Marchés Financiers*). This document was prepared by the issuer and is the responsibility of those who signed it.

Copies of this Registration Document are available free of charge from Vallourec, at 27, avenue du Général Leclerc, 92100, Bologne-Billancourt, Cedex – France, Vallourec's *website* (http://www.vallourec.com) and on the website of the French securities regulator (*Autorité des Marchés Financiers*) (http://www.amf-france.org).

This Registration Document includes all the elements of the annual financial report mentioned in Section I of Article L.451-1-2 of the French *Code monétaire et financier* and Article 222-3 of the General Regulations of the French securities regulator (*Autorité des Marchés Financiers*). A concordance table showing the documents referred to in Article 222-3 of the General Regulations of the French securities regulator (*Autorité des Marchés Financiers*) and the corresponding sections of this Registration Document is included on page 330.

PROFILE

A world leader in its markets, Vallourec provides tubular solutions that are the benchmark reference for the energy sector and other applications that present the most demanding challenges. **Its tubes, connections and innovative services make the most complex projects possible**, from oil and gas wells in extreme environments to next-generation power plants, from bold architectural projects to high-performance mechanical engines.

In 2016, Vallourec rolled out its ambitious Transformation Plan, which allows it to increase its competitiveness and prepare to fully benefit from the recovery of the Oil & Gas market. Vallourec has thus reduced its European capacity, created two competitive production hubs in Brazil and China, strengthened its balance sheet through a capital increase, and continued its cost reduction policy worldwide. At the same time, the Group has conducted its transformation in accordance with the highest safety and quality standards, preserving its skills in innovation.

€2.9Bn
revenue

€60M
dedicated to R&D

91%
reduction in the Total Recordable Injury Rate (TRIR) between 2008 and 2016

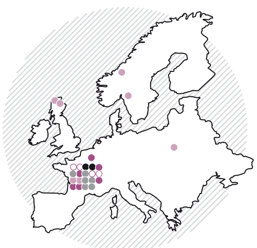
94.4%
of waste recovered

Listed in the CSR index:
FTSE Russell
(Footsee4Good)

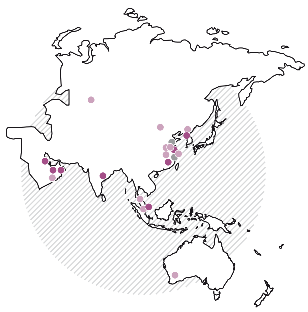
MAIN VALLOUREC LOCATIONS

North America
18.9%
of revenue

Europe
21.8%
of revenue



Asia and the Middle East
28.6%
of revenue



South America
15.7%
of revenue

Africa and rest of the world
15%
of revenue

Steel mills · Tube mills · Finishing units · R&D centers · Sales offices and services · Plantation and Mine

Present in more than
20 countries

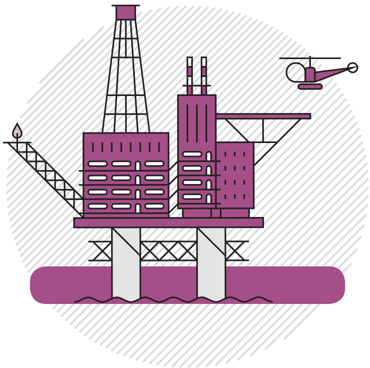
Nearly
19,000
employees

More than
50
production sites

6
research and test centers

THREE MAJOR MARKETS

OIL AND GAS



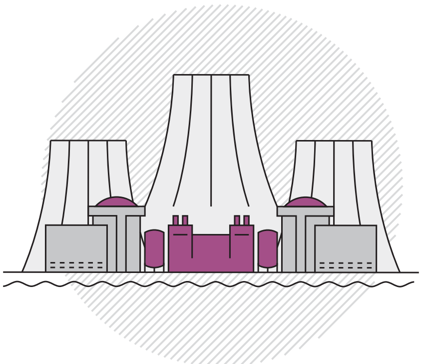
Premium tubes, connections and services for exploration and operation of oil and gas fields, including the most complex ones.

- **Exploration and production**
  - Casing, tubing and VAM® premium connections
  - Drill pipes
  - Risers
  - Services
  - Accessories
- **Transport for oil and gas**
  - Offshore and onshore line pipes
  - Welding solutions and services for offshore and onshore projects
- **Tubes for umbilicals**

  Premium welded stainless steel tubes with high-performance technical characteristics
- **Hydrocarbon processing**

  Pipes and fittings for the hydrocarbon processing industry
- **The most reliable solutions for extreme conditions:** deep wells, corrosive environments, deviated and horizontal wells, HP/HT (High pressure/High temperature, etc.)

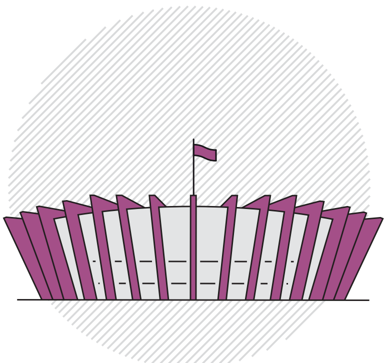
POWER GENERATION



A wide range of tubes needed to build conventional and nuclear power plants.

- **Market leader in conventional thermal and nuclear power plants with a complete range of tubes**
  - Seamless carbon and alloy steel tubes
  - Seamless nickel-alloy tubes
  - Services
- **Strong commitment to reducing CO_2 emissions in next-generation conventional power plants (supercritical and ultra-supercritical)**

INDUSTRY

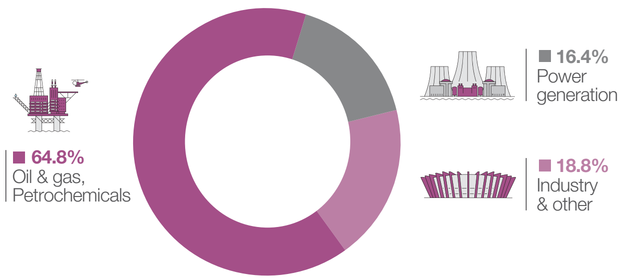


Lightweight and resistant tubes for a wide range of applications.

- **Hollow sections, tubes and hollow bars for industrial markets:**
  - mechanical engineering: cranes, hydraulic cylinders, agricultural machinery, OCTG mechanical parts, etc.
  - automotive: all types of vehicles, both light and heavy
  - construction: bridges, stadiums, offshore jack-up platforms, airport terminals, exhibition halls, etc.
- **Development of steel grades suited to a wide range of applications for the industry markets**

KEY FINANCIAL AND ACTIVITY INDICATORS

Revenue by activity in 2016



	Unit	2014	2015	2016
Sales volumes	*kt*	2,323	1,411	1,281
Revenue	*€ million*	5,701	3,803	2,965
EBITDA	*€ million*	855	(77)	(219)
EBITDA margin	*%*	15.0	-2.0	-7.4
Operating profit	*€ million*	(661)	(838)	(749)
Net income, Group share	*€ million*	(924)	(865)	(758)
Earnings per share	*€*	(7.3)	(6.6)	(2.3)
Gross capital expenditure	*€ million*	388	268	175
Free cash flow*	*€ million*	274	135	(395)
Net debt	*€ million*	1,547	1,519	1,287
Total equity	*€ million*	4,169	3,038	3,778

* *Free cash flow (FCF) is a non-GAAP measure and is defined as cash flow from operating activities minus gross capital expenditure and +/- change in operating working capital requirement.*

1

Persons responsible for the Registration Document and financial audit

1.1 Person responsible for the Registration Document

Mr Philippe Crouzet

Chairman of the Management Board of Vallourec (hereinafter "Vallourec" or "the Company")

1.2 Statement by the person responsible for the Registration Document

I certify that, having taken all reasonable care to ensure that such is the case, the information contained in this Registration Document is, to the best of my knowledge, in accordance with the facts and contains no omission likely to affect its import.

I certify that, to the best of my 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 results of the Company and all consolidated companies, and that the management report, the various headings of which are provided in the concordance table on page 331 of this Registration Document (Section 8.4.3), presents a true and fair view of the business trends, results and financial position of the Company and all consolidated companies, as well as a description of the main risks and uncertainties to which they are exposed.

I have obtained a completion letter from the Statutory Auditors in which they indicate that they have verified the information relating to the financial position and the financial statements included in this document, and have read the document in its entirety.

Boulogne-Billancourt, 21 March 2017

Chairman of the Management Board

Philippe Crouzet

1.3 Persons responsible for the financial audit

1.3.1 Statutory Auditors

KPMG SA

Represented by:

Ms Catherine Porta

2, avenue Gambetta – Tour Eqho
92066 Paris-La Défense Cedex – France

Date of first appointment: 1 June 2006
Date renewed: 31 May 2012

The Ordinary and Extraordinary Shareholders' Meeting of 31 May 2012 reappointed KPMG SA as Statutory Auditor for a term of six (6) years expiring at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the year ending 31 December 2017.

Deloitte & Associés

Represented by:

Mr Christophe Patrier

185, avenue Charles de Gaulle
92524 Neuilly-sur-Seine Cedex – France

Date of first appointment: 1 June 2006
Date renewed: 31 May 2012

The Ordinary and Extraordinary Shareholders' Meeting of 31 May 2012 reappointed Deloitte & Associés as Statutory Auditor for a term of six (6) years expiring at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the year ending 31 December 2017.

1.3.2 Alternate Statutory Auditors

KPMG AUDIT IS

Alternate Auditor for KPMG SA

2, avenue Gambetta – Tour Eqho
92066 Paris-La Défense Cedex – France

Date of first appointment: 31 May 2012

The Ordinary and Extraordinary Shareholders' Meeting of 31 May 2012 appointed KPMG AUDIT IS as Alternate Auditor for KPMG SA, replacing SCP Jean-Claude André & Autres, for a term of six (6) years expiring at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the year ending 31 December 2017.

BEAS

Alternate Auditor for Deloitte & Associés

195, avenue Charles de Gaulle
92524 Neuilly-sur-Seine Cedex – France

Date of first appointment: 11 June 2002
Date renewed: 31 May 2012

The Ordinary and Extraordinary Shareholders' Meeting of 31 May 2012 reappointed BEAS as Alternate Auditor for Deloitte & Associés for a term of six (6) years expiring at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the year ending 31 December 2017.

1.4 Person responsible for the Group's legal affairs

Ms Stéphanie Fougou

Group General Counsel

Vallourec

27, avenue du Général-Leclerc
92660 Boulogne-Billancourt Cedex – France

Tel.: +33 (0)1 49 09 37 22
Fax: +33 (0)1 49 09 37 85

E-mail: stephanie.fougou@vallourec.com

1.5 Person responsible for the communication of financial information

Mr Étienne Bertrand

Investor Relations and Financial Communications Director

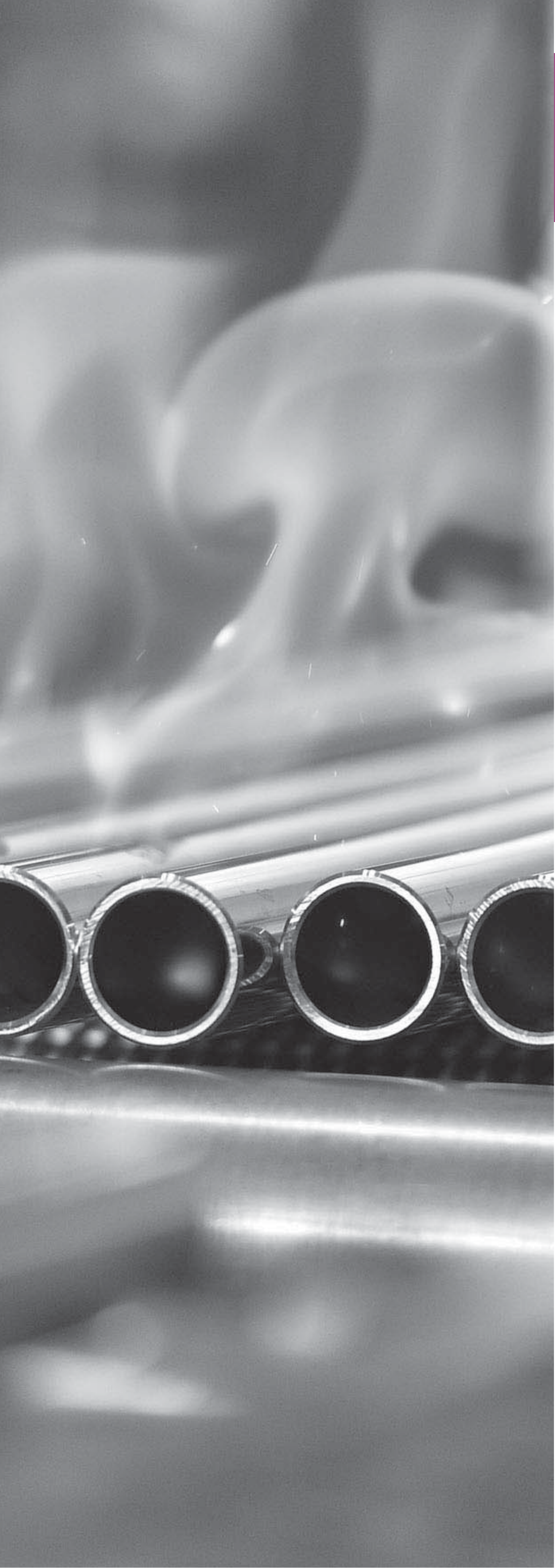
Vallourec

27, avenue du Général-Leclerc
92660 Boulogne-Billancourt Cedex – France

Tel.: +33 (0)1 49 09 35 58
Fax: +33 (0)1 49 09 36 94

E-mail: etienne.bertrand@vallourec.com

Vallourec website: www.vallourec.com



2

General information on Vallourec and its capital

2.1 General information on Vallourec

2.1.1 Company name and registered office

Vallourec
27, avenue du Général-Leclerc
92100 Boulogne-Billancourt – France
Tel.: +33 (0)1 49 09 35 00

2.1.2 Legal form – Legislation – Trade and Companies Register

Vallourec is a French corporation (*société anonyme*) that opted on 14 June 1994 for a governance structure comprising a Management Board and a Supervisory Board. The Company is registered in the Nanterre (Hauts-de-Seine) Trade and Companies Register under no. 552 142 200 and recorded under APE Code (Principal Activity Code) 7010Z.

2.1.3 Date of incorporation and term

Vallourec was formed in 1899.

It will be wound up on 17 June 2067, unless its life is extended or it is wound up earlier.

2.1.4 Corporate purpose (Article 3 of the bylaws)

Vallourec's purpose, in any country, acting on its own behalf or for a third party, or directly or indirectly with or through third parties includes:

- all industrial and commercial transactions relating to all means for the preparation and manufacture, by all processes known or that might be subsequently discovered, of metals and any materials that may replace them in all their applications; and
- in general, all commercial, industrial and financial transactions, and transactions in movable and fixed property, directly or indirectly associated with the above purpose.

2.1.5 Consultation of legal documents

The Company bylaws, minutes of Shareholders' Meetings and other Company documents may be consulted at the registered office.

2.1.6 Fiscal year

The fiscal year is 12 months long. It begins on 1 January and ends on 31 December.

2.1.7 Distribution of profits (Article 15 of the bylaws)

Distributable profit, as defined by law, is allocated by the Shareholders' Meeting.

Unless otherwise required by law, the Shareholders' Meeting decides how net profit is allocated.

The Shareholders' Meeting may also decide to grant each shareholder, for all or part of the dividend to be distributed, the choice of receiving payment of the dividend in cash or in shares [(1)], in accordance with the laws and regulations in force.

2.1.8 Shareholders' Meetings (Article 12 of the bylaws)

Shareholders' Meetings are convened in accordance with the conditions provided for by law.

A Shareholders' Meeting is open to all shareholders, regardless of the number of shares held.

Each shareholder attending the Shareholders' Meeting has as many votes as shares owned or represented, unless otherwise provided for by law. However, fully paid-up shares duly registered in the name of the same shareholder for four (4) consecutive years carry twice as many voting rights as other shares (Article 12, paragraph 4 of the bylaws).

The Shareholders' Meeting of 19 January 1988 resolved to establish double the voting rights for shares that have been duly registered in the name of the same shareholder for four (4) years. The free registered shares awarded to a shareholder in respect of existing shares for which he has a double voting right also have a double voting right. The double voting right ceases for any share that has been converted to bearer shares or transferred, except for any transferred to another registered shareholder by succession or family bequest. The double voting right may be removed by a decision of the Extraordinary Shareholders' Meeting after ratification by a Special Meeting of the shareholder beneficiaries.

2.1.9 Disclosure of thresholds crossed and identification of shareholders (Article 8 of the bylaws)

The Extraordinary Shareholders' Meeting of 1 June 2006, in its second resolution, amended Article 8 of the bylaws to set an additional disclosure requirement for exceeding thresholds other than those prescribed by the legal provisions in force.

Consequently:

"In addition to the disclosure of thresholds crossed as expressly provided for in Article L.233-7-I and II of the French Commercial Code (Code de Commerce), any individual or legal entity who, directly or indirectly through companies he or it controls within the meaning of Article L.233-3 of the French Commercial Code, alone or in concert, acquires a number of bearer shares in the Company equal or greater than three percent (3%), four percent (4%), six percent (6%), seven percent (7%), eight percent (8%), nine percent (9%) or twelve and a half percent (12.5%) of the total number of shares comprising the share capital shall, within five (5) trading days after crossing said threshold, disclose to the Company the total number of shares thus held, via registered letter with request for acknowledgement of receipt sent to the Company's registered office.

The information mentioned in the previous paragraph shall also be disclosed within the same time frame and under the same conditions when the shareholding falls below the thresholds referred to therein."

The penalties provided for by law for failure to comply with the legal obligation to disclose thresholds crossed under the French Commercial Code shall also apply in case of non-compliance with the obligation set out in the bylaws to disclose the above threshold crossings at the request of one or more shareholders holding at least 5% of the Company's shares, as recorded in the minutes of the Shareholders' Meeting.

In addition, under current regulations, the Company is entitled to request the identification of holders of securities conferring immediate or future voting rights at its Shareholders' Meetings, as well as quantities held.

(1) This power was introduced by the Shareholders' Meeting of 14 June 1994.

2.2 General information on share capital

2.2.1 Conditions in the bylaws for changes in share capital or rights in the Company

An Extraordinary Shareholders' Meeting may, in accordance with statutory provisions, increase or reduce the share capital or delegate to the Management Board the necessary powers to do so.

However, under the Company's internal structure (Article 9, paragraph 3 of the bylaws), the Management Board may not carry out the following transactions without the prior approval of the Supervisory Board:

- any capital increase in cash or by capitalization of reserves authorized by a Shareholders' Meeting;
- any other issue of securities that could later give access to share capital, authorized by a Shareholders' Meeting.

The shares are freely negotiable and transferable in accordance with applicable laws and regulations.

2.2.2 Share capital

As at 1 January 2016, the start of the 2016 fiscal year, subscribed, fully paid-up share capital amounted to €271,376,864, divided into 135,688,432 shares with a nominal value of €2.00 each.

On 3 May 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers granted to the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016 in its eighteenth resolution, and the Management Board's subdelegation to the Chairman of the Management Board on 6 April 2016, noted the final completion of a capital increase maintaining the preferential subscription right by issuing 217,101,488 new ordinary shares with a nominal value of €2 each with a unit price of €2.21, €0.21 of which is additional paid-in capital. The issue of the new shares resulted in a capital increase by a nominal amount of €434,202,976, which raised Vallourec's share capital at 3 May 2016 from €271,376,864 to €705,579,840, divided into 352,789,920 shares with a nominal value of €2.00 each.

On 3 May 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers granted to the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, in its twentieth resolution, and by the Management Board's subdelegation to the Chairman of the Management Board dated 6 April 2016, noted the redemption of mandatory convertible tranche A and tranche B bonds ("Bonds") held by Bpifrance Participations, distributed among 1,294,126 tranche A Bonds with a unit issue price of €99, and for which the redemption ratio was set at 9 new shares with a nominal value of €2 per 1 tranche A Bond, and 18,635,430 tranche B Bonds with a unit issue price of €2.21, and for which the redemption ratio was set at 1 new share with a nominal value of €2 per 1 tranche B bond. This redemption resulted in the creation of 11,647,134 and 18,635,430 new shares respectively, or a total number of 30,282,564 ordinary new shares with a nominal value of €2 each, thus bringing Vallourec's share capital as at 3 May 2016 from €705,579,840 to €766,144,968, divided into 383,072,484 shares with a nominal value of €2 each.

On 20 June 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers granted to the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, in its nineteenth resolution, and by the Management Board's subdelegation to the Chairman of the Management Board dated 6 April 2016, noted the redemption of mandatory convertible tranche A and tranche B bonds ("Bonds") held by Nippon Steel & Sumitomo Metal Corporation ("NSSMC"), distributed among 2,631,006 tranche A Bonds with a unit issue price of €99, and for which the redemption ratio was set at 9 new shares with a nominal value of €2 per 1 tranche A Bond, and 37,886,511 tranche B Bonds with a unit issue price of €2.21, and for which the redemption ratio was set at 1 new share with a nominal value of €2 per 1 tranche B bond. This redemption resulted in the creation of 23,679,054 and 37,886,511 new shares respectively, or a total number of 61,565,565 ordinary new shares with a nominal value of €2 each, thus bringing Vallourec's share capital as at 20 June 2016 from €766,144,968 to €889,276,098, divided into 444,638,049 shares with a nominal value of €2 each.

At the end of the clearing period for subscriptions to the Value 16 international employee share ownership plan (see Chapter 7 below), at its meeting on 14 December 2016, the Management Board, under the terms of the twenty-first, twenty-second and twenty-third resolutions of the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, recorded the final completion of three capital increases in the nominal amounts of €7,007,330, €4,921,538 and €1,271,044 respectively, or an aggregate nominal amount of €13,199,912, through the respective issue of 3,503,665, 2,460,769 and 635,522 new shares, for an aggregate total of 6,599,956 new shares with a nominal value of €2.00 each and a price per share of €3.75 for the standard plan and €3.99 for the leveraged scheme. These transactions had the cumulative effect of increasing share capital from €889,276,098 to €902,476,010. As at 31 December 2016, subscribed, fully paid-up share capital amounted to €902,475,010, divided into 451,238,005 shares with a nominal value of €2.00 each.

2.2.3 Authorized capital not issued

2.2.3.1 Financial authorizations to issue shares and securities providing access to capital valid as at 31 December 2016

Authorizations to issue shares and securities providing access to the Company's capital valid as at 31 December 2016 were as follows:

	Maximum ceilings on capital increases *(in €, shares or a percentage of the share capital)*	Maximum nominal amounts of debt securities *(in €)*	Date of the Shareholders' Meeting that authorized the transaction	Term of authorization	Expiration date
CAPITAL INCREASES WITH PREFERENTIAL SUBSCRIPTION RIGHTS					
Capital increases with preferential subscription rights (eighteenth resolution)	68 billion shares [a] [b] [c]	N/A	6 April 2016	18 months	6 October 2017
Capital increases through the capitalization of reserves, benefits or additional paid-in capital (twentieth resolution)	78,358 million [d]	N/A	28 May 2015	26 months	28 July 2017
CAPITAL INCREASES WITHOUT PREFERENTIAL SUBSCRIPTION RIGHTS					
Capital increases without preferential subscription rights through a public offering or offerings (thirteenth resolution)	26,119 million [d]	1.5 billion	28 May 2015	26 months	28 July 2017
Capital increases without preferential subscription rights through one or more private placements (fourteenth resolution)	26,119 million [d]	1.5 billion	28 May 2015	26 months	28 July 2017
Capital increases without preferential subscription rights, carried out under the thirteenth and/or fourteenth resolutions, at a price to be freely set by the Shareholders' Meeting (fifteenth resolution)	10% of the share capital per year within the limit of €26,119 million over 26 months [d] [e]	1.5 billion	28 May 2015	26 months	28 July 2017
Increase in the amount of the initial issue without preferential subscription rights (sixteenth resolution)	15% of the initial issue [d] [e]	15% of the initial issue [d]	28 May 2015	26 months	28 July 2017
Capital increases without preferential subscription rights in consideration for contributions in kind, except in the case of a public exchange offer initiated by the Company (seventeenth resolution)	10% of the share capital [d]	1.5 billion	28 May 2015	26 months	28 July 2017
Capital increases without preferential subscription rights in consideration for securities contributed in a public exchange offer initiated by the Company (eighteenth resolution)	26,119 million [d]	1.5 billion	28 May 2015	26 months	28 July 2017
Capital increases without preferential subscription rights, carried out as a result of the issue by the Company's subsidiaries of securities giving access to the Company's share capital (nineteenth resolution)	26,119 million [d]	1.5 billion	28 May 2015	26 months	28 July 2017
Issue of mandatory convertible bonds ("Bonds") without preferential subscription rights to Nippon Steel & Sumitomo Metal Corporation (nineteenth resolution) and Bpifrance Participations (twentieth resolution)	Tranche A: 45 million shares Tranche B: 12.5 billion shares [f]	N/A	6 April 2016	18 months	6 October 2017
EMPLOYEE SHARE OWNERSHIP PLAN					
Capital increase reserved for members of the Company savings plan as part of an employee share ownership plan (twenty-first resolution)	1. 5% of the share capital [g]	N/A	6 April 2016	26 months	6 July 2018
Capital increase reserved for employees and those with similar rights of Vallourec Group companies outside France as part of an employee share ownership plan (twenty-second resolution)	1.5% of the share capital [g]	N/A	6 April 2016	18 months	6 October 2017

	Maximum ceilings on capital increases *(in €, shares or a percentage of the share capital)*	Maximum nominal amounts of debt securities *(in €)*	Date of the Shareholders' Meeting that authorized the transaction	Term of authorization	Expiration date
Capital increase reserved for credit institutions and all entities whose purpose is to hold, acquire or dispose of shares as part of an employee share ownership plan (twenty-third resolution)	1.5% of the share capital (g)	N/A	6 April 2016	18 months	6 October 2017
Allocation of shares free of charge as part of an employee share ownership plan to replace the employer matching contributions given to French employees (twenty-fourth resolution)	0.3% of the share capital (d) (h)	N/A	6 April 2016	18 months	6 October 2017
SHARE SUBSCRIPTION OR SHARE PURCHASE OPTIONS AND PERFORMANCE SHARES					
Share subscription or share purchase options granted to employees and corporate officers of the Group (nineteenth resolution)	3% of the share capital (c)	N/A	28 May 2014	38 months	28 July 2017
Performance shares allocated to employees and corporate officers of the Vallourec Group (twentieth resolution)	3% of the share capital (c) (i)	N/A	28 May 2014	38 months	28 July 2017

(a) These caps take into account the plan to reduce the nominal value of the shares to €0.01, which was the subject of the twenty-sixth resolution which the Management Board removed from the agenda of the Shareholders' Meeting of 6 April 2016.

(b) The maximum number of shares that can be issued is limited to the number that will allow a gross cash amount of €680 million to be obtained from the capital increase with preferential subscription rights.

(c) The number of shares that could be issued by virtue of the eighteenth resolution of the Shareholders' Meeting of 6 April 2016 and the nineteenth and twentieth resolutions of the Shareholders' Meeting of 28 May 2014 is set at 85 billion shares.

(d) This amount or this percentage does not count towards any overall cap (twenty-fifth resolution of the Shareholders' Meeting of 6 April 2016).

(e) This percentage is limited by the cap on the authorization pursuant to which the initial issue was made.

(f) The number of shares issued as part of the repayment of Tranche B of the mandatory convertible bonds was equal to (€125 million/Issue Price), noting that the Issue Price is as determined based on the recommendations of the banking syndicate in conformity with the usual market practices for this type of operation, and taking into account the current market conditions.

(g) The aggregate capital increases carried out as part of an employee share ownership offer may not exceed 1.5% of the capital and do not count towards any overall cap.

(h) This percentage does not count towards any overall cap.

(i) This percentage counts towards the 3% cap on share capital at the date of the decision to allot the share subscription or share purchase options.

2.2.3.2 Use of financial authorizations to issue shares and securities providing access to the Company's capital as at 31 December 2016

EMPLOYEE SHARE OWNERSHIP OFFER (twenty-first to twenty-fourth resolutions of the Shareholders' Meeting of 6 April 2016)

Under the authorizations for employee share ownership plans, the Management Board, with the approval of the Supervisory Board, extended the Value 16 international employee share ownership plan in 2016, for the ninth year running (for a description of this plan, see Chapter 7, Section 7.3.3 "Employee Share Ownership"). Under the terms of the twenty-first, twenty-second and twenty-third resolutions of the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, the Management Board, at its meeting of 14 December 2016, recorded the final completion of three capital increases, in the nominal amounts of €7,007,330, €4,921,538 and €1,271,044 respectively, or an aggregate nominal amount of €13,199,912, representing 1.48% of the share capital at this date, through the respective issue of €3,503,665, €2,460,769 and €635,522 new shares, for an aggregate total of 6,599,956 new shares with a nominal value of €2 each, and a price per share of €3.75 for the standard plan and €3.99 for the leveraged scheme. These transactions had the cumulative effect of increasing share capital from €889,276,098 to €902,476,010.

In place of the employer matching contribution benefiting employees and those with similar rights in French companies of Vallourec and Group companies headquartered in Germany, Brazil, Mexico, the United Arab Emirates and the United Kingdom who are invested in the Value 16 plan, the Management Board, using the twenty-fourth resolution of the Shareholders' Meeting of 6 April 2016, simultaneously implemented a free share allocation plan for new or existing shares for a maximum of 3,344 shares, or 0.0007% of share capital at that date for employees who are not French residents for tax purposes in Vallourec Group companies that are headquartered in Canada, the United States (excluding employees of VAM USA LLC), Malaysia, and Singapore who have invested in a "Shares + SAR" plan under the Value 16 plan.

The terms of this plan are set out in Section 7.3.1.2, "Performance share and free share" of this Registration Document.

PERFORMANCE SHARES (twentieth resolution of the Shareholders' Meeting of 28 May 2014)

Under the twentieth resolution, relating to performance shares, which the Ordinary and Extraordinary Shareholders' Meeting adopted on 28 May 2014, the Management Board decided on 18 May 2016, in accordance with the Supervisory Board, to allocate a target number of 610,001 performance shares, subject to attendance and performance conditions [(1)], or 0.14% of the share capital as at 31 December 2016, to benefit 530 managers and three members of the Management Board.

The terms and conditions of these plans are set out in Section 7.3.1.2 "Performance share and free share allocation plans" of this Registration Document.

SHARE SUBSCRIPTION OR PURCHASE OPTIONS (nineteenth resolution of the Shareholders' Meeting of 28 May 2014)

Under the nineteenth resolution on share subscription or purchase options adopted by the Shareholders' Meeting of 28 May 2014, on 18 May 2016 the Management Board, in agreement with the Supervisory Board, set up a share subscription option plan, subject to continuous service and performance conditions, which provides for the allocation of a target number of 537,895 options [(2)] or 0.12% of the share capital as at 31 December 2016, to 351 managers, and three Management Board members.

The terms of this plan are set out in Section 7.3.1.1 "Share purchase and/or subscription options" of this Registration Document.

2.2.3.3 Potential dilution as at 31 December 2016

Vallourec has not issued any securities giving access to capital.

Performance share and free share allocation plans (see Section 7.3.1.2 below) are covered by existing shares so they have no dilutive impact on capital.

Only the award of share subscription options (see Section 7.3.1.1 below) could, if the options came to be exercised, entail a dilution of shareholders. Based on the number of options currently outstanding, net of those cancelled or that have lapsed, potential dilution to shareholders as at 31 December 2016 was 1.11%.

2.2.4 Share buyback

2.2.4.1 Information on transactions under the share buyback program during fiscal year 2016

REPURCHASE OF SHARES (excluding liquidity contract)

At 1 January 2016, Vallourec held 694,054 Vallourec shares with a nominal value of €2.00, or 0.51% of share capital at that date, all assigned to cover free share or performance share allocation plans.

From 1 January to 31 December 2016, Vallourec transferred 256,208 shares under its free share and performance share allocation plans.

Total gross cash flows relating to purchases and disposals/transfers of shares (excluding liquidity contract) from 1 January to 31 December 2016 were as follows:

	Purchases	Transfers/Sales
Number of shares	0	256,208
Average price per share (in €)	0	40.3823
AGGREGATE AMOUNT (IN €)	**0**	**10,346,278.44**

TREASURY SHARES (excluding liquidity contract) AS AT 31 DECEMBER 2016

As at 31 December 2016, Vallourec held 437,846 Vallourec shares, or 0.097% of share capital at that date, all assigned to cover free share or performance share allocation plans. The carrying amount of the portfolio as at 31 December 2016 was €12,486,045.71, including a nominal value of €875,692 and a market value on the same date of €2,867,891.30.

LIQUIDITY CONTRACT

Vallourec has a liquidity contract with Rothschild & Cie Banque, which has been in effect since 2 July 2012. The contract has a term of 12 months and is automatically renewable for successive 12-month terms. It complies with the Code of Conduct (Charte de déontologie) issued by the French Association of Financial Markets (*Association Française des Marchés Financiers*), which was approved by the French securities regulator (*Autorité des Marchés Financiers*) on 21 March 2011.

In 2016, under the liquidity contract, total purchases were for 1,025,000 shares, i.e. 0.23% of share capital as at 31 December 2016, for a total amount of €4,145,894.92 and a weighted average price of €4.0448 per share. No shares were sold under the liquidity contract in 2016. In 2016, the liquidity contract generated an unrealized loss of €20,796,889.

As at 31 December 2016, the balance on the liquidity account comprised:

- 2,400,000 shares;
- €5,627,237.

The management fee for the liquidity contract in 2016 was €124,176 (excluding tax).

(1) This is equivalent to 768,091 performance shares based on the highest performance coefficient of 1.25 or 1.33, as applicable.

(2) This is equivalent to 679,804 options based on the maximum factor of 1.25 or 1.33, as applicable.

TREASURY SHARES

None.

OPEN DERIVATIVE POSITIONS AS AT 31 DECEMBER 2016

None.

2.2.4.2 Description of the 2017-2018 share buyback program, submitted to the Ordinary and Extraordinary Shareholders' Meeting of 12 May 2017 (twelfth resolution)

This description of the program's purpose, under Articles 241-1 et seq. of the General Regulations of the French securities regulator (*Autorité des Marchés Financiers*), is to explain the objectives and the terms and conditions of Vallourec's share buyback program, which will be submitted to the Ordinary and Extraordinary Shareholders' Meeting on 12 May 2017.

ALLOCATION OF VALLOUREC SHARES HELD BY THE COMPANY AS AT 28 FEBRUARY 2017

As at 28 February 2017, Vallourec held 437,786 Vallourec shares, or 0.1% of share capital at that date, all allocated to cover free share or performance share allocation plans.

Moreover, on the same date, 2,477,500 shares were included in the balance of the liquidity contract with Rothschild & Cie Banque, or 0.55% of share capital.

OBJECTIVES OF THE SHARE BUYBACK PROGRAM SUBMITTED TO THE ORDINARY AND EXTRAORDINARY SHAREHOLDERS' MEETING OF 12 MAY 2017

In accordance with the provisions of European Regulation No. 596/2014 of 16 April 2014 and the market practices accepted by the French securities regulator (*Autorité des Marchés Financiers*), the objectives of the share buyback program submitted for the approval of the Ordinary and Extraordinary Shareholders' Meeting of 12 May 2017 are as follows:

1. to implement any Company share purchase options plan or any similar plan, in accordance with the provisions of Article L.225-177 et seq. of the French Commercial Code (Code de commerce);
2. to allocate or transfer shares to employees for their investment in the Company's development and/or to implement any Company or Group savings plan (or similar plan) as provided for by law, in particular Articles L.3332-1 et seq. of the French Labor Code (Code de travail);
3. to allocate shares free of charge or to allocate performance shares under the provisions of Articles L.225-197-1 et seq. of the French Commercial Code;
4. to cover all awards of shares to employees and/or corporate officers of the Group, particularly in the context of international employee share ownership plans or variable compensation;
5. for market making in the secondary market or to increase the liquidity of Vallourec's shares through an investment services provider, under the terms of a liquidity contract that complies with the Code of Conduct (Charte de déontologie) issued by the French Association of Financial Markets *(Association Française des Marchés Financiers*), approved by the French securities regulator and in accordance with the market practices accepted by it;
6. to hold and subsequently deliver shares (in payment, exchange or otherwise) in connection with any later transactions involving acquisitions, and, in particular, mergers, split-offs or contributions;
7. to deliver shares upon the exercise of rights attached to securities giving access to share capital by means of redemption, conversion, exchange, exercise of a warrant or any other means; or
8. to cancel some or all of the shares so repurchased, provided that the Management Board has a valid authorization from the Extraordinary Shareholders' Meeting allowing it to reduce share capital by canceling shares acquired as part of a share buyback program.

TERMS OF THE SHARE BUYBACK PROGRAM SUBMITTED TO THE SHAREHOLDERS' MEETING ON 12 MAY 2017

The table below shows the maximum percentage of capital, the maximum number, and the characteristics of the shares that the Company may acquire under its share buyback program as submitted to the Ordinary and Extraordinary Shareholders' Meeting of 12 May 2017, as well as the maximum unit purchase price:

Share characteristics	Maximum percentage of capital (a)	Maximum number of shares (b)	Maximum unit purchase price *(per share)*
Ordinary shares	10%	45,123,800	€15

(a) It is stipulated that this percentage applies to capital that will be adjusted, where applicable, to take account of any transactions affecting share capital that may occur after the Shareholders' Meeting of 12 May 2017, and that, in all circumstances, the number of shares that the Company holds at any given time may not exceed 10% of the shares comprising the Company's capital on the date in question.

(b) This number corresponds to the theoretical number of ordinary shares that the Company could acquire, calculated based on the share capital as at 28 February 2017, i.e. €902,476,010, divided into 451,238,005 shares. Based on the number of ordinary shares owned by Vallourec at that date (i.e.2,915,286 shares), Vallourec could acquire 42,208,514 of its own shares.

TERM OF THE SHARE BUYBACK PROGRAM SUBMITTED TO THE SHAREHOLDERS' MEETING OF 12 MAY 2017

The authorization given to the Management Board to implement the share buyback program will be granted for a term of 18 months from the date of the Shareholders' Meeting of 12 May 2017, until 12 November 2018, subject to the program's approval by the Ordinary Shareholders' Meeting.

2.2.5 Changes in share capital over the past five years

Transaction date	Exercise of subscription options	Number of shares subscribed in cash	Total number of shares after transaction	Nominal amount of capital increase *(in €)*	Paid-in capital *(in €)*	Total share capital after transaction *(in €)*
27/06/2012	–	192,112	121,626,521	384,224	5,590,459	243,253,042
06/12/2012	–	3,319,835	124,946,356	6,639,670	78,978,875	249,892,712
25/06/2013	–	1,338,791	126,285,147	2,677,582	46,442,660	252,570,294
10/12/2013	–	1,874,453	128,159,600	3,748,906	65,474,830	256,319,200
25/06/2014	–	518,416	128,678,016	1,036,832	17,465,435	257,356,032
16/12/2014	–	1,919,959	130,597,975	3,839,918	45,325,754	261,195,950
25/06/2015	–	3,090,460	133,688,435	6,180,920	53,774,004	267,376,870
15/12/2015	–	1,999,997	135,688,432	3,999,994	13,647,426	271,376,864
03/05/2016	_	217,101,488	352,789,920	434,202,976	45,591,312	705,579,840
03/05/2016	_	30,282,564	383,072,484	60,565,128	108,737,646	766,144,968
20/06/2016	_	61,565,565	444,638,049	123,131,130	221,067,653	889,276,098
14/12/2016	_	6,599,956	451,238,005	13,199,912	13,118,608	902,476,010

2.2.6 Non-equity instruments

Securities entitling the allocation of debt securities

Since Order no. 2014-863 of 31 July 2014, relating to Corporate Law, only the Management Board has had the power to issue securities entitling their bearers to be allocated debt securities. As at 31 December 2016, no issuance of securities of this kind had been decided upon by the Management Board.

Commercial paper issue program

On 12 October 2011 Vallourec established a commercial paper issue program to meet its short-term financing requirements. This program, updated on 17 May 2016, has the following main characteristics:

Maximum cap on the program	€1 billion
Duration	> 1 day < 365 days
Minimum unit amount	€150,000
Currency of issue	Euros (€), US Dollars ($)
Paying agent	Crédit Industriel et Commercial
Underwriters	Aurel BGC BNP Paribas BRED Banque Populaire Crédit Agricole CIB CM – CIC Crédit du Nord GFI Securities Limited HSBC France HPC ING Bank NV Kepler Capital Markets Natixis Newedge Group Société Générale CIB TSAF OTC (instead of Viel Tradition) Tullett Prebon Ltd.
Short-term rating (Standard & Poor's)	B

The financial prospectus for the commercial paper issue program and outstanding amounts of the issues are available on the websites of the Company (www.vallourec.com) and the Banque de France (www.banque-france.fr).

Bond issues

Vallourec successfully issued:

- on 14 December 2011, a €650 million fixed-rate bond issue maturing on 14 February 2017 (the **"February 2017 Bonds"**). These bonds have a unit par value of €100,000 and are admitted to trading on the Euronext Paris stock market. They bear interest at an annual fixed rate of 4.25%, payable in arrears on 14 February each year, and are rated B by Standard & Poor's;
- on 30 July 2012, a €55 million fixed-rate bond issue maturing on 2 August 2027 (the **"August 2027 Bonds"**). These bonds have a unit par value of €100,000 and bear interest at an annual fixed rate of 4.125%, payable in arrears on 2 August each year;
- on 3 August 2012, a €400 million fixed-rate bond issue maturing on 2 August 2019 (the "**August 2019 Bonds**"). These bonds have a unit par value of €100,000 and are admitted to trading on the Euronext Paris stock market. They bear interest at an annual fixed rate of 3.25%, payable in arrears on 2 August each year, and are rated B by Standard & Poor's;
- on 30 September 2014, a €500 million fixed-rate bond issue maturing on 30 September 2024, (the "September 2024 Bonds"). These bonds have a unit par value of €100,000 and are admitted to trading on the Euronext Paris stock market. They bear interest at an annual fixed rate of 2.25%, payable in arrears on 30 September each year, and are rated B by Standard & Poor's.

The nominal value and interest on the February 2017 Bonds, August 2027 Bonds, August 2019 Bonds and September 2024 Bonds (the "Bonds") represent direct, unconditional, unsubordinated liabilities, not backed by Vallourec assets, ranked pari-passu, without preference among them, with the other present and future unsubordinated Vallourec bonds not backed by assets. Throughout the Bond maturity period, Vallourec has undertaken not to grant any security or guarantee (mortgage, lien, pledge, real surety, etc.) on its assets, income or rights, present or future, to holders of bonds, warrants or transferable securities listed or traded (or that may be listed or traded) on a regulated market, multilateral trading system, over-the-counter market or any other market, unless the same ranking or same surety or guarantee is granted to the Bonds.

These four bond issues specifically include a change-of-control clause that would trigger the mandatory prepayment of the bonds at the request of each bondholder in the event of a change of control of the Company (in favor of a person or a group of people acting in concert) leading to a downgrade of Vallourec's financial rating.

In addition, prepayment of the Bonds may be requested by the bondholder or the Company, depending on the case, should any of the common default scenarios for this type of transaction arise or in respect of a change in the Company's position or in tax regulations.

The prospectuses for listing the February 2017 Bonds, the August 2019 Bonds and the September 2024 Bonds on the Euronext Paris stock market may be consulted on the websites of the Company (www.vallourec.com) and the French securities regulator (*Autorité des Marchés Financiers*) (www.amf-france.org).

Rating

As at 1 January 2016, the opening date of the 2016 fiscal year, Vallourec's debt was rated BB+/negative/B by Standard & Poor's. On 2 February 2016, Standard & Poor's downgraded Vallourec's financial rating to BB-/negative/B. On 12 May 2016, Standard & Poor's downgraded Vallourec's financial rating to B+/negative/B. Consequently, as at 31 December 2016, Vallourec's debt had a rating of B+/negative/B from Standard & Poor's. On 27 February 2017, this agency downgraded Vallourec's rating to B/Negative/B.

2.3 Distribution of share capital and voting rights

2.3.1 Changes in the distribution of share capital in the last three years

FY 2014 (as at 31 December)

Shareholders	Number of shares	% of share capital	Number of theoretical voting rights	% of theoretical voting rights	% of exercisable voting rights at Shareholders' Meetings
Public	107,147,689	82.05%	109,328,808	77.30%	78.27%
Group employees	9,944,475	7.61%	10,459,678	7.39%	7.49%
Bpifrance Participations SA	6,958,640	5.33%	13,147,895	9.29%	9.41%
CDC Savings Funds Department	2,800,628	2.14%	2,800,628	1.98%	2.00%
Group subtotal, CDC (a)	**9,759,268**	**7.47%**	**15,948,523**	**11.27%**	**11.41%**
Nippon Steel & Sumitomo Metal Corporation (b)	1,973,134	1.51%	3,946,268	2.79%	2.83%
Treasury shares (c)	1,773,409	1.36%	1,773,409	1.25%	0.00%
TOTAL	**130,597,975**	**100.00%**	**141,456,686**	**100.00%**	**100.00%**

(a) *Bpifrance Participations (formerly FSI), jointly with Caisse des Dépôts et Consignations (CDC). By letter received by the French securities regulator (Autorité des Marchés Financiers) on 30 April 2014, CDC and Bpifrance Participations SA clarified that they were each acting alone, and CDC declared that there was no collaboration with Bpifrance Participations SA.*

(b) *NSSMC and Vallourec have built up strategic partnerships for a number of years, and have entered into a cross-shareholding agreement, which is described in paragraph 2.3.3 of this Registration Document.*

(c) *Treasury shares held directly include the shares shown on the balance of the liquidity contract managed by Rothschild & Cie Banque and the shares held by the Company on its own account to cover its plans to allocate performance shares and free shares. As a result, the number of treasury shares is subject to change at any time.*

FY 2015 (as at 31 December)

Shareholders	Number of shares	% of share capital	Number of theoretical voting rights	% of theoretical voting rights	% of exercisable voting rights at Shareholders' Meetings
Public [(a) (b) (c)]	111,123,633	81.90%	113,338,744	77.13%	78.23%
Group employees	10,355,867	7.63%	10,958,019	7.46%	7.56%
Bpifrance Participations SA	7,249,182	5.34%	13,720,260	9.34%	9.47%
CDC Savings Fund Department	2,917,562	2.15%	2,917,562	1.99%	2.01%
Group subtotal, CDC [(d)]	**10,166,744**	**7.49%**	**16,637,822**	**11.32%**	**11.48%**
Nippon Steel & Sumitomo Metal Corporation [(e)]	1,973,134	1.45%	3,946,268	2.69%	2.72%
Treasury shares [(f)]	2,069,054	1.52%	2,069,054	1.41%	0.00%
TOTAL	**135,688,432**	**100.00%**	**146,949,907**	**100.00%**	**100.00%**

(a) The "Public" part includes the position of Tweedy Browne Company LLC (TBC). According to a letter received by the AMF on 29 January 2015, which was supplemented by a letter received on 2 February 2015, TBC, acting on behalf of clients and the funds it manages, declared on 26 January 2015 to have exceeded Vallourec's 5% capital threshold, holding, on behalf of said clients and funds, 6,534,596 shares and the same number of voting rights, representing at 31 December 2014 5.004% of Vallourec's capital and 4.62% of its voting rights. According to a letter received by the AMF on 4 August 2015, TBC, acting on behalf of clients and the funds it manages, declared on 30 July 2015 to have it had fallen below Vallourec's 5% capital threshold, holding, on behalf of said clients and funds, 6,294,298 shares and the same number of voting rights, representing 4.71% of the capital and 4.35% of the voting rights as at 30 June 2015.

To the Company's knowledge, TBC is registered with the Securities and Exchange Commission as an investment advisor and as such would not hold any share for its own account and would not exercise, barring a specific agreement with its clients, the voting rights attached to the shares recorded in the individual accounts of its clients.

(b) The "Public" part includes the Deutsche Bank AG position. According to a letter received by the AMF on 4 December 2015, which was supplemented by a letter that was received on 7 December 2015, Deutsche Bank AG declared to have exceeded Vallourec's 5% capital threshold on 30 November 2015, after acquiring Vallourec shares on the market, holding 7,206,835 Vallourec shares, representing as at 30 June 2015, 5.39% of the capital and 4.97% of the voting rights, distributed as follows: 2,905,075 shares held directly, or 2.17% of the capital and 2.00% of the voting rights, and 4,301,760 shares held by assimilation of derivatives contracts, or 3.32% of the capital and 2.97% of the voting rights.

(c) The "Public" part includes the Crédit Agricole SA position. According to a letter which the AMF received on 9 December 2015, which was supplemented with a letter received on 10 December 2015, Crédit Agricole SA declared that on 7 December 2015 it had indirectly, through its Crédit Agricole Corporate and Investment Bank companies (CA CIB) and CA Vita, which it controls, exceeded the 5% limit on capital and voting rights in Vallourec, holding 10,056,323 Vallourec shares, which represented, as at 30 June 2015, 7.52% of Vallourec's capital and 6.94% of its voting rights. The crossing of this threshold resulted from CA CIB trading positions that were recorded as part of the "Value" employee share ownership plans. The 10,056,323 shares declared by Crédit Agricole are distributed as follows: 9,383,808 shares by assimilation of derivatives contracts, representing, as at 30 June 2015, 7.02% of the capital ("Value" plans), 298,235 shares held directly, or approximately 0.22% of the capital, and 374,280 shares held directly by CA Vita (life insurance subsidiary of the Crédit Agricole group), representing 0.28% of the capital.

(d) Bpifrance Participations, jointly with Caisse des Dépôts et Consignations (CDC). By letter received by the French securities regulator (Autorité des Marchés Financiers) on 30 April 2014, CDC and Bpifrance Participations SA clarified that they were each acting alone, and CDC declared that there was no collaboration with Bpifrance Participations SA.

(e) Nippon Steel & Sumitomo Metal Corporation, and Vallourec have built up strategic partnerships for a number of years, and have entered into a cross-shareholding agreement, described in Section 2.3.3 of this Registration Document. As at 31 December 2015, NSSMC held 1,973,134 Vallourec shares, or a 1.45% stake in the share capital of Vallourec; likewise, Vallourec held 3,468,759 NSSMC shares (this figure takes into account the 10:1 stock split on the nominal price of the NSSMC shares, which occurred on 1 October 2015, 1 share for every 10 held), or a 0.37% stake in the share capital of NSSMC.

(f) Treasury shares held directly include the shares shown on the balance of the liquidity contract managed by Rothschild & Cie Banque and the shares held by the Company on its own account to cover its plans to allocate performance shares and free shares. As a result, the number of treasury shares is subject to change at any time.

FY 2016 (as at 31 December)

Shareholders	Number of shares	% of share capital	Number of theoretical voting rights	% of theoretical voting rights	% of exercisable voting rights at Shareholders' Meetings
Public [(a) (b) (c)]	291,644,528	64.63%	293,944,782	63.53%	63.92%
Group employees	15,778,550	3.50%	16,516,708	3.57%	3.59%
Bpifrance Participations SA [(d) (g) (l) (o)]	66,695,708	14.78%	73,166,786	15.81%	15.91%
CDC Savings Fund Department [(e) (f) (h) (j)]	7,585,658	1.68%	7,585,658	1.64%	1.65%
Group subtotal, CDC [(n)]	**74,281,366**	**16.46%**	**80,752,444**	**17.45%**	**17.56%**
Nippon Steel & Sumitomo Metal Corporation [(i) (k) (e) (o)]	66,695,715	14.78%	68,668,849	14.84%	14.93%
Treasury shares [(m)]	2,837,846	0.63%	2,837,846	0.61%	0.00%
TOTAL	**451,238,005**	**100.00%**	**462,720,629**	**100.00%**	**100.00%**

(a) The "Public" part includes the Deutsche Bank AG position. According to a letter received by the AMF on 12 February 2016, Deutsche Bank AG declared to have exceeded Vallourec's 5% voting rights threshold on 5 February 2016, after acquiring Vallourec shares on the market, holding, 8,760,261 Vallourec shares, representing the same number of voting rights, or 6.46% of the capital and 5.96% of the voting rights. On 8 March 2016, following a transfer of Vallourec shares on the market, Deutsche Bank AG declared that it had fallen below the 5% capital and voting right thresholds, holding 6,333,453 shares, representing the same number of voting rights, or 4.67% of the capital and 4.31% of the voting rights.

(b) The "Public" part includes the UBS AG position. According to a letter received by the AMF on 23 February 2016, UBS AG declared to have directly and indirectly exceeded Vallourec's 5% capital threshold on 17 February 2016, after acquiring Vallourec shares off the market, holding, 6,984,791 Vallourec shares, representing the same number of voting rights, or 5.15% of the capital and 4.75% of the voting rights. On 18 February 2016, UBS AG directly and indirectly dropped below Vallourec's 5% capital threshold, after transferring Vallourec shares off the market, holding, 5,798,449 shares, representing the same number of voting rights, or 4.27% of the capital and 3.95% of the voting rights. On 31 August 2016, UBS AG directly and indirectly exceeded Vallourec's 5% capital and voting right thresholds, after acquiring Vallourec shares off the market, holding 27,785,481 shares at that date, representing the same number of voting rights, or 6.25% of the capital and 6.09% of the voting rights. On 1 September 2016, UBS AG directly and indirectly dropped below Vallourec's 5% capital and voting right thresholds, after transferring Vallourec shares off the market, holding 7,849,806 shares, representing the same number of voting rights, or 1.77% of the capital and 1.72% of the voting rights.

(c) The "Public" part includes the Crédit Agricole SA position. According to a letter received by the AMF on 15 April 2016, Crédit Agricole SA declared to have exceeded Vallourec's 10% capital threshold on 11 April 2016, through Crédit Agricole Corporate and Investment Bank (CACIB), which it controls, holding 14,101,204 Vallourec shares, representing the same number of voting rights, or 10.39% of the capital and 9.59% of the voting rights. On 3 May 2016, following a capital increase by Vallourec, Crédit Agricole SA declared to have indirectly, through Crédit Agricole Corporate and Investment Bank (CACIB) which it controls, dropped below Vallourec's 10% and 5% capital and voting right thresholds, holding 14,814,587 Vallourec shares, representing the same number of voting rights, or 3.87% of the capital and 3.76% of the voting rights.

(d) In a letter which the AMF received on 29 February 2016, Bpifrance ("EPIC Bpifrance") declared to have indirectly, on 23 February 2016, following an acquisition by Bpifrance Participations SA of Vallourec shares on the market, exceeded Vallourec's 6% capital and 10% voting right thresholds, indirectly holding 9,112,462 shares, representing 15,583,540 voting rights, or 6.72% of the capital and 10.60% of the voting rights.

(e) In a letter which the AMF received on 1 March 2016, Caisse des dépôts et consignations (CDC) declared to have exceeded on 25 February 2016, directly and indirectly through Bpifrance Participations SA, a company it controls through Bpifrance SA, Vallourec's 10% capital threshold following an acquisition of Vallourec shares on the market, holding 13,682,200 Vallourec shares, representing 20,153,278 voting rights, or 10.08% of the capital and 13.71% of the voting rights (with Bpifrance Participations SA holding 10,764,638 Vallourec shares at that date, representing 7.93% of the capital and 11.72% of the voting rights).

(f) In a letter which the AMF received on 8 March 2016, Caisse des dépôts et consignations (CDC) declared to have exceeded on 3 March 2016, directly and indirectly through Bpifrance Participations SA, Vallourec's 15% voting rights threshold, holding 15,614,207 shares representing 22,085,285 voting rights, or 11.51% of capital and 15.03% of voting rights, following an acquisition of Vallourec shares on the market (Bpifrance Participations SA, holding 12,696,645 Vallourec shares at that date, representing 9.36% of the capital and 13.04% of the voting rights).

(g) In a letter which the AMF received on 10 March 2016, Bpifrance ("EPIC Bpifrance") declared to have indirectly, on 7 March 2016, following an acquisition by Bpifrance Participations of Vallourec shares on the market, exceeded Vallourec's 10% capital threshold, indirectly holding 13,583,965 shares, representing 20,055,043 voting rights, or 10.01% of the capital and 13.65% of the voting rights.

(h) In a letter which the AMF received on 9 May 2016, Caisse des dépôts et consignations declared to have directly and indirectly exceeded, through Bpifrance Participations SA, the 15% capital and 20% voting right thresholds following the capital increase of 3 May 2016, holding 74,281,365 Vallourec shares, representing 80,752,443 voting rights, or 19.39% of capital and 20.47% of voting rights, noting that Bpifrance ("EPIC Bpifrance") simultaneously declared to have exceeded on 3 May 2016, indirectly through Bpifrance Participations SA, the 15% capital and voting rights threshold, indirectly holding 66,695,707 shares, representing 73,166,785 voting rights, or 17.41% of capital and 18.55% of the voting rights.

(i) In a letter received on 21 June 2016, Nippon Steel & Sumitomo Metal Corporation declared to have exceeded on 20 June 2016, following a redemption of bonds redeemable in new Vallourec shares, the 5%, 10% and 15% capital and voting rights thresholds, holding 66,695,715 shares, representing 68,668,849 voting rights, or 15.00% of the capital and 15.06% of the voting rights.

(j) In a letter which the AMF received on 24 June 2016, Caisse des dépôts et consignations (CDC) declared to have dropped below on 20 June 2016, directly and indirectly through Bpifrance Participations SA, Vallourec's 20% voting rights threshold, holding 74,281,366 shares representing 80,752,444 voting rights, or 16.71% of capital and 17.71% of voting rights (Bpifrance Participations SA, holding 66,695,708 Vallourec shares at that date, representing 15.00% of the capital and 16.05% of the voting rights).

(k) In a letter which the AMF received on 20 December 2016, Nippon Steel & Sumitomo Metal Corporation declared that on 14 December 2016 it had dropped below Vallourec's 15% capital and voting right thresholds, holding 66,695,715 Vallourec shares, representing 68,668,849 voting rights, or 14.78% of the capital and 14.84% of the voting rights. These thresholds were crossed following the completion on 14 December 2016 of a capital increase which was reserved to employees of the Vallourec Group (Value 16).

(l) In a letter which the AMF received on 20 December 2016, Bpifrance ("EPIC Bpifrance") declared that on 16 December 2016 it had dropped below Vallourec's 15% capital threshold, indirectly through Bpifrance Participations, indirectly holding 66,695,708 Vallourec shares, representing 73,166,786 voting rights, or 14.78% of the capital and 15.81% of the voting rights. These thresholds were crossed following the completion on 14 December 2016 of a capital increase which was reserved to employees of the Vallourec Group (Value 16).

(m) Treasury shares held directly include the shares shown on the balance of the liquidity contract managed by Rothschild & Cie Banque and the shares held by the Company on its own account to cover its plans to allocate performance shares and free shares. As a result, the number of treasury shares is subject to change at any time.

(n) Bpifrance Participations jointly with Caisse des dépôts et consignations (CDC). By letter received by the French securities regulator (Autorité des Marchés Financiers) on 30 April 2014, CDC and Bpifrance Participations SA clarified that they were each acting alone, and CDC declared that there was no collaboration with Bpifrance Participations SA.

(o) As of 1 February 2016, Bpifrance Participations, on the one hand, and NSSMC, on the other, must, subject to certain reservations, respect a 15% cap on their voting rights for a 15-year period.

To the Company's best knowledge, there are no other shareholders who, directly or indirectly, alone or together, hold more than 5% of share capital or voting rights.

As at 31 December 2016, Vallourec's free float percentage was 64.63%.

2.3.2 Other persons exercising control over Vallourec

None.

2.3.3 Agreement between Vallourec and Nippon Steel & Sumitomo Metal Corporation dated 26 February 2009

Vallourec and Nippon Steel & Sumitomo Metal Corporation (NSSMC) announced on 26 February 2009 that each party had agreed to acquire an approximately USD 120 million stake in the other, starting on 31 December 2009 (hereinafter "the Agreement").

The provisions of the Agreement provide preferential terms of sale, whose key feature is a reciprocal right of first refusal in the event that either partner indicates its intent to sell its shareholding to a third party. The Agreement is available on the website of the French securities regulator (*Autorité des Marchés Financiers*): http://inetbdif.amf-france.org/inetbdif/viewdoc/affiche.aspx?id=46519&txtsch.

The Agreement was entered into for a term of seven years and is automatically renewable for successive one-year terms.

The agreements entered into on 1 February 2016, described in Chapter 3 of this Registration Document, have strengthened the industrial cooperation and capital ties between Vallourec and NSSMC. The Agreement, however, remains in force and the reciprocal right of first refusal still applies to the equity interests acquired by Vallourec and NSSMC pursuant to said Agreement.

2.3.4 Shareholders' agreements

On 1 February 2016, the Company entered into two shareholders' agreements with Bpifrance and NSSMC, which were intended to regulate the shareholdings of Bpifrance and NSSMC. These shareholders' agreements were entered into for a 15-year term beginning on 1 February 2016, and may be extended for successive five-year periods, with each party having the option of terminating the agreement by giving written notice to the other party no less than six months before the expiration date.

A description of the main provisions of these shareholders' agreements appears in the declarations submitted to the French securities regulator (*Autorité des Marchés Financiers*) regarding the communication of agreements between shareholders, as required by Article L.233-11 of the French Commercial Code. (These declarations are available on the AMF website http://www.amf-france.org/).

2.3.4.1 Shareholders' agreement with Bpifrance

Governance: The shareholders' agreement provides that Bpifrance has the right to request the appointment (and where necessary, the renewal) of a representative to the Company's Supervisory Board, as long as Bpifrance holds more than 5% of the Company's capital and voting rights. Bpifrance has moreover committed to vote, when the Shareholders' Meeting decides on the appointment of an NSSMC representative to the Company's Supervisory Board, in favor of this appointment.

Shares lock-up: As from 1 February 2016 and until the expiration of a twelve-month period from the Shareholders' Meeting scheduled on 6 April 2016 (a reasonable extension of this period can be agreed if required by the underwriters of the Rights Issue in line with market standards), Bpifrance shall not transfer any Company shares that it owns or may come to own. The shareholders' agreement prohibits the transfer of shares to a competitor of the Company and provides that the sales of shares on the market by Bpifrance or a selected investment service provider are subject to orderly disposal requirements. These restrictions are not applicable, subject to certain conditions, in the event of a tender offer or to permitted affiliate transfers.

Standstill undertaking: The shareholders' agreement provides that Bpifrance shall not hold, alone or in concert, more than 15% of the voting rights of the Company, as from 1 February 2016 and until the expiration of the shareholders' agreement. Notwithstanding this standstill undertaking, the shareholders' agreement provides that Bpifrance shall benefit, for a four-year period as from 1 February 2016, from the double voting rights attached to the Company's shares owned by Bpifrance, but that Bpifrance shall not use voting rights in excess of the 15% threshold at any Shareholders' Meeting of the Company. This standstill undertaking shall not apply upon the occurrence of a tender offer or if a third party comes to hold, acting alone or in concert, directly or indirectly, more than 15% of the Company's share capital or voting rights.

Right of first offer: If Bpifrance desires to effect a transfer of the Company's shares to a third party, it shall send to the Company a pre-notification in writing. The Company will then have the right to purchase (or cause another party to purchase) the shares offered under the same conditions.

2.3.4.2 Shareholders' agreement with NSSMC

Governance: The shareholders' agreement provides that NSSMC is entitled to request the appointment (and, as the case may be, the renewal) of one representative on the Supervisory Board of the Company at the first Shareholders' Meeting following the redemption of the Bonds into ordinary shares, as long as it holds more than 10% of the share capital and voting rights of the Company. The Company has undertaken to present and recommend a resolution at this Shareholders' Meeting to the effect of appointing a NSSMC representative as a member of the Supervisory Board. This member will be subject to information barriers to prevent the exchange of any competitively sensitive information.

Shares lock-up: As from 1 February 2016 and until the expiration of a twelve-month period from the redemption of the Bonds (or an earlier date in the event of early termination of the shareholders' agreement), NSSMC shall not transfer any Company shares that it owns or may come to own. The shareholders' agreement prohibits the transfer of shares to a competitor of the Company and provides that the sales of shares on the market by NSSMC or a selected investment service provider are subject to orderly disposal requirements. These restrictions are not applicable, subject to certain conditions, in the event of a tender offer or to permitted affiliate transfers.

Standstill undertaking: This shareholders' agreement is accompanied by a commitment to limit the individual or standstill participation of NSSMC to 15% of the voting rights of the Company from 1 February 2016 until expiry of the shareholders' agreement. This standstill undertaking shall not apply upon the occurrence of a tender offer or if a third party comes to hold, acting alone or in concert, directly or indirectly, more than 15% of the Company's share capital or voting rights.

Right of first offer: If NSSMC desires to effect a transfer of the Company's shares to a third party, it shall send to the Company a pre-notification in writing. The Company will then have the right to purchase (or cause another party to purchase) the shares offered under the same conditions.

Industrial agreements: In the event of the termination of the Joint Venture Agreement in Brazil, of the R&D Agreement or the trademark license agreement (dated 1 April 2007) between the Company and NSSMC (and/or their respective affiliates) (see Section 3.3.1.3 of this Registration Document for a detailed description of these agreements):

- due to the fault of NSSMC, NSSMC shall transfer all the Company's shares it holds within six months of the occurrence of the termination, subject to the contractual transfer restrictions applicable to the transfer of shares. NSSMC shall not exercise any voting rights relating to its shares during any Shareholders' Meeting held after the occurrence of the termination; and
- due to the fault of the Company, NSSMC shall either file a tender offer for the securities of the Company (by exception to the standstill undertaking), or transfer its shares without applying the restrictions applicable to transfers of shares (subject only to the prohibition to sell the shares to a competitor, which will remain applicable).

2.4 Market for Vallourec's shares

2.4.1 Stock market

The Company's shares are listed in sub fund A of the Euronext Paris regulated market (ISIN code: FR0000120354-VK). They are eligible for deferred settlement and are a qualifying investment under French laws on equity savings plans (Plan d'Epargne en Actions – PEA).

The Vallourec share is one of the shares traded on the SBF 120, Next 150 and FTSE4 Good indexes.

FTSE classification: engineering and industrial capital goods.

The August 2019 and September 2024 Bonds are admitted to trading on the Euronext Paris stock market under ISIN Codes FR0011302793 and FR0012188456 respectively (see above Section 2.2.6 "Non-equity instruments").

2.4.2 Other potential markets

In October 2010, Vallourec set up a sponsored Level 1 American Depositary Receipt (ADR) program in the United States. This initiative demonstrates the Group's intention to broaden its investor base by enabling a larger number of US-based investors to participate in its future development.

An ADR is a US-dollar-denominated security representing shares in a non-US company, which allows American investors to hold shares indirectly and to trade them on securities markets in the United States. Vallourec's ADRs may be traded on the US over-the-counter (OTC) market.

JP Morgan is the custodian bank responsible for administering the ADR program. Technical information about the ADR program is available on the Group's website under the ADR heading. For further information, ADR holders may contact JP Morgan services, as follows:

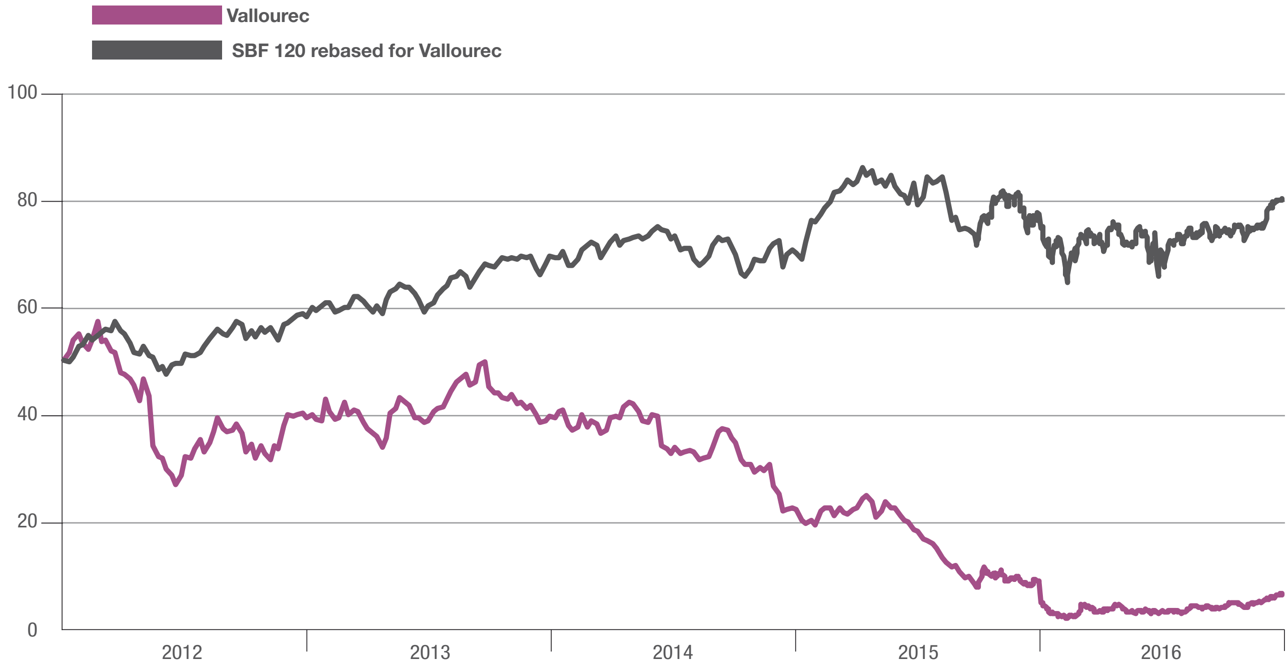
- by phone: (800) 990-1135 (general) or (651) 453-2128 (if calling from outside the USA);
- by e-mail: jpmorgan.adr@wellsfargo.com, or by mail at the following address:

  JP Morgan Service Center
  JP Morgan Chase & Co.

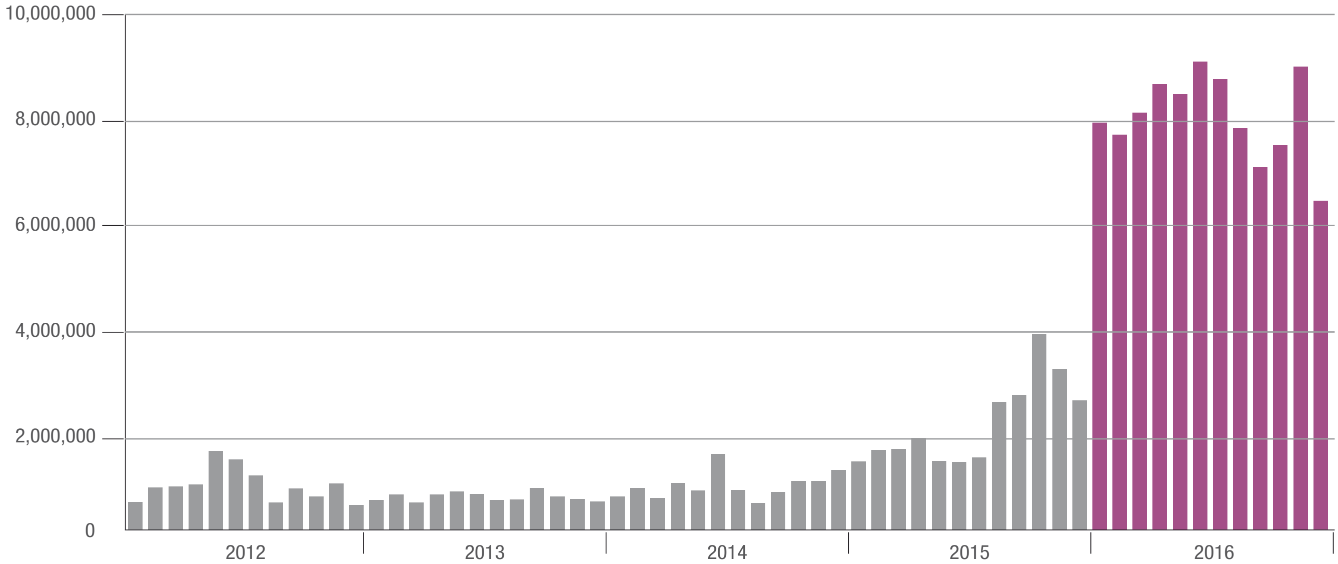
  P.O. Box 64504
  St Paul, MN 55164-0504
  USA

2.4.3 Volumes traded and price performance

Adjusted Vallourec share price performance in the last five years compared to the SBF 120 index



Adjusted monthly average volumes traded per day



Movements in the adjusted share price and market capitalization in the last five years

In €	2012	2013	2014	2015	2016
Adjusted number of shares (as at 31 December)	124,946,356	128,159,600	130,597,975	135,688,432	451,238,005
Highest price	58.24	51.01	43.26	26.79	6.65
Lowest price	25.69	33.05	21.23	7.63	1.93
Average (closing) price for the year	40.05	41.55	34.80	16.43	3.92
Year-end price	39.49	39.60	22.75	8.60	6.55
Market capitalization (year-end price)	4,934,131,598	5,075,120,160	2,971,103,931	1,166,920,515	2,955,608,933

Source: Euronext.

Movements in Vallourec share price and trading volume from January 2016 to February 2017

	Price (in €)			Transaction volume			
				Monthly total		Daily average	
	Highest	Lowest	Last	Number of shares	Capital in € billion	Number of shares	Capital in € billion
2016							
January	5.08	2.32	2.43	153,946,747	0.52	7,697,337	0.03
February	2.98	1.93	2.95	156,847,209	0.39	7,468,915	0.02
March	5.06	2.96	3.45	165,501,800	0.66	7,881,038	0.03
April	4.80	3.10	4.54	176,826,416	0.69	8,420,306	0.03
May	4.48	2.92	3.49	181,141,800	0.62	8,233,718	0.03
June	3.88	2.82	3.21	194,632,401	0.64	8,846,927	0.03
July	3.78	3.00	3.26	178,816,006	0.60	8,515,048	0.03
August	4.63	3.05	3.97	174,653,565	0.68	7,593,633	0.03
September	4.47	3.67	3.99	150,682,789	0.61	6,849,218	0.03
October	5.20	4.03	4.48	152,680,104	0.72	7,270,481	0.03
November	5.40	3.80	5.32	192,651,778	0.90	8,756,899	0.04
December	6.65	5.18	6.55	130,512,712	0.76	6,214,891	0.04
2017							
January	7.47	6.46	6.57	148,809,315	1.04	6,764,060	0.05
February	7.05	5.04	5.18	158,470,474	0.96	7,923,524	0.05

Source: Euronext.

2.5 Dividend policy

For a clear understanding of the following paragraphs, you are reminded that there was a 2:1 stock split on 9 July 2010. To date, the share's par value is €2.

Vallourec's dividend policy, as approved by the Supervisory Board at its meeting on 17 April 2003, is, over the long term, to distribute on average 33% of its consolidated net income, Group share.

Given the negative result in fiscal year 2016, it will be proposed at the Shareholders' Meeting of 12 May 2017 (third resolution) to not pay a dividend for fiscal year 2016.

The average payout ratio of the last five years is 24.7%.

Based on the par value of the Vallourec share as at 31 December 2016, the dividends per share paid for the last five years are as follows:

In € per share	Gross earnings	Tax credit	Net dividend	Payout ratio [(a)]
2012	0.69	none	0.69 [(b)]	39.7%
2013	0.81	none	0.81 [(b)]	39.6%
2014	0.81	none	0.81 [(b)]	44.3%
2015	0	none	0	–
2016 [(c)]	0	none	0	–

(a) The payout ratio is calculated based on the total number of shares outstanding at 31 December.

(b) Note that Ordinary and Extraordinary Shareholders' Meetings of 31 May 2012, 30 May 2013, 28 May 2014 and 28 May 2015 gave each of the Company's shareholders the option to receive payment of the dividend in cash or in shares, in accordance with the laws and regulations in force.

(c) Submitted for the approval of the Shareholders' Meeting of 12 May 2017.

2.6 Financial disclosure policy

The Group's priority is to maintain lasting, trustworthy relations with all its shareholders, whether individual or institutional, French or foreign. The role of the Investor Relations and Financial Communication team is to facilitate shareholders' access to accurate and precise information that faithfully reflects the Group's results, outlook and strategic developments.

Accordingly, and with ongoing concern for clarity and transparency, numerous dedicated communications media are available, and regular meetings are arranged throughout the year.

2.6.1 Information available to all shareholders

Financial information and communications media are electronically available to all shareholders on the Group's website (www.vallourec.com) under the Finance heading, which is an authoritative Group financial communications database. This media includes:

- the activity report, Vallourec at a glance brochure and letters to shareholders;
- all financial and strategic information issued to the financial markets, including quarterly results, press releases, presentations and audio and video conference rebroadcasts;
- all the regulated information disclosed under the European Transparency Directive of 15 December 2004 as amended, which specifically comprises:
  - the Registration Document, including the annual financial report, the half-year report and the management report of the Management Board, filed with the French securities regulator (*Autorité des Marchés Financiers*),
  - documents relating to the Shareholders' Meeting (Notice of Meeting, draft resolutions, voting form, meeting brochure);
- all Group press releases, presentations and publications are available under the Media heading.

This information may be sent by mail following a request made on the Group website or addressed to the Investor Relations and Financial Communication Department by e-mail, telephone or letter.

2.6.2 Relations with institutional investors and financial analysts

On a regular basis and in accordance with best business practices, the Investor Relations and Financial Communication Department organizes, along with various members of the Group's executive management, meetings with institutional investors and financial analysts, including SRI (socially responsible investment) specialists, in France and abroad:

- **each quarter, a conference call is organized** when the financial results are released. Members of the Management Board present the results and answer questions from analysts and investors. The conference call is broadcast live and rebroadcast on the Group's website;
- **each year, a conference is held in Paris,** upon release of the Group's annual results;
- **Vallourec regularly participates in events on socially responsible investment (SRI).** These meetings with investment funds and SRI analysts contribute to the Group's progress in the field of sustainable development;
- **an Investor Day is organized on a regular basis,** where a presentation is made to the financial community on the Group's strategy, products and operations. Accessible to everyone in the form of a video recording that is available on the Group's website, the Investor Day allows investors and analysts to have detailed discussions with the Management Board and the operational supervisors on a wide range of topics, outside of the periods for reporting results.

Moreover, **many events are organized throughout the year between the Group's executive management and the financial community**. In 2016, Vallourec's executive management and the Investor Relations and Financial Communications team took part in nearly 254 meetings and conference calls, and devoted some 29 days to roadshows and conferences, which were mainly dedicated to the oil and gas sector, at the world's leading financial centers, mainly in Europe and the United States.

2.6.3 Relations with individual shareholders

Attentive to the expectations of individual shareholders, the Investor Relations and Financial Communication team provides precise and accessible information to all shareholders throughout the year. To that end, and through various additional media, specific communications methods were developed:

- a dedicated Individual Shareholders' space under the Investors heading of the Group's website (www.vallourec.com);
- posting of financial notices in the national press (release of results, Notice of Shareholders' Meetings);
- specific communications media such as letters to shareholders;
- a toll-free number for individual shareholders (0800 505 110, free of charge from landlines in metropolitan France);
- a newsfeed which allows press releases, notifications of financial publications as well as letters to shareholders to be received;
- Shareholders' Meetings in Paris and the regions, organized jointly with other companies in the oil services sector; a calendar of events is available on the Group's website;
- a Shareholders' Club allows members to take part in events and to engage in discussions more regularly (membership and registration conditions are on the Group website);
- lastly, an Investor Relations and Financial Communication team that is always available to answer questions.

Annual Shareholders' Meeting

The Annual Shareholders' Meeting, which in 2016 was held at Maison de la Mutualité, is a key opportunity for dialog about the Group's performance over the year between individual shareholders and the Group's executive management. The Investor Relations and Financial Communication team is also available to assist shareholders in their efforts to vote and participate in the Shareholders' Meeting.

Informational Meetings

Vallourec regularly participates in informational meetings for individual shareholders, where other companies from the oil services sector are also present. These meetings take the form of conferences/discussions. They gather together several hundreds of current and potential shareholders, enabling them to deepen their knowledge of the Group's activities and of the oil services sector.

Shareholders' Club

Vallourec has a Shareholders' Club. Thanks to this Club, Vallourec seeks to promote a sustained dialog with its shareholders, also strengthening the trusting, close relationships it has built with them. The Shareholders' Club can be accessed via Internet at www.vallourec.com (Investors Section / Shareholder corner) simply by registering online [(1)]. It allows shareholders to participate in events (conferences, discovery workshops, plant visits), engage in regular discussions in order to learn more about the Group's activities and gain a deeper understanding of them. This dialog also helps Vallourec better understand the concerns of its shareholders, and meet their expectations.

The members of the Shareholders' Club were invited to Vallourec's headquarters in Boulogne-Billancourt (France) on 24 November 2016 to attend a presentation on the activities and financial results of the Group given by the Investor Relations and Financial Communications Director and the OCTG Marketing Manager. This presentation was followed by a question-and-answer session.

(1) The regulations of the Shareholders' Club, which detail the terms of membership, are available on Vallourec's website (www.vallourec.com).

Newsfeed

When disseminating its publications, Vallourec provides its shareholders and stakeholders with the possibility of subscribing to a Group newsfeed via the Internet at www.vallourec.com (Investors Section), merely by registering online. The newsfeed allows press releases on the Group's financial results and activities to be received electronically, along with notifications of financial publications and letters to shareholders.

Toll-free number

Vallourec has provided its shareholders with a toll-free phone number (0800 505 110). Free from any landline in mainland France, the number allows shareholders to gain access to information such as the financial agenda, as well as to hear a commentary on the most recent publication of the Group's results. The toll-free number also allows shareholders to get in touch with the Investor Relations and Financial Communication team, or BNP Paribas Securities Services, if the shareholder has registered shares or is interested in acquiring such shares.

Directly registered shares

Vallourec offers its shareholders direct registration of their shares, which includes the following benefits:

- **free management**: direct registered shareholders are totally exempt from custody fees as well as other fees associated with the routine management of their shares such as:
  - conversion to bearer shares and share transfers,
  - changes to legal status: transfers, gifts, inheritance, etc.,
  - securities transactions (capital increases, share allocations, etc.),
  - dividend payments;
- **brokerage fees** of 0.25% of the amount of the transaction up to €200,000 and 0.15% above €200,000 (with a minimum of €4.10);
- **a guarantee of receiving personalized information**: the directly registered shareholder will receive personalized information on:
  - shareholders' meetings, with systematic sending of the Notice of Meeting, an individual form for postal voting or voting by proxy, and upon request, the sending of an application for an admission card, and legal documentation,
  - securities management (purchase and sale orders, etc.), securities transactions organized by Vallourec, etc. To this effect, as well as for other information, a team of dedicated operators is continuously available to shareholders from 8:45 a.m. to 6:00 p.m. (Paris time), Monday to Friday, on +33 (0) 1 40 14 80 17;
- **easy access to the Shareholders' Meeting**: all registered shareholders are automatically invited to Shareholders' Meetings and, to vote, need not go through the prior formality of requesting a certificate of shareholding;
- **a dedicated website**, Planetshares My Shares, can be accessed at: https://planetshares.bnpparibas.com. This site allows you to:
  - manage your assets,
  - issue orders,
  - participate in the Shareholders' Meeting,
  - directly download all communications relating to assets (portfolio trading, transaction notices, etc.).

Further information about direct registration and registration forms may be obtained from BNP Paribas Securities Services:

- Mailing address:

  BNP PARIBAS SECURITIES SERVICES

  Corporate Trust Services
  Relations Actionnaires Vallourec
  9, rue du Débarcadère
  93761 Pantin Cedex France
- by telephone on: +33 (0)1 40 14 80 17
- by fax on: +33 (0)1 55 77 34 17

2.6.4 Contact for Investor Relations and Financial Communications

Investor Relations and Financial Communications Department

- Address: 27, avenue du Général-Leclerc – 92100 Boulogne-Billancourt – France
- Telephone: +33 (0)1 49 09 39 76
- E-mail: investor.relations@vallourec.com or actionnaires@vallourec.com

2.6.5 2017 financial calendar (dates subject to change)

26 April 2017	Release of results for Q1 2017
12 May 2017	Shareholders' Meeting
26 July 2017	Release of results for Q2 and H1 2017
9 November 2017	Release of results for Q3 and 9M 2017

3

Presentation of Vallourec and its Group

3.1 History and development of Vallourec and its Group

The Vallourec Group is over 100 years old, with some Group companies having been established in the last decade of the nineteenth century. Vallourec originated in two regions of France, both with long manufacturing traditions, where the Group still has a significant presence: the Nord region, around Valenciennes and Maubeuge, and the Burgundy region around Montbard, in the Côte-d'Or. Since the 1990s and the creation of the joint venture between Vallourec and Mannesmann, the Group has also been widely established in the Düsseldorf region in North Rhine-Westphalia (Germany) and in the region of Belo Horizonte in the state of Minas Gerais, Brazil. In the first decade of the new millennium it strongly developed its positioning in North America and established itself in Asia. Also present in Africa and the Middle East, Vallourec is now an international group, operating close to its customers.

1886-1930: INVENTION OF THE SEAMLESS STEEL TUBE ROLLING PROCESS

The Mannesmann brothers filed a patent which revolutionized the tube industry: thanks to a rolling mill with an oblique cylinder piercer, they were able to produce seamless steel tubes.

In the late XIXth century, in France, tube manufacturers began to adopt the seamless tube manufacturing process that had been perfected by the Mannesmann brothers in Germany. The Société Métallurgique de Montbard was created in 1899 to take over Société Française de Fabrication des Corps Creux, which had operated a plant in Montbard since 1895. Listed on the Paris Bourse since its founding in 1899, in 1907 it was renamed Société Métallurgique de Montbard-Aulnoye, which changed to Louvroil-Montbard-Aulnoye in 1937 after the takeover of Louvroil et Recquignies, itself a company resulting from a merger between Société Française pour la Fabrication des Tubes de Louvroil, founded in 1890, and Société des Forges de Recquignies, established in 1907.

1930: BIRTH OF VALLOUREC

The economic crisis prompted French tube manufacturers to join forces. The name Vallourec appeared for the first time as the name of a management company for tube plants in Valenciennes, Denain, Louvroil and Recquignies.

1957: LISTING OF VALLOUREC ON THE PARIS STOCK EXCHANGE

The Société des Tubes de Valenciennes and Société Louvroil-Montbard-Aulnoye merged. This Group became the second biggest manufacturer of steel tubes in France, and was listed on the Paris Stock Exchange under the name Vallourec.

1965: LAUNCH OF THE VAM® CONNECTION

A major innovation, the VAM® connection (named for Vallourec and Alexandre Madrelle, the engineer who developed the connection) revolutionized the oil industry. Thanks to unique mechanical features, it ensures complete sealing of the strings inside the well.

1976: INDUSTRIAL PARTNERSHIP WITH SUMITOMO

The development of the oil market prompted Vallourec to build industrial partnerships in order to meet its customers demand worldwide. In 1976, Vallourec signed a licensing agreement with the Japanese group Sumitomo (the third largest producer of steel tubes worldwide) and created a joint venture with it in 1984 to produce and market VAM® connections on the other side of the Atlantic. These agreements were the starting point for an ongoing collaboration.

1997: CREATION OF THE JOINT VENTURE BETWEEN VALLOUREC & MANNESMANN TUBES

Created in 1890, shortly after the Mannesmann brothers' revolutionary discovery of the seamless steel tube rolling process, Mannesmannröhren-Werke AG quickly became a world benchmark. The formation of Vallourec & Mannesmann Tubes, a joint subsidiary of Vallourec (55%) and the German company Mannesmannröhren-Werke (45%), allowed the two companies to offer their customers the widest range of tube sizes in the world.

2000: DEVELOPMENT IN BRAZIL

Vallourec & Mannesmann Tubes acquired the Brazilian subsidiary Mannesmannröhren-Werke, now known as Vallourec Tubos do Brasil S.A.

2002: STRENGTHENING OF THE GROUP'S PRESENCE IN THE UNITED STATES

Established since 1984 in the United States, the reference market for tubes for oil and gas well equipment (Oil Country Tubular Goods – OCTG), Vallourec has significantly strengthened its presence in the United States through the acquisition of the seamless steel tube activity of North Star Steel Company (North Star Tubes), which includes an electric steel mill and a tube mill in Youngstown (Ohio), along with a heat treatment and threading unit in Houston (Texas). Now called Vallourec Star, this company is 80.5% controlled by Vallourec Tubes and 19.5% controlled by Sumitomo Corporation.

2005: ACQUISITION BY VALLOUREC OF COMPLETE CONTROL OF VALLOUREC & MANNESMANN TUBES

Vallourec gained full control of Vallourec & Mannesmann Tubes through the acquisition of the 45% stake held by Mannesmannröhren-Werke for €545 million. This major transaction gave Vallourec full control over implementing the strategy of the joint venture.

2005-2006: STRENGTHENING OF THE DRILLING TUBE ACTIVITY

Vallourec acquired the assets of the Omsco Division of ShawCor in the United States (Houston). This acquisition allowed Vallourec to become the second largest drilling tube operator for the oil & gas market in the world. This position was strengthened in 2006 with the acquisition of SMFI (Société de Matériel de Forage International) in France. These activities were combined under the name Vallourec Drilling Products.

2006-2011: EXPANSION IN CHINA

In an effort to pursue its growth in the area of tube production for the Power Generation market, in 2006 Vallourec opened a subsidiary, Vallourec Changzhou Co., Ltd, which was established in Changzhou, China, specialized in the cold-finishing of large-diameter seamless alloy steel tubes, produced in Germany for power plants.

In the same year, VAM Changzhou Oil & Gas Premium Equipments was created to operate a mill in Changzhou for threading tubing to equip oil and gas wells. Production began in mid-2007.

In an effort to further strengthen its presence on the Chinese market, in 2011 the Group acquired 19.5% of Tianda Oil Pipe Company Limited (TOP), a Chinese manufacturer of seamless tubes, listed on the Hong Kong Stock Exchange. Under the terms of a cooperation agreement with TOP, VAM Changzhou Oil & Gas Premium Equipments threads premium tubes manufactured locally by TOP for the Chinese premium OCTG market.

2008: ACQUISITIONS IN THE UNITED STATES

To strengthen its positions in products with high added value, Vallourec acquired Atlas Bradford® Premium Threading & Services, TCA® and Tube-Alloy™ from Grant Prideco. These companies are specialized, respectively, in the production of premium connections, the heat treatment of high-grade alloy steel tubular products, as well as the production and repair of accessories used inside oil and gas wells, and in complex threading operations. In 2009, Atlas Bradford® Premium Threading & Services and TCA® merged respectively with VAM USA LLC and Vallourec Star.

2009-2010: NEW TUBE PRODUCTION CAPACITIES FOR NUCLEAR POWER PLANTS

Valinox Nucléaire, a Vallourec subsidiary specialized in the manufacturing of steam generator tubes, invested in new production capacities in Montbard (Côte-d'Or, France) to meet the growing needs of the nuclear energy market. In order to assist in the strong growth of the Chinese nuclear fleet, Valinox Nucléaire also invested in a new production unit in Guangzhou, in the southeast of China.

2009-2010: DEVELOPMENT IN THE MIDDLE EAST

In 2009, Vallourec acquired DPAL FZCO, a drill pipe supplier established and based in Dubai. This acquisition allowed Vallourec Drilling Products to increase its presence in the Middle East and to supply local and international customers of the Group. In 2010, the Group acquired the Abu Dhabi-based Protools, the biggest drill pipe accessories producer in the Middle East, thus enabling it to offer comprehensive solutions for the whole drill string.

2010: CONSOLIDATION OF THE PREMIUM SOLUTIONS OFFER

Vallourec acquired 100% of Serimax, the world leader in welding solutions for offshore line pipes. This acquisition supplemented Vallourec's activities in the area of offshore line pipes and allowed the Group to offer its customers integrated solutions.

2011: STRENGTHENING OF THE GROUP'S INDUSTRIAL PRESENCE IN BRAZIL AND THE MIDDLE EAST

In 2011, the new joint industrial site for Vallourec & Sumitomo Tubos do Brasil, held 56% by Vallourec and 44% by Sumitomo, was commissioned at Jeceaba, in the state of Minas Gerais, Brazil. This premium industrial site includes a steel mill, a tube mill, and a group of heat treatment, threading and finishing lines. It employs 1,600 people and has a production capacity of 1 million metric tons of steel and 600,000 metric tons of tubes per year.

In the same year, Vallourec acquired Saudi Seamless Pipes Factory Company Ltd, the leading processing and finishing company for seamless OCTG tubes in Saudi Arabia. Vallourec thus became the leading player in the OCTG market to have local access to integrated heat treatment and threading facilities, to which it added a new threading line of VAM® connections.

2012: PARTICIPATING IN THE DEVELOPMENT OF UNCONVENTIONAL HYDROCARBONS IN THE UNITED STATES

Vallourec began operating a new premium small-diameter tube mill in Youngstown (Ohio), thereby covering a full range of products and services necessary for the production of all hydrocarbons, especially those relating to shale oil and gas.

2013: VALLOUREC, THE SINGLE BRAND FOR ALL COMPANIES OF THE GROUP

Since the formation of the joint venture Vallourec & Mannesmann Tubes, numerous entities of the Group operated under the V & M brand. In 2013, in an effort to contribute to strengthening its world leadership and assisting its growth strategy, Vallourec combined all of its entities under the same name: Vallourec, attesting to the successful consolidation of the numerous companies acquired by the Group worldwide.

2014: VALLOUREC SIGNS SEVERAL MAJOR CONTRACTS IN AFRICA

Having established a presence in Angola via a service center since 2007, Vallourec opened a sales office in Nigeria and a premium tube threading plant in 2009. In 2014, Vallourec signed three major contracts in Africa—in Ghana, Nigeria, and Angola—for deepwater wells. As a result, Vallourec has provided more than 66,000 metric tons of subsea line pipes and premium tubular solutions for use in highly complex projects in the region.

2015: VALLOUREC DEPLOYS VALENS, ITS TWO-YEAR COMPETITIVENESS PLAN

At the beginning of 2015, Vallourec announced that it had launched "Valens", a two-year competitiveness plan aimed at cost reduction and cash flow optimization.

In parallel, Vallourec launched a streamlining process for its European steel tube production units, including the search for a majority-stake partner for the French steel mill at Saint-Saulve, to remedy the steel production overcapacity.

2016: VALLOUREC ACCELERATES ITS TRANSFORMATION AND ANNOUNCES MAJOR STRATEGIC INITIATIVES

On 1 February 2016, the Group announced major strategic initiatives aiming at transforming its operational set-up, improving its competitiveness in the short and longer term and reinforcing its financial strength to secure long-term profitable growth and sustained shareholder value creation. These strategic initiatives are described in Section 3.4.3 of this Registration Document, "Significant Events in 2016 and Early 2017".

3.2 The Group's activities

The Group is a world leader in premium tubular solutions, primarily for the energy markets and other industrial applications. With nearly 19,000 employees in 2016, integrated production sites, state-of-the-art Research and Development (R&D) and a presence in over 20 countries, the Group offers its customers innovative global solutions tailored to the energy challenges of the twenty-first century.

Originally based in France and Germany, Vallourec now has frontline positions in the United States, Brazil, Europe, the Middle East and Asia. With more than 50 production units and finishing lines around the world, Vallourec has integrated sites combining steel mills and tube mills in Europe, the United States and Brazil.

3.2.1 Products and services

3.2.1.1 Overview

The Group is a world leader in premium tubular solutions—high-performance solutions whose manufacture requires significant technological and industrial expertise—in addition to related specialized services that provide customers with a complete range of innovative solutions to meet their strictest requirements. The Group has a large portfolio of tubular products that is diversified, original and has high added value, including:

- the most extensive range of seamless tubes in the world, up to 1,500 mm in external diameter, with a variety of more than 250 steel grades;
- specialty tubes; and
- connections and accessories.

The Group offers products in many sizes and proportions (i.e., length, diameter, and thickness), as well as varied composition grades (such as high-grade and low-grade carbon steel alloys, stainless steel and nickel alloys, etc.), enabling it to offer its customers a wide range of tubular products.

The Group offers products and services for the following three markets:

- Oil & Gas;
- Power Generation; and
- Industry (Mechanicals, Automotive and Construction).

Developments in these three markets in 2016, and the outlook for these markets going forward, are presented in Section 3.4.1 of this Registration Document.

3.2.1.2 Products and services for the Oil & Gas market

PRODUCTS FOR THE OIL & GAS MARKET

Vallourec offers a line of tubular solutions to the oil and gas industry that satisfies the strictest requirements and covers the entire chain of production, from exploration to production and transport of oil and gas.

The Group's premium product lines are adapted to the most extreme and increasingly complex challenging environments, such as:

- deep wells;
- corrosive environments;
- deviated and horizontal wells;
- HP/HT (high pressure/high temperature); and
- offshore drilling.

The Group's products and services cover the entire production chain of the Oil & Gas sector: exploration, development and production, transport and processing:

- **OCTG:** Vallourec OCTG (Oil Country Tubular Goods) products are seamless threaded tubes that are found in a large number of oil and gas wells throughout the world (casing and tubing). The tubes are generally connected using premium threaded VAM® connections, which are trademarked by Vallourec;
- **Drilling:** Vallourec offers all types of drilling equipment: drill pipe, downhole tools and accessories;

- **Transport and Processing:** gas and oil are transported from the well to the processing site, whether offshore or onshore, using Vallourec tubes and accessories. These stainless steel, super duplex welded tubes for umbilical applications connect seabed equipment to the control station at the surface.

Tubes and accessories for the Oil & Gas market

Oil Country Tubular Goods ("OCTG")

For production phases, the Group offers OCTG products, threaded tubes designed for oil and gas well equipment. The OCTG products produced by the Group include casing, which consists of tubes that are assembled using sealed connections to form a column supporting the walls of an oil or gas well. The Group also offers tubing, consisting of steel tubes, smaller in diameter, assembled using leak-tight connections to form a production column used to lift the fluids produced from the bottom of the well towards the surface.

The sealed assembly of OCTG premium tubes relies on VAM® connections offered by the Group (described below in the section on VAM® Connections), these connections have technical characteristics that enable them to withstand the strong forces that the OCTG products are subjected to under extreme conditions.

OCTG activities are being developed in Europe, Africa, the Middle East and Asia (OCTG EAMEA), as well as in North America (OCTG North America) and South America. Each region integrates steel production, tube rolling, and heat treatment and threading facilities.

Drilling

The Group offers a complete range of products and services related to its tubular drilling products to support all types of activities for the Oil & Gas drilling market. This includes an exclusive modular set of drill pipes and API drill pipes (corresponding to the norms of the American Petroleum Institute), heavyweight drill pipes, drill collars, non-magnetic drill collars, and drilling accessories, including safety valves and other drilling accessories. The Group also provides after-sale products and customer services for the maintenance and repair of drilling equipment at certain of its locations worldwide.

For a description of the activities of the "Drilling Products" Division, see Section 3.2.6.2.7 of this Registration Document.

VAM® connections

VAM® connections, used for Oil & Gas activities, are premium threaded connections invented and patented by Vallourec. They provide tubes with connections that are resistant to pressure and compression and ensure a perfect seal.

The development of the VAM® connections is a joint activity of Vallourec and Nippon Steel & Sumitomo Metals Corp (NSSMC). This cooperation has helped make the VAM® brand a global standard in the OCTG market. The launch of the new VAM® 21, a new premium threaded connection which meets the most stringent industry specifications (ISO CAL IV), and a new Cleanwell Dry® grease-free dry lubrication solution, reflect this dynamic partnership. The cooperation between Vallourec and NSSMC was reinforced as part of the strategic initiatives announced on 1 February 2016 (see Section 3.4.2 "Significant Events in 2016 and Early 2017" of this Registration Document).

Vallourec filed the first VAM® patent in 1965. Since then, the Group has developed more than thirty VAM® product lines, covering all applications and enabling the Group to adapt to highly diverse environments, including:

- VAM® 21™: available in diameters of 5 to 14 inches (approximately 10 to 30 centimeters). This innovative connection, which is as resistant as the tube itself, was the first to offer performance meeting the CAL-IV standard defined in the most recent changes to ISO 13679 and API RP 5C5, two technical specifications required by Oil & Gas customers for their harshest-condition applications. New versions are constantly being added to respond to specific needs, such as versions with high torque capacity or versions dedicated to thick tubes. The connection has been used successfully on the most demanding offshore projects from the Gulf of Mexico to the coast of West Africa, in a large range of sizes (for tubing and casing applications) and grades of steel;
- VAM® HTTC™: designed for strongly deviated wells with long horizontal sections, the VAM®HTTC™ (High Torque Threaded and Coupled) connection for casing and tubing resists extreme torques and compressions when the column is installed and maintains a perfect seal during production phases. It is a high value-added product that makes the most complex horizontal drilling both possible and secure. Successfully qualified by a major operator in the Middle East at the end of 2014, it is now available in various sizes;
- VAM® SG™ and VAM® EDGE SF™: the Group is very involved with non-conventional oil and gas deposits in the United States and has developed connections to address these highly specific needs. Discussions with industry professionals revealed an immediate need for premium connections designed for wells with medium-length horizontal sections (2,000 to 5,000 feet) and enabled Vallourec to anticipate a future need for a connection designed for longer horizontal connections (up to 10,000 feet), making it possible to limit the number of wells. The VAM® SG™ connection was developed in a very short period of time to satisfy immediate needs. To respond to the second issue, Vallourec's R&D teams developed the VAM® EDGE SF™ connection, which was released and qualified in 2013. The technical characteristics of this new high-end connection are perfectly tailored to this type of drilling, in particular boasting better resistance to tension and to high torque, as well as gas tightness in compliance with the strictest ISO standards;
- VAM® BOLT™ is a premium integral connection for large-diameter casing. Its mechanical integrity and seal make it especially well-suited to high-pressure, high-temperature deepwater wells, which are common in the Gulf of Mexico, off the Brazilian coast and in the Gulf of Guinea, as well as in North Africa and the Asia Pacific region;
- in addition, Vallourec has expanded its high-performance integral connection offerings. With an expanded performance range and validated under the strictest standards, the VAM® SLIJ-II™, and VAM® HTF-NR™ can be found in many of the most difficult wells;
- in 2016, the Group pursued an ambitious research program on Cleanwell®, a dry coating applied to VAM® connections which provides grease-free lubrication and protects the threading from corrosion during transport and storage. The second generation of Cleanwell was launched on the market, and the first orders were produced on a dedicated line built on the Aulnoye Aymeries site in 2016.

To make the VAM® range the leader in premium joints, Vallourec consolidated coordination of the Research and Development Departments involved with this product line under Vallourec Oil & Gas France, and set up a worldwide network of licensees. To accomplish this ambitious program of research on OCTG connections, in 2016 the Group completed a major project to increase testing capacity in France, the United States and Brazil.

The Group also continued to develop its site services network, which provides worldwide coverage from service centers based in Scotland, the United States, Mexico, Singapore, China, Angola, Nigeria and the Middle East. Since 2008, Vallourec has also produced petroleum accessories related to the VAM® joint through its subsidiary Vallourec Tube-Alloy, LLC (USA). This expertise is deployed in Mexico, Brazil, France, Singapore and Indonesia to provide, as a complement to its network of licensed partners, global coverage for accessory requirements to meet customer needs for the VAM® joint.

VAM® is found throughout the world and is used in the most ambitious projects.

Development of high-performance steels for OCTGs

To combat corrosion in oil and gas wells, major research programs are underway to create high-tensile carbon steels resistant to H_2S corrosion. A program is also underway to develop CRA (Corrosion-Resistant Alloy) and chrome alloys for the most critical corrosive conditions. These developments require significant testing resources, which the Group has doubled over the last three years.

Tubes and accessories for the transportation in Oil & Gas market

The Group's product line for transportation includes the following:

- rigid subsea line pipes (production and injection lines; flowlines, which are pipes that rest on the seabed for the transport of production or injection fluids; and risers, which bring fluids up from the wellhead to the surface and then connect them to processing units);
- onshore rigid line pipes;
- specialized tubes for umbilicals, through its subsidiary Vallourec Umbilicals -France, which manufactures and sells super duplex welded steel tubes for umbilicals, which are structures comprising tubes, cables and/or optical fibers that are used to connect seabed equipment to a control station at the surface for applications in the offshore oil industry; and
- process tubes.

Tubes for the processing of industrial fluids as well as gas and oil

The Group offers a wide range of carbon steel and steel alloy tubes, as well as hollow bars (semi-finished tubes for later processing into a product that meets the needs of a specific market) and connections adapted to the needs of each project.

In particular, for petrochemicals, the Group is a supplier of seamless tubes for refineries, petrochemical facilities, floating liquefied natural gas (LNG) plants, and production, storage and offloading units (FPSO). It also supplies welded titanium tubes for heat exchangers at saltwater desalination plants and liquefied natural gas (LNG) plants.

SERVICES FOR THE OIL & GAS MARKET

To respond to the needs of its customers (operators, engineering firms, and distributors) in terms of efficiency and cost, Vallourec has increased its offerings to include products tailored to specific project needs, and has also supplemented its range with innovative services such as on-site offshore and onshore welding, coating, bending, and complex project management. For example, Vallourec has delivered projects in which it managed execution of all of the tube production, coating, welding, and manufacture of the line pipe to be installed in the water. Innovation, risk management, and cost reduction are at the heart of the strategy to create value for the Group's customers.

As a result, Vallourec offers a series of services to its customers through Vallourec Global Solutions, which assists customers and provides them with the benefit of Vallourec's know-how throughout the lifetime of the well. These services include:

- the Field Service offering, which includes more than 200 technicians and engineers in 17 locations throughout the world, available 24 hours per day at the well site to assist customers in lowering tubes, inspecting connections, and supervising assembly. Furthermore, the Group has entered into partnerships with more than 200 licensees to repair Vallourec products and thread tubes with VAM®;
- inventory management, in which Vallourec's logistics engineers can manage, at the customer's request, their tubular product inventory and coordinate the preparation of tubes to be sent to the platform;
- advisory services in which Vallourec provides guidance including with respect to well design. In particular, Vallourec helps provide the best tailored tubing and casing (in terms of sizing and steel grade) and the connections that best respond to the customer's drilling requirements; and
- training sessions in which "Tubular Essentials" are provided by the Group's experts to teach operators best practices for optimal use of tubes, handling, and inventory management.

The Group can also offer a series of services tailored to the customer's needs. For example, in 2013 Vallourec signed two five-year service agreements with Petrobras covering tube inspection and repair, on-site services, preparation for drilling operations, and well coordination and supply based on the drilling plan.

The Group also offers specific integrated solutions for the subsea line pipe market, including welding, coating, insulation, logistics and service agreements that may be specifically entered into depending on the customer's needs, such as for the ultra-deep offshore project off the coast of Ghana. In partnership with a thermal insulation specialist, Vallourec provides line pipes using "pipe-in-pipe" technology, in which the line pipe is covered with an insulating, high-performance material and then inserted into another tube. This technology keeps oil and gas at the proper temperature to ensure that it flows properly during transport from the wellhead to the production platform.

In addition, the Group offers welding services, primarily through the following subsidiaries:

- Serimax – France, a global leader in integrated welding solutions for offshore line pipes, with an international presence consisting of service units close to project sites. In 2015, Serimax acquired a new welding research center in order to develop joint research programs with its customers and to respond to projects' increasing technical requirements;
- Serimax Field Joint Coating – UK, which carries out coating activities on the end-to-end welded section of line pipes both onshore and offshore on installation vessels, complementing the welding solutions offered by Serimax.

3.2.1.3 Products and services for other markets

The Group offers complete solutions for the Power Generation market through an entire line of tubes for the construction of nuclear and conventional power plants, as well as for the industrial market (Mechanical, Automotive and Construction) through its line of hollow sections, tubes and hollow bars.

PRODUCTS AND SERVICES FOR THE POWER GENERATION MARKET

Vallourec's tube portfolio for the Power Generation market is the largest in the world. For conventional thermal power plants, new generation "ultra-supercritical" coal plants, or nuclear power plants, Vallourec responds to the different needs of power producers.

The Group offers its customers seamless tubes for boilers and steam generators, in all sizes and all grades, from carbon steel to nickel alloy, through high alloy steel. The tubes cover all the carbon steel grades required in power plants and the entire size range, from small diameters for boiler tubes to very large diameters for steam pipes.

Vallourec's products respond to the challenges of power producers, and the Group's services support their performance, from logistics to risk assessment and customer-specific training.

PRODUCTS AND SERVICES FOR THE INDUSTRIAL MARKET

Products offered to customers in the industrial market are designed for highly varied mechanical, automotive and construction uses. The Group produces tubes, hollow bars (semi-finished tubes for later processing into products meeting the needs of a specific market), and sections (circular, square or rectangular sections for a vast array of applications), in all sizes and grades of steel. Its offerings respond to the needs of the most varied and demanding industrial applications with special grades of steel.

Vallourec's premium tubular solutions are found in much infrastructure construction: bridges, stadiums, airports and other ambitious architectural projects. The mechanical industry uses Vallourec's tubes and rings to manufacture cranes and agricultural machinery. Automotive manufacturers equip their heavy-weight and light-weight vehicles with the Group's tubes and axles. The energy sector also relies on the Group to build its offshore jack-up platforms. Finally, the patented marine innovation PREON® reduces the environmental footprint of ocean-based wind turbines.

3.2.2 Markets and customers

3.2.2.1 Vallourec's markets

The Group's principal market is the Oil & Gas and Petrochemicals market, representing 64.8% of the Group's revenue in 2016. The table below shows the breakdown of the Group's revenue by market in 2015 and 2016.

In € million	2015	% of revenue	2016	% of revenue
Oil & Gas	2,361	62.1%	1,791	60.4%
Petrochemicals	205	5.4%	129	4.4%
Oil & Gas and Petrochemicals	**2,566**	**67.5%**	**1,920**	**64.8%**
Power Generation	**559**	**14.7%**	**486**	**16.4%**
Mechanicals	363	9.6%	279	9.4%
Automotive	114	3.0%	101	3.4%
Construction and other	201	5.3%	179	5.6%
Industry and other	**678**	**17.8%**	**559**	**18.8%**
TOTAL	**3,803**	**100.0%**	**2,965**	**100.0%**

For an analysis of changes in the Group's markets, see Section 3.4.1, "Market Environment", and for an analysis of changes in revenue by market, see Section 3.5 "Results of Operations" of this Registration Document.

3.2.2.2 Geographic regions

The Group's products are sold to customers throughout the world, principally in Asia and the Middle East (28.6% of the Group's revenue in 2016), in Europe (21.8%) and in North America (18.9%). The table below shows the breakdown of the Group's revenue by geographic region in 2016.

In € million	2015	% of revenue	2016	% of revenue
France	114	3.0%	91	3.1%
Germany	316	8.3%	280	9.4%
Other EU countries [(a)]	419	11.0%	276	9.3%
Total Europe	**849**	**22.3%**	**647**	**21.8%**
North America	**1,096**	**28.8%**	**559**	**18.9%**
Brazil	555	14.6%	456	15.4%
Other Central & South America	41	1.1%	11	0.3%
Total South America	**596**	**15.7%**	**467**	**15.7%**
China	262	6.9%	257	8.6%
Other Asia and Middle East	590	15.5%	591	20.0%
Asia and Middle East	**852**	**22.4%**	**848**	**28.6%**
CIS	31	0.8%	27	0.9%
Rest of the world	379	10.0%	417	14.1%
Total Rest of the world	**410**	**10.8%**	**444**	**15.0%**
TOTAL REVENUE	**3,803**	**100.0%**	**2,965**	**100.0%**

(a) Other European Union countries, excluding Germany and France.

For an analysis of the variation in the Group's revenue by geographic region, see Section 3.5, "Results of Operations" of this Registration Document.

3.2.2.3 Principal customers

The Group's most important customers include:

- in the Oil & Gas market, international oil companies (for example Total, Chevron, Exxon and Shell), national companies (such as Aramco, Adnoc, Petrobras and Sonatrach), private independent companies, American distributors (like B&L, Pipeco, Premier Pipe and Pyramid) and engineering and construction companies (for example Petrofac and TechnipFMC);
- in the Power Generation market, European and Asian suppliers of boilers and equipment (for example Dong Fang, Doosan, MHSP and Areva); and
- in the Industry market, European and international distributors (for example ThyssenKrupp, Hoberg & Driesch, Van Leeuwen and Buhlmann).

In certain geographical markets, and in particular in the United States and in Germany, the Group's principal customers are distributors. In the rest of the world, the Group's customers are end-users.

In 2016, the Group's 10 largest customers represented 33% of consolidated revenue, and the five largest customers represented 25% of consolidated revenue.

3.2.3 Information on the competitive position of the Company

The information below is broken down into the various markets in which Vallourec participates. It is based on the Group's internal analyses and constitutes the Group's own estimates.

See Section 5.1.4 "Risks related to competition" of this present Registration Document.

3.2.3.1 Oil & Gas

Vallourec operates in three markets: threaded seamless tubes for the equipment of oil and gas wells used for exploration and production (OCTG), drill pipe, offshore and onshore line pipe for oil and gas transportation:

- in the OCTG market, Vallourec is among the world's leading suppliers of premium products in terms of volumes delivered:
  - in the market for premium connections that satisfy demanding technical performance criteria, the VAM® range, produced in cooperation with NSSMC, is the world leader,
  - the Group's main competitors in the OCTG market are Tenaris, NSSMC, JFE, US Steel Tubulars, TMK, TPCO and Voest Alpine Tubulars;
- in drill pipes, Vallourec is No. 2 in the world by volume, after NOV Grant Prideco (United States). Most of the other competitors are Chinese and American companies;
- Vallourec is one of the three major players in the offshore line pipe market with Tenaris and NSSMC:
  - the Group has a very strong position in the segment of seamless tubes for deep water (over 500 meters) projects, which require high-tech products,
  - Vallourec has also positioned itself as the world leader in welding solutions for offshore line pipe through its subsidiary Serimax, which offers welding solutions for onshore line pipe,
  - in late 2013, Vallourec launched a new premium line of welded stainless steel tubes that can be fitted into umbilicals at offshore oil and gas fields. The first tubes were successfully assembled in 2016 in the North Sea (Glenlivet project, Scotland);
- Vallourec is also present in the onshore line pipe segment, as well as in welding through Serimax.

3.2.3.2 Petrochemicals

Vallourec is a supplier for several applications:

- seamless tubes for refineries, petrochemical facilities, floating liquefied natural gas (LNG) plants, and production, storage and offloading units (FPSO): Vallourec is a significant market player, its main competitors being Tenaris, Arcelor Mittal, NSSMC and Chinese groups;
- welded titanium tubes for heat exchangers at saltwater desalination plants and liquefied natural gas (LNG) plants: Vallourec was one of the world market leaders, through its Vallourec Heat Exchanger Tubes subsidiary (which left the Group on 29 April 2016 to join the American Industrial Acquisition Corporation (AIAC) and become NEOTISS). Its main competitors are Korean and Japanese companies, as well as new Chinese players.

3.2.3.3 Power Generation

Vallourec is the global leader in this segment, offering the largest range of tubes, product sizes and steel grades (including patented grades) in the world. The Group is a supplier for several applications:

- seamless carbon and alloy steel tubes, mainly for thermal power plants: screen panels, header pipes, economizers, evaporators, superheaters, reheaters and piping. Its main competitors are Baosteel, Changbao and Hengyang;
- nickel-alloy seamless tubes for steam generators at nuclear power plants: in these very technically demanding markets, Vallourec's market share outdistances those of its two main competitors, NSSMC and Sandvik.

3.2.3.4 Mechanicals

Vallourec is the European leader in seamless tubes for Mechanicals applications. This market is characterized by:

- a wide range of applications, including tubes for hydraulic cylinders, construction and civil engineering cranes, industrial building frames, public facilities and oil rigs, etc.; and
- numerous alternative techniques: welded tubes (particularly from Tata Steel), drilled steel bars, cold-drawn tubes, forged and formed tubes, etc.

3.2.3.5 Automotive

Through its subsidiary Vallourec Bearing Tubes, Vallourec is No. 2 in the European market for ball-bearing rings manufactured from seamless tubes. The Group supplies products for a range of applications, in particular those in the automotive industry. Its main competitors are Ovako and Maxhütte.

In Brazil, Vallourec Tubos do Brasil S.A. is the market-leading manufacturer of the following products made from forged tubes and hot-rolled or cold-drawn seamless tubes: suspension shafts, steering columns, drive shafts and ball bearings. Vallourec Tubos do Brasil S.A. supplies a complete range of axle bearings, primarily for heavy-goods vehicles but also for cars, heavy plant and agricultural machinery.

3.2.4 The Group's facilities

The Group's teams and premium solutions are located where its customers are. The Group has more than 50 production units throughout the world. The Group's facilities include:

- 5 steel mills: two in Europe, one in the United States and two in Brazil;
- 16 rolling mills in Europe, the United States, Brazil and Asia;
- 6 Research and Development centers, described in Section 3.3 of this Registration Document;
- 33 finishing units;
- numerous sales offices and service centers located near our customers; and
- a forest and a mine in Brazil.

At the start of 2016, the Group's rolling capacities were broken down as follows:

- Europe: 1,350 metric kilotons, or 46% of the Group's total capacity;
- North America: 750 metric kilotons, or 25% of the Group's total capacity; and
- Brazil: 800 metric kilotons, or 27% of the Group's total capacity.

Following the implementation of major strategic initiatives described in Section 3.4.2 "Significant Events in 2016 and Early 2017" of this Registration Document, the Group's rolling capacities are broken down as follows:

- Europe: 700 metric kilotons, or 23% of the Group's total capacity;
- North America: 750 metric kilotons, or 24% of the Group's total capacity;
- Brazil: 1,100 metric kilotons, or 35% of the Group's total capacity, of which 300 metric kilotons dedicated to NSSMC;
- China: 550 metric kilotons, or 18% of the Group's total capacity, including 200 metric kilotons dedicated to export outside the Chinese market.

3.2.5 Procurement

3.2.5.1 Raw materials and purchasing

The Group's purchases for production activities are broken down as follows:

- raw materials (ferrous alloys, cored wires, electrodes, refractories, scrap steel, etc.);
- pre material (roundbars, flat products, etc.);
- manufacturing consumables and supplies (mechanical and electrical supplies, cutting tools, lubricants, thread protectors, etc.);
- maintenance (services and spare parts); and
- energy (electricity, natural gas, etc.).

Purchases consumed for the production during 2015 and 2016 included the following:

In € thousand	As of 12/31/2015	As of 12/31/2016
Scrap metal and ferrous alloys	154,533	236,568
Rounds/billets	467,433	470,726
Flat parts	38,945	11,817
Tubes	250,249	102,314
Miscellaneous (a)	308,796	243,272
TOTAL (b)	**1,219,956**	**1,064,697**

(a) *Including change in inventories.*

(b) *Including €935 million (in 2016) and €1,201 million (in 2015) of raw materials classified in cost of raw materials consumed. The balance is composed of miscellaneous purchases (consumables, tools, etc.) classified in other industrial costs.*

The purchase of rounds and billets represented 44% of the Group's consumed purchases in 2016, and the purchase of tubes represented 10%.

Other purchases include the following purchases:

- non-production:
  - external services (engineering, temporary labor, waste treatment, industrial cleaning, etc.),
  - IT (software, hardware, network, professional services, etc.), and
  - transportation (sea, air, road, rail, warehousing, etc.);
- solutions:
  - major equipment infrastructure and investments, and
  - customer-specific solutions.

See Chapter 5, "Risk Factors" of this Registration Document for a description of the risks related to changes in the prices of raw materials.

3.2.5.2 Sourcing policy

The Group has implemented a structured, consistent purchasing strategy providing a balance between central management and local guidance:

- use and continued improvement of effective purchasing processes to optimize the Group's performance in terms of quality, cost, and delivery times;
- together with the Group's internal customers, selection of the best suppliers on the basis of business line needs, purchasing strategies by area, supplier risk analysis and criteria approved before the calls for tender are launched;
- sharing a solid contractual approach with all of the Vallourec entities that takes local characteristics into account to limit risks, ensure compliance with global directives and improve visibility;
- sharing a common approach and monitoring suppliers to improve the Group's performance in terms of quality, cost and delivery times, as well as social and environmental responsibility;
- identifying and minimizing the supplier risks borne by the Group under its ongoing responsible purchasing policy;

The purchasing function is centralized regionally or globally according to purchasing family, whenever pertinent. Supply is primarily managed locally and gradually merged into the regional shared services centers.

3.2.6 Organization of the Group

3.2.6.1 Organizational chart

Vallourec Group organization chart as of 31 December 2016

VALLOUREC

100.0%

VALLOUREC TUBES

Seamless Tubes

Upstream

100.0%	Vallourec Tubes France (France)[2]
100.0%	Vallourec Deutschland GmbH (Germany)[2]
20.0%	Hüttenwerke Krupp Mannesmann (Germany)

Pipe Project

100.0%	Vallourec Tubes France (France)[2]
100.0%	Vallourec Fittings (France)
100.0%	Vallourec Umbilicals (France)
80.0%	Serimax Holdings (France)
100.0%	Vallourec Deutschland GmbH (Germany)[2]

Powergen

100.0%	Vallourec Tubes France (France)[2]
100.0%	Vallourec Deutschland GmbH (Germany)[2]
100.0%	Vallourec Changzhou Co., Ltd (China)

Industry

100.0%	Vallourec Tubes France (France)[2]
100.0%	Vallourec Bearing Tubes (France)
100.0%	Vallourec Deutschland GmbH (Germany)[2]

Brazil

100.0%	Vallourec Tubos do Brasil S.A. (Brazil)	
	100.0%	Vallourec Florestal Ltda (Brazil)
	100.0%	Vallourec Mineração Ltda (Brazil)
	100.0%[1]	Tubos Soldados Atlântico Ltda (Brazil)
	100.0%	Vallourec Transportes e Serviços Ltda (Brazil)
84.6%[1]	Vallourec Soluções Tubulares do Brasil (Brazil)*	

OCTG / EAMEA

100.0%	Vallourec Oil and Gas France (France)
100.0%	Vallourec Oil & Gas UK (United Kingdom)
100.0%	Vallourec Oil & Gas Nederland (The Netherlands)
100.0%[1]	VAM Field Services Angola (Angola)
100.0%	Vallourec Nigeria Ltd (Nigeria)
100.0%[1]	Vallourec O & G Nigeria Ltd (Nigeria)
100.0%	Vallourec O & G Ltd (Kenya)
100.0%	Vallourec Middle East FZE (United Arab Emirates)
80.0%	Vallourec Saudi Arabia LLC (Saudi Arabia)
75.0%	Vallourec Al Qahtani LLC (Saudi Arabia)
100.0%	Vallourec Oil & Gas (China) Co., Ltd (China)
100%[1]	VAM Changzhou Oil & Gas Premium Equipments Co., Ltd (China)
51.0%	VAM Field Services Beijing (China)
99,0%	Anhui Tianda Oil Pipe Co., Ltd (China)
100%	Vallourec Asia Pacific Corp. Pte Ltd. (Singapore)
51.0%	VAM Far East (Singapore)
81.7 %[1]	PT Citra Tubindo TBK (Indonesia)

OCTG / North America

100.0%[1]	Vallourec Tube-Alloy, LLC (United States)
80.5 %[1]	Vallourec Star, LP (United States)
51.0 %[1]	VAM USA LLC (United States)
100.0%	Vallourec Oil & Gas Mexico, SA de CV (Mexico)
100.0%	Vallourec Canada Inc. (Canada)[2]

Drilling Products

100.0%	Vallourec Drilling Products France (France)
100.0 %[1]	Vallourec Drilling Products USA, Inc. (United States)
100.0%	Vallourec Drilling Products Middle East (United Arab Emirates)
100.0%[1]	Vallourec Drilling Oil Equiments Manufacturing LLC (United Arab Emirates)

Speciality Tubes

Nuclear Island Tubes

100.0%	Valinox Nucléaire (France)
100.0%	Valinox Nucléaire Tubes Guangzhou Co., Ltd (China)

Sales and Marketing Companies

100.0%	Vallourec Canada Inc. (Canada)[2]
100.0%	Vallourec (Beijing) Co., Ltd (China)
100.0%	Vallourec RUS (Russia)
100.0%[1]	Vallourec USA Corp. (United States)

(1) Percentage of Group's direct and/or indirect interest.

(2) The activities of Vallourec Tubes France and of Vallourec Deutschland GmbH cover the Upstream, Industry, Pipe Project and Powergen Divisions. Vallourec Canada Inc. performs both OCTG and marketing activites.

* *New corporate name effective from 1 October 2016 (formerly Vallourec & Sumitomo Tubos do Brasil).*

3.2.6.2 Organization of Group activities

Excluding the activities of the holding companies, the Group is organized around the following eight operating divisions in order to serve its core markets as close as possible to its customers (seven of the divisions are part of the Seamless Tubes segment, and the eighth includes the subsidiaries of the Specialty Tubes segment):

- Upstream;
- Pipe Project;
- Powergen;
- Industry;
- OCTG;
- Drilling Products;
- Brazil; and
- Specialty Tubes.

The Group also has holding, sales and marketing companies.

On 1 February 2016, the Group announced major strategic initiatives that will have an impact on its industrial footprint in Europe, Brazil and China. The particular objective of this plan, which received the approval of the relevant Workers Councils, is to reduce Group production capacity and reorganize high value-added production capacity in Europe. For more information, see Section 3.4, “Market Environment and Strategic Initiatives” of this Registration Document.

On 18 January 2017, the Group announced that it was to adapt its organizational structure in order to take full advantage of its Transformation Plan. The objective of the new organizational structure is to strengthen the Group's local presence and its proximity to customers, optimize the overall use of its resources and boost its development.

The operational divisions have been eliminated to be replaced by a new structure organized around:

- four Regions: North America, South America, Europe/Africa (EA) and Middle East/Asia (MEA). The Regions are responsible for all of the sales and industrial operations located within their geographic scope;
- two Central Departments:
  - the Development and Innovation Department (D&I), which has the role of defining and implementing the product line development strategy. It is also responsible for innovation and R&D,
  - the Technology and Industry Department (T&I), which has the role of defining the Group's industrial strategy, with the objective of continued improvement in cost reduction. It is responsible for technology and will manage Group procurement as well as central planning.

This new organizational structure takes effect on 3 April 2017.

3.2.6.2.1 ACTIVITY OF THE HOLDING COMPANIES

Vallourec is a holding company that:

- manages its shareholdings. Its income is mainly financial, including dividends, interest on long-term loans to subsidiaries and investment income from cash and cash equivalents. It also bears the cost of its debt;
- owns its trademark and the Group image, of which it entrusted management to Vallourec Tubes in 2014;
- has no industrial activity.

Vallourec Tubes is a sub-holding company that manages its shareholdings and has no industrial activities. Its income is mainly financial, including dividends, interest on long-term loans to subsidiaries, provisions for subsidiaries and investment income from cash and cash equivalents.

3.2.6.2.2 UPSTREAM

The Upstream Division is comprised of all of the Group's rolling mills and steel mills in Europe, with the exception of the Montbard rolling mill, which is dedicated to mechanics and bearing tubes.

The objectives of the Upstream Division are:

- to continue to improve safety, quality and customer service;
- to provide other divisions with a broad premium product base at a competitive cost to allow the growth of the Group's activities in its various markets.

The activities of the Upstream Division and of the Pipe Project, Powergen and Industry Divisions, are largely dependent on Vallourec Tubes France -France 100%, including in France, an electric steel mill in Saint-Saulve (Nord) and tube mills in Déville-lès-Rouen (Seine-Maritime), Saint-Saulve (Nord) and Aulnoye-Aymeries (Nord), covering a wide range of diameters and thicknesses produced using plug and continuous-process rolling mills and a forge.

The activities of the Upstream Division as well as the Pipe Project Division and Powergen and Industry Division also rely on Vallourec Deutschland GmbH (100%), including in Germany four tube mills in Germany, in Mülheim, Düsseldorf-Rath and Düsseldorf-Reisholz (North Rhine-Westphalia). The tube mills are equipped with continuous-process, plug and pilger rolling mills and Erhardt presses, allowing them to manufacture products with the world's widest range of diameters, thicknesses and grades.

All French and German tube mills are mostly supplied with raw materials by the steel mills of Saint-Saulve for high alloy steel, Huckingen, belonging to Hüttenwerke Krupp Mannesmann (HKM) in which Vallourec Tubes holds a 20% stake, and Bous, belonging to the GMH Group (Georgsmarienhütte).

In 2016, the Upstream Division began the streamlining of its production capacities in order to adjust them to the structural decline in markets accessible from Eastern Europe:

- permanent stoppage of the rolling activities at the Saint-Saulve and Déville sites will take effect in the first quarter of 2017;
- on 26 January 2017, Vallourec and Asco Industries announced Asco Industries' acquisition of a majority (60%) stake in the Saint-Saulve steel mill, with Vallourec maintaining a 40% share. The two shareholders of Ascoval, a new entity created to hold the the steel mill's assets, will receive 275,000 metric tons of supplies from the steel mill starting at the end of 2017. These volumes will allow it to ensure the sustainable operation of the steel mill and its competitiveness. Ascoval will continue to supply highly specialized alloy steel to Vallourec.

3.2.6.2.3 PIPE PROJECT

The Pipe Project Market Division is dedicated to the transportation needs of the Oil & Gas market, with a dual strategic position in the exploration and production sectors (upstream oil) and in downstream activities. It groups together all the products and services used by engineering and oil companies, from the wellhead to the petrochemical refineries and plants.

The activities of the Pipe Project Division are carried out through Vallourec Tubes France and Vallourec Deutschland GmbH, described above, as well as through Serimax – France (80%), Serimax Field Joint Coating – UK (60% owned by Serimax), Vallourec Fittings – France (100%), located in Maubeuge and Vallourec Umbilicals – France (100%), located in Venarey-lès-Laumes (Côte-d'Or, France).

3.2.6.2.4 POWERGEN

The role of the Powergen Division is to market seamless tubes used in the construction of new power plants and the restoration and maintenance of existing plants, mainly coal and gas that are provided by the Upstream Division (European plants) and the Powergen Division. It also completes its offer with the appropriate services.

The activities of the Powergen Division are carried out through Vallourec Tubes France, Vallourec Deutschland GmbH, and Vallourec (Changzhou) Co., Ltd (China).

Vallourec (Changzhou) Co., Ltd was created in 2005 in order to increase the Group's machining capacity for large-diameter hot-rolled tubes produced in Europe for the Chinese Power Generation market. The plant at Changzhou, in the province of Jiangsu, began production in July 2006. On 13 September 2012, a new hot-forging and heat treatment unit was inaugurated that will enable manufacturing operations for seamless large-diameter pipes to be integrated locally.

3.2.6.2.5 INDUSTRY

Industry Division activities are carried out through the following:

- the "Distribution & Online" Sales and Marketing Department, responsible for the sale of mechanical products (round tubes) and structural products (square and rectangular tubes) in the European distribution markets and for marketing them online via the iTube® proprietary portal;
- the "Projects and Solutions" Sales and Marketing Department, responsible for the sale of mechanical products (round tubes) and structural products (square and rectangular tubes) to European clients and end-users. It is also in charge of selling tubes for international projects such as civil engineering (stadiums, bridges) and offshore platform projects;
- the "Automotive & Components" Sales and Marketing Department, responsible for the sale of hollow bars in Europe to the automotive industry and bearing tubes produced by Vallourec Bearing Tubes;
- Vallourec Bearing Tubes – France (100%), a historic European leader in seamless tubes and rings for the manufacture of bearings. In addition to this bearing tube activity, Vallourec Bearing Tubes produces and supplies made-to-measure tubes for Mechanicals and tubular hollow bars for the Oil & Gas markets. Vallourec Bearing Tubes has two production units in Montbard (Côte-d'Or) and La Charité-sur-Loire (Nièvre).

3.2.6.2.6 OIL COUNTRY TUBULAR GOODS (OCTG)

OCTG EAMEA business line (Europe, Africa, Middle East and Asia)

The activities of the OCTG EAMEA business line are carried out through the following subsidiaries:

- Vallourec Oil and Gas France (VOGFR) – France (100%) which produces standard joints and the full VAM® range of products. It operates a production unit in Aulnoye-Aymeries (France) comprising several oil and gas tube threading lines, enabling it to produce all diameters and connections for the VAM® product range. VOGFR also coordinates worldwide OCTG Research and Development, which is conducted in France, the United States and in Japan in partnership with NSSMC. VAM® Research and Development also uses Vallourec's general research centers in Aulnoye-Aymeries (France) and the United States, Brazil and Germany;
- Vallourec Oil & Gas UK Ltd – United Kingdom (100%), which operates facilities specializing in heat treatment and threading at Clydesdale Belshill (Scotland) to meet, in particular, the needs of the North Sea market;
- Vallourec Nigeria Ltd – Nigeria (100%), was formed in February 2008 to operate the tube threading plant in the Onne free-trade zone at Port Harcourt (Rivers State, Nigeria). This operating unit has been in operation since December 2009 and supplies the local market;
- VAM Changzhou Oil & Gas Premium Equipments Co., Ltd – China (100% held directly or indirectly by the Group), was created in September 2006 for the operation of a tube threading plant for oil and gas well equipment imported into China by the Group or NSSMC. On 1 August 2016, Vallourec acquired the minority stakes from NSSMC and the Sumitomo Corporation;
- Vallourec Oil & Gas (China) Co., Ltd – China (100%), was established in April 2010. The company sells Vallourec premium OCTG products on the Chinese domestic market, markets Anhui Tianda Oil Pipe Company Limited (TOP) "API" product exports, and provides technical support and quality control services;
- Vallourec Asia Pacific Corp. Pte Ltd – Singapore (100%), operates in the OCTG tubes and accessories market in the Asia-Pacific region;
- PT Citra Tubindo TBK – Indonesia (81.7%, held directly or indirectly by the Group) which carries out heat treatment on tubes and threading of API and NS® joints, and has been producing VAM® joints since 1985.

The following companies, located in Europe, Africa, the Middle-East or Asia, are also attached to the OCTG EAMEA business line for operational purposes:

- Vallourec Saudi Arabia Ltd – Saudi Arabia (80% held directly or indirectly by the Group). In November 2011, the Group acquired Saudi Seamless Pipes Factory Company Limited, the leading processing and finishing company for seamless OCTG tubes in Saudi Arabia (located in Dammam), from the Zamil group. This acquisition provided Vallourec with already operational heat treatment and threading facilities with a capacity of 100,000 metric tons of tubes per year. The company achieved its first significant production in 2012. In 2013, the complex was qualified to carry out all operations required for the production of premium connections using hollow bars supplied by Vallourec's tube mills, achieving activity that was close to its capacity in 2014;

- Tianda Oil Pipe Company Limited (TOP) – China (99.0% held directly or indirectly by the Group). On 1 April 2011, Vallourec acquired 19.5% stake in Tianda Oil Pipe Company Limited (TOP), a Chinese seamless tube manufacturer listed on the Hong Kong Stock Exchange, via a reserved capital increase. On 14 November 2016, Vallourec finalized the purchase of the domestic shares of TOP, for 50.6% of its capital, then purchased 29.0% of the capital on the Hong Kong Stock Exchange through a public purchase offer which ended on 2 December 2016. TOP has been manufacturing OCTG tubes for the Oil & Gas market since 1993, and in January 2010 began operating a new PQF® seamless tube continuous rolling mill with an annual production capacity of 500,000 metric tons. TOP was a member of the Anhui Tianda Enterprise Co. Limited group, based in the Anhui province (China). VAM Changzhou Oil & Gas Premium Equipments China Co., Ltd. threads premium tubes manufactured locally by TOP. This acquisition allows Vallourec to develop an expanded offer of highly competitive solutions which combine the VAM® connections with Tianda's highly competitive tubes to support market shares of the VAM® connection.

OCTG North America activities

The activities of the OCTG North America business line are carried out through the following subsidiaries:

- Vallourec Star, LP – United States (80.5% held directly or indirectly by the Group) is an integrated manufacturer of seamless tubes for the oil and gas industry. Its facilities include an electric steel mill, two rolling mills equipped with the latest technology and heat treatment and threading units. It dedicates 80% of its production range to the OCTG market. Sumitomo Corporation is a partner, with a 19.5% stake in Vallourec Star, LP.

  The company's production units are located in Youngstown (Ohio), Houston (Texas) and Muskogee (Oklahoma).

  On 1 July 2009, Vallourec Star, LP acquired the entire share capital of V & M TCA® (a company acquired in May 2008 from the Grant Prideco group) from Vallourec Industries Inc. and Sumitomo Corporation (which owned 80.5% and 19.5% of V & M TCA®, respectively) prior to its absorption. This allowed Vallourec Star, LP to integrate the heat treatment of high-grade alloy steel tubular products (which had until then been done by V & M TCA®) with specific expertise in urgent orders. V & M TCA® thus brought to Vallourec Star, LP additional premium capacity, specific expertise for services in corrosive environments, plus a veritable geographical fit, that enabled Vallourec to extend its North American footprint.

  Effective 1 January 2012, Vallourec Star, LP which already had a 400,000 metric ton capacity for medium and very thick diameter tubes, absorbed V & M Two, which was in charge of constructing the new small-diameter tube mill in Youngstown (Ohio). This new rolling mill has an initial capacity of 350,000 metric tons of tubes per year. This new unit extends the range produced by Vallourec in North America and consolidates its leadership position in premium tubular solutions on the U.S. market. The plant was commissioned in October 2012 and the first sales were made in December 2012. Finishing capabilities (heat treatment, threading and inspection), were commissioned in the first half of 2013. The ramping up of this new plant was completed in 2014, and the plant is now completely operational;

- VAM USA LLC – United States (51% held directly or indirectly by the Group). Since 27 February 2009, VAM USA LLC – in association with NSSMC, which has a 34% interest, and Sumitomo Corporation, which has a 15% interest – has included the VAM® and Atlas Bradford® threading activities acquired in May 2008 from the Grant Prideco group.

  VAM USA LLC is well known in North America as a leading supplier of OCTG premium joints. The VAM® and Atlas Bradford® brands complement Vallourec's product offering, providing significant expertise in the field of flush connections for the industry's most demanding applications.

  In order to meet growing demand for the compliance of existing product ranges with new standards relating to use in the most extreme well conditions, VAM USA LLC doubled the capacity of its test center in 2012. This center is specifically dedicated to testing products for extracting hydrocarbons from shale and to offshore projects in the Gulf of Mexico. Construction on the building (which covers 8,400m^2) was completed in July 2012, and all of the facilities are now operational. The production units are located in Houston, Texas.

  A new plant alongside the Vallourec Star, LP tube mill commissioned in 2012 (Youngstown, Ohio) will supplement the VAM USA LLC threading plants and extend the Group's packaged offering of finished products (premium tubes and connections);

- Vallourec Oil & Gas Mexico SA de CV – Mexico (100%), which specializes in premium VAM® connections and provides the Mexican Oil & Gas industry with the complete range of VAM® products;

- Vallourec Canada Inc. – Canada (100%), which has production units in Nisku (Alberta) and St. John's (Newfoundland), as well as sales offices in Calgary (Alberta). The sales office in Burlington (Ontario) was closed on June 2015;

- Vallourec Tube-Alloy, LLC – United States (100% held directly or indirectly by the Group), was acquired in May 2008 from the Grant Prideco group, Vallourec Tube-Alloy, LLC produces and repairs accessories used inside oil and gas wells. It specializes in complex threading operations and in machining bespoke parts for both oil operators and component manufacturers. Its production units are located in Broussard and Houma, Louisiana, Houston, Texas, and Casper, Wyoming.

3.2.6.2.7 DRILLING PRODUCTS

The Drilling Products Division is an international leader in the supply of drilling pipes and tubular products worldwide. It offers a vast range of products, including drilling pipes, drilling collars, heavyweight drill pipes, drilling accessories and other tubular products. These are offered with top quality, premium protected connections, with a variety of API products.

Under its approach, which consists in guaranteeing optimal assistance to its worldwide customers, its main production units are strategically located close to its customers in France, the United States, the United Arab Emirates, and Brazil. Similarly, sales offices are located throughout the world, as close as possible to our customers.

The Research and Development and Marketing Departments of the Drilling Products Division are dedicated exclusively to the division. As a result of this set-up, Drilling Products works closely with operational companies and drilling contractors to develop new high-performance products, incorporating the most complex drilling techniques, and to improve drilling efficiency in extremely demanding drilling environments.

Drilling Products activities are performed through the following subsidiaries:

- Vallourec Drilling Products France: France (100%), manufactures the complete product line of the Drilling Products Division at plants located in Cosne-sur-Loire (Nièvre), Villechaud (Nièvre), Aulnoye-Aymeries (Nord) and Tarbes (Hautes-Pyrénées);
- Vallourec Drilling Products USA, Inc.: United States (100% held directly or indirectly by the Group), manufactures the complete product line of the Drilling Products Division from a single integrated site. Its principal markets are the United States, Canada and South America. However, products are also exported to the Middle East, Africa and other regions. Its production site is located in Houston, Texas;
- Vallourec Drilling Products Middle East FZE: Dubai, United Arab Emirates (100%), mainly provides API and proprietary drill pipes. Its principal markets include the Middle East and Southeast Asia. Its production site is located in Jebel Ali, Dubai (Jafza) in the United Arab Emirates;
- Vallourec Drilling Oil Equipments Manufacturing LLC: Abu Dhabi, United Arab Emirates (100%), is the principal manufacturer of drill pipe accessories in the Middle East. This activity allows the Vallourec Group to offer a complete solution for all drill strings in the region. Its production site is located in Abu Dhabi, in the United Arab Emirates.

3.2.6.2.8 BRAZIL

On 1 October 2016, Brazil laid the foundations of its industrial transformation program, with the creation of a new subsidiary following the merger of the assets and activities of Vallourec Sumitomo Tubos do Brasil Ltda. and Vallourec Tubos do Brasil S.A. The newly established company, Vallourec Soluções Tubulares do Brasil S.A., was created to strengthen the industrial base in Brazil and provide synergies to optimize the competitiveness of its production. The activities of Brazilian companies remain concentrated on markets in Brazil and Latin America, as well as on international exports.

The South American activities are carried out through the following companies:

Vallourec Tubos do Brasil S.A. (100%) became a Brazilian holding company on 1 October 2016 and comprises the following subsidiaries:

- Vallourec Soluções Tubulares do Brasil S.A. (VSB, 84,6% shareholding) is the result of the above-mentioned merger of assets and activities, which bring together the Jeceaba, Barreiro (Minas Gerais state) and Serro (Espirito Santo state) industrial sites:
  - the Barreiro site has been located in the Belo Horizonte district for more than 60 years and occupies an area of more than 300 hectares. This integrated unit combines all production equipment, from its steel mill to hot-rolling mills and tube finishing lines. Since 2015, the site has housed the Vallourec Research Connections Center Brazil (VRCC Brazil), which tests all the new exclusive threaded connections that comply with industry standards, and guarantees the level of performance needed for difficult pre-salt environments. In March 2016, Barreiro shut down one of its two blast furnaces, with a view to adjusting its production capacity to new market demand,
  - constructed in 2007, in partnership with NSSMC, the Jeceaba industrial site is located 120 kilometers south of Belo Horizonte. The Group has invested in a new high-end tube mill at the site, which also contains a pelletization unit, a steel mill, a rolling mill and finishing lines. The rolling mill has an annual seamless tube production capacity of 600,000 metric tons. Production capacity is divided between Vallourec and NSSMC, with each having an annual production capacity of 300,000 metric tons. Since 2014, Jeceaba has produced pellets for use in the Barreiro blast furnace. The site is now mandated to sell surplus pellets directly on the local Brazilian market. In November 2016, the Jeceaba blast furnace was shut down temporarily, and the production flows were reconfigured to catalyze synergies with the Barreiro site;
- Vallourec & Sumitomo Tubos do Brasil makes all types of premium threading and API, and in particular the VAM® product range; VSB also acts as an industrial supplier to all of the Vallourec entities, mainly for OCTG markets. Semi-finished products are exported to Vallourec's finishing plants throughout the world. The company continues to manufacture seamless tubes for applications in:
  - the Oil & Gas market, delivering seamless steel tubes for oil exploration (casing, tubing, and drill pipes) and for the transport of oil (tubes for line pipes) using premium VAM® connections. The tubes offer not only resistance to high pressures and high temperatures, but also resistance to corrosion by carbon dioxide and sulfates. Since 2000, products originating from the Barreiro site have been used for deep-water projects, in particular in the pre-salt layer,
  - the Industry market (Petrochemicals, Power Generation, Mechanicals, etc.), a market that is mainly served by distributors working closely with VSB to ensure quality and technical support,

- the Automotive industry (light vehicles, trucks and agricultural equipment), with precision parts like tubes for diesel injectors, bearing rings and forged parts such as transmission shafts and axles, and
- the Civil Engineering sector: infrastructure and foundations for industrial and commercial assets, capital goods, ancillary machines and materials;

Vallourec Tubos do Brasil S.A.'s principal subsidiaries are:

- Vallourec Florestal Ltda – Brazil (100%) plants and operates and manages eucalyptus forests for the production of charcoal from wood. Charcoal is one of the principal necessary components in the production of liquid crude iron by furnaces. Vallourec Florestal Ltda. owns 230,000 hectares of agricultural land in the north of the State of Minas Gerais and currently has 113,000 hectares of eucalyptus forest. The production process can be broken down into the following activities: forest planting, forest harvesting, charcoal production, and delivery on a just-in-time basis for the blast furnaces of VSB;
- Vallourec Mineração Ltda – Brazil (100%) has been extracting iron ore at its Pau Branco mine since the early 1980s. The mine is located in the city of Brumadinho in the State of Minas Gerais, 30 kilometers south of Belo Horizonte. Its annual production capacity is 4 million metric tons of iron ore. The mine supplies the blast furnaces and the pellet plant of its affiliated companies. It also sells its production on the market;
- the Group's other Brazilian subsidiaries include Tubos Soldados Atlântico Ltda (TSA) – Brasil (100%), which specializes in anti-corrosion coatings (triple-layer polypropylene, or 3LPP) applied to welded and seamless tubes. Vallourec Transportes & Serviços Ltda – Brazil (100%) offers tube inspection and repair services, premium accessories for the Oil & Gas market, as well as a vast array of operational assistance services for the same sector.

3.2.6.2.9 SPECIALTY PRODUCTS

The Specialty Products Division brings together companies specialized in the manufacture and processing of seamless tubes in stainless steel and special alloys, primarily for the nuclear energy markets.

The Specialty Products Division principally involves the following companies:

- Valinox Nucléaire -France (100%) specializes in Nuclear Island Tubes. The production unit in Montbard (Côte-d'Or, France) is the original site of Valinox Nucléaire. Production capacity was significantly strengthened in recent years to meet the growing needs of the nuclear industry;
- Valinox Nucléaire Tubes Guangzhou Co., Ltd -China (100%) also specializes in Nuclear Island Tubes. Formed in November 2010 in Guangdong Province, China, Valinox Nucléaire Tubes Guangzhou opened on 6 June 2013. Its capacities will be doubled in 2017 to respond to the demand from Chinese customers;
- Vallourec Heat Exchanger Tubes was divested under the reorganization of Vallourec's strategic Power portfolio and left the Group on 29 April 2016.

3.2.6.2.10 SALES AND MARKETING COMPANIES

In the United States, Vallourec USA Corporation – United States (100%) markets all of the tubular goods produced by Vallourec Tubes' various subsidiaries. It also carries a stock of tubes intended for U.S. oil and gas distributors, which usually thread the tubes themselves according to the end-customer's requirements. Its offices are located in Houston, Texas, and Pittsburgh, Pennsylvania.

In addition, sales and marketing companies reporting to Vallourec Tubes are established in:

- Canada;
- the United Kingdom;
- China;
- Russia;
- Dubai;
- Singapore;
- Italy; and
- Sweden.

3.3 Innovation, Research and Development

A key factor for competition and growth, innovation has always been at the heart of Vallourec's strategy, and has largely contributed to its leading position. In a very competitive global environment, the Group intends to continue to detect and foresee the technological challenges faced by its customers. It must respond to the radical and rapid evolution of their needs by offering them tailored solutions which are simultaneously safe, reliable and environmentally friendly, and that create value, in line with its premium position.

3.3.1 Organization of innovation and Research and Development

3.3.1.1 Information and key figures

Research and innovation are at the heart of the Group's business focus. Innovation is a key priority for the Group in maintaining its technological leadership and anticipating its customers' needs.

The cornerstones of the Group's research are:

- manufacturing processes;
- new products and improving the performance of existing products; and
- services and solutions.

In 2016, Research and Development expenses totaled €60 million. The following chart represents the Research and Development expenses amount during the last three year (in millions of euros):

Since May 2015, Vallourec's expertise in R&D, Marketing and Innovation are coordinated with the R&D, Marketing and Innovation Division (RDMI). This Central Department relies on Research and Development (R&D) teams that are established in close proximity to markets and customers and coordinates the whole range of research and development activities within the Group. A total of some 500 researchers and technicians are involved in research and development in the Group in 2016. Within the context of the new Group structure announced on 18 January 2017, effective on 3 April 2017, a new central department has been created, the Development & Innovation Department (D&I) (see Section 3.4.2 "Significant Events in 2016 and Early 2017").

The Group's key technological challenges include the following:

- for the Oil & Gas market, the Group has to respond to the increasing complexity of oil and gas reservoirs and transport (onshore and offshore);
- for the Power Generation market, the Group has to contribute to the improvement of power plants' efficiency and extending their lifespan; and
- for the Industry market, the Group has to reduce the weight of mechanical engines, designing lighter structures.

3.3.1.2 Research centers and expertise: global presence

Vallourec has six research centers throughout the world specializing in specific products, processes or technologies.

In France, the Aulnoye research complex houses:

- the long-established Vallourec Research Center France which specializes in metallurgy, non-destructive testing, corrosion resistance, surface treatments, product and process numerical simulations, particularly for Oil & Gas applications. It also provides a technical assistance to the Mechanicals Group's plants and divisions;
- the Vallourec Research Center Connections develops and validates the VAM® line of threaded connections, then assists with their productionization throughout the worldwide network of licensees. With a strengthened testing capacity as a result of investments made since 2015, it allows in particular for the full-scale demonstration of tube performance and VAM connections by subjecting them to all operational stresses (make-and-break operations, combined loads simulation at various temperatures). Whether renewing its product lines, or undertaking specific development for large projects, Vallourec has a history of delivering the strength and reliability expected by oil and gas operators, for more than 50 years.

In Düsseldorf, Germany:

- the Vallourec Research Center Germany is dedicated to designing and developing steel tubes for power plants and oil and gas pipelines. Its fields of competence are mainly steel conception, creep strength and resistance to oxidation or corrosion occurring at high temperature (above 400°C). It has also housed a welding lab since 2014. In addition, it provides a technical assistance to the Group's plants and divisions;

- the Vallourec Research Center Technology is in charge of research on hot forming for tube production. This long established center has made innovations in Vallourec's core processes. It operates alongside the "Vallourec Competence Center Riesa", a laboratory containing the most modern equipment, which allows Vallourec to increase the pace of development of innovations in process methodologies and equipment. Its versatile piercing, rolling and forging facilities will push back the current limits of steel and alloy hot-forming within the Group.

In Belo Horizonte, Brazil:

- the Vallourec Research Center Brazil has teams of experts and test laboratories, adapting the Group's solutions to the specific needs of its Brazilian customers, as well as developing new solutions. A new "Vallourec Competence Center Rio" is located in the Industrial Park of the University of Rio de Janeiro in close proximity to CENPES, the Petrobras research center. Lastly, Vallourec Florestal, Vallourec's subsidiary which operates the Group's eucalyptus forest in Brazil, conducts research work on the forestry, the transformation of wood into charcoal and the preservation of the environment.

In Houston, Texas (USA):

- the Vallourec Competence Center USA is devoted to specific developments of the VAM® connection for the American market. Conception and test capacities have increased continuously in recent years, allowing the introduction of new connections for the shale gas (VAM® SG™, VAM® EDGE SF™) and for the deep offshore wells (VAM® 21, VAM® HP).

In total, three testing stations worldwide conduct full-scale tests on the behavior of VAM® connections under the most arduous usage conditions.

The Group also performs R&D activities in other regions of the world, notably in Indonesia, through its subsidiary P.T. Citra Tubindo, and in Japan, with its longstanding partner NSSMC.

3.3.1.3 A collaborative approach to innovation with customers and markets

Innovation is at the source of numerous advances which allow Vallourec's customers to push back technological borders, tap into unused resources until then unexplored, and improve the performance of their facilities. As Innovation is a process of ongoing dialogue with customers, the Group works in close collaboration with some of these customers to develop solutions which meet their operational needs.

With Petrobras, the Group develops innovative tubular solutions for exploration and production in hard-to-access oil and gas deposits (ultra-deep water, pre-salt fields, corrosive environments with H_2S, CO_2, etc.). The Group estimates that approximately 80% of the products developed with Petrobras to operate complex fields did not exist in 2009.

With Total, the Group develops connections delivering unmatched performance in difficult High Pressure/High Temperature (HP/HT) type wells or tubes for umbilicals.

With TechnipFMC, SubSea 7 and Saipem, the Group works on high grade pipes allowing the transportation of oil and gas in difficult environments.

With Mitsubishi Hitachi Power Systems Europe (MHPSE), General Electric (GE) Power and Doosan, the Group develops high-performance products and solutions for ultra-supercritical power plants.

The Group is also developing R&D programs in all countries where it is established, in association with institutions with leading positions in their field. This is the case in particular with NSSMC and Tubacex. With NSSMC, with which a collaboration has been in place since 1976 in the area of VAM® connections for the Oil & Gas market. The launch of the new VAM® 21, a new premium threaded connection which meets the most stringent industry specifications (ISO CAL IV), and a new Cleanwell Dry® dropfree dry lubrication solution, are a reflection of this dynamic partnership. The partnership with NSSMC was strengthened in connection with the major strategic initiatives announced on 1 February 2016. NSSMC and Vallourec Mannesmann Oil & Gaz France (which has since become Vallourec Oil & Gaz France) had entered into a Research and Development agreement on 1 April 2007 (the "R&D Agreement") in connection with their industrial collaboration. Under the R&D Agreement, the parties undertook to inform one another of any new ideas, techniques or products that they wished to put in place with respect to the Research and Development of the joint VAM® connections, so that a committee could determine what R&D programs to set up. The committee is charged with assigning the parties their respective tasks in connection with these research programs. The parties also undertook to disclose to one another all information that could be useful for the development of these programs, as well as to mutually provide each other with access to the research infrastructure changed with carrying them out. The Group and NSSMC decided to reinforce this arrangement by entering into an addendum to the R&D Agreement dated 1 February 2016, to improve the organizational efficiency and implementation of their joint Research and Development program for the development of the VAM® connections, in particular through a Technical, Industrialization, and Services Committee, and through better organization of the collaboration on each significant R&D program. For a description of these agreements, see Section 3.4.2 "Significant Events in 2016 and Early 2017" of this Registration Document.

The Group also participates in the most essential research work with numerous university laboratories in Europe and around the world.

3.3.2 A culture of shared innovation

In order to support our innovation strategy aiming to strengthen our differentiating factors and diversify our innovations, RDMI reinforces the Group's culture of innovation, first, by deepening and sharing knowledge and approaches to market challenges, and second, by using tailored and effective innovation methods and tools.

Innovation methods and culture

In order to optimize the generation and selection of ideas that will be the innovations of tomorrow, RDMI organizes training sessions and "idea generating" workshops.

These workshops enable to the Group to deploy and share a common language of innovation, to reinforce and disseminate market knowledge to the teams involved in innovation, and to successfully use Vallourec-specific creativity tools. All departments that take part in innovation participate in the workshops, including R&D, Marketing, Trade and Industrialization. The shared experiences and the collective generation of ideas reinforce the collaboration and complementary skills within and between divisions.

This approach ensures that the collaborative method for the generation of ideas is effectively and consistently applied.

At the same time, with respect to projects already in development, RDMI helps the divisions and their project teams to effectively apply Vallourec's project management process to ensure that products are brought to market as rapidly as possible.

The divisional project portfolio is reviewed regularly to verify its value, identify synergies and define priority projects and next steps.

Furthermore, initiatives were launched in 2016 to strengthen collaboration with start-ups, schools, and industrials (open innovation efforts). These initiatives allow Vallourec to embed the most recent and innovative technologies, accelerate development projects and deepen discussions between teams.

The experts, the process communities, project teams and R&D teams are developing and participating in online collaborative spaces and tools which allow them to share information across the Group.

The "Expert Career" program

Vallourec established the "Expert Career" program to enhance the value of technical expertise and individual career paths within the Group's key sectors. This program allows engineers and scientists to be offered new career opportunities in the areas of Technology and R&D. Links between management responsibilities and technical expertise were established under the coordination of the Human Resources Department, guaranteeing the same level of recognition.

Innovation Challenge

Organized by the Innovation Department, the first Vallourec Innovation Challenge allowed all departments and divisions to contribute to innovation in 2016. The Innovation Challenge was carried out using the Group's front-end innovation methodology, for a period of three months. More than 30 teams took part, coming up with interesting and innovative proposals to reduce our customers' costs. The two winning ideas, selected by employees and the Official Jury, will be developed. All the ideas put forward are reviewed and expanded in order to be decided upon later by management.

3.3.3 High-tech manufacturing processes

Forest and blast furnaces

In Brazil, Vallourec operates eucalyptus forests to produce charcoal to fuel its blast furnaces. The Group is pursuing its efforts to improve performance in this area. The main thrusts of this research include: scientific tree selection, improving forest nutrition programs and industrializing the continuous charcoal-making process.

Steel production

The development and production of steels with a high level of chrome (over 13%) using continuous-casting processes forms the basis of the Group's range of high-tech solutions, and is the purpose of much of its work. Research on the cleanliness of steel is a cornerstone of research on the manufacture of premium products. Innovations made in continuous casting processes also allow the capacity and quality of the steel to be improved, thereby strengthening the Group's autonomy in terms of premium steel supply.

Hot-process seamless tube production

The hot-process production of seamless steel tubes, invented in 1886 by the Mannesmann brothers, is a fundamental technology for Vallourec, and is constantly being improved thanks to research.

The Group has developed other processes, including the Premium Forged Pipes (PFP®) patented process to produce very wide, thick tubes, in particular for the mechanical and energy sectors. It has been used industrially in Europe since 2008, and in China since 2012.

Developments are underway for the most modern hot-rolling processes (PQF, FQM, etc.).

Non-destructive testing

Non-destructive controls, which enable the assessment of the integrity of structures or materials with no degradation at various stages of life, are being developed to ensure that the Group's products are extremely reliable. Innovations in this sector are major differentiating factors.

Heat treatment

A large share of the Group's premium products is heat-treated to reach exceptional levels of performance. The heat treatment process is continually being improved, in order to meet the needs of the Group's customers, in particular in terms of respect for the environment, deformation resistance or breaking strength, corrosion resistance and tube weldability.

Process communities

Process communities rolled out within the Group allow rapid and ongoing progress to be achieved, through the sharing of best practices and available technologies for the main processes of the Group: production and continuous casting of steel, heating rounds, hot rolling, forging, heat treatment, non-destructive testing, threading and tube finishing (coating, marking, machining, etc.). Benchmarks are regularly reviewed to ensure that Vallourec's practices and techniques remain compliant with best practices and best available techniques. We continually improve our processes through the significant internal efforts in Research and Development.

3.3.4 Standards applicable to the Group's projects

3.3.4.1 Standards applied by the Group

The Group complies with regulations, standards and certifications in the countries in which it markets its products. These standards vary by geographic region, by product and by its use. The Group also carried out a monitoring process to ensure that its products comply with applicable regulations, standards and certifications.

The Group is subject to two types of standards: the mandatory standards set by law, and the non-mandatory standards that the Group voluntarily chose to apply in response to customer demand.

Mandatory standards generally require certification by laboratories and/or independent organizations, and are provided by the government. Their principal purpose is to protect user health and safety by demonstrating that the product complies with regulatory requirement. They relate principally to the properties of fire resistance and slip resistance and to limits on toxic emissions. Non-mandatory standards are required by the Group's customers, who include compliance with these standards in their specifications.

3.3.4.2 Standards organizations and the standards applied in different geographical regions

Standards organizations define the technical characteristics and performance required of a product, as well as the tests to be used. At the international level, the main organization that promulgates standards applicable to the Group is the International Standardization Organization ("ISO"). ISO standards, which are established based on principles of the World Trade Organization, are in theory voluntary, but compliance is often required by the Group's customers.

The Group relies on the Vallourec Management System (the "VMS"), whose fundamental objective is to improve the Group's performance in the fields of quality, health, safety, the environment and logistics, which are grouped under an ambitious program known as Index and run by one of the Management Board's members. This system ensures that the requirements for managing quality (ISO 9001, ISO/TS 16949, API and ASME), health and safety (OHSAS 18001), the environment (ISO 14001) and energy (ISO 50001) are taken into account.

3.3.5 Industrial property

The strengthening of the Group's organization in the area of industrial property continued with the monitoring of major Research and Development projects and the holding of sessions to heighten industrial property awareness among Research and Development teams, in France and abroad, and the Industrial Property Department taking over the management of Vallourec Deutschland patents, which up to now had been entrusted to Salztgitter Mannesmann Forschung.

The Group's patent filing activity remained very sustained in 2016. The Group thus filed 16 new basic patents and proceeded with 500 geographical extensions of patents. Individual patent protection has been maintained at a very high and stable level with more than 4,000 patents worldwide and a successful and sustained defense of Group patents under dispute. The budget dedicated by the Group to protecting inventions via patents remained stable in 2016, as compared to 2015.

In 2016, Vallourec also continued its efforts to protect its trademarks, through registrations, renewals, and opposition procedures.

3.4 Market environment and strategic initiatives

In 2016, the Group's consolidated revenue was €2,965 million, a decrease of 22.0% (-21.2% at constant exchange rates) from consolidated revenue of €3,803 million in 2015. In 2016, EBITDA was -€219 million, compared to -€77 million in 2015. Gross operating margin fell 5.4 points compared with the previous year. Net result Group share was a loss of €758 million in 2016, compared with a loss of €865 million in 2015.

These results are due to the drop in activity resulting from the pursuit of major cutbacks in the investment programs of the Group's Oil & Gas customers following the sharp drop in oil prices. This retrenchment of the market led to a significant decrease in the Group's sales volumes for the second consecutive year (-9.2% in 2016) and resulted in significant downward pressure on tube prices, with increased competition in the Oil & Gas market, as well as in other markets (see Section 3.5 "Results of operations" of this Registration Document).

In response to this situation, throughout 2016 the Group deployed major strategic initiatives announced on 1 February 2016 aimed at transforming its operational set-up, improving its competitiveness in the short and longer term and reinforcing its financial strength to secure long-term profitable growth and value creation.

3.4.1 Market environment

Oil & Gas

On 30 November 2016, the OPEC countries reached an agreement to reduce their production by 1.2 million barrels/day. In early December 2016, some non-member OPEC countries such as Russia decided to participate in this effort and committed to reducing their production by 600,000 barrels/day.

This decision had a positive impact on the price of oil. On 31 December 2016, the price of Brent was USD 54.9 compared to USD 36.6/barrel [1] on 31 December 2015, or a 50% increase year on year. The average price of Brent in 2016 was USD 43.6/barrel [1] compared to an average price of USD 52.2/barrel [1] in 2015, or a 16.5% decrease. The drop in oil prices since late 2014 led oil operators to reconsider their budgets and investment priorities, and to reduce their exploration and production expenses.

In 2016, global E&P spending decreased to approximately USD 377 billion according to Barclays [2], i.e. a fall of 23% compared to 2015. For 2017, on the basis of a USD 55/barrel Brent and USD 50/barrel WTI, forecast global E&P expenditure is expected to increase 7%, to amount USD 405 billion [2].

In the longer term, according to the International Energy Agency (IEA), global oil demand should rise from 92.5 million barrels/day in 2015 to 98.2 million barrels/day in 2025 and to 103.5 million barrels/day in 2040 [3]. According to the IEA, the drop in investment that has occurred to date will heavily weigh on future oil production and members of OPEC should be increasingly relied upon to meet demand growth. OPEC's share of oil production is therefore expected to grow steadily from 2020 and to dominate future production growth [3].

In the United States, the significant fall in the price of WTI since the end of 2014 has resulted in the sharp decline of the number of active rigs in 2015 and in the first part of 2016 [4]. After bottoming out at the end of May 2016 at 404 units, the active rig count increased, reaching 658 units at the end of 2016, compared to 698 units at the end of December 2015. In 2016, the active rig count decreased 48% on average compared to 2015 (512 in 2016 compared with 994 in 2015).

The number of oil rigs was 411 units on average in 2016 compared to 764 units in 2015 and, at the end of 2016, was down 67% since the oil peak in 2014 (1,609 units). At the end of 2016, 79.8% of the rigs were for oil drilling, compared with 76.8% the previous year. Gas drilling dropped by 18.5% since the end of 2015, with 132 active rigs at the end of 2016. The gas price (Henry Hub) [5] average in 2016 was USD 2.6/Mbtu (US dollars per million British thermal units), stable compared to 2015.

In its Global 2017 E&P Spending Outlook, Barclays forecasts the US land rig count to average 730 in 2017, ending the year at approximately 850-875 rigs [2].

The restocking trend started in Q3 2016 at distributors' and continued in Q4 2016. However, prices remained at low levels in Q4 2016.

In the Gulf of Mexico, the number of drilling platforms stood at 22 units at the end of 2016 [4], compared with 25 units at the end of 2015.

In the rest of the world, the international active rig count [6] was 929 units at the end of 2016, compared with 1,095 at the end of 2015 (average of 955 active rigs in 2016 compared to an average of 1,167 active rigs in 2015).

(1) Price of Brent (Spot). Thomson Reuters – data gathered in January 2017.

(2) Barclays Capital – Global 2017 E & P Spending Outlook published 9 January 2017.

(3) AIE – World Energy Outlook 2016 – New Policies Scenario – published in November 2016.

(4) Baker Hughes (number of active rigs in the United States) – January 2017.

(5) Price of gas (Henry Hub). Thomson Reuters – data collected in January 2017.

(6) Baker Hughes (number of active international rigs = excluding North America) – January 2017.

In Brazil, operations are driven by Petrobras' five-year 2017-2021 Business and Management Plan published in September 2016. This new plan reduces total Capex to USD 74.1 billion, a 25% decrease compared to the previous version (2015-2019 Business and Management Plan).

Petrobras' plan continues to prioritize oil exploration and production (E&P) projects: the 2017-2021 E&P budget amounts to USD 60.6 billion, representing 82% of total Capex. Petrobras continues to focus on the exploration of pre-salt fields, drilling in very deep waters (over 2,000 meters), far offshore and in highly corrosive environments: pre-salt E&P Capex (USD 34.8 billion) represent 57% of total E&P Capex.

In the EAMEA region [1]**,** the average rig count in 2016 was down compared to 2015. In Europe, the 2016 the rig count averaged 96, in Africa 85 units and in the Middle East 390 units compared to respectively 117 units, 106 units and 406 units in 2015 [2].

In Europe, the market environment continued to be difficult. According to Barclays, Europe is the only region where upstream spending is to decrease yet again in 2017 (-6.1%) [3].

In the Middle East, NOCs continue to award tenders at disputed prices while the activity level of IOCs remains low. In this area, E&P capital spending is projected to increase 2.6% in 2017 (i.e. at a lower rate than the 8.1% estimated in 2016) [3].

In 2016, the activity level in the Petrochemicals market was low in the US and in Europe and slowed down in Asia and the Middle East.

Power generation

CONVENTIONAL ENERGY

While coal-fired power generation total capacity is forecast to expand by a quarter by 2040, its share will continue to decline, from 31% in 2015 in the energy mix to around 22% in 2040. Developing countries, especially in Asia (benefiting from abundant reserve), account for 4/5 of this total [4].

All over the world, regulations are promoting the installation of more and more renewable capacity. Yearly renewable power capacity additions will overpass all thermal capacity additions around 2022 [4].

In China, coal-fired power generation capacity, still increasing +4.5% in 2016, is likely to be considered as an "over capacity industry" like the coal and steel industries. Thus, Chinese authorities (NEA/ NDRC) are already stopping planned and approved projects, with the aim of limiting total coal-fired capacity to below 1100GW in 2020 (vs. ~950 in 2016).

India, with the highest energy consumption growth of G20 with +6% in 2014 [5], is currently positioned as an important player in the development of new coal-fired power plant capacity. However, the 13th Energy Plan (2017-2022) has set ambitions of +115 GW of renewable capacity additions. In the 14th Energy Plan (2022-2027), no more coal/ gas fired power capacity is forecast, which seems very ambitious given the huge needs of electrification.

The EU is on track to decarbonize its energy mix including electricity sources and targets to use cleaner energy sources. In the United States, in an environment marked by stringent environmental regulations designed to limit carbon emissions, the use of gas-fired power plants continues to be favored. This trend has been strengthened by the low gas prices.

From a technological standpoint, environmental concerns will favor more and more efficiency, safety and cleanliness, confirming and reinforcing the trend towards more complex designs (e.g. above 70% of all planned new power plants will be built with the most advanced designs, such as USC, CC and Gen3).

NUCLEAR ENERGY

The need for numerous countries to reduce their CO_2 emissions has for several years benefited the recovery of the nuclear energy market. After renewable energy sources, natural gas and nuclear power are the next fastest-growing sources of electricity generation [6]. Around 130 nuclear power projects will be commissioned between 2016 and 2025.

However, the difficulties of funding, the issues related to increasing safety of facilities, as well as the political reluctance of some states postpone the further expansion of nuclear power.

In Europe, the United Kingdom has launched a nuclear program targeting an additional capacity of the nuclear fleet in operation of 16 GW by 2030 and has signed a cooperation agreement with EDF on the Hinkley Point C project (to be commissioned in 2025 at the earliest).

In line with the commitments made in September 2014 in terms of CO_2 emissions reduction, China has confirmed its target to reach an installed nuclear capacity of 58 GW in 2020, then up to 150 GW by 2030, compared with 32 GW in 2017 [7]. In the 13th Five-Year Plan from 2016, six to eight nuclear reactors are to be approved each year.

(1) EAMEA: Europe, Africa, Middle East, Asia.

(2) Baker Hughes (number of active international rigs = excluding North America) – January 2017.

(3) Barclays Capital – Global 2017 E & P Spending Outlook – published 9 January 2017.

(4) IEA World Energy Outlook 2016 NPS scenario.

(5) Enerdata 2016 Energy Trends.

(6) EIA IEO 2016.

(7) http://www.world-nuclear.org/information-library/facts-and-figures/world-nuclear-power-reactors-and-uranium-requireme.aspx

Lastly, new nuclear power plant projects are under construction or planned in Asia (India, South Korea, and Southeast Asia) and the Middle East (Turkey, Saudi Arabia, United Arab Emirates). According to the World Nuclear Association, over 45 countries are actively considering embarking in nuclear power programs, from sophisticated economies to developing nations.

In addition to the new build business, Vallourec is also targeting tubular needs related to the program to extend the life time of existing reactors (France, Canada, South Korea…).

Industry

In Europe, the market environment for Industry & Other activities (Mechanical engineering, Automotive, Construction & Other) was characterized by a continuing pressure on prices on projects and long-term contracts.

The Brazilian economy continued to face challenging macroeconomic conditions with a 3.6% fall in GDP in 2016. Iron ore prices remained low until the end of Q3 2016, weighing on the mine's revenue. In Q4 2016 and beginning of 2017, an upward trend in iron ore prices has been observed.

Raw materials

In 2016, the average spot price for iron ore [1] was $57.14/metric ton, up slightly compared to the average 2015 price ($55.66/metric ton).

In 2016, the price of scrap fell in Europe (-12.3% in France) [2] and in the United States [3] (-3.6%) compared to 2015.

Currencies

The Group remains sensitive to volatility in foreign currencies (primarily the Brazilian real and the U.S. dollar) against the euro.

The translation effect is the impact of the changing value of the financial statements of subsidiaries whose functional currency is not the euro on the Group's consolidated financial statements. The effect is positive when the currency rises against the euro and negative when it falls against the euro.

The transaction effect is the difference in revenue (or costs) expressed in the functional currency of contracts that are invoiced in US dollars or indexed against the US dollar. It is positive when the functional currency declines and negative when it rises, with a delay resulting from hedges in place.

In 2016, the decline in the Brazilian real and in the euro against the U.S. dollar allowed the Group to benefit from a positive transaction effect.

In 2016, the slight decrease in the average exchange rate of the Brazilian real against the euro did not have a significant exchange effect, while the stability of the dollar against the euro had a neutral exchange effect on the Group's results.

3.4.2 Significant Events in 2016 and Early 2017

2016 Fiscal year

2016 MAJOR STRATEGIC INITIATIVES

On 1 February 2016, Vallourec announced "major strategic initiatives to transform its operational set-up, improve its competitiveness in the short and longer term and reinforce its financial strength to secure long-term profitable growth and sustained shareholder value creation." These initiatives are structured around three major goals:

1. A global industrial reorganization plan

Europe

Severely affected by overcapacity and competition from low-cost operators worldwide, Vallourec's European activities have been streamlined by centralizing rolling activities in Germany and specialization of finishing activities in France.

This rationalization led to the closure of a threading line in Mülheim, Germany at the start of 2016, and two rolling mills in France, the Déville-Lès-Rouen mill in September 2016 and the Saint-Saulve mill in January 2017, and the heat treatment line in Bellshill, Scotland in November 2016.

In line with its premium positioning, Vallourec concentrates its European activities on the design and production of high added-value products and solutions, and continues to focus on its Research and Development activities in France and Germany.

In order to address its steel production overcapacity, on 21 July 2016, Vallourec announced that it had entered into exclusive negotiations with the Ascometal group, with a view to the disposal of a majority stake in the Saint-Saulve steel mill (Hauts-de-France Region). On 26 January 2017, Vallourec and Asco Industries finalized the purchase by Asco Industries of a 60% majority stake in the Saint-Saulve steel mill, with Vallourec retaining a 40% share.

In addition, Vallourec disposed of Vallourec Heat Exchanger Tubes (VHET), its subsidiary specialized in welded stainless steel and titanium tubes with assets in France, India, the United States, China and Korea, to the US company American Industrial Acquisition Corporation (AIAC) on 29 April 2016.

(1) Platts – IODEX Iron ore fines 62% CFR North China.

(2) Scrap E40 – France – FFA.

(3) Shredded Scrap – USA – CRU

Brazil

On 1 October 2016, in order to streamline its Brazilian activities, and after obtaining authorizations from the competition authorities, Vallourec Tubos do Brasil (VBR, subsidiary held 100% by Vallourec) transferred almost all of the assets and liabilities from its tubular business to Vallourec & Sumitomo Tubos do Brasil (VSB, Jeceaba site operated by a joint venture held 56% by Vallourec, 40.4% by NSSMC and 3.6% by Sumitomo Corp.). At the same time, VSB changed its corporate form and adopted the name "Vallourec Soluções Tubulares do Brasil", increasing its share capital to the benefit of VBR (in consideration of the transfers made) and to the benefit of NSSMC. VSB is now held 84.6% by Vallourec, with NSSMC holding 15% and Sumitomo Corp holding the remaining 0.4%. It enjoys the full benefit of the optimal operational performances of the Jeceaba state-of-the-art PQF®-type rolling mill and premium finishing installations.

The creation of this single production entity will enable Vallourec to generate significant industrial and administrative synergies and to optimize its investments.

Vallourec Soluções Tubulares do Brasil does not include the mine (Vallourec Mineração) or the eucalyptus plantation (Vallourec Florestal).

In connection with the restructuring of VSB, on 1 February 2016, Vallourec Tubes, NSSMC and VSB entered into a new supply agreement, which superseded the 2011 agreement, whereby VSB has undertaken to supply, and NSSMC has undertaken to purchase, a certain percentage of the Jeceaba facility's annual production capacity of pipes (approximately 300,000 metric tons when the facility is running at full capacity). This contract has been entered into for a term of thirty years.

The streamlining of Brazilian activities led to the closure of a blast furnace at the Belo Horizonte site in 2016. The closure of the second blast furnace and the steel mill at Belo Horizonte is planned for fiscal year 2018. Steel production will be concentrated at the state-of-the-art steel mill in Jeceaba.

China

On 29 January 2016, the Group entered into an agreement to increase its holding to around 70.1% of the share capital of Tianda Oil Pipe Company Limited (TOP), a Chinese seamless pipe manufacturer listed on the Hong Kong Stock Exchange. Since 1 April 2011, the Group owned 19.5% of TOP's share capital. At the time the Group acquired this interest, it entered into a shareholders' agreement with the main shareholders of TOP, whereby Vallourec was granted an option to acquire a number of TOP shares allowing it to increase its holding in TOP to at least 50.6%, in the event that Chinese regulations were modified so as to allow foreign companies to control Chinese companies operating in this market.

After obtaining the required authorizations, the Group completed the acquisition on 14 November 2016, bringing its total stake in TOP to 70.0%. At the same time, a compulsory unconditional public offering was launched to purchase the remaining minority stake in TOP, pursuant to the Hong Kong Code of Takeovers and Mergers. Following this stage, which was completed on 2 December 2016, Vallourec announced that it controlled 99.0% of TOP's capital. The total amount of the two transactions (50.6% +29.0%) was €158 million.

TOP's industrial assets include a state-of-the-art PQF®-type rolling mill with a 550,000 metric ton capacity, qualified by leading Oil & Gas customers. Arising out of a successful five-year partnership with TOP, this acquisition will enable Vallourec to develop an expanded offering of highly competitive solutions combining VAM® connections with Tianda's highly competitive tubes, to maintain market share for the VAM® connection.

2. Reinforcement of the partnership between Vallourec and NSSMC

Since 1985, the development of the VAM® connections has been a joint activity of Vallourec and NSSMC. This cooperation has helped make the VAM® brand a global standard on the OCTG market.

This industrial partnership was enhanced, with a plan to capitalize on each group's strengths to ensure the competitiveness of the VAM® connection and ensure long-term technological leadership. It focuses on three areas:

- improving Research and Development efficiency in order to accelerate the development and marketing of new VAM® connections, thereby reinforcing VAM®'s premium positioning worldwide: on 1 February 2016, NSSMC and Vallourec Oil & Gas France entered into an addendum to the R&D contract of 1 April 2007, in order to improve the efficiency of the organization and implementation of their common R&D program for the development of VAM® connections, in particular through a Technical Committee (Technical, Industrialization, and Services Committee) and better organization of the cooperation for each material R&D program;
- the strengthening of the Brazilian organization by merging the activities of the two local companies and the creation of Vallourec Soluções Tubulares do Brasil (see details about the merger of the two companies above);
- lastly, NSSMC, acting as a strategic investor, subscribed to Vallourec's funding round and as at 31 December 2016, it held 14.78% of Vallourec's share capital, compared to 1.45% as at 31 December 2015.

3. Reinforcement of Vallourec's balance sheet

On 1 February 2016, Vallourec announced its plan to raise around €1 billion in order to strengthen its balance sheet and to finance its transformation to ensure its growth in the long term through the issuance of Mandatory Convertible Bonds reserved for Bpifrance Participations and NSSMC, combined with a capital increase, with maintenance of the shareholders' preferential subscription rights (the "Rights Issue").

Under this plan, Bpifrance and NSSMC had agreed to subscribe to the Rights Issue and the issue of the Mandatory Convertible Bonds up to an amount that will result in each holding a 15% stake in the Company share capital, on a diluted basis, following the Rights Issue and after conversion of all of the bonds. NSSMC increased its stake entirely by subscribing to the Rights Issue and bond issue, and Bpifrance could purchase shares on the market before the Rights Issue.

These agreements were subject to (i) the adoption by the Shareholders' Meeting on 6 April 2016 of the resolutions relating to these two transactions, (ii) the decision of the Management Board, acting pursuant to an authorization of the Supervisory Board, to carry out these transactions, (iii) the closing of the Capital Increase no later than 31 December 2016 for NSSMC and 29 July 2016 for Bpifrance (although it was specified that Bpifrance would make best efforts to submit for approval by its governance bodies an extension of such date to 31 December 2016 as promptly as possible), and (iv) the sum of the gross proceeds of these issuances being between €800 million and €1 billion. The Mandatory Convertible Bond issuance is subject to completion of the Capital Increase.

Rights Issue

The Chairman of the Management Board, acting by virtue of the delegation of authority and powers entrusted to him by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, under its eighteenth resolution and the subdelegation of the Management Board, decided, on 7 April 2016, to carry out the rights issue for a total nominal amount of €434,202,976 euros by issuing 217,101,488 new shares with a par value of €2 each, with preferential subscription rights at the rate of 8 new shares for 5 pre-existing shares held, to be subscribed and fully paid-up in cash, for an issue price set at €2.21 per share, comprising €2 of par value and €0.21 of paid-up capital. Pursuant to the eighteenth resolution adopted by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, the issue price was determined on the basis of recommendations of the banking syndicate, pursuant to the usual market practices for this type of transaction, and taking into account current market conditions.

This capital increase was covered by a prospectus filed with the French securities regulator – *Autorité des Marchés Financiers*, AMF – on 7 April 2016, under number 16-126, and took place from 11 to 22 April 2016, inclusive.

Pursuant to their subscription agreements, Bpifrance and NSSMC exercised their preferential subscription rights and subscribed to the Rights Issue on a proportionate basis, for a total amount of around €56 million. In view of the securities custodian certificate prepared by BNP Paribas Securities Services, on 3 May 2016 the Chairman of the Management Board recorded the final completion of the capital increase for a total amount of €479,794,288.48, as reflected in the creation of 217,101,488 new shares.

Issue and redemption of Mandatory Convertible Bonds

The mandatory convertible bond issue took place simultaneously with the closing of the Rights Issue, on 3 May 2016. The issuance of the Bonds was composed of two tranches (Tranche A Bonds and Tranche B Bonds), calibrated so that NSSMC and Bpifrance each hold 15% of the Company's share capital following completion of the Rights Issue and full redemption of the Bonds, on a diluted basis. The issue price of the Tranche A Bonds and Tranche B Bonds will equal their par value. The par value of the Tranche A Bonds was €99 and the redemption ratio for the Tranche A Bonds was 9 shares per Bond (i.e., a reference price for the underlying shares of €11). The par value of the Tranche B Bonds was the subscription price for each new share in the Rights Issue and the redemption ratio for the Tranche B Bonds was one share per Bond. The Bonds and their redemption terms were subject to customary anti-dilution adjustments.

No request was made to admit the Bonds to trading on the regulated market of Euronext Paris and they were in registered form only. The Bonds did not bear interest and were not redeemable for cash. The Bonds were to be automatically redeemed into ordinary shares of the Company (i) upon the receipt of regulatory approvals from the Brazilian antitrust authority and (ii) on the earlier of (a) the last day of the 24th month after the date of their issuance and (b) eight business days prior to the date of the Shareholders' Meeting convened to approve the financial statements of the Company for the fiscal year ending 31 December 2017.

The capital increase resulting from redemption of the Tranche A Bonds was covered by a prospectus filed with the French Financial Markets Authority on 16 March 2016 under number 16-079 and the capital increase resulting from redemption of the Tranche B Bonds was covered by a prospectus filed with the French Financial Markets Authority on 7 April 2016 under number 16-126.

Bpifrance subscribed around €128 million of Tranche A Bonds and around €41 million of Tranche B Bonds. NSSMC subscribed around €260 million of Tranche A Bonds and around €84 million of Tranche B bonds.

Bpifrance having obtained the definitive authorization of the Brazilian competition authority, the redemption of Bpifrance Bonds in shares took place on 3 May 2016, creating 30,282,564 new shares (11,647,134 new shares from the redemption of 1,294,126 Tranche A Bonds and 18,635,430 new shares from the redemption of Tranche B Bonds).

Following NSSMC's obtaining of the definitive authorization of the Brazilian competition authority, the redemption of Bonds subscribed by NSSMC took place on 20 June 2016, creating 61,565,565 new shares (23,679,054 new shares from the redemption of 2,631,006 Tranche A Bonds and 37,886,511 new shares from the redemption of 37,886,511 Tranche B Bonds).

The Rights Issue and the Bond Issue allowed Vallourec to raise €951 million.

SIGNIFICANT EVENTS IN 2016

On 1 February 2016, Vallourec announced that the appointment of three members of the Management Board, whose terms of office expired on 15 March 2016, was being renewed for a period of four years: Philippe Crouzet, Chairman of the Management Board, Jean-Pierre Michel, member of the Management Board and Chief Operating Officer, and Olivier Mallet, member of the Management Board and Chief Financial Officer.

On 30 March 2016, Vallourec announced that it had entered into an agreement with a banking syndicate comprised of five international banks: Banco Santander, BNP Paribas, Crédit Agricole Corporate and Investment Bank, Natixis et Société Générale Corporate & Investment Banking agreed to issue a revolving credit line in the amount of €450 million maturing in February 2020, as well as extending a bilateral renewable line of credit with J.P. Morgan for a period of three years, through its American subsidiary Vallourec Star, in the amount of €80 million.

On 30 March 2016, Vallourec signed a contract with Abu Dhabi National Oil Company ("ADNOC") regarding the supply of tubes to its three operating companies (ADMA-OPCO, ADCO and ZADCO) for the period from 2016-2018. It is the largest OCTG contract (approximately 100,000 tons) entered into by Vallourec with the Emirate of Abu Dhabi. Vallourec supplies a full range of premium OCTG and standard API tubes for onshore and offshore oil wells, from the most traditional to the most complex. This contract also provides for the delivery of high torque VAM® connections, for extended-reach drilling, as well as corrosion-resistant steel alloys for acidic environments. Finally, supervision and inspection operations are handled by Vallourec experts.

On 27 May 2016, Vallourec Tube-Alloy, a subsidiary wholly owned by Vallourec which is dedicated to the production and repair of accessories used inside oil wells, announced the opening of a new facility in Singapore, under the name "Vallourec Tube-Alloy Asia-Pacific". This new site supports the Group's OCTG activities by strengthening the geographical footprint of Vallourec Tube-Alloy, whose primary base is four production units in the United States.

On 8 November 2016, Vallourec announced that it had finalized the strategic partnership in the field of offshore pipeline welding announced at the beginning of 2016, between its subsidiary Serimax and its longstanding customer Technip. Under this partnership, Technip purchased a 20% stake in Serimax. The strategic partnership includes exclusive arrangements with respect to both offshore pipeline-welding (1) and related Research and Development programs. Serimax is rolling out its welding technology to all of the Technip spoolbases (2) and S-lay (3) vessels. Serimax is an independent supplier of services and technologies and is continuing to provide solutions to all of its customers in the subsea and onshore line pipe markets, and in the tubular sub-assembly and assembly markets.

On 14 December 2016, Vallourec announced it had finalized Value 16, a capital increase reserved for its employees worldwide. Close to 10,000 employees in 11 countries, representing 54% of eligible employees, subscribed for this ninth worldwide employee stock plan offered by the Group. As of 31 December 2016, employee shareholders made up 3.5% of Vallourec's shareholding structure.

Q1 2017

On 18 January 2017, Vallourec announced the new organizational structure of the Group intended to allow it to take full advantage of its Transformation Plan. The objective of the new organizational structure is to strengthen the Group's local presence and its proximity to customers, optimize the overall use of its resources and boost its development. This new structure, which takes effect on 3 April 2017, will be organized around four Regions, North America, South America, Europe/Africa (EA) and Middle East/Asia (MEA), and two Central Departments, the Development and Innovation Department (D&I) and the Technology and Industry Department (T&I).

On 26 January 2017, Vallourec and Asco Industries announced the purchase by Asco Industries of a 60% majority stake in the Saint-Saulve steel mill, with Vallourec retaining a 40% share. The two shareholders in Ascoval, a new entity created to hold the steel mill assets, will be supplied by the Saint-Saulve steel mill in the amount of 275,000 metric tons, beginning at the end of 2017. This volume ensures that the steel mill can function sustainably and be competitive.

(1) Reel laying is a method where subsea line pipes are assembled at an onshore spoolbase, then rolled onto spools onboard ships or in port. The line pipe is then unrolled during the course of offshore activity.

(2) Spoolbases are used mainly for the assembly of rigid subsea line pipes and for rolling them onto spools. These line pipes are intended to be laid by specialized ships using a reel lay method. Technip owns and operates four spoolbases located close to its customers' subsea installations.

(3) S-laying is a way of laying subsea line pipes where all assembly operations are carried out horizontally on the ship. The line pipe is simultaneously laid subsea.

3.5 Results of operations

3.5.1 Consolidated Group results

Income statement

Comparison of FY 2016 with FY 2015

Consolidated data *In € million*	**2015**	**2015**	**Change 2016/2015**
Sales volume *(in thousands of metric tons)*	**1,411**	**1,281**	**-9.2%**
Revenue	**3,803**	**2,965**	**-22.0%**
Cost of sales [(a)]	(3,352)	(2,727)	-18.6%
Industrial margin	**451**	**238**	**-47.2%**
(as a % of revenue)	*11.9%*	*8.0%*	*-3.9 pt*
Sales, general and administrative costs [(a)]	**(513)**	**(448)**	**-12.7%**
(as a % of revenue)	*13.5%*	*15.1%*	*-1.6 pt*
EBITDA	**(77)**	**(219)**	**n. a.**
(as a % of revenue)	*-2.0%*	*-7.4%*	*-5.4 pt*
Depreciation of industrial assets	(303)	(283)	-6.6%
Amortization, restructuring and other	(162)	(176)	n. a.
Impairment	(296)	(71)	n. a.
Operating profit/loss	**(838)**	**(749)**	**-10.6%**
NET INCOME, GROUP SHARE	**(865)**	**(758)**	**-12.4%**

(a) Before amortization.

Production

The diversity of the Group's products and the absence of appropriate units of measurement, other than financial units, prevent the provision of meaningful information on production volumes. However, the following table provides a summary of production output, which corresponds to the volumes produced in Vallourec rolling mills, expressed in metric tons of hot-rolled seamless tubes:

In thousands of metric tons	**2015**	**2016**	**Change 2016/2015**
Q1	412	251	-39.1%
Q2	362	321	-11.3%
Q3	317	333	+5.0%
Q4	320	376	+17.5%
TOTAL	**1,411**	**1,281**	**-9.2%**

The 9.2% decrease in volumes in 2016 as compared with 2015 is due mainly to the reduction in Oil & Gas volumes in the United States (despite an increase in the fourth quarter of 2016 compared with the previous year) and in South America, and in Industry volumes in Europe and Brazil.

Revenue

The data presented "at constant exchange rates" is calculated by eliminating the translation effect into euros of the revenues of the Group's subsidiaries whose functional currency is not the euro. The translation effect is eliminated by applying 2015 exchange rates to these subsidiaries' 2016 revenue. However, the transaction effect—resulting from commercial exposure from sales and purchases entered into by certain of the Group's subsidiaries in currencies other than their functional currency—has not been eliminated. An estimate of the transaction effect on the Group's revenue is presented below.

CONSOLIDATED REVENUE

Consolidated revenue was €2,965 million in 2016, a fall of 22.0% (-21.2% at constant exchange rates), due to a decline in volumes (-9.2%), especially in the Oil & Gas market in the United States and South America, and Industry volumes in Europe and Brazil, and negative price/mix effects of -12.0% resulting primarily from price deterioration in the EAMEA and the United States.

REVENUE BY GEOGRAPHICAL MARKET

The following table shows the change in consolidated revenue by geographic region in which products were sold between 2015 and 2016:

In € million	2015	% of revenue	2016	% of revenue	Change 2016/2015 at current exchange rates	Change 2016/2015 at constant exchange rates
France	114	3.0%	91	3.1%	-20.2%	-20.2%
Germany	316	8.3%	280	9.4%	-11.7%	-11.7%
Other EU countries [(a)]	419	11.0%	276	9.3%	-34.1%	-32.0%
Total Europe	**849**	**22.3%**	**647**	**21.8%**	**-23.8%**	**-22.7%**
North America	**1,096**	**28.8%**	**559**	**18.9%**	**-49.0%**	**-48.7%**
Brazil	555	14.6%	456	15.4%	-17.8%	-16.2%
Other Central & South America	41	1.1%	11	0.3%	-73.2%	-73.2%
Total South America	**596**	**15.7%**	**467**	**15.7%**	**-21.6%**	**-20.1%**
China	262	6.9%	257	8.6%	-2.3%	-0.8%
Other Asia and Middle East	590	15.5%	591	20.0%	+0.2%	-0.2%
Total Asia and Middle East	**852**	**22.4%**	**848**	**28.6%**	**-0.5%**	**-0.4%**
CIS	31	0.8%	27	0.9%	-9.7%	-9.7%
Rest of the world	379	10.0%	417	14.1%	+10.0%	+11.6%
Total Rest of the world	**410**	**10.8%**	**444**	**15.0%**	**+8.3%**	**+10.0%**
TOTAL REVENUE	**3,803**	**100.0%**	**2,965**	**100.0%**	**-22.0%**	**-21.2%**

(a) Other European Union countries, excluding Germany and France.

Revenue was down in almost all regions in 2016. The decrease was especially pronounced in the Oil & Gas activity in North America, Europe, and South America.

Below is a breakdown of revenue by activity.

REVENUE BY ACTIVITY

Consolidated revenue decreased in 2016 in all of the Group's activities, especially in Oil & Gas and Petrochemicals. The following table shows the breakdown of the Group's revenue by activity in 2015 and 2016:

In € million	2015	2016	% change at current exchange rates	% change at constant exchange rates [(a)]
Oil & Gas	2,361	1,791	-24.1%	-23.3%
Petrochemicals	205	129	-37.1%	-37.1%
Oil & Gas and Petrochemicals	**2,566**	**1,920**	**-25.2%**	**-24.4%**
Power Generation	**559**	**486**	**-13.1%**	**-12.5%**
Mechanicals	363	279	-23.%	-22.9%
Automotive	114	101	-11.4%	-11.4%
Construction & other	201	179	-10.9%	-8.5%
Industry and other [(b)]	**678**	**559**	**-17.6%**	**-16.6%**
TOTAL	**3,803**	**2,965**	**-22.0%**	**-21.2%**

(a) The change at constant exchange rates is defined as the change in revenue between two periods obtained by translating the revenues of consolidated subsidiaries whose functional currency is not the euro into euros at the average cumulative rate of the prior period. It does not include foreign currency impacts on sales entered into by certain subsidiaries in currencies other than their functional currency. Rather, that impact is built into price/mix effects.

(b) Including sales of iron ore.

Oil & Gas, Petrochemicals (64.8% of consolidated revenue)

In 2016, Oil & Gas revenue was €1,791 million, down 24.1% year-on-year (down 23.3% at constant exchange rates):

- In the **USA**, Oil & Gas revenue in 2016 was significantly down compared to 2015, impacted by lower prices along with low H1 2016 volumes. After bottoming out in Q2 2016, the number of active rigs increased until the end of 2016, triggering gradual restocking at distributors in Q3 and Q4. Q4 2016 revenue was up sequentially, but prices remained at their low H1 level.

  Entering 2017, the OCTG demand is strong, driven by higher final consumption and restocking at distributors. The significant surge in scrap prices at the end of 2016 and beginning of 2017 is expected to largely offset H1 2017 positive volume effect compared to H2 2016. OCTG price increases announced in December 2016 and January 2017 should mostly impact the second half of the year.

- In the **EAMEA** [(1)] region, Oil & Gas revenue in 2016 was slightly down. Slightly higher OCTG volumes year-on-year as a result of tenders awarded by NOCs were more than offset by the low prices prevailing in the region, while IOCs continued to reduce their Capex.

  In the absence of a recovery in the offshore market, the revenue in this region beginning 2017 is mainly driven by the backlog of contracts awarded in 2016 by NOCs, at lower prices than for H1 2016 deliveries.

- In **Brazil**, Oil & Gas revenue in 2016 was significantly down year-on-year, essentially as a result of Petrobras's capex cuts. H2 2016 deliveries were as planned heavily concentrated over Q3.

  Based on Petrobras' new five-year Business and Management Plan, Oil & Gas revenue is expected to remain broadly stable in 2017.

Petrochemicals 2016 revenue was €129 million, down 37.1% year-on-year (down 37.1% at constant exchange rates).

Power Generation (16.4% of consolidated revenue)

In 2016, Power Generation revenue amounted to €486 million, down 13.1% year-on-year at current perimeter [(2)] (down 12.5% at constant exchange rates).

Excluding Vallourec Heat Exchanger Tubes which was divested in May 2016, Power Generation revenue was slightly down in 2016. The increase of conventional power generation revenue in 2016 thanks to deliveries for coal-fired power plants in China was offset by the significant revenue decline in the nuclear activity.

Entering 2017, Vallourec expects a progressive slowdown in conventional power generation activity in China.

Industry & Other (18.8% of consolidated revenue)

In 2016, Industry & Other revenue amounted to €559 million, down 17.6% year-on-year (down 16.6% at constant exchange rates):

- In **Europe**, Industry & other revenue in 2016 was down as a result of the decline in volumes and prices.

(1) EAMEA: Europe, Africa, Middle East, Asia.

(2) Vallourec Heat Exchanger Tubes was deconsolidated on 1 May 2016.

- In **Brazil**, Industry & other revenue was slightly down in 2016. While the Automotive and Mechanical sectors revenue was slightly up compared to 2015 thanks to a better H2 year-on-year, iron ore revenue was down in 2016 due to the decrease in iron ore prices.

Entering 2017, no significant change is occurring in these market segments with the exception of the iron ore prices rebound.

REVENUE BY QUARTER

In € million	1st quarter	2nd quarter	3rd quarter	4th quarter	Fiscal year
2015	1,052	1,018	872	861	3,803
2016	671	763	693	838	2,965
% change compared with the previous year	-36.2%	-25.0%	-20.5%	-2.7%	-22.0%
volume effect	*-39.1%*	*-11.3%*	*+5.0%*	*+17.5%*	*-9.2%*
translation effect	*-3.1%*	*-3.6%*	*+0.1%*	*+4.7%*	*-0.8%*
other effects (price, mix, etc.)	*+6.0%*	*-10.1%*	*-25.6%*	*-24.9%*	*-12.0%*

The fall in revenue was particularly significant in the first quarter, mainly because the first quarter of 2015 was still protected by a strong order book from the end of 2014 in the Oil & Gas market in the United States. In the fourth quarter of 2016, the Group benefited from the recovery of volumes in the United States.

EBITDA

EBITDA was -**€219 million** in 2016, compared to a loss of €77 million in 2015, essentially due to the decrease in volumes, partially offset by a decrease in the raw materials expense, a decrease in variable costs, and savings related to the implementation of the Transformation Plan.

The following table shows the changes in the principal components of EBITDA in 2015 and 2016.

In € million	2015	2016	Change 2015/2016 (%)
Revenue	**3,803**	**2.965**	**-22.0%**
Cost of sales	(3,352)	(2,727)	-18.6%
Industrial margin	**451**	**238**	**-47.2%**
% of revenue	*11.9%*	*8.0%*	*-3.9 pt*
Sales, general and administrative costs	(513)	(448)	-12.7%
Other expenses	(15)	(9)	N/A
EBITDA	**(77)**	**(219)**	**N/A**
% of revenue	*-2.0%*	*-7.4%*	*-5.4 pt*

INDUSTRIAL MARGIN

Industrial margin is defined as the difference between revenue and cost of sales (excluding depreciation).

Despite a high level of adaptation of variable costs and a reduction in industrial fixed costs, the industrial margin was mainly impacted by the reduction in business and, to a lesser extent by the inefficiencies associated with low loads in the mills.

The following table shows the breakdown of cost of sales (excluding depreciation) in 2015 and 2016:

In € million	2015	2016	Change 2016/2015
Direct cost of sales	215	157	-27.0%
Cost of raw materials consumed	1,201	935	-22.1%
Labor costs	837	747	-10.8%
Other manufacturing costs [(a)]	957	892	-6.1%
Change in non-raw material inventories	144	-4	n. s.
TOTAL	**3,352**	**2,727**	**18.6%**

(a) "Other manufacturing costs" consist mainly of energy and consumable materials costs, subcontracting and maintenance costs, and provisions.

SALES, GENERAL AND ADMINISTRATIVE COSTS

Sales, general and administrative (SG&A) costs were down 12.7% to €448 million in 2016.

This improvement was the result of the priority given to cost reduction under the Transformation Plan, and this was despite inflation effects which were detrimental to Brazil.

The following table shows the breakdown of SG&A expenses (excluding depreciation) in 2015 and 2016:

In € million	2015	2016	Change 2016/2015
Research and Development costs	82	60	-26.8%
Sales and marketing expenses	99	87	-12.1%
General and administrative expenses	332	301	-9.3%
TOTAL	**513**	**448**	**-12.7%**

LABOR COSTS

Labor costs are divided among cost of sales; sales, general and administrative costs; and other operating expenses.

In 2016, total labor costs were €994 million compared €1,120 million in 2015. The decrease was due mainly to decreased headcount (like for like) resulting from the implementation of the Transformation Plan.

As of the end of 2016, the headcount of consolidated companies, excluding temporary workers, was stable as compared with 2015, with changes in scope taken into account.

Employee costs are broken down as follows (in thousands of euros):

In € million	2015	2016	Change 2016/2015
Wages and salaries	796	763	-4.1%
Employee profit sharing	33	19	-42.4%
Expenses relating to share subscription and share purchase options, and performance shares	1	4	300.0%
Social security costs	289	208	-28.0%
TOTAL	**1,120**	**994**	**-11.2%**

Headcount has changed as follows:

Headcount as of year-end of consolidated companies [(a)]	2015 [(a)]	2016 [(b)]	Change 2016/2015
Managers	3,358	3,299	-59
Technical and supervisory staff	3,334	3,107	-227
Production staff	12,615	12,836	+221
TOTAL	**19,307**	**19,242**	**-65**

(a) In 2015, the workforces of companies recorded as joint ventures are included up to the percentage interest held.

(b) Group changes in scope in 2016 had the following impacts on headcount: an increase of 1,514 people in connection with the integration of Tianda OP, and 699 people in connection with the takeover of VSB (44% not taken into account previously) and a reduction of 583 people following the disposal of VHET.

For more detail on the workforce, see Chapter 4 of this Registration Document.

Operating profit/(loss)

Operating loss was €749 million in 2015, compared with a loss of €838 million in 2014.

This improvement results primarily from less significant depreciation of assets compared to 2015, partially offset by a decrease of €142 million in EBITDA.

DEPRECIATION OF INDUSTRIAL ASSETS

Depreciation of industrial assets was down slightly to €283 million in 2016, as compared with €303 million in 2015.

AMORTIZATION, RESTRUCTURING AND OTHER

Depreciation of non-industrial assets was €49 million, as compared with €44 million in 2015.

Adaptation measures (net of expenses and provisions) totaled €111 million and essentially relate to strategic initiatives announced on 1 February 2016 (primarily, the closure of production units in Europe and the adaptation of the Brazilian industrial plan), an increase of €10 million compared to 2015.

Results of disposals and scrapping of property, plant and equipment totaled €16 million, as compared with €17 million in 2015, and consisted mainly of transactions relating to business combinations in 2016.

IMPAIRMENT

Impairments have been booked for a total amount of €71 million, and result from the strategic initiatives announced on 1 February 2016.

Asset impairment can be broken down as follows:

In € million	2015	2016
Losses in value of intangible assets	-	-
Losses in value of property, plant and equipment	163	58
Losses in value of goodwill	36	-
Other asset impairment	97	13
TOTAL	**296**	**71**

Financial income/(loss)

The worsening of financial income/(loss), which was -€130 million in 2016 as compared with -€75 million in 2015, is essentially explained by the two following items:

- a €20 million deterioration in net financial cost, due in particular to the increase in average outstanding gross debt over the 2016 year, which more than offset a reduction in financial income;
- foreign exchange result, mainly impacted by the increase in outstanding hedges for intragroup loans in foreign currencies.

Financial income/(loss) is broken down as follows:

In € million	2015	2016	Change 2016/2015
Financial income	37	30	-18.9%
Interest expense	(112)	(125)	+11.6%
Net financial cost	**(75)**	**(95)**	**-26.7%**
Other financial income and expense	**7**	**(26)**	**-71.4%**
Other discounting expenses	**(7)**	**(9)**	**+28.6%**
FINANCIAL INCOME/(LOSS)	**(75)**	**(130)**	**+73.3%**

Income tax expense

Income tax was a gain of €80 million in 2016 as compared with a profit of €15 million in 2015.

The actual tax rate was +9%, as compared with +2% in 2015, and is primarily due to the following:

- the impact of tax loss carryforwards and temporary differences consisted mainly of the non-recognition of deferred tax assets for the fiscal year in France, Germany, and China;
- permanent differences consisting mainly of the impact of financial expenses, the profit/loss on minority interests, withholding taxes, the merger of our two Brazilian subsidiaries and by the impact of free share allocations.

Net income/(loss)

The share of non-controlling interests totaled -€50 million in 2016, compared with -€33 million in 2015, principally due to the decrease in the Group's results in the Americas.

Net income, Group share was a loss of -€758 million, compared with a loss of -€865 million in 2015.

The Group's net result, Group share on a per-share basis was a loss of -€2.3, as compared with a loss of -€6.6 per share.

3.5.2 Liquidity and capital resources

3.5.2.1 Overview

In 2016, the Group generated negative free cash flow (as defined in Section 3.5.2.4, "Free Cash Flow" below) of €395 million, despite a reduction in working capital requirement and strict discipline with respect to capital expenditures. Net debt decreased from €1,519 million at the end of 2015 to €1,287 million as of 31 December 2016.

As of 31 December 2016, gross financial debt totaled €2,574 million, including €1,121 million in medium-and long-term financial debt and €1,453 million in current financial debt. As of the same date, the Group had €1,287 million in cash and cash equivalents. It also had undrawn credit lines for €2,310 million at the end of 2016.

Despite the negative consolidated net result, Group equity increased in 2016, due to the capital increase and to the impact of foreign exchange on the translation reserves of the Brazilian subsidiaries' equity.

As a result, the net debt to equity ratio went from 50.0% as of 31 December 2015 to 34.1% as of 31 December 2016.

3.5.2.2 Cash flow

Simplified statement of cash flows

In € million	2015	2016
Cash flow from operating activities	(229)	(399)
Change in operating working capital requirement	632	179
Net cash flow from operating activities (1)	**403**	**(220)**
Net cash flow from investment activities (2)	**(279)**	**(267)**
Net cash flow from financing activities (3)	**(553)**	**1,095**
Impact of changes in exchange rates (4)	(55)	44
CHANGE IN CASH (1 + 2 + 3 + 4)	**(484)**	**652**

NET CASH FLOW FROM OPERATING ACTIVITIES

Net cash flow from operating activities was -€220 million in 2016, as compared with €403 million in 2015.

Cash flow from operating activities was -€399 million in 2016, notably due to the decline in EBITDA. This decrease was partially offset by the positive change in working capital requirement of €179 million, resulting from a sharp drop in inventory and trade receivables.

The change in working capital requirement is broken down as follows:

Gross amounts, in € thousand	31/12/2015	Goodwill	Change	Reclassification and other	31/12/2016
Inventory	1,234,047	54,031	(168,198)	120,632	1,240,512
Customers	599,719	24,459	(123,403)	78,393	579,168
Trade payables	(523,476)	(8,235)	84,172	(82,852)	(530,391)
Other receivables and payables	7,306	28,826	5,281	41,265	82,678
Gross working capital requirement (1)	**1,317,596**	**(99,081)**	**(202,148)**	**157,438**	**1,371,967**
Impact of hedging instruments (2)			**22,517**		
TOTAL (1) + (2)			**(179,631)**		
Change in working capital requirement from statement of cash flows			**179,631**		

NET CASH FLOW FROM INVESTMENT ACTIVITIES

Net cash flow from investment activities was -€267 million in 2016, as compared with -€279 million in 2015. The decreased amount is due principally to the decrease in cash outflows for acquisitions of property, plant and equipment and intangible assets, which totaled -€168 million in 2016 as compared with -€255 million in 2015, which was primarily the result of greater selectivity in choosing projects and the impact of changes in scope in the amount of -€106 million. See Section 3.5.2.3, "Capital Expenditures for 2015-2016" of this Registration Document for a description of the main investments in 2015 and 2016.

NET CASH FLOW FROM FINANCING ACTIVITIES

Net cash flow from financing activities was +€1,095 million in 2016, as compared with -€553 million in 2015.

Net cash inflow in 2016 consisted primarily of cash inflows relating to €720 million in new loans and capital increases in the amount of €980 million, partially offset by loan repayments in the amount of €586 million. In 2015, the Group had a cash outflow of €858 million in loan repayments and a cash inflow of €417 million relating to new loans.

3.5.2.3 Capital expenditures

INVESTMENT DECISIONS

Investment decisions are a central pillar of the Group's strategy, addressing the following requirements:

- keeping personnel and facilities safe and complying with legal obligations, in particular those relating to safety and the environment;
- developing Vallourec's activities through organic and external growth;
- optimizing production units' economic performance and enhancing the quality of Group products; and
- maintaining and, where necessary, replacing obsolete facilities.

Investment decisions are made through a dedicated process that systematically includes an economic study and risk assessment to ensure that the selected projects will support long-term growth and deliver an acceptable return on investment.

In all its investment projects, Vallourec attaches great importance to ensuring that environmental impact and energy savings receive special focus.

Beginning in 2015, the Group began the process of authorizing investments by implementing the following actions:

- systematic preparation for each project of more than €1 million through three "Front End Loading" steps;
- qualification of each of the three steps by a Qualification Committee bringing together the Group's experts. During this process, the essential aspects of the projects (market assumptions, technical choices, budget, planning and risks), are systematically examined and fleshed out; and
- an authorization at each of the three steps by a committee including the Director of Management Control and the Director of Investments and Major Projects for projects of over €1 million. The members of the Management Board are part of this committee for projects of over €5 million. At committee meetings, projects compete with each other in terms of alignment with strategy, profitability and risk, while complying with the Group's budget limitations.

MAIN INVESTMENTS DURING THE 2015-2016 PERIOD

In recent years, industrial capital expenditure programs have been directed mainly toward streamlining production facilities, improving quality and process control, adapting product lines to reflect customers' changing requirements, expanding premium product finishing capacity and reducing production costs.

Over the past two fiscal years, investments have been made as follows:

Industrial capital expenditure excluding changes in scope (property, plant and equipment, intangible and biological assets)

In € million	31/12/2015	31/12/2016
Europe	108.7	95.0
North America	66.4	18.0
Central & South America	59.6 [(a)]	53.7 [(b)]
Asia	15.5	9.7
Other	0.6	0.1
TOTAL INDUSTRIAL CAPITAL EXPENDITURE [(c)]	**250.8 [(a)]**	**176.5 [(b)]**
Capital expenditure payments during the year [(c)]	268.1	175.4
ACQUISITIONS AND FINANCIAL INVESTMENTS	**0**	**0**

(a) Including €13.2 million for biological assets.

(b) Including €6.6 million for biological assets.

(c) The difference between capital expenditure payments and the total of industrial capital expenditure corresponds to the variation of amounts payable on fixed assets.

The most significant investment programs carried out in 2015 and 2016 are outlined below:

In 2015

The investment program was significantly reduced (-30%) due to the Group's decreased activity. The programs initiated in previous years still represented 56% of 2015 expenses.

The main new investments committed to in 2015 were as follows:

- planting 1,232 hectares of eucalyptus, to meet the needs of Vallourec Tubos do Brasil S.A. and Vallourec & Sumitomo Tubos do Brasil, as well as the construction of new combustion ovens for the production of charcoal (Brazil);
- expanding the capacity of the Jeceaba steel mill to include smaller-diameter round pipes for the Group's other rolling mills (Brazil); and
- a large number of projects aiming to improve productivity and costs in connection with the Valens plan, as well as the safety and general condition of equipment.

In 2016

The investment program was significantly reduced again (-35%) due to the continuing decrease in the Group's activity. The programs initiated in previous years still accounted for 65% of expenditure in 2016.

The main new investments to in 2016 were as follows:

- planting 52 hectares of eucalyptus, to meet the needs of Vallourec Soluções Tubulares do Brasil, as well as the construction of new combustion ovens for the production of charcoal (Brazil);
- reconfiguring the flows for the Déville et Saint-Saulve tube mills to adhere to the European industrial plan;
- the first industrial line in Europe for the new Cleanwell process for OCTG products;
- numerous projects intended to improve productivity and costs in connection with the Valens plan and the Group Transformation Plan, as well as the safety and general condition of equipment.

MAIN INVESTMENTS PLANNED FOR 2017

Investment expenditures in 2017 will be capped at €180 million.

In particular, the 2017 plan provides for the following:

- continuation of the industrialization of the new Cleanwell process in Europe for OCTG products;
- supporting the Group Transformation Plan through projects in Europe and Brazil, as well as projects to upgrade the Anhui Tianda Oil Pipe installations (China);
- improving the safety of people and facilities.

3.5.2.4 Free cash flow

In 2016, free cash flow totaled -€395 million, as compared with positive free cash flow of €135 million in 2015. Free cash flow is defined as net cash flow from operating activities minus gross capital expenditures. The following table shows the calculation of free cash flow in 2015 and 2016:

In € million	2015	2016
Cash flow from operating activities	(229)	(399)
Change in operating working capital requirement + decrease, (increase)	+632	+179
Net cash flow from operating activities	**+403**	**(220)**
Gross capital expenditures	(268)	(175)
FREE CASH FLOW	**135**	**(395)**

3.5.2.5 Liquidity and indebtedness

As of 31 December 2016, gross consolidated financial debt totaled €2,574 million, including €1,121 million in medium and long-term financial debt and €1,453 million in current financial debt. As of the same date, the Group had €1,287 million in cash and cash equivalents. Net debt thus totaled €1,287 million at the end of 2016, a decrease of €232 million as compared with €1,519 million as of 31 December 2015.

As of 31 December 2016, Vallourec had undrawn confirmed credit lines in the amount of €2,240 million, with no significant maturity dates before July 2017. The amount available under these credit lines will be €2,040 million at the end of 2017 and 2018, €2,018 million at the end of 2019, and €1,079 million at the end of 2020.

The net debt to equity ratio was 34.1%, compared to a ratio of 50.0% at the end of 2015.

Group financial resources can be broken down into bank financing and market financing.

Most of the Group's long-term and medium-term bank financing was set up in Europe at the level of Vallourec and its sub-holding company Vallourec Tubes and, to a lesser extent, at the level of its subsidiaries in Brazil and the United States. Market financing is arranged exclusively by Vallourec.

The following table shows the Group's principal financial indebtedness as of 31 December 2016:

In € million	As at 31 December 2016
Bond issue maturing in February 2017	650
Private placement – maturing in August 2019	398
Private placement – maturing in August 2027	54
Bond issue maturing in September 2024	498
Commercial paper	307
VSB BNDES loan	17
Jeceaba Finance Lease – Brazil	94
Bilateral credit lines – U.S.	76
Vallourec Star finance lease	34
Other	446
TOTAL GROSS FINANCIAL INDEBTEDNESS	**2,574**

All of these bank facilities (revolving credit facility of €1.1 billion maturing in February 2019, extended once for €1.078 billion maturing in February 2020, and a second time for €989 million maturing in February 2021, a revolving credit line of €400 million maturing in July 2020, a revolving credit line of €450 million maturing in February 2020, a bilateral facility of €90 million maturing in February 2021) provides for Vallourec's compliance with a consolidated net debt-to-equity ratio that is less than or equal to 75%, calculated on 31 December of each year. For 2018, 2019, and 2020, this ratio was taken to 100% for all Vallourec's bank facilities through amendments of 17 March 2017. The Group's consolidated debt to equity ratio was 35% as at 31 December 2016, as calculated under the Group's bank loan covenants. As defined in the bank loan agreements, the "banking covenant" ratio is the ratio of the Group's consolidated net debt to the Group's equity, restated for gains and losses on derivatives and for remeasurements (foreign currency gains and losses of consolidated subsidiaries).

A change in control of Vallourec could trigger acceleration of all or some of the credit lines, as decided by each participating bank. It is also provided that the credit lines will become immediately due and payable if the Group defaults on the one of its financial debts ("cross default"), or if a significant event occurs that will have an impact on the Group's activity or financial condition and its ability to repay its debt.

The following table shows the repayment schedule for the Group's medium-and long-term debt as of 31 December 2016:

In € thousand	> 1 year	> 2 years	> 3 years	> 4 years	5 or more years	Total
As of 31/12/2015	**702,822**	**42,682**	**412,558**	**14,078**	**590,815**	**1,762,955**
Financial leases	37,017	10,606	10,636	10,672	44,101	113, 032
Other non-current financial debts	16,979	411,006	12,387	3,991	563,253	1,007,616
AS OF 31/12/2016	**53,996**	**421,612**	**23, 023**	**14,663**	**607,354**	**1,120,648**

3.5.2.6 Equity

The Group's equity totaled €3,778 million as of 31 December 2016, a significant increase as compared with €3,038 million as of 31 December 2015. This increase can be explained by the following main factors:

- on 3 May 2016, Vallourec carried out a rights issue in the amount of €480 million. In combination with the reserved issue of bonds redeemable in shares in the amount of €514 million subscribed by Bpifrance Participations SA and Nippon Steel & Sumitomo Metal Corporation, this capital increase allowed Vallourec to finalize the overall capital increase announced for a net amount of €951 million;
- the Group's negative net result recorded in 2016, for an amount of -€808 million;
- the impact of changes in the scope of consolidation in the amount of €219 million euros; and
- a change in foreign currency translation reserve of +€340 million, primarily due to the impact on the equity of the Brazilian entities of the decline in the Brazilian real against the euro.

3.5.3 Accounting impacts of the strategic agreements announced on 1 February 2016

The acquisitions announced by the Group on 1 February 2016, namely Vallourec's acquisition of an additional 50.6% of the Chinese company Tianda Oil Pipe ("TOP") and its acquisition of exclusive control of Vallourec & Sumitomo Tubos do Brasil ("VSB") by partial contribution of assets and liabilities held by Vallourec Tubos do Brasil (a wholly owned subsidiary of Vallourec) took place in the fourth quarter of 2016:

- on 1 October 2016, Vallourec finalized the transfer of the tubular business of Vallourec Tubos do Brasil (VBR), a wholly owned subsidiary, to Vallourec & Sumitomo Tubos do Brasil (VSB), a 56%-owned joint venture. This transaction led to the takeover of VSB (renamed Vallourec Soluções Tubulares do Brasil) by Vallourec, whose percentage stake has increased to 84.6% from 56%, and includes the sale of minority interests to the partners NSSMC and Sumitomo Corp., amounting to 15.4%. The new VSB entity has been fully consolidated in Vallourec's financial statements since 1 October 2016, and the stakes of the Japanese partners are recognized as non-controlling interests;
- on 2 December 2016, Vallourec held 99.0% of the capital of Tianda Oil Pipe after the acquisition of a majority stake of 50.6% in November and the success of the compulsory unconditional public offering. Tianda Oil Pipe was consolidated under the equity method (19.5%) in 2016 and the takeover was recorded in the Group balance sheet on 31 December 2016.

The accounting impacts are set out in Chapter 6, detailed by balance sheet item, and in Note 34 of the Notes to the Consolidated Financial Statements.

3.6 Outlook

3.6.1 2017 outlook

The targets presented below are based on data, assumptions and estimates considered to be reasonable by the Group as of the date of this Registration Document. These data, assumptions and estimates may evolve or be modified due to uncertainties relating, in particular, to economic, financial, competitive, tax or regulatory conditions. The occurrence of one or more of the risks described in Chapter 5, “Risk Factors” of this Registration Document could have an impact on the Group’s activities, financial condition, results of operations or outlook and thus threaten its ability to achieve its targets. The Group therefore can give no assurances and can provide no guarantee that the targets presented below will be achieved.

Main assumptions

Based on the Group’s 2016 results of operations and the principal market trends, the following assumptions have been used for 2017:

a) in Europe, an assumption that moderate inflation, excluding raw materials, will increase compared to 2016. In Brazil the inflation assumption remains strong, but weaker compared to the previous year;

b) an assumption of an average annual increase in the price of raw materials, which is expected to remain volatile;

c) for the translation of income and expenses and commercial transactions in currencies not yet hedged, exchange rate assumptions for EUR/USD and EUR/BRL are at levels comparable to the beginning of 2017;

d) continuing recovery of drilling activities in the United States, as seen at the end of 2016. The price rises announced by Vallourec in December 2016 and January 2017 should mainly impact the second half of the fiscal year;

e) no improvement in the Oil & Gas activity, except for the United States and an economic context similar to 2016. Further deterioration in the economic situation or in drilling activity could affect Vallourec’s results of operations;

f) a macroeconomic environment in Brazil that continues to be difficult;

g) an environment that remains very competitive, including for “premium” products;

h) no changes in accounting methods;

i) benefits from our cost reductions announced on 1 February 2016 in accordance with the announced schedule; and

j) the following main changes in the scope of consolidation: full-year effect of the 100% consolidation of Tianda and VSB.

2017 outlook

In 2017, Oil & Gas revenue is expected to grow significantly in the US.

In the rest of the world, the sanctioning of new large projects by IOCs has not yet restarted, and deliveries should mainly rely on NOCs, at lower prices than those registered for deliveries at the start of 2016.

Drilling activity in Brazil in 2017 is expected to remain broadly stable compared to 2016.

Other Group businesses should continue to experience low demand in a competitive pricing environment.

Raw material costs have been increasing since Q4 2016 and should stay volatile.

Initiatives deployed as part of the Transformation Plan will enable the Group to continue to lower its cost base.

Therefore, based on current forex and market conditions, Vallourec targets full year 2017 EBITDA to improve by €50 million to €100 million compared to FY 2016.

3.6.2 Medium-term outlook

The trends and targets presented below do not constitute forecast data or forecasts or targets for the Group’s profits, but rather express the intended effect of its strategic direction. The data and assumptions presented below may evolve or be modified on the basis of changes in economic, financial, competitive, regulatory or tax conditions, or based on other factors of which the Group is not aware as of the date of this Registration Document.

Moreover, the occurrence of one or more of the risks described in Chapter 5, “Risk Factors” of this Registration Document could have an impact on the Group’s activities, financial condition, results of operations or future prospects and thus threaten its ability to achieve the targets presented below.

In addition, the achievement of these targets depends on the success of the Group’s strategy.

Therefore, the Group can give no assurances and can provide no guarantee that the targets presented below will be achieved, and does not undertake to publish or disclose any corrections or updates to this information.

The Group used assumptions that were consistent with the data observed at the end of 2015 as well as an assumption of a progressive recovery in Oil & Gas operations starting in 2017. Therefore, on the basis of the assumption that the level of oil and gas investment in 2020 will be equivalent to that of 2014, which was considered to be a "normal" year in terms of activity level, the potentially deflationary environment in 2020 was to be partially offset by:

- an improvement in the product mix;
- a favorable change in the foreign exchange rates of the principal currencies (USD and BRL), leading to improved competitiveness, in particular for the Brazilian plants; exchange rate assumptions being consistent with market assumptions for the period.

It was indicated that the strategic initiatives that the Group announced on 1 February 2016 should enable it to generate approximately €750 million in additional EBITDA in 2020, assuming that the Oil & Gas markets had returned to normal levels. Close to 50% of this target was to be achieved by 2018, independently from any recovery in volumes. This additional EBTIDA was expected to come from three sources:

- approximately €400 million in savings originating from the rationalization of the Group's existing industrial footprint and SG&A savings following:
  - the closure of production lines in Europe and in Brazil (the latter being facilitated by the merger of VSB and VBR), and
  - productivity initiatives and administrative, commercial and research cost reductions resulting from cost savings plans (including the Valens plan) and from the additional initiatives announced on 1 February 2016;
- approximately €250 million of additional EBITDA contribution was expected to result from allocating more volumes to the two most competitive hubs of VSB and Tianda Oil Pipe. Approximately 40% of those savings were to be achieved by 2018, independently from any volume recovery;
- finally, approximately €100 million of additional EBITDA was expected to result from the full consolidation of VSB and Tianda Oil Pipe, of which €70 million after closing, independently from any volume recovery.

Besides those EBITDA impacts, additional cumulative cash savings of around €260 million were also anticipated, through the disposal of part of Brazilian forest assets, and tax synergies resulting from the merger of VSB and VBR, the majority of which savings should be independent of any recovery in volumes.

On the basis of the assumptions listed above, all these actions were expected to enable Vallourec to meet its short-term challenges and position the Group to benefit fully from a recovery in the Oil & Gas markets:

- operational leverage enabling the Group to take full advantage of volume recovery – 2020 EBITDA impact of approximately €900 million assuming 2020 volumes comparable to 2014;
- strategic initiatives contributing approximately €750 million of additional EBITDA by 2020, with most measures fully implemented by the end of 2017, around 30% of which depend on volume recovery in 2020 at levels comparable to 2014;
- securing VAM® competitiveness and success in the long-term; and
- addressing any potential balance sheet risk.

On the basis of the assumptions listed above, this new configuration was expected to drive Vallourec's return to solid profitability and cash generation, with the following objectives for 2020:

- EBITDA of between €1.2 billion and €1.4 billion;
- normalized free cash flow of between €500 million and €600 million assuming capital expenditures of €350 million per year;
- ratio of net debt to EBITDA of less than 1.0 in 2020;
- return to a rating of "Investment Grade"; and
- ROCE above WACC.

The essential measures are in place. In 2016 and at the beginning of 2017, Vallourec:

- optimized its European footprint with the closure of four industrial facilities (a threading line in Mülheim, Germany; the rolling mills in Saint-Saulve and Déville-Lès-Rouen in France; and a heat treatment line in Bellshill, Scotland), and the disposal of Vallourec Heat Exchanger Tubes and a majority stake in the Saint-Saulve steel mill;
- created two competitive production centers in Brazil and China with the merger of Vallourec Tubos do Brasil and Vallourec & Sumitomo Tubos do Brasil and the acquisition of Tianda Oil Pipe (TOP);
- strengthened its balance sheet with a capital increase of around €1 billion;
- strengthened its partnership with Nippon Steel & Sumitomo Metal Corporation.

Thanks to the involvement of the Vallourec teams, cost reductions under the Transformation Plan are fully in line with objectives. In 2016, they reached €150 million before inflation.

The Group is confident in its ability to deliver the contributions stemming from its Transformation Plan as announced on 1 February 2016.

Entering 2017, the positive dynamics of the US OCTG market are confirmed. However, IOCs have not started sanctioning new offshore projects, which is delaying the recovery of the international OCTG market in volumes and prices. As stated above, our medium-term outlook is dependent on the recovery in worldwide Oil & Gas activities, the timing of which remains uncertain in the current market environment.

3.7 Corporate results for Vallourec (parent company)

Vallourec posted an operating loss of €13.8 million, a slight improvement compared to 2015 which showed a loss of €17.6 million. This loss stems from the costs incurred by the holding company (personnel costs, legal fees and communications).

Financial income/(loss) (the difference between financial income and expense) showed a loss of €12.9 million, mainly resulting from the absence of a dividend received from Vallourec Tubes in 2016, versus a profit of €78.1 million in 2015.

Corporate income tax resulted in a tax benefit of €8.8 million compared with €1 million 2015, from the tax income generated from the exit from the Group scope of fiscal consolidation of Vallourec Heat Exchanger and the Serimax companies. The net income for the fiscal year was a loss of €17.8 million, compared to a profit of €61.5 million at the end of 2015.

As at 1 January 2016, the start of the 2016 fiscal year, subscribed, fully paid-up share capital amounted to €271,376,864, divided into 135,688,432 shares with a par value of €2.00 each.

On 3 May 2016, the Chairman of the Management Board, acting in virtue of the delegation of authority and powers entrusted to him by the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, under its eighteenth resolution and the subdelegation by the Management Board to the Chairman of the Management Board on 6 April 2016, recorded the completion of a rights issue through the issue of 217,101,488 new ordinary shares at a nominal price per share of €2 and a unitary price of €2.21 including €0.21 of paid-up capital. The issue of the new shares resulted in a capital increase by a nominal amount of €434,202,976, which raised Vallourec's share capital at 3 May 2016 from €271,376,864 to €705,579,840, divided into 352,789,920 shares with a par value of €2.00 each.

On 3 May 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers entrusted to him under the twentieth resolution of the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, and the sub delegation of the Management Board to the Chairman of the Management Board on 6 April 2016, recorded the redemption of Tranche A and Tranche B Mandatory Convertible Bonds held by BpiFrance Participations, broken down into 1,294,126 Tranche A Bonds with a unitary issue price of €99, and with a redemption ratio set at 9 new shares at a par value of €2 for 1 Tranche A Bond, and 18,635,430 Tranche B Bonds with a unitary issue price of €2.21, and with a redemption ratio set at 1 new share at a par value of €2 euros for 1 Tranche B Bond. This redemption resulted in the creation of 11,647,134 and 18,635,430 new shares respectively, totaling 30,282,564 ordinary shares with a par value of €2.00 each, increasing Vallourec's share capital as of 3 May 2016 from €705,579,840 to €766,144,968 divided into 383,072,484 shares with a par value of €2.00 each.

On 20 June 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers entrusted to him under the twentieth resolution of the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, and the sub delegation of the Management Board to the Chairman of the Management Board on 6 April 2016, recorded the redemption of Tranche A and Tranche B Mandatory Convertible Bonds held by Nippon Steel & Sumitomo Metal Corporation (NSSMC), broken down into 2,631,006 Tranche A Bonds with a unitary issue price of €99, and with a redemption ratio set at 9 new shares at a par value of €2 for 1 Tranche A Bond, and 37,886,511 Tranche B Bonds with a unitary issue price of €2.21, and with a redemption ratio set at 1 new share at a par value of €2 for 1 Tranche B Bond. This redemption resulted in the creation of 23,679,054 and 37,886,511 new shares respectively, totaling 61,565,565 ordinary shares with a par value of €2.00 each, increasing Vallourec's share capital as of 20 June 2016 from €766,144,968 to €889,276,098 divided into 444,638,049 shares with a par value of €2.00 each.

At the end of the clearing period for subscriptions to the Value 16 international employee share ownership plan (see Chapter 7 below of this Registration Document) at its meeting on 14 December 2016, the Management Board, under the terms of the twenty-first, twenty-second and twenty-third resolutions of the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, recorded the final completion of three capital increases in the nominal amounts of €7,007,330, €4,921,538 and €1,271,044, or an aggregate nominal amount of €13,199,912, through the respective issue of 3,503,665, 2,460,769 and 635,522 new shares for an aggregate total of 6,599,956 new shares with a par value of €3.75 each and a price per share of €3.99 for the standard plan and €8.83 for the leveraged scheme. These transactions had the cumulative effect of increasing share capital from €889,276,098 to €902,476,010.

As at 31 December 2016, the subscribed, fully paid-up share capital amounted to €902,475,010, divided into 451,238,005 shares with a par value of €2.00 each.

Equity increased by €959.2 million and are of €4,182.1 million as at 31 December 2016.

This increase is due to a net loss for 2016 of €17.8 million, the allocation of income for 2015 to retained earnings in the amount of €60.5 million and to the statutory reserve in the amount of €1 million, the capital increase of €950.7 million (including additional paid-in capital, but excluding issuance fees) generated by the option for payment of the dividend in shares, and the capital increase of €26.3 million (including additional paid-in capital, but excluding issuance fees) carried out as part of the Value 16 international employee share ownership plan.

Financial debt amounted to €1,960 million, up €231 million compared to 2015. This change is explained by the increase in the commercial paper program set up in October 2011 for a maximum amount of €1 billion. At 31 December 2016, it had issued, as part of the program rated B by Standard & Poor's, an outstanding amount of €307.2 million with a maturity of one to 12 months compared to an amount of €76.7 million at 31 December 2015.

In May 2016, Vallourec signed a revolving credit facility for an amount of €450 million maturing in February 2020. As of 31 December 2016, this line had not been drawn.

To the best of the Company's knowledge, the 2016 fiscal year did not generate any of the expenses referred to in Article 39-4 of the French General Tax Code (CGI).

In accordance with Article D.441-4 of the French Commercial Code, the following tables provide a breakdown by due date of trade payables as at the balance sheet date in 2016 and 2015.

Due dates (D=31/12/2016) *In € thousand*	Amounts due at year-end	Due on D + 15	Due between D + 16 and D + 30	Due between D + 31 and D + 45	Due between D + 46 and D + 60	Due after D + 60	No due date	Total trade payables
Suppliers			10,291	165				10,456
Suppliers of fixed assets	-	-	-	-	-	-	-	-
Total payable	**-**		**10,291**	**165**				**10,456**
Accruals: invoices not received			305					305
Others		-	-	-	-	-	-	-
TOTAL		**-**	**10,596**	**165**	**-**	**-**	**-**	**10,761**

Due dates (D=31/12/2015) *In € thousand*	Amounts due at year-end	Due on D + 15	Due between D + 16 and D + 30	Due between D + 31 and D + 45	Due between D + 46 and D + 60	Due after D + 60	No due date	Total trade payables
Suppliers	–	–	3,243	1,617	–	–	–	4.860
Suppliers of fixed assets	–	–	–	–	–	–	–	–
Total payable	**–**	**–**	**3,243**	**1,617**	**–**	**–**	**–**	**4,860**
Accruals: invoices not received	–	–	731	–	–	–	–	731
Others	–	–	–	–	–	–	–	–
TOTAL	**–**	**–**	**3,974**	**1,617**	**–**	**–**	**–**	**5,591**

3.8 Location of main facilities

3.8.1 Property, plant and equipment

The Group's registered office is located at 27, avenue du Général Leclerc – 92100 Boulogne-Billancourt, France. The premises are occupied under the terms of a nine-year lease that came into effect on 1 October 2015. The properties occupied by the Company and its subsidiaries are not owned by any of the Company's corporate officers.

At 31 December 2016, the Group operated some 50 production facilities, most of which were owned on a freehold basis. These plants are located mainly in France, Germany, Brazil, China and the United States, reflecting Vallourec's internationalization (see Section 3.2.4 "The Group's Facilities" of this Registration Document). The Group considers these plants an essential resource for conducting its various activities and a primary concern in its manufacturing resource planning.

The Group's property, plant and equipment (including assets held under finance leases) and biological assets held by consolidated companies had a net carrying amount of €3,706 million at the end of 2016 (€3,315.8 million at the end of 2015 and €3,737.2 million at the end of 2014). Property, plant and equipment mainly consists of property assets and industrial equipment:

- the Group's property assets mainly include factory buildings and administrative offices; and
- industrial equipment consists of steel-making and tube-manufacturing facilities.

The following items are described in the Notes to the Consolidated Financial Statements in Chapter 6 of this Registration Document:

- analysis of property, plant and equipment by type and flow in Note 2.1;
- geographical distribution of industrial property, plant and equipment and intangible assets for the fiscal year (excluding changes in consolidation scope) in Note 2.1; and
- Group commitments under the terms of finance leases (organized by due date) in Note 22.

Details of capital investments made in 2016, which extended the Company's property, plant and equipment base, are provided above (see Section 3.5.2.3 "Capital Expenditures" of this Registration Document).

3.8.2 Environmental considerations relating to the Company's property assets

Operational facilities and environmental regulation

The Group's French facilities are subject to environmental protection regulations under a classified facilities system (ICPE), which imposes certain obligations according to the type of activity conducted at the site and the environmental hazards and nuisances concerned. These facilities comply with the following requirements:

- 13 facilities are subject to authorization and are therefore run in accordance with specific operating requirements issued via prefectural order, following the submission of an operating license application, consultations with various organizations and a public enquiry; as at 31 December 2015, all of these facilities held valid prefectural orders;
- 6 facilities are subject to a register regime, i.e. operated in compliance with standard operating obligations.

Vallourec's facilities in other countries are subject to similar local regulation, requiring specific permits in various areas relating to the environment, including water, air, waste and noise. All of the Group's foreign facilities have the prescribed permits, which are regularly renewed pursuant to of local regulations.

Environmental situation of former industrial sites

Following its closure, the Anzin plant in northern France was sold to the Valenciennes urban community on 17 November 2004. A file containing soil studies was produced at that time, and decontamination work stipulated by the authorities was carried out; the quality of the groundwater at the site continues to be monitored using piezometric sensors.

All of the other sites sold (VPE, VPS, VCAV, CEREC, Spécitubes, Valti Krefeld plants, VHET Les Laumes) underwent complete environmental investigations prior to sale.

The situation of operational sites with regard to soil pollution is described in Chapter 4 "Corporate social responsibility" of this Registration Document.

The environmental constraints that may impact the Group's utilization of its tangible assets are described in Section 4.4 "Environmental commitment" and Chapter 5.1.12.1 "Industrial and environmental risks" of this Registration Document.

3.8.3 Changes in consolidation scope

- The main changes in the scope of consolidation for 2016 were:
  - On 29 April 2016, Vallourec finalized the transfer of the Vallourec Heat Exchanger Tubes subsidiary to American Industrial Acquisition Corporation (AIAC);
  - In August 2016, Vallourec purchased all the shares of VAM Holding Hong Kong Ltd, a company holding, and Vam Changzhou Oil & Gas (a threading business in China). The two companies were consolidated as a joint venture until 30 September 2016, and were then fully consolidated in the Group's financial statements;
  - On 1 October 2016, Vallourec finalized the transfer of the tubular business of Vallourec Tubos do Brasil (VBR), a wholly owned subsidiary, to Vallourec & Sumitomo Tubos do Brasil (VSB), a 56%-owned joint venture. This transaction led to the takeover of VSB (renamed Vallourec Soluções Tubulares do Brasil) by Vallourec, whose percentage stake has increased to 84.6% from 56%, and includes the sale of minority interests to the partners NSSMC and Sumitomo Corp., amounting to 15.4%. The new VSB entity has been fully consolidated in Vallourec's financial statements since 1 October 2016, and the stakes of the Japanese partners are recognized as non-controlling interests;

- On 28 October 2016, Serimax, one of the worldwide leaders in onshore and offshore welding solutions, and Technip, a worldwide leader in project management, engineering and construction in the energy sector, and a longstanding Serimax customer, finalized a strategic partnership in the field of welding subsea line pipes. Under this partnership, Technip purchased a 20% stake in Serimax;
- On 2 December 2016, Vallourec held 99.3% of the capital of Tianda Oil Pipe after the acquisition of a majority stake of 50.61% in November and the success of the compulsory unconditional public offering. Tianda Oil Pipe was consolidated under the equity method (19.5%) in 2016 and the takeover was recorded in the Group balance sheet on 31 December 2016;
- There were no significant changes in scope during fiscal years 2015 and 2014.

3.9 Agreement with related parties

Agreements with related parties are described in Note 21 to the Consolidated financial statements, “Information on related parties” in Chapter 6 of this Registration Document.

4

Corporate social responsibility information

Vallourec's proactive approach to Corporate Social Responsibility is formalized in the Group's Sustainable Development Charter. As a responsible Group that supports its customers as a long-term partner, Vallourec's policy has three key objectives: to ensure the sustainability of its business with competitive and innovative products; to maintain sustainable relationships with stakeholders; and to protect the environment and use its resources wisely. Vallourec's Sustainable Development Charter can be found on the Group's website: www.vallourec.com.

The Group signed its "principles of responsibility" with a global employee representation organization in 2008, adhered to the Global Compact in 2010, is a signatory under the joint initiatives of the AFEP, MEDEF and the Cercle de l'Industrie of Commitments in Favor of the Climate and the Circular Economy and is a signatory of the Sustainable Development Charter of the International Steel Federation.

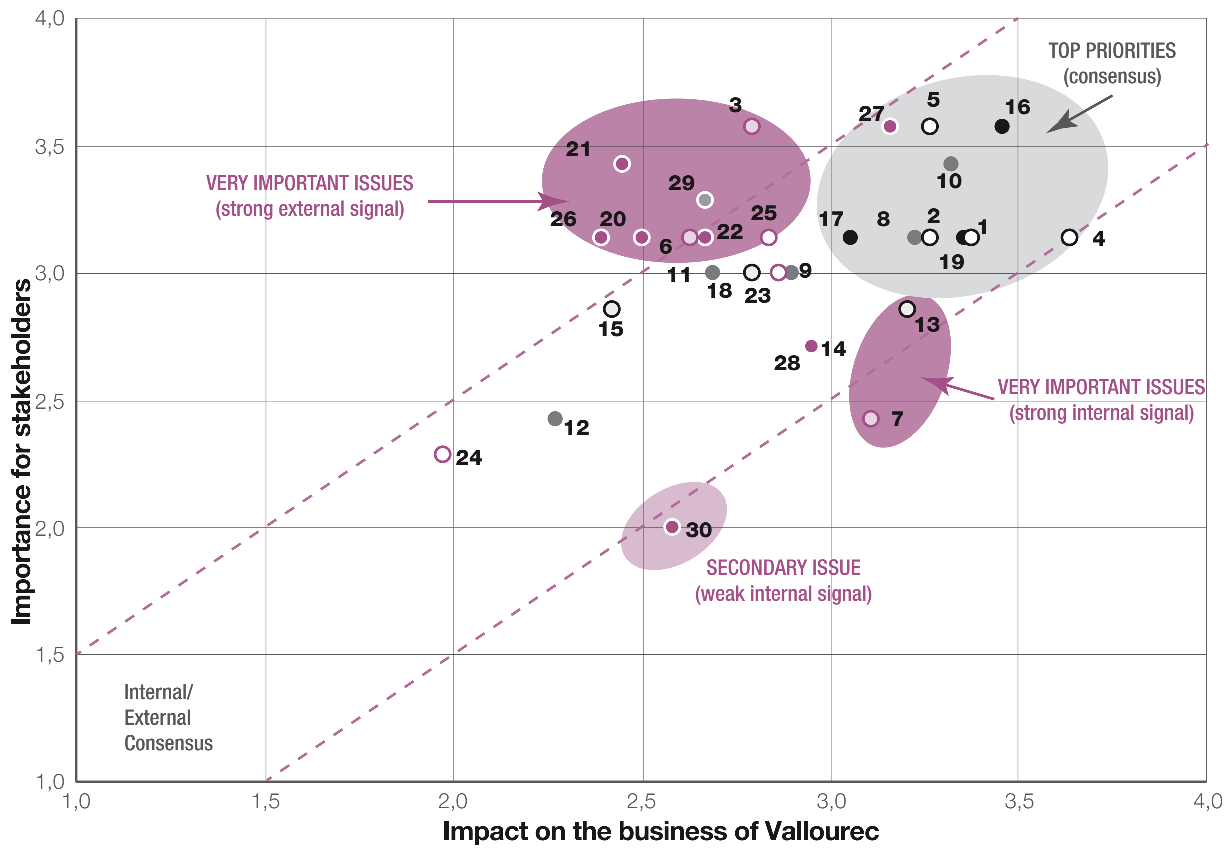
1. Within this context, since 2014 the Sustainable Development Department has been implementing a 5-year strategic plan for Sustainable Development and Corporate Social Responsibility (2015-2020), which is integrated into the strategic guidelines of the Group and monitored by the Supervisory Board. This strategic plan was presented again to the Group Management Committee in July 2016 and was developed for the Group's four Regions into specific priorities.

   It relies on the following seven cornerstones:

   - strengthening governance in Sustainable Development and CSR;
   - setting medium-term objectives and publishing them;
   - increasing consideration of Sustainable Development issues in the Group's business model;
   - involving more employees in their daily actions to promote CSR;
   - developing the Group's social commitments;
   - strengthening ongoing actions for progress;
   - obtaining institutional recognition of the efforts made.

In 2016, Vallourec prepared its "materiality" matrix with the assistance of a specialized consultant. This allowed the Group, within the context of a proven methodology, to get the opinion of its main stakeholders on the 30 issues that had been identified as important and connected to the specific characteristics of the company. This process was based on questionnaires and interviews, with executive management, employees, investors, customers, suppliers, NGOs and media. In all, 200 questionnaires were sent with a total response rate of nearly 60%. This matrix allowed Vallourec to validate that the issues identified were pertinent, and that the importance given to them by the company was in line with the perspectives of its stakeholders. It also demonstrated that the strategic action plans generally addressed them well, while emphasizing that the issues regarding energy transition and health should be considered in more detail.

VALLOUREC'S CSR MATERIALITY MATRIX: RESULTS



Legend

1 Energy transition
2 Resilience of the business model
3 Sustainable product design
4 Customer Relationships / Satisfaction
5 Innovation and sustainability strategy
6 Climate change adaptation
7 Trade barriers
8 Corporate governance
9 Accountability and transparency
10 Respect for ethics
11 Stakeholder dialogue
12 Transparent and fair tax strategy
13 Quality of social dialogue in all economic circumstances
14 Fair compensation and benefits
15 Diversity
16 Occupational safety
17 Occupational health
18 Noise
19 Employees' skills and development
20 Energy use & our GHG emissions
21 Non-renewable resources consumption and circular economy
22 Air pollution
23 Water footprint and water pollution
24 Biodiversity
25 Eco-design of processes and industrial equipments
26 Sustainable logistics
27 Respect of Human Rights
28 Local socio-economic development & local content
29 Responsible procurement standards and supplier relations
30 Corporate citizenship

2. This Chapter 4 outlines Vallourec's commitments in the area of Corporate Social Responsibility (CSR). It describes the policies implemented by the Group and the principles that guide them. It sets out the actions taken in terms of safety, health and human resources management, the relationships developed with the local authorities and populations, as well as the efforts made to preserve the environment in compliance with the Grenelle 2 Law of 12 July 2010, establishing a national environmental commitment, and the Law of 16 June 2011 to fight against discrimination and promote diversity. The Group is committed to providing detailed information on the results of its actions. It therefore reports, with a global scope, on the 43 topics listed in Article R.225-105-1 of the French Commercial Code *(Code de commerce)*, as well as on the additional information covered by the 2016 decrees. A concordance table showing the information required under the aforementioned article and the information presented in this chapter appear in Appendix 4 hereto.

Other indicators were constructed based on those published by the Global Reporting Initiative (GRI), which aims to facilitate the measurement of companies' CSR reporting indicators on a global basis.

Unless otherwise specified in the text, all information contained in this chapter refers to Vallourec, all of its subsidiaries as defined by Article L.233-1 of the French Commercial Code, and the companies it controls as defined by Article L.233-3 of the French Commercial Code. The individual indicators of the consolidated entities excluded from the consolidated indicators, namely Vallourec Mineração and the pelletization unit established on the Jeceaba site (see below Section 4.4.1.6 "Specific cases"), are presented in Appendix 2 to this chapter.

This information demonstrates the Group's commitment to Corporate Social Responsibility and highlights the results of its key actions. The way that this information was gathered and the limitations of this type of data collection are described in the methodological notes found in Appendix 3 to this Chapter. One of the Statutory Auditors conducted audits with a moderate level of assurance as to all of the information presented in this chapter, and issued an opinion with reasonable assurance on selected indicators which resulted in the report which appears in Appendix 1 to this Chapter. **The indicators that were verified with a reasonable level of assurance are preceded in the text and in the appendices by the symbol ☑.**

3. Risk factors, risk management and the internal control procedures relating to CSR issues are described in Chapter 5, "Risk Factors" and in the Report of the Chairman of the Supervisory Board set out in Appendix 1 to Chapter 7, "Corporate Governance", of this Registration Document.

   It is this information that forms the basis for the periodic evaluations of the main non-financial agencies or specialized SRI funds, such as Vigeo-Eiris, MSCI, Sustainalytics, Guilé, etc. Even though each of these bodies has its own evaluation methods, the overall finding, is a rating of B+ on a scale from A to D. This assessment is consistent with the Advanced level of the Global Compact, for which the Group has met the criteria for two years and with the Group belonging to the most committed global enterprises in terms of human rights, according to the Vigeo Eiris study published in early 2017. It is also appropriate to mention that the Group is specifically listed in the FTSE4Good index and that it received a rating of A- in 2016 by the Carbon Disclosure Project for its actions to promote a low CO_2 economy. The Group no longer belongs to the Euronext Vigeo index temporarily, not because of an insufficient commitment to CSR, but because its capitalization was insufficient at the end of 2015.

4. In order to progress, the Group relies on the Vallourec Management System (VMS), the basic purpose of which is to improve the Group's performance in all of its operating procedures, be it sales, product and equipment design, manufacturing, flow management, as well as support functions like human resources management, administration and finance, information systems and the areas of quality, health, safety and environment known as QHSE.

   The purpose of this system is to develop risk prevention, control process variability and improve their efficiency. It uses numerous specific tools such as Lean Management and the Six Sigma methodology, and strives to strengthen project management methods. It also ensures that initiatives are consistent with the strategic plan and that they deliver continuous progress. It also ensures that the requirements for managing quality (ISO 9001, ISO/TS 16949, API and ASPE), health and safety (OHSAS 18001), the environment (ISO 14001) and energy (ISO 50001) are taken into account.

4.1 Ethics and compliance

The organization of ethics and compliance falls under the Group's Legal Department. The position of Ethics and Compliance Officer is held by the Group's Legal Director, who helps implement the Code of Ethics and determines, with the Ethics Committee, which she leads, the internal compliance policies. The Ethics and Compliance Officer reports to the Chairman of the Management Board.

The Ethics Committee comprises representatives from functional departments (Legal, Purchasing, Human Resources, etc.) and operating divisions. It must hold meetings at least once per quarter in order to determine, at the initiative of the Ethics and Compliance Officer, the ethics and compliance guidelines, and ensure they are effectively rolled out.

The Ethics and Compliance Officer relies on a network of 11 local ethics correspondents who are organized by geographic regions, as well as on the legal managers from the operating divisions or regions. These local ethics correspondents are tasked with disseminating the values and principles of the Group's Code of Ethics in entities worldwide, and with making sure that the internal procedures are properly applied. In 2015, management of the network of local ethics correspondents was strengthened: they participated in bi-monthly information meetings which were organized by the Ethics and Compliance Officer, at which internal procedures were presented, along with the current regulatory issues regarding the fight against corruption, and competition rules. In the United States, a telephone line was provided to employees who wished to anonymously provide information on non-compliance with ethics and compliance rules.

An ethics and compliance newsletter is disseminated monthly to the primary executive management of the Group, to Ethics Committee members, to local ethics correspondents and to the legal managers of regions or divisions.

In 2015, three new procedures were adopted and rolled out within the Group: the procedure relating to recourse to sales agents, the procedure relating to gifts and invitations, and the procedure relating to philanthropy and sponsorship, local partners, lobbying and political life. These procedures formalize the principles and guidelines that were already contained in the Global Legal Compliance Program, which has been rolled out globally since 2011.

Non-compliance with anti-corruption laws and regulations, or with competition rules, exposes the Group's employees to disciplinary sanctions, and even termination.

4.1.1 New version of the Code of Ethics

The Group's ethical standards are formalized in its Code of Ethics.

The Code of Ethics is a set of core values that includes integrity and transparency, excellence and professionalism, performance and responsiveness, respect for others and mutual commitment.

It provides a framework for conducting the day-to-day activities of each employee through behavioral guidelines based on the aforementioned values. These guidelines reflect the way that Vallourec seeks to manage its relationships with all of its partners and stakeholders, including its employees, customers, shareholders and suppliers, and constitute the Group's reference in implementing its sustainable development and corporate social responsibility plans.

In 2016, an amended version of the Code of Ethics was adopted and rolled out within the Group in order to strengthen Vallourec's commitments to combat corruption and abide by competition rules, all while maintaining the values and principles of action for employees, associates, customers, suppliers and stakeholders. This amended version incorporates the guidelines already contained in the Global Compliance Program and the procedures published in 2015.

Vallourec's Code of Ethics applies to all Group consolidated companies. Each employee is personally responsible for implementing its values and principles and complying with the rules it sets out.

The various reporting lines ensure that it is communicated to all Group employees. For this purpose, it was translated into six languages. It has also been published on the Company's intranet and website to affirm the Group's values with regard to third parties.

In order to allow the Group's new employees to review the Code of Ethics during their first few months at the Company, a specific e-learning program aimed at employees that have joined the Group since January 2012 was launched in April 2014. The goal of this project was to allow employees to better adopt ethical values and principles for issues relating to their daily professional practices.

The Code of Ethics is a founding document which contains certain guidelines and recommendations for the Group's employees to apply.

To support the application of the Code of Ethics by all employees, especially managers and executives, the Ethics and Compliance Officer has been assigned the following duties:

- assisting Group companies in communicating the Code of Ethics;
- coordinating actions to educate new employees on the Code of Ethics;
- helping to define the procedures for implementing the Code of Ethics;
- ascertaining any difficulties in interpreting or applying the Code of Ethics that are raised by staff; to that end, the Officer receives information relating to breaches of the principles of responsibility; and
- preparing an annual report for the Chairman of the Management Board on the Code of Ethics' implementation.

4.1.2 Compliance program

Consistent with the principles set out in the Code of Ethics and the commitments of the Global Compact of the United Nations to which the Group acceded in 2010, Vallourec seeks to prevent specific risks relating to competition, the fight against corruption and respect for the environment within the framework of a Global Compliance Program.

Developed and coordinated by the Group's Legal Department, this program aims to educate the Group's managers, mainly through internal training, on the applicable laws and regulations in these areas. It is designed to respond effectively to the risks managers may face in their activities through detailed, informative and practical recommendations that can be understood by all.

Training initiatives were continued at a global level in 2016, particularly in the Group's subsidiaries located in Germany, North America and Dubai. An e-learning program has also been rolled out since 2014, in an effort to educate all technical and supervisory staff, and managers of the Group, about the laws and regulations on competition, the fight against corruption and environmental protection.

The principles enumerated under the Global Compliance Program were formalized in 2015 in the internal procedures relating to recourse to sales agents, gifts and invitations, philanthropy and sponsorship, local partners, lobbying and political life.

4.1.3 Promotion of and compliance with international agreements

In its "Agreement on the principles of responsibility applicable to Vallourec companies", approved by the European Works Council on 9 April 2008, Vallourec affirmed its undertaking to abide by the fundamental principles of the international conventions of the International Labour Organization, in particular:

- respect for freedom of association and the right to collective bargaining;
- elimination of discrimination with respect to employment and occupation;
- elimination of forced or compulsory labor;
- effective abolition of child labor.

This text forms an integral part of Vallourec's Code of Ethics.

4.2 Social policy

The social indicator scope includes companies within the tax consolidation scope. Staff at sales offices are likewise included in this report.

4.2.1 Group workforce

4.2.1.1 Changes and distribution

BREAKDOWN OF THE WORKFORCE BY AGE, GENDER AND GEOGRAPHICAL AREA

As at 31 December 2016, ☑18,325 employees[1] worked at more than 50 production sites or under service contracts with Vallourec (short-term or permanent contracts), compared to 20,964 employees in 2015. This 2,639 reduction between 2015 and 2016 continues to be related to the global adaption plan and to the sharp drop in volumes.

Distribution by geographical area

	Number of employees	
Country	**2015**	**2016**
Brazil	7,412	6,546
France	4,950	4,227
Germany	3,762	3,611
United States	1,926	1,732
China	528	458
Indonesia	657	396
United Kingdom	476	361
Mexico	297	267
Saudi Arabia	187	189
United Arab Emirates	173	169
Malaysia	167	133
Other regions	429	236

(1) This figure does not include the Tianda Oil Pipe workforce.

Workforce as at 31 December (permanent and short-term contracts)	2015	2016	Change 2015/2016	2015 breakdown	2016 breakdown
Europe	9,275	8,256	-11%	44%	45%
Brazil	7,412	6,546	-12%	35%	36%
NAFTA (United States, Canada, Mexico)	2,274	2,036	-10%	11%	11%
Asia	1,571	1,070	-32%	8%	6%
Middle East	361	359	-0%	2%	2%
Africa	71	58	-18%	NS	NS
TOTAL	**20,964**	**18,325**	**-13%**	**100%**	**100%**

Breakdown by gender

As at 31 December 2016, the Group had 2,137 women (2,006 of whom had permanent contracts), which represents 12% of the total permanent workforce (equivalent to 2015). Marginally present in the category of production staff, women mainly hold administrative and commercial positions. They represent 30% of the Group's technical and supervisory staff (administrative personnel, technicians or field supervisors), and 22% of its managers. The proportion of women remained consistent for the 2015-2016 period by area, for the Group as a whole.

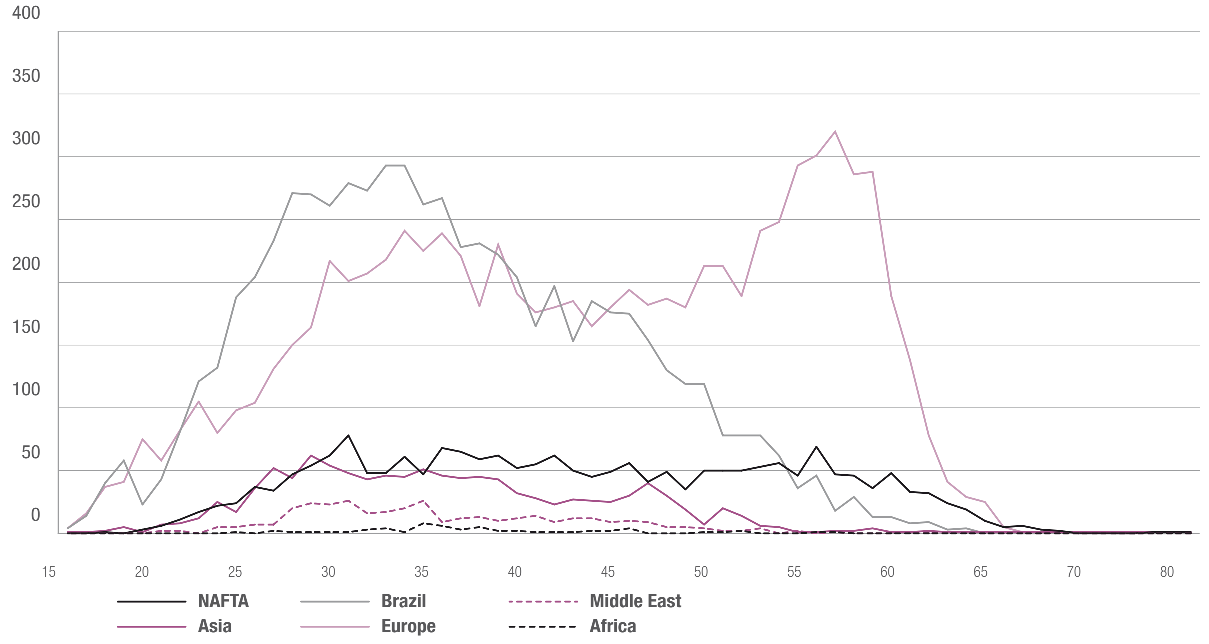
% of women (permanent employees)	Production staff		Technical and supervisory staff		Managers		Total	
	2015	2016	2015	2016	2015	2016	2015	2016
Europe	2%	2%	32%	32%	21%	21%	11%	11%
Brazil	6%	5%	29%	28%	24%	24%	11%	11%
NAFTA	1%	1%	29%	27%	17%	23%	12%	11%
Asia	15%	11%	29%	31%	17%	19%	20%	19%
Middle East	-	-	17%	14%	10%	11%	6%	5%
Africa	14%	8%	15%	15%	-	-	13%	11%
WORLD	**4%**	**4%**	**30%**	**30%**	**21%**	**22%**	**12%**	**11%**

Breakdown by age

The age pyramids show significant disparities in terms of geographical areas.

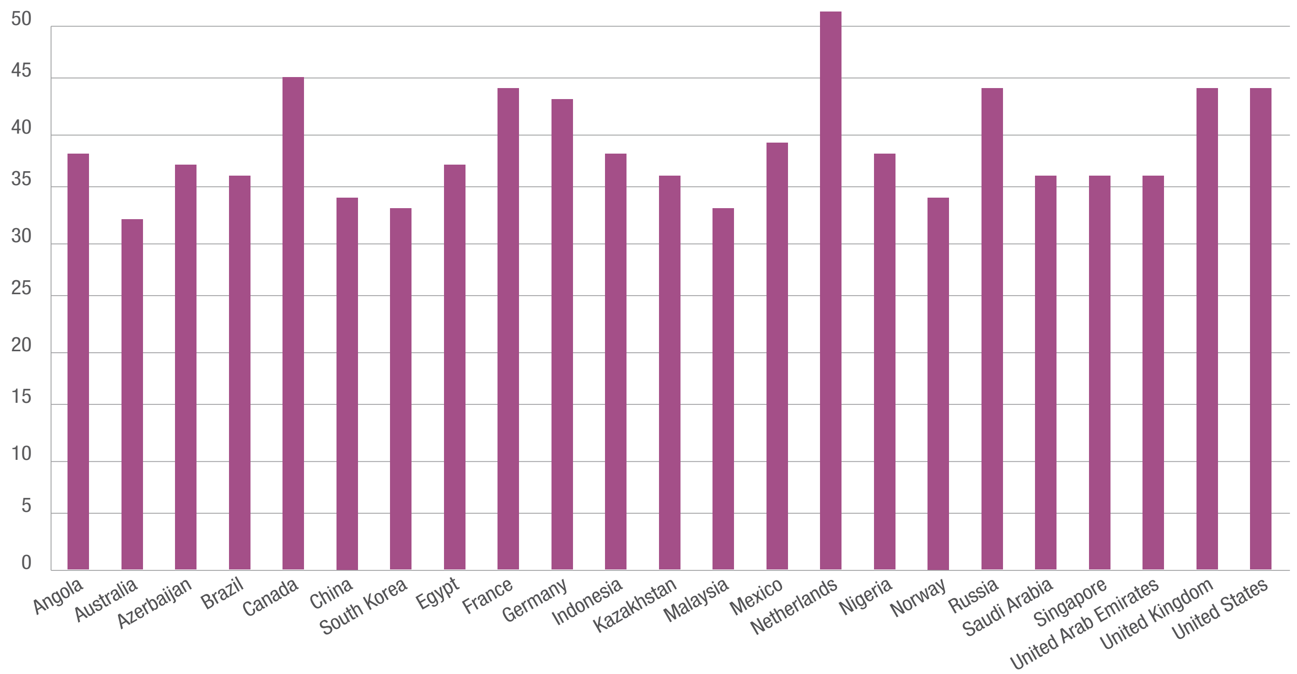
The Brazilian employee population is young, with a strong concentration in the 25 to 40-year-old segment. In the NAFTA region, the distribution of the population among the various age categories is well balanced. Asia has practically no employees older than 55. Conversely, Europe is marked by a strong presence of employees aged between 50 and 58 years. The staff breakdown by age range has not changed in comparison to the previous year.

Breakdown of the workforce by age ☑



These disparities are also reflected in the average age of employees in the main countries where the Group is established.

Average age by area and country



BREAKDOWN OF THE WORKFORCE BY PROFESSIONAL CATEGORY AND TYPE OF CONTRACT

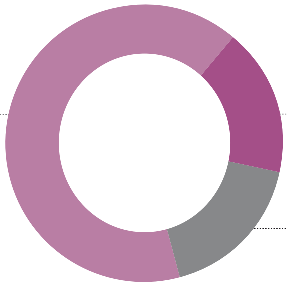
Breakdown by professional category

Production staff represents two thirds of the workforce.

Technical and supervisory staff includes administrative personnel, technicians and field supervisors, who account for 17% of the workforce. Managers likewise represent 17% of the workforce. These proportions are identical to the previous year.

Breakdown of workforce by category in 2016

The breakdown of workforce remained stable in 2016 compared to 2015.



Group's registered workforce by professional category	2015	2016
Managers	3,529	3,203
Technical and supervisory staff	3,622	3,169
Production staff	13,813	11,953
TOTAL	**20,964**	**18,325**

Breakdown of registered workforce	Production staff		Technical and supervisory staff		Managers		Total	
	2015	2016	2015	2016	2015	2016	2015	2016
Europe	28%	28%	9%	9%	8%	8%	45%	45%
Brazil	26%	26%	4%	3%	6%	6%	36%	36%
NAFTA	6%	6%	2%	2%	2%	3%	10%	11%
Asia	5%	3%	2%	2%	1%	1%	7%	6%
Middle East	1%	1%	<1%	<1%	<1%	<1%	2%	<2%
Africa	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
WORLD	**66%**	**65%**	**17%**	**17%**	**17%**	**18%**	**100%**	**100%**

54% of production staff are located in Europe and Brazil, while 26% of managers and technical and supervisory staff are located in this same area. This breakdown is identical to that of 2015. We note that the proportions are identical for each area during the 2015-2016 period.

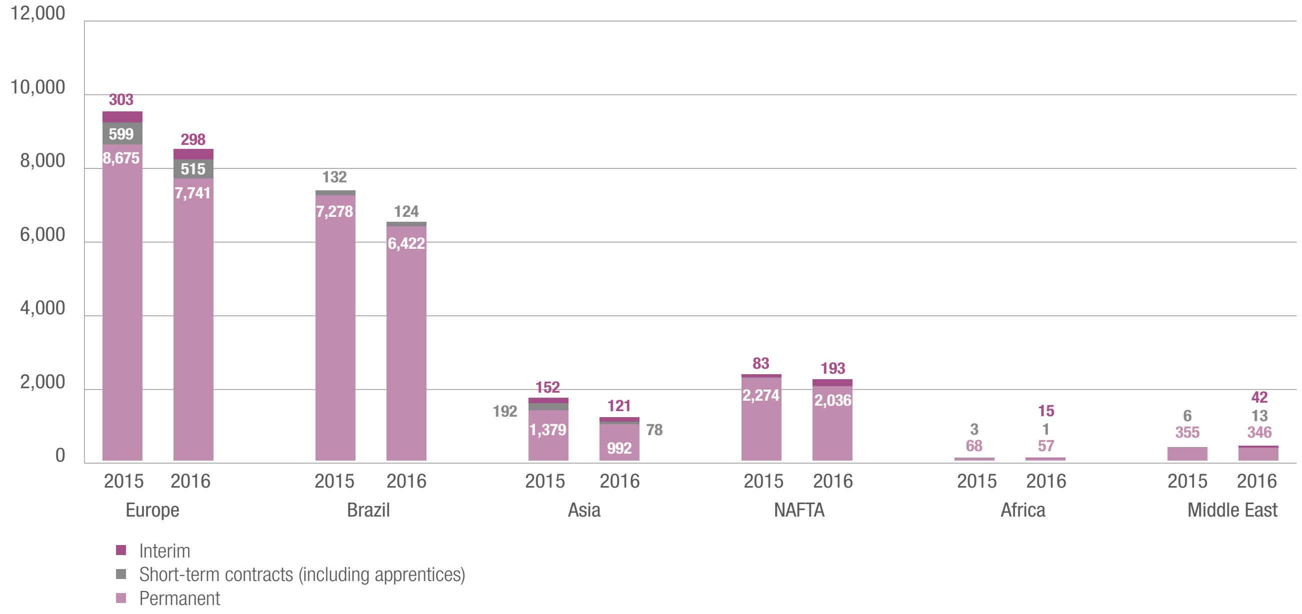
We also note a 13% decrease in the global workforce, which breaks down in essentially the same manner for all professional categories.

Breakdown by type of contracts

Due to the highly cyclical nature of its markets, Vallourec has to be able to adapt rapidly to changes in activity. As a matter of policy, it maintains a permanent workforce (via permanent contracts) which allows it to meet the needs of its ongoing operations, and temporary workers (under short-term and temporary contracts) to cope with surges in activity. For planning purposes, the permanent staff is managed on the basis of a model workforce involved in a standard activity for three to five years. Changes in peak or trough activity are handled via flexible local solutions (e.g., loans between plants, working-time adjustments in Europe, temporary staff and short-term contracts).

At Group level, the temporary staff in 2016 was 5.4% of the total workforce, with Brazil remaining far below the average due to the rarity of temporary contracts. It should be noted that 2016 remains marked, as was 2015, by a sharp drop in activity. There was thus a significant reduction in temporary workers (reduction of half for 2016 compared to 2015).

Breakdown between permanent, temporary (fixed-term contracts and apprentices) & interim workforce



During 2016, the permanent workforce worldwide dropped nearly 12% and the temporary workforce (fixed-term contracts, including apprentices) dropped 31% compared to 2015, as a result of the weak level of activity. Use of interim workers was reduced by half.

4.2.1.2 Entries and departures

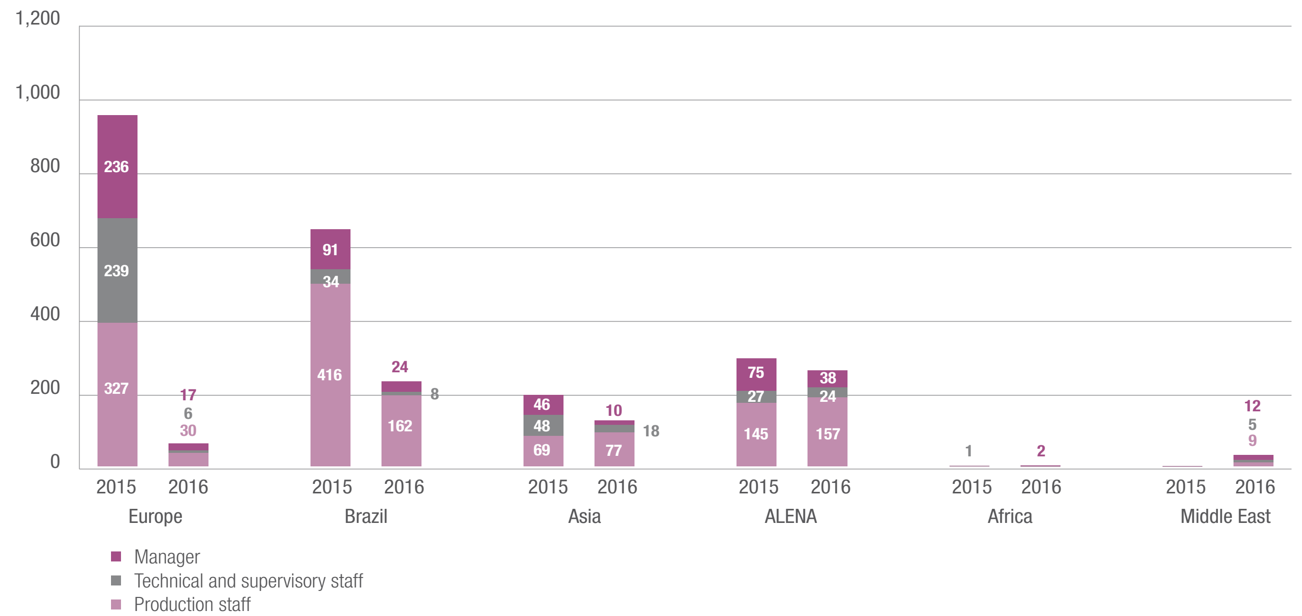
HIRES ☑ AND TRANSFERS

2016, as was the case in 2015, was marked by a significant drop in the Group's registered workforce in the majority of our subsidiaries, due to the sharp drop they experienced in their workloads.

This drop was nearly 11% in the three main areas representing Europe, Brazil and NAFTA.

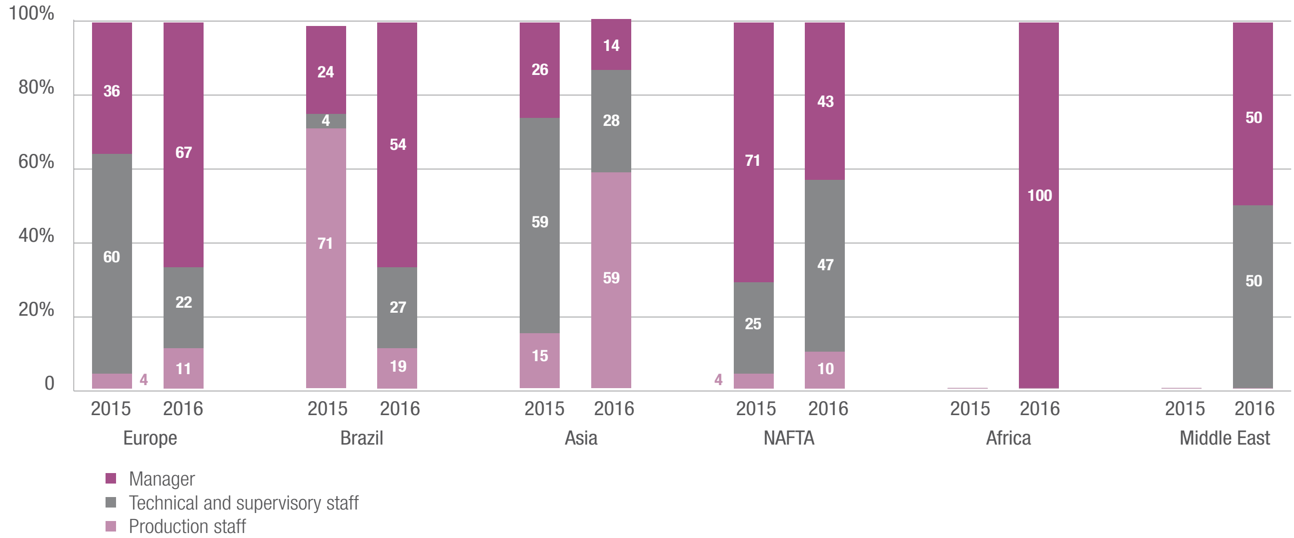
The breakdown of new hires by professional category and geographical area is as follows:

Breakdown of new hires by professional category



New hires considerably decreased for all areas in 2016, in particular in Brazil and Europe, due to the restructuring plan underway. New hires in 2016 were primarily for production staff (73% of the Group's new hires).

Breakdown of new hires of women by professional category in 2016



Even though new hires of women were primarily in the professional categories of technical and supervisory staff and managers, it is nevertheless noted that the percentage of new hires in the production staff category increased considerably for the Asia area. In Europe, this percentage also doubled compared to 2015. In Brazil and in Europe, the percentage of new hires of women in the professional category of managers also doubled. These developments in connection with the Group's policy, as defined by the Management Board, focus on two objectives, which are increasing the number of women in operations-related positions, and improving women's access to leadership roles.

DEPARTURE

In 2016, 13% of employees left the Group (12% in 2015).

The Group's permanent workforce dropped 12%, compared to 22% for its non-permanent workforce.

Turnover rate by area

Turnover rate *(for permanent workforce)*	**2015**	**2016**
Europe	6%	6%
Brazil	10%	9%
NAFTA	19%	15%
Asia	8%	23%
Middle East	13%	9%
Africa	<1%	11%

The turnover indicator is calculated as the ratio of the sum of the departures of permanent employees during the reporting period divided by the total permanent workforce at the end of the period. The reasons for departure included are: retirement, resignation, dismissal, and other (death, change of category, contract termination, termination after trial period).

Reasons for termination of employment contract by area

	Retirement		Resignation		Dismissal		Other reasons	
	2015	2016	2015	2016	2015	2016	2015	2016
Europe	34%	27%	21%	17%	27%	29%	15%	26%
Brazil	NS	1%	4%	2%	93%	95%	1%	2%
NAFTA	4%	12%	20%	17%	71%	47%	1%	24%
Asia	19%	6%	55%	17%	8%	4%	17%	73%

In Brazil, given the employment regulations, dismissal is the method by which contracts are typically broken. In line with the restructuring plan, use of dismissal continues to be significant in 2016, with a ratio similar to that of 2015.

The same is true for the NAFTA area, with a nearly consistent proportion of 67% in 2016 of departures in the form of dismissal or due to the sale of a company.

In Europe, departures in 2016 continue to be simultaneously due to retirements, resignations, and departures related to the restructuring plan announced in 2014 (termination or sale of a company).

The sale of Vallourec Automotive Components (Changzhou) Co. Ltd., Vallourec Heat Exchanger Tubes (Changzhou) Co. Ltd. and Vallourec Heat Exchanger Tubes Limited represent 85% of departures under the “Other reasons” category in the Asia area.

The sale of Vallourec Heat Exchanger Tubes Inc represents 85% of departures under the “Other reasons” category in the NAFTA area.

The sale of Vallourec Heat Exchanger Tubes (now known as Neotiss) in France represents 57% of departures under the “Other reasons” category in the Europe area.

4.2.1.3 Organization of working time

RATE OF WORK

The Group’s policy is designed to provide flexibility and responsiveness in order to adapt to customer demand.

Working patterns enable the Group to adjust plant operations to production requirements. Most production sites have adopted a system of continuous shift work (24 hours a day), five or six days per week using three, four or five rotating teams.

In order to minimize the arduous character of working patterns, research is being done in conjunction with occupational physicians and employees into the structuring of working patterns to coincide with physiological rhythms.

Innovative solutions have been implemented, which depend heavily on cultural factors and applicable national laws.

In 2016, in order to meet the need to adapt to economic conditions, whenever possible hourly cycles were reduced (2 × 8 from 3 × 8, or to 3 × 8 from 5 × 8. etc.).

WORK HOURS

The following table shows the number of hours worked and the average number of overtime hours worked in the last two years. It is based, for each area, on the number of hours worked by the registered workforce.

	Average number of hours worked per employee		Including average number of overtime hours worked per employee during the year	
	2015	2016	2015	2016
Europe	1,454	1,434	39	44
Brazil	1,859	1,914	68	77
NAFTA	1,928	2,070	142	240
Asia	2,069	1,965	198	129
Middle East	1,974	2,343	142	450
Africa	2,044	1,922	274	142

Average number of hours worked per employee	2015	2016
Saudi Arabia	1,721	2,544
Mexico	2,624	2,156
Australia	2,007	2,136
United Arab Emirates	2,274	2,125
United States	2,263	2,063
Indonesia	2,066	2,033
Malaysia	2,346	2,012
Singapore	1,710	1,952
Nigeria	2,068	1,923
Angola	1,913	1,920
South Korea	1,920	1,920
Egypt	1,920	1,920
Kazakhstan	1,920	1,920
Brazil	2,017	1,914
China	2,033	1,905
Azerbaijan	1,880	1,892
Russia	2,348	1,852
Canada	1,964	1,806
United Kingdom	2,353	1,774
Netherlands	1,681	1,762
Norway	1,607	1,608
Germany	1,404	1,432
France	1,484	1,400

Although overtime hours do not apply to managers, the average number of overtime hours has been calculated for the entire permanent workforce (registered workforce), including managers.

INDIVIDUAL WORKING ARRANGEMENTS AND PART-TIME WORK (FRANCE)

In France, nearly all technical and supervisory staff benefit from individual working arrangements, enabling them to set their arrival and departure times based on personal needs and the requirements of their department.

As an experiment, a telecommuting program was established at the headquarters after consulting with staff representatives.

ABSENTEEISM

The rate of absenteeism is calculated by comparing the aggregate of all compensated absences (including for illness, maternity, workplace accidents or commuting accidents) with the total number of hours actually worked. In every country, it is in the low average of the rates of comparable industries.

The Group's rate of absenteeism in 2016 improved 0.8% in comparison to 2015.

Rate of absenteeism	2015	2016
Europe	6.7%	6.5%
Brazil	4%	3.6%
NAFTA	7.4%	2.7%
Asia	2.7%	2.1%
Middle East	1.4%	1.1%
Africa	0.5%	1.9%
TOTAL	**5.3%**	**4.5%**

4.2.2 Health and safety

4.2.2.1 Safety

➔ Commitment to responsible performance

> Ensure the safety and protect the health of our employees

> Offer each employee good working conditions

INDICATOR

The frequency rate of accidents with or without lost time (Total Lost Time Injury Rate or LTIR, and the Total Recordable Injury Rate or TRIR): number of accidents reported per million hours worked.

2016 OBJECTIVES

To achieve an LTIR of 1.2 and a TRIR of 3.0 including the performance of subcontractors.

ACHIEVEMENT OF THE 2016 OBJECTIVE

The Group achieved an LTIR of 1.41 and a TRIR of 2.61.

2017 OBJECTIVE

To continue our efforts to achieve an LTIR of 1.2 and a TRIR of 2.75.

Safety is the Group's main priority, and it aims to become a benchmark and a model for success in this area. At the end of 2016, 69% of Vallourec sites were certified OHSAS [(1)] and represented 94% of production in metric tons.

In 2008, the Group launched an ambitious three-year safety improvement program (2008-2010), called "CAPTEN Safe". Motivated by a desire for a breakthrough in safety management, this program allowed the Group's performance to considerably improve (see graph below). Building on this success and with the aim of continuous, ongoing improvement in the Group's safety culture, in 2011 Vallourec created a new three-year (2011-2013) safety improvement program called "CAPTEN+ Safe", which allowed it to increase its performance in safety matters.

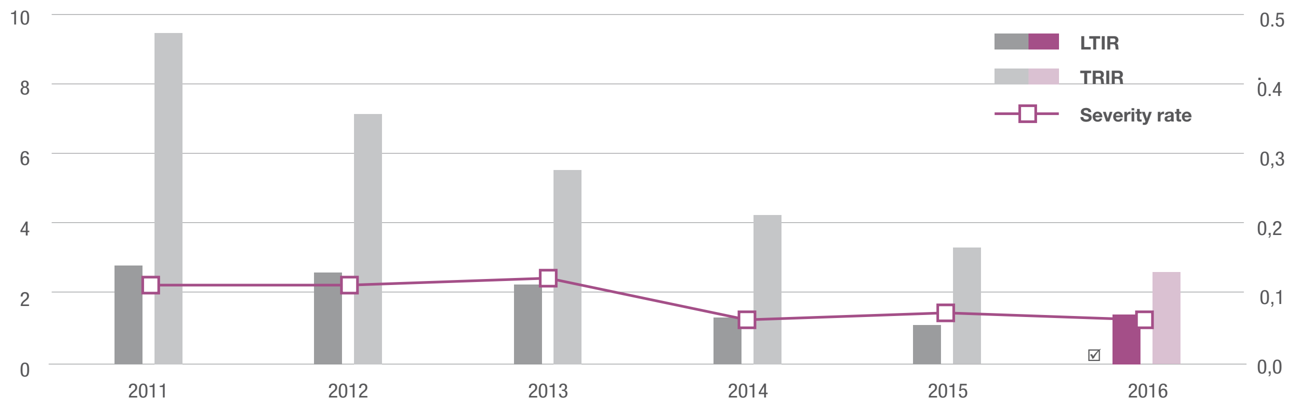
This program has been renewed each year with a particular focus (starting in 2014) on the major risks that could lead to a fatal accident and (starting in 2016), a specific focus on subcontractors.

That's why the LTIR and TRIR performance indicators have incorporated subcontractors, Vallourec staff and temporary workers equally since 2016.

At the end of 2016, the LTIR [(2)] was 1.41 and the TRIR [(2)] was 2.61. The Group did not report any fatal accidents in 2015 and 2016.

Between 2008 and 2016, the Lost Time Injury Rate (LTIR) decreased 85% and the Total Recordable Injury Rate (TRIR) decreased 91%. In 2016, the Severity Rate (SR) of the Lost Time Injury Rate was 0.6 for Vallourec employees only.

Change in safety indicators



(1) OHSAS 18001: International guidelines relating to occupational health and safety, published in 2001 under the authority of the International Labour Organization.

(2) Considering the Group's employees, temporary staff and subcontractors.

Whenever an accident involving lost time or a potentially serious incident occurs, the Group Management Committee (GMC) is informed immediately.

The safety improvement program includes the following measures at all Group sites:

- establishing safety management committees at all levels of the company;
- safety inspections;
- ongoing risk assessment for safety concerns and identification and implementation of preventive actions;
- continuous improvement teams (CITs) focused on safety issues;
- systematic communications at workstations concerning safety issues;
- strong involvement of the entire managerial line to report and address safety issues;
- strong employee involvement to stop and report any situation involving risk.

In addition to the safety improvement program, a specific action plan to prevent fatalities was implemented. This program focuses on:

- load handling;
- lockout-tagout of equipment during maintenance interventions;
- work at heights;
- confined spaces.

Education and training about safety rules is mandatory for all new employees of the Group and includes frequent follow-up. The programs for temporary staff have now been extended to subcontracting companies, just as for the permanent workforce.

Each year, a day is devoted to safety at all of the Group's sites. This is the time to raise awareness about safety issues in multiple ways among all employees, in particular through specific workshops (risks to hands, load handling, driving forklifts, working from heights, evacuation exercises, etc.) during which production is suspended. A great number of senior executives make special trips to sites for this event. The site recording the best safety performance also receives a specific honor on that day.

Major efforts have been made to ensure that employees are familiar with safety procedures: communication campaigns on accidents affecting the hands or eyes, cross-check audits between plants, and improvements to prevention programs when external companies are involved.

The "Safe Start®" program, which concerns the individual attitudes of employees and their ability to take initiative in a risk situation, was launched in 2012 and gradually disseminated among the Group's establishments.

In an effort to signal its commitment to safety issues, the Supervisory Board has included safety objectives for several years in the variable portion of the Management Board members' compensation, as well as in that of the main managers in charge of supervising staff at the sites, i.e. nearly 2,000 managers.

4.2.2.2 Health

HEALTH POLICY

In 2016, the Group did not sign any collective agreements regarding occupational health and safety. However, the Health and Safety Policy was updated, notably reinforcing the health section. Entities will have to make every effort to further investigate the health risks specific to the processes, while defining the specific means for eliminating or attenuating them. To that end, the issue of noise will be taken into account further, and further attention will be given to the ergonomics of workstations. Chemical risk prevention, which has been the subject of a specific plan for numerous years, will also be strengthened (see below).

Medical care of employees, along with their ability to benefit from adapted health coverage will be subject to increased monitoring. Lastly, the potential risk of our processes/products on our customers, or the surrounding communities, will also be further investigated.

PREVENTION OF CHEMICAL RISK

The safe use of chemical products and substances is of critical concern to Vallourec. The database containing their details is regularly updated to ensure rigorous monitoring of developments and reactions and thus prevent harmful effects.

In 2016, this basis was optimized to better assist the HSE teams in determining the danger of products, and thus establish adequate means of prevention. The application also evolved to take into account the new globally referenced classification system (GHS) as well as all of the new regulations resulting therefrom. The new functionalities were first rolled out at French sites, and will be implemented at the other sites in 2017. All products or substances entering production sites are monitored and authorized by local HSE managers. Medical services are regularly called in to provide a full risk assessment. Legally required checks on the atmosphere in the work environment are conducted, and this information is included in risk assessments.

Within the context of new developments, cooperation between the industrialization project teams and the Environmental Department allowed the use of CMR products through vacuum systems to be defined and implemented, thereby guaranteeing zero contact to ensure maximum protection to staff. These highly secure processes were then monitored by local HSE teams.

PRODUCT SUBSTITUTE PLANS

Plans to substitute critical products have been defined and, in conjunction with R&D and the suppliers, the HSE teams have devised test and qualification programs for substitute products. These programs can sometimes take a long time, and in some cases require the manufacturing processes to be adapted or adjusted. At the end of

2016, 80% of the 452 substances identified as CMR[1] were replaced[2] (74% of the 429 products in 2015). 145 products were nevertheless identified as being unable to be substituted due to technical problems or a lack of a substitute on the market. Their uses are thus supervised by the HSE teams. Changes in legislation in Europe and the improved knowledge about the toxicity of substances increases the number of products that are identified as CMR each year. The specific action plans rolled out at the Group level continue to develop, and concern:

a) refractory ceramic fibers: Vallourec has written and circulated a single set of instructions for all countries. The materials containing this type of fiber present in furnaces will be progressively disposed of during maintenance operations when an alternative solution is available. In 2016, furnace maintenance programs allowed RCF substitutions to continue, which enabled us to attain a 63% substitution in the identified RCF areas (58% in 2015);

b) leaded grease: tests and qualifications allowed us to list the substitution greases to use on the threading that is not subjected to high temperature according to the type of connections and environments of use; leaded grease nevertheless remains without a substitute under certain extreme conditions. In 2016, the sites used 110 metric tons of grease, including 16% leaded grease (13% of 218 metric tons in 2015);

c) nickel phosphates: a fine-tuned solution was validated with one of the suppliers and applied at the Vallourec Oil and Gas France site. Other solutions were tested with two other suppliers at the Vallourec Oil and Gas UK site, and at the Rath site, in order to cover global distribution. Even though substitutes have additional constraints, the sites are gradually swaying towards non-CMR solutions. 32 of the 45 lines thus made the transfer to a non-CMR process, i.e. 71%.

Other programs are conducted jointly with R&D, the plants and the suppliers in an effort to reduce CMR use. The use of borax, for example, is a common subject at several sites.

Lastly, the impact of chemical risk is likewise studied from the initial stage of investment and R&D projects in an effort to take all prevention criteria that should be associated with them into account. Several R&D and investment projects were thus validated from a chemical risk perspective, and the most at-risk areas were monitored and validated at each stage, through to industrialization on-site.

4.2.3 Social relations

4.2.3.1 Employer-employee dialog

Wherever the Group is established, it has made employer-employee dialog a priority. This is organized in each country, in accordance with local regulations. To date, at least 82% of the workforce are covered by business line or company collective agreements.

- At the European level, the dialog occurs at several levels:
  - a European committee, comprised of 30 French, German and British representatives, meets at least once a year, alternating between France and Germany. It meets with Management, which provides information about changes in the Group's activities, results and strategy;
  - a European committee office is also in session five times a year, and regularly meets with Management to discuss the Group's future, along with other European issues. In 2016, several exceptional Bureau meetings were held, at which French and German consultants participated. These meetings allowed the Bureau members to fully grasp the economic and industrial issues impacting the Group's competitiveness, as well as the action plans envisaged;
  - additionally, European employee shareholders are represented by a Supervisory Board for employee shareholding funds. They meet with Management twice a year. An employee representative is chosen from among them, who then serves on Vallourec's Supervisory Board.
- In France:

  The Group Committee has 20 representatives chosen by the trade unions from among those serving on the Company works councils and meets once a year with the Management Board. It receives general information on the Group (review of financial statements, activity, investments, etc.). It is assisted by a certified public accountant. It is also involved in managing employee benefits and savings plans. In each company, works councils or central works councils, elected consultative committees or staff delegates, as well as health and safety and working conditions committees are associated with the business or institution's management. The works councils manage social activities (participation in the financing of health contracts, organization of travel, Christmas gifts, sporting activities, etc.). The union organizations that obtained more than 10% of the votes in works council or elected consultative committee elections, are the managerial contacts for negotiations.

  In 2016, the restructuring and large-scale redundancies plan that was submitted to staff representatives was the subject of significant negotiations, which allowed the job protection plan (PSE) agreements to be signed in the majority of the companies concerned. These agreements have allowed the workforce to be decreased during below-normal periods of activity. Furthermore, the employee negotiations that took place at the end of the year resulted in agreements being signed in the majority of companies.

(1) Chemicals or preparations that may have various adverse effects on human health. These are classified into "CMR" categories. Within the meaning of Article R.231-51 of the French Labor Code, substances or preparations are considered CMR agents when they are carcinogenic (C), mutagenic (M) and/or toxic for reproduction (R).

(2) Some sites reported their inventory. New substances have also been officially classified as CMR.

- Germany:

  In 2016, the main agreements or negotiations concerned salaries (negotiation conducted at the business line level), provisional management of needs in terms of workforce, qualification, email in the cloud, information technology systems and travel management. The discussions generally concerned the measures for adapting to the new production load, primarily centering on not replacing departures, the rules on short-time work programs and reductions of hours to adapt to said load.

- In the United Kingdom:

  Employees are represented through two trade unions ("Community Union" and "Unite Union") which represent the production, administrative and technical workforce. In 2016, negotiations concerned the wage policy, bonuses, seniority benefits and selection criteria related to the adaptation plan after the stopping of heat treatment, and to work patterns.

- North America:

  In Mexico, the union mainly represents production staff and is represented by a collective bargaining agreement. The union, for which dues and membership are mandatory, can propose candidates for promotions from among these employees, a list of whom is drawn up in accordance with the agreements. Negotiations concern salaries and benefits in kind. In 2016, we have worked closely with the union on adaptation plans to support the reduced production schedules.

  In the United States, as required by law, employees can elect to be represented by a union and a collective bargaining agreement; employees have consistently voted against union representation. The last time a formal union election was conducted was in 2014. In 2016, due to the reduced level of activity, an employee survey was conducted to test the morale of the workforce. Based on the results, management quickly met with all employees to discuss and address concerns. Management meets regularly with employees for open dialogue discussions through informal or small group meetings that bring together all the employees. A collective agreement was signed concerning the establishment of partial activity to absorb the below-normal activity and maintain the bulk of its expertise. This agreement allowed work to be resumed under good conditions at the end of the year, following a rebound of activity.

- South America:

  In Brazil, employees are represented by trade unions, which are formed by employees not only from Vallourec, but also from the other companies that integrate their territorial base. There are legal criteria that establish the obligation of union representation according to the territorial location of the company and its preponderant activity. Thus, for each unit in Brazil there is a different union representing the employees.

  These unions are responsible for bargaining salary and benefits' increases and the work conditions, mainly. The negotiations conducted in 2016 at the professional business line level resulted in a salary increase equivalent to the inflation rate of the last 12 months; alternatives to make working conditions more flexible (such as working shift modifications, reductions in hours in order to adapt to the new load) in all plants; and contracts suspension (this year in Barreiro and TSA – Espírito Santo).

  There is also the Conselho Representativo dos Empregados (CRE) (Employee Representative Board) – an initiative adopted by liberality (not a legal obligation) which provides employee representation internally and facilitates joint discussions on specific daily matters such as catering, transportation and restrooms. The CRE cannot become involved in matters that are negotiated by the trade union. It plays a complementary role.

- In China, employee representatives or works councils exist in some entities, and the employer has regular communications with those representatives. In the entities without employee representatives, employer-employee dialogue occurs through direct contact between the production staff and management via internal communication meetings. Some plants are facing pressures from local unions to establish labor unions. Should employees request it, the set up of a trade union will have to be planned.

4.2.3.2 Internal survey on employee satisfaction ("Opinion")

Vallourec conducts a survey at regular intervals with all of its employees worldwide to find out their perception, expectations and concerns, and to measure their level of commitment. The most recent survey, conducted in 2013, earned a good participation score (73% response rate) and revealed a high proportion of employees who are satisfied at work and proud of working with the Company. Respondents also gave high scores for working conditions and level of autonomy given to employees. Following this survey, action plans were implemented in 2014 and 2015 to respond to employees' expectations concerning the standards of excellence defined at the Group level.

4.2.3.3 Group internal communications

Internal communications are designed to boost the commitment and motivation of all Group employees worldwide. Vallourec maintains dialog with its employees and provides information through various channels:

- Vallourec Inside is the Group's intranet, which reaches around 8,000 employees in approximately 20 countries. It delivers information on strategy, targets and results, and showcases the achievements of teams worldwide. A bi-monthly e-newsletter presents site news. Vallourec Inside also gives everyone the opportunity to connect through employee networks, which promote working together and increase responsiveness and performance. Approximately 4,000 individuals have connected via 230 web forums dedicated to specific Group issues (manufacturing processes, business activities, research and innovation);
- communication on specific projects seeks to educate employees about key issues in the Group – safety, ethics and values, the environment – or involves them in important matters (the Value employee share ownership plan, Innovation Challenge, major projects impacting Group life, etc.);
- at annual conventions or local meetings, the Group's executive management team visits employees to share information and gather feedback.

The Group's internal communications are also based on local resources in the countries, and companies, which relay messages, provide feedback from the field and raise topics of interest within their own channels (magazines, intranets, etc.).

4.2.4 Compensation and benefits

4.2.4.1 Payroll

In 2016, Group payroll, excluding interim, totaled €994 million:

- €764 million for salaries;
- €19 million for employee profit sharing;
- €3 million for expenses associated with share subscription or share purchase options and performance shares;
- €208 million in social security costs.

The 11.17% decrease in payroll compared to the previous year is the result of the effects of the 2015 restructuring plan.

Breakdown of payroll costs by country:

	Breakdown of total payroll costs	
	2015	2016
Germany	23%	23%
Brazil	18%	21%
China	1%	1%
United States	19%	19%
France	29%	27%
Mexico	1%	1%
United Kingdom	4%	3%
Other	5%	5%
TOTAL	**100%**	**100%**

4.2.4.2 Employee profit sharing

Profit sharing plans are designed to associate employees with the Company's performance. In 2016, this amounted to €19 million.

In France, a Company savings plan (PEE) and retirement savings plan (PERCO) allow employees to invest the money they receive from profit-sharing in order to build up savings with a favorable tax status and to benefit from employer contributions.

4.2.4.3 Employee shareholding

In 2016, for the eighth consecutive year, the Group renewed a Value employee shareholding plan, known as Value 16, benefiting employees in 11 countries. More than one out of every two employees, or 54% of eligible employees, chose to subscribe to the Group's proposed share offering. This participation rate demonstrates the loyalty of Vallourec's employees to their company and their confidence in the Group's strategy and future. Shares held by employees represented 3.5% of Vallourec's share capital as at 31 December 2016, compared to 7.63% as at 31 December 2015. This decrease is a result of the capital increase of nearly €1 billion that was made in the first half of 2016.

4.2.4.4 Other benefits

In almost all countries, except in Africa and the Middle East, employees benefit from a healthcare system for themselves and their families. During business travel, a medical service guarantees they will be cared for under the best conditions.

Multiple activities of a social, sporting or cultural nature are organized within the subsidiaries. They take on different forms according to the structures: business orchestras or choirs, organization of tourist trips, sporting competitions or parties and the funding of vacation camps for children. The goal of these activities is to bring people together outside of a strictly professional framework, to support and strengthen connections among employees.

4.2.5 Employee development

4.2.5.1 Talent management process

Vallourec assists its employees throughout their careers, revealing and cultivating their talents thanks to several programs and initiatives that are rolled out within the Group.

TALENT 360

Annual interviews

The talent management information system, known as Talent 360, used throughout the Group, is one of the tools used to evaluate skills, manage objectives and assess the potential of the population of managers. Implementation of this tool, supported by the strong involvement of all managers, enabled performance reviews to be standardized and systematically structured on an annual basis. This tool is also accessible to technicians and field supervisors in certain countries, in particular France.

In countries where this tool is in place, the rate of completion of annual performance interviews among managers is approximately ☑97%.

In 2016, the talent management process was harmonized and extended to non-managers.

Professional interviews

In order to comply with the legal obligations to conduct a professional appraisal interview every two years and, in cases where an employee resumes activity after a break due to leave for maternity, parental, long-term illness, etc., measures were implemented within the Talent 360 talent management information system during the last quarter of 2015. These professional appraisal interviews have thus been taking place since 2016.

Job posting

In order to allow managers to seize opportunities for growth within the organization, job openings are published in Talent 360, with the option to apply online.

EMPLOYEE REVIEW AND SUCCESSION PLANS

The staff review, run by the Human Resources Department in collaboration with the sites and divisions, is an indispensable process for ensuring that the Group has the talent needed to implement its strategy. It also allows employee potential to be identified and developed, helping staff to evolve within the organization over the short, medium and long terms.

This staff review, which is based on criteria of performance and potential, allows true career paths to be constructed by relying on levers such as training, and internal and international mobility.

Vallourec has also generalized succession plans in an effort to ensure that key positions are filled by people with the necessary expertise.

EXPERT PROGRAM

Created in 2010, the goal of the Expert Program is to recognize employees specialized in the processes that are connected to Vallourec's core business, such as steel production, rolling, heat treatment, threading or even welding.

The Expert Program encourages and values individual career paths in these areas, and allows Vallourec to develop its competitiveness to satisfy increasingly demanding markets. To date, this program has allowed more than 300 experts to be recognized through the Group.

4.2.5.2 Training

In an evolving and competitive market, Vallourec has a growing need for trained and motivated staff who are able to adapt to the changing businesses and markets. The Group strives to reconcile its need for change with the individual aspirations of its employees, allowing them to grow in their careers, while developing their skills.

In addition to training programs which are centrally decided upon by the Group Training Department, each company prepares its training plan each year, in accordance with the Group's pedagogical guidelines. Specific training programs are thus established to locally address the regulatory or market requirements.

In 2016, more than 506,451 hours were devoted to professional employee training (data collected through the "LMS" unique training management system, including for classroom training sessions that were only given at the Group level, along with those in main location countries: Germany, Brazil, United States France and the Middle East).

Employees who trained at least three hours in the classroom, or who completed at least one e-learning training session

	Production staff		Technical and supervisory staff		Managers		Total	
	2015	2016	2015	2016	2015	2016	2015	2016
TOTAL, GROUP*	70%	69%	79%	61%	93%	92%	76%	71%

* *% of employees who trained at least three hours in the classroom, or who completed at least one e-learning training session per socio-professional category.*

In 2016, each Group employee completed an average of 26 hours of training, compared to 22.5 hours in 2015. Shorter-format distance training, which has been developing for several years, allows access to a larger number of employees. Distance training now accounts for 2% of the total training hours.

Type of training provided

	Total number of training hours in 2016	%	Total number of training hours in 2015	%	Change
Leadership	35,694	7%	51,861	11%	-31%
Training by position	37,309	7%	29,355	6%	27%
Languages	12,966	3%	16,272	3%	-20%
Operational excellence	382,917	76%	334,807	71%	14%
including HSE	*109,351*	*22%*	*147,545*	*31%*	*-26%*
On-demand training	37,565	7%	40,714	9%	-8%
TOTAL	**506,451**	**100%**	**473,009**	**100%**	**7%**

There is an increase in training programs by function aimed at the professional development of employees, and a clear increase in training programs connected to operational excellence, which is at the center of our industrial strategy. Instructor-led language training is conversely decreasing in favor of online training programs.

VALLOUREC UNIVERSITY

Since its creation in 2011, Vallourec University's goal has been to be a center of excellence where employees and customers can meet to create and share in a common culture and build on their knowledge through continuous learning. Its purpose is to strengthen the values that are most important to Vallourec today: focus on the customer, agility, transparency, innovation and respect for people and cultural differences.

Vallourec University offers training programs for Group employees worldwide. These training programs may be given locally through Vallourec University in the main countries, centrally as part of international programs which are most often organized in Europe, or via e-learning through a dedicated training platform, the Learning Management System (LMS).

All of the training programs that are launched and rolled out by Vallourec University must meet the following objectives:

- to ensure a shared understanding of Vallourec's values and corporate culture;
- to encourage strategic, managerial and technical excellence in order to boost the Group's competitive edge.

To achieve these objectives, Vallourec University has developed four principles: experiment, share, learn and apply, as the basis of all its training. Participants have the opportunity to discuss their experiences and gain new knowledge by alternating theoretical and practical modules and applying and adapting the methods they have learned to their specific needs. Training is systematically related to the strategic objectives of the Group, its Divisions and its teams.

Vallourec University offers customized training and seeks to develop skills across the Group to fit with the Group's strategy. Its learning center is based on four key pillars:

- leadership, which prepares for the management of specific challenges encountered in management and leadership roles;
- on-demand training, which is focused on topics that are important to Vallourec, such as project management, communications, language skills, digital skills or even finance for non-specialists;
- functional training, aimed at improving practical and technical skills for each business line;
- training for operational excellence, which provides expertise on processes and technologies in the context of the Group's priorities and guidelines, in particular in order to contribute to the company's performance and to the development of a unified corporate culture.

Vallourec University's activities are structured around two areas: the Learning Center and the External Stakeholders. The Learning Center is the main area and covers all training initiatives. Its modules are implemented at national and international levels, aimed at the continuous development and improvement of employee skills to meet the specific requirements of each level of responsibility and in the various geographical areas. They systematically integrate the Group's priorities, such as change management, customer focus and innovation.

Activities geared towards External Stakeholders aim to improve the brand's image among customers and suppliers by offering them "Business Knowledge" and "Tubular Essentials" courses. Such measures also help to attract new talent and enhance Vallourec's employer brand.

Vallourec University adopted a Learning Management System (LMS), a training management tool that offers employees more direct access to training. Intended to improve training management and access, the LMS has been gradually rolled out in the Group since May 2012. The tool offers monitoring of training times and budgets, enables employees to see what training is available in the Group, allows them to enroll in courses directly and review training histories for themselves and the employees reporting to them.

This tool allows Vallourec University to offer customized or standard training, which can be deployed quickly at the Group's various sites for all employees connected to the LMS. These offers are part of a "Blended Learning" strategy in which live training is prepared for or reinforced by e-learning sessions, leading to better understanding of the lessons and reducing time spent in the classroom. Over the next few years, Vallourec University will continue to develop a range of new live and e-learning training courses.

2016 was a mature phase in distance learning, and new learning practices will continue to be adopted. Safety and finance programs were rolled out on e-learning to the target audiences. The number of training hours provided via distance learning amounted to 10,996 hours in 2016 (hours recorded by the Learning Management System), i.e. 2% of the total training hours.

APPRENTICESHIP AND WORK-STUDY VOCATIONAL TRAINING

To ensure the transfer and enhancement of know-how in the context of Europe's demographic imbalance, and to attract more young talent with a training program geared to the needs of its activities, the Group operates a dynamic apprenticeship program:

- in Germany with an average of 235 apprentices in 2016;
- in France where an average of 160 work/study trainees took their training course in 2016;
- in Brazil with an average of 133 apprentices in 2016;
- in the United Kingdom with an average of 27 apprentices in 2016.

4.2.6 Diversity and equal opportunities

Under the roll-out of the Code of Ethics (see above, Section 4.1 "Ethics and compliance"), a program to educate all employees on the issue of discrimination was completed using examples from daily life.

In France, training for managers includes a specific module on this topic.

In the satisfaction survey conducted in 2013, 76% of employees said that they agreed or strongly agreed with the statement that *"Vallourec understands and encourages diversity among its employees (e.g., in terms of gender, ethnic or geographical origin, religion, age, nationality, disability, etc.)".*

4.2.6.1 Diversity

GENDER EQUALITY

The Group's policy is defined by the Management Board with two key objectives:

- increasing the number of women in line management positions, especially in production; and
- improving women's access to leadership roles.

Indicators are in place to ensure follow-up and accountability in the actions led by the Group. Monitored by a special committee, which is chaired by a member of the Group Management Committee, these concern:

- the percentage of women in line management positions in production, sales, and Research and Development; as at 31 December 2016, 12.2% of these positions were held by women;
- the number of women who currently hold a senior management position: as at 31 December 2016, 9.4% of senior management roles were filled by women;
- the mentoring of high-potential women by Vallourec senior executives.

Action plans are underway in France as a result of negotiated agreements on this topic. They include communications campaigns aimed at educational institutions to attract female candidates and awareness efforts among current managers, as well as the proper equipment of some facilities (e.g., women's locker rooms). Compensation surveys have shown no difference in treatment between men and women. These surveys are regularly repeated.

In Germany, part-time work was one of the solutions made available to parent employees in an effort to facilitate a balance between their professional and family lives.

In the Middle East, after a young Saudi Arabian woman was promoted to Head of Human Resources of Vallourec Saudi in 2015, the policy to increase the number of women continued in 2016 with the hiring of a woman also based in Dammam.

CULTURAL DIVERSITY

As an international group, Vallourec faces cultural diversity issues. From this perspective, managers who are required to work with multicultural teams benefit from an adapted training program.

Furthermore, an average of 150 employees of diverse origins have the benefit of working internationally, for a variable duration of one to three years, and in some twenty different countries.

4.2.6.2 Equal opportunities

DISABILITIES

- In Germany and in France, priority is given to keeping employees with disabilities in service by adapting positions or work hours.
- In Brazil, in partnership with the government, Vallourec Tubos do Brasil conducts a rehabilitation program to allow employees with disabilities to continue their professional activities.

SENIORS

Under the agreement for proactive management of employment, and under the framework of the intergenerational contract, several commitments were assumed with respect to senior employees, and specifically:

- the objective to maintain employment (up to 20% of staff) and hiring (at least 15% of new hires must be employees aged 45 or older, and at least 1% of new hires must be employees over age 55);
- specific days off for employees over age 50 who perform shift work;
- retirement leave allowing employees performing shift work to move to part-time, or to retire 2 or 3 months early, according to seniority in the position held;
- organization of training to facilitate the transition from professional life to retirement.

4.3 Relations with stakeholders

4.3.1 Relations with employees

➔ Commitment to responsible performance

> Train and motivate our employees through skills development, recognition of expertise, talent promotion and career development

INDICATOR	2015 RESULTS
Result of the Opinion internal survey (employee satisfaction rate). This survey is conducted every two to three years.	Based on the **76% satisfaction rate** that was expressed during the survey conducted in 2013, action plans were constructed locally to meet the stated expectations. These plans were rolled out in 2014 and continued in 2015. There was no survey in 2016.

The social policy is presented in full in Section 4.2 “Social policy” (see above, p. 78).

4.3.2 Relations with customers

4.3.2.1 Customer profile

The Group has an extensive customer portfolio.

- As concerns the Oil & Gas markets, its customers are:
  - national oil companies such as ADNOC, Aramco, Petrobras, international companies like Exxon and Total; and independents;
  - engineering and construction oil service companies such as TechnipFMC;
  - American distributors such as Pipeco, Premier Pipe and Pyramid Tubular.
  - national drilling contractors such as NDC, ENAFOR or international drilling contractors like Transocean, Maersk, Seadrill;
  - service companies such as Schlumberger, Halliburton, Weatherford.
- On the Power Generation market:
  - builders of thermal and nuclear power plants such as Areva, Dong Fang, Doosan and Mitsubishi Hitachi Power Services.
- On the Industry market:
  - manufacturers of industrial equipment and distributors such as Salzgitter, ThyssenKrupp.

In 2016, the five largest customers accounted for 25% of the Group's consolidated revenue.

It should be noted that a growing number of customers are asking the Group about its level of commitment to CSR in the form of a structured questionnaire.

4.3.2.2 The "Commercial Excellence" and customer satisfaction program

As part of its "Commercial Excellence" program, the Group tries to continuously strengthen its proximity to customers. One of the cornerstones of the program is managing the network of Key Account Managers (KAMs), true customer ambassadors, who allow Vallourec to gain a very detailed understanding of each customer's needs, in particular during the regular personal meetings between the KAMs and the customer. Under this framework, the KAMs follow training programs and participate annually in a day of dialogue.

In order to respond to the expectations identified, and optimize the creation of value for the benefit of those customers, Vallourec combines product innovation with services, and offers its expertise. This is mainly done by analyzing the customer's value chain, in order to propose appropriate solutions: optimization/choice of product design, project management, scheduling, lead times, storage, inspection, maintenance, repair, etc. This is the aim of the service platform in Brazil (Vallourec Transport and Services) and of the Vallourec Global Solutions offer which proposes on-site assistance, maintenance, consulting on well design, logistics, etc. One of the cornerstones of the Commercial Excellence program is preparing value propositions for customers, in other words a product/service offer that reduces the cost of their operations or simplifies them. Each action is managed in project mode with specific management.

The analysis of our markets is one of the primary criteria of managing our portfolio of R&D programs. It should be recalled that Vallourec innovates by developing steel and alloys that are increasingly high-performing, which are resistant to unequal pressure and temperature levels, and have adapted mechanical features (strength, weldability, elasticity, etc.). To that end, the Group develops specific R&D programs and multi-division initiatives. Lastly, this approach aims to include an evaluation of the environmental impact of products throughout their useful industrial life, from manufacture to dismantlement.

Customer satisfaction is of critical concern to Vallourec: offering the best product at the best price, delivered on-time and in conformity with all customer expectations.

Response time to a request for a quote, product quality and lead times are the main criteria for customer satisfaction and are extensively monitored by the managerial line.

Indeed the Group regularly conducts satisfaction surveys. This process, launched by Corporate Marketing, is conducted by the divisions and allows customer satisfaction rates to be measured. Using an IT tool, each division develops very detailed knowledge of its customers' experience. Satisfaction is measured according to various criteria, and actions are consequently taken to improve satisfaction or, where applicable, remedy dissatisfaction.

This approach is inseparable from the Group's efforts to raise the level of quality of its products as well as that of the associated services. For example, the amount of time for processing defects in quality or logistics has been considerably accelerated. Claims are systematically and fully processed. Regardless of their type, all claims are processed in the same way: Vallourec acts in full transparency.

4.3.2.3 Measures for consumer health and safety

This topic is not applicable to Vallourec's activities. Indeed, the products manufactured by the Group are designed for other manufacturers who use or transform them. They are sold either directly to the end customer, or to distributors who sell them on for various applications. They are never supplied to individual consumers. Moreover, the products are made of steel, a metal that does not present any danger to health.

4.3.3 Relations with subcontractors and suppliers

➔ Commitment to responsible performance

> Establish a network of reliable and responsible suppliers

INDICATOR	2016 RESULTS
Number of suppliers included in the formal evaluation process conducted by Vallourec of its social and environmental responsibility.	As at 31 December 2016, **a total of nearly 850 suppliers** were involved in the process, still particularly focused on emerging countries or regions newer to Vallourec (China and the Middle East, and certain categories of suppliers in Brazil). **2017 OBJECTIVE** To involve a total of **900 suppliers** in the Group's formal evaluation process, and in all cases **all of the so-called "critical"** suppliers, in other words, those directly impacting the Vallourec product or its production process.

In 2016, the Group's purchases totaled €2,220 million, i.e. a 23% drop from 2015. They break down geographically as follows: 55% in Europe, 17% in North America, 26% in South America and 2% in the rest of the world.

4.3.3.1 Local purchases

Vallourec ascribes specific importance to the regional, economic and social impact of its activities on the neighboring and local populations.

Local purchases, which totaled an estimated amount of nearly €1.0 billion in 2016, represented approximately 45% of purchases (stable share year-on-year) and directly contributed to supporting the local economy. These were mainly for scrap metal, temporary work, certain IT services, subcontracting, maintenance and supply services, and ordinary services to meet production and non-production needs. The distance between suppliers' locations and the plants they serve is not over 80 km, so they can usually respond to requests the same day if needed.

The proportion of local purchases is fairly consistent across the various geographical areas.

Subcontracting purchases represented an amount on the order of €600 million. These concerned either industrial finishing or control services, or services that were needed for the processes to be properly performed. These subcontracting purchases were for the most part local, given the quality and responsiveness requirements that providers must satisfy. These services corresponded to a significant number of very qualified jobs that helped strengthen the local industrial fabric, although it is not easy to evaluate their number. A significant portion of these local subcontractors were considered in the CSR evaluation of Vallourec's suppliers.

4.3.3.2 Responsible purchasing policy

Vallourec's Purchasing function is organized for optimal supplier management, stronger and more centralized governance, and to deploy tools and processes shared by all Group entities. This structure, which supports the line management teams and clarifies processes, is based on an analysis by type of purchase to facilitate the implementation of synergies.

Within this context, a Supplier Quality and Performance Department established several tools and processes during these past three years which aim to better monitor suppliers, their selection and their performance: establishing purchasing strategies by category, a formal contracting process, management of supplier quality, measurement of supplier performance, and supplier risk analysis. All of these new processes directly emphasize criteria such as Corporate Social Responsibility (CSR), sustainable development, ethical conduct and safety.

In 2016, pursuant to this policy, Vallourec:

- conducted several hundred audits or supplier risk analyses at all of its sites. This consistent effort will continue in 2017 with increased precision. To do so, Vallourec will use renewed and improved audit guidelines, still very significantly integrating the criteria on sustainable development, ethics and safety;
- continued the formal and systematic evaluation of suppliers (production and non-production) based on CSR and environmental criteria, still with the help of the same specialized firm. As at 31 December 2016, nearly 850 suppliers were incorporated in this project, and nearly 320 of them, representing more than 35% of Vallourec's expense, were at the end of the process, with a complete evaluation and progressive action plans. This assessment showed that 52% of the suppliers evaluated already publish a formal report on their energy consumption and greenhouse gas emissions, 62% publish a report on their health, safety and environment (HSE) indicators, and 32% are ISO 14001 certified;
- continued and perfected a specific innovative process to anticipate supplier risks. A score card on the matter is continually updated and reviewed monthly by the Group's Purchasing Department Committee. In 2016, this monitoring allowed the risks identified for 14 of the Group's global suppliers to be treated or eliminated. Furthermore, several e-learning training modules are available to train buyers and their internal clients in all aspects of supplier risk. In 2017, this process to anticipate supplier risks at the Group level will be strengthened by an equivalent and harmonized methodology on the very numerous regional or local suppliers;

- established a specific information system for integrated management of purchases and suppliers, with visibility at all levels, from local to global. This system, which was ramped up in 2016, becoming fully operational in 2017, contains in particular a specific data sheet for each supplier in which sustainable development and safety criteria feature strongly. It also allows supplier development and improvement action plans to be managed.

Vallourec's requirements for sustainable development, ethics and safety are always one of the main messages delivered to suppliers during the Top Management Meetings (TMM) that are regularly organized with the Group's largest suppliers.

In accordance with the new U.S. laws and European directives, Vallourec has also committed to monitoring potential "Conflict Minerals" coming out of certain African countries which could be used by its suppliers. The Group's policy consists (i) of making sure, in accordance with the Group's Code of Ethics and the Sustainable Development Charter and the Environmental Policy, that none of these minerals is used directly or indirectly and (ii) where certain cases are detected, of finding solutions to replace them. This monitoring campaign, which in 2015 involved 2,300 suppliers worldwide, was significantly expanded to cover nearly 4,000 suppliers in 2016. These suppliers were all subject to this survey's analytical matrix. The summary of responses to the questionnaires sent out and analyzed using special software did not show that Group products contained any conflict minerals from the African countries in question. The survey will be further strengthened in 2017, and a specialized company will verify all of the suppliers' responses.

4.3.3.3 Anti-corruption actions

All suppliers are aware of and have access to the Group's Code of Ethics, particularly through Vallourec's website. Vallourec's systematic evaluation of suppliers based on CSR criteria, initiated in 2013 (see above), showed that 38% of its suppliers have also formally established a Code of Ethics or a Business Ethics Charter.

Moreover, in relations with local stakeholders and suppliers in 2016, there were no comments or complaints related to respect for the values set out in the Group's Code of Ethics.

4.3.4 Support of local communities

4.3.4.1 Local community support policy

Vallourec has initiated numerous relationships with local stakeholders in its activities, such as professional organizations and local authorities, residents' associations and groups with a social or environmental objective related to its sites' activity. Although no overall systematic evaluation of the quality of relations between our sites and the local communities has yet been performed, relationships are considered to be good and no conflicts have arisen. Social actions are mainly conducted in countries such as Brazil and Indonesia where the expectations of the local residents are strongest and where social systems are less developed than in Western countries. With the exception of these two countries, the Group receives few requests for support.

In accordance with issued recommendations, the local level has the autonomy to determine the actions to be taken, with the approval of line management, and focusing on the following guidelines:

- consistency of actions undertaken within a single region;
- regular, high quality discussions;
- priority given to actions supported by the Group's employees;
- preference for actions that support education, healthcare and local development.

It should be mentioned that the five-year strategic plan to promote sustainable development provides for establishing a formal framework for social actions. With the aim of furthering discussion on the subject, an exhaustive list of actions taken at all sites was made in 2015, and updated at the end of 2016. The goal for 2017 is to establish and publish an update of our policy on relations with the local communities, including dialog, support and philanthropy, under the control of the chain of command. A policy and governance associated with the actions to take at the Group level will also be prepared.

In an effort to better understand the global impact of its activity, the Group also conducted a study with a specialized provider to assess the added value indirectly created and the jobs generated throughout the supply chain. The multiplier effect of our own added value will be calculated, and the local share of our purchases will also be better assessed. The results of this study will be revealed in 2017.

4.3.4.2 Actions undertaken

A. In Brazil, due to historic, cultural and regulatory reasons, and because the Barreiro site is situated in the midst of a very urbanized district in Belo Horizonte, relations with local stakeholders, and particularly modest populations, have for several years followed a structured process in close collaboration with local authorities, backed by tax incentives. The very numerous actions include economic development, cultural and sporting programs.

These include the following:

- "Education volunteers", who provide educational support directly to young children, in particular for scientific subjects, through employee volunteers from Vallourec Tubos do Brasil (VBR);

- the organization of a cultural, social and athletic circuit for local municipalities;
- economic development project for villages located close to the Vallourec Florestal farms;
- school environmental training program;
- the specific school support program known as “Comunidade viva”, with volunteers from Vallourec Tubos do Brasil (VBR).

This specific program has proved effective since 2005. During the 2011-2015 period, nearly 6,000 young people directly benefited from the programs, and more than 10,000 benefited indirectly, in particular the families of employees. In 2016 alone, more than 600 young people directly benefited from the program, and 18,000 benefited indirectly. These programs represented more than 6,500 training hours. The very practical results are length of education, which has grown from 5.6 years in 2005 to 8.8 years, with a rate of integration into the workplace that went from 45% to 53%, accompanied by a very considerable increase in family income of more than 70%. The 10-year anniversary of this program was marked by a celebration at the end of 2016.

The outstanding effort over the past several years to restore a historic movie theater in the city center has allowed the Belo Horizonte metropolis to become a major cultural center; the Cine Theatro Brasil Vallourec has become incredibly successful, and since it opened to the public in October 2013, it has welcomed nearly 700 artistic events, including exhibitions, and dance, music and theater shows, attracting nearly 800,000 visitors. In 2016, support for the operation of this establishment is the most important action that was carried out in Brazil.

Since its inception, Vallourec & Sumitomo Tubos do Brasil (VSB) has also implemented programs that offer economic and cultural support to local populations, as part of agreements with local authorities that are similar to those developed by VBR. VSB also sponsored municipal firefighting teams, and supported events organized by local authorities.

Lastly, in order to better appreciate the communities’ perception of the Brumadinho mine, an in-depth study on the opinions and expectations of people residing nearby was conducted in 2014, based on questionnaires and individual interviews with residents, merchants, elected officials, officers and associations, and allowed the environmental education program offered to local residents to be adapted.

B. In Indonesia, the subsidiary P.T. Citra Tubindo TBK has for many years been involved in large-scale programs that provide educational and medical assistance to the people, financing for sporting and cultural equipment, as well as environmental protection actions and support to underprivileged populations. More than 8,000 people were involved in 2016. It should be noted that the primary action consists of continuing to subsidize the new Nongsa hospital.

C. In Europe and the United States, given the level of development of social infrastructures, corporate initiatives are for limited amounts and tend, in general, to support university, cultural and sporting initiatives, to finance social and charitable causes, renovate cultural centers, support the local economic fabric, or even subsidize environmental restoration programs.

In the Valenciennes, Aulnoye-Aymeries and Montbard basins, the Group has participated in the Alizé program for large and medium-sized local businesses, which consists of (i) contributing *pro bono* expertise to SMEs by providing consulting from managers and (ii) coordinating projects categorized as part of the “Metal Valley Rural Excellence Division”. Within this framework, the Group invested, in 2015, in nearly 5 support actions, which mainly concerned assistance in the field of industrial organization.

In the Düsseldorf region of Germany, for example, numerous cultural or sports associations are supported to promote health.

D. In 2016, approximately €3.3 million were allocated to fund partnerships, down from 2015 (€4.5 million). This reduction is clearly due to the consequences of the continued drop in business at sites, and of their resources. A currency translation effect should also be noted, in particular the continued depreciation of the Brazilian real and the various units’ efforts at euro consolidation. Therefore, at constant exchange rates, the amounts allocated would have reached nearly €3.8 million. In volume, the efforts thus only decreased by approximately 15% compared to 2015.

4.3.5 Relations with shareholders and investors

➔ Commitment to responsible performance

> Satisfy our shareholders over the long term

INDICATOR	ACHIEVEMENT OF THE 2016 OBJECTIVE
Average rating given by four leading non-financial rating agencies.	The Group maintained a rating of B+.
2016 OBJECTIVE	**2017 OBJECTIVE**
To obtain a **B+ rating, given the weak level of activity expected in 2016 and the significant changes in scope.**	Keeping a rating of B+.

The Group's priority is to maintain lasting, trustworthy relations with all its shareholders, whether individual or institutional, French or foreign. It strives to give them access to exact, precise and accurate information, particularly with regard to its activities, results, outlook and strategic developments. Accordingly, and with ongoing concern for clarity and transparency, numerous dedicated communications media are available, and regular meetings are arranged throughout the year. For example, the Group annually presents to BPI representatives its actions on a certain number of topics that are identified together.

In 2016, the Group participated in 254 meetings and telephone conferences with institutional investors and financial analysts. Each year, it also meets with SRI (Socially Responsible Investment) funds and analysts. This approach contributes to the Group's improvement in the area of sustainable development.

Vallourec's Shareholders' Club also allows shareholders to participate in events (conferences, discovery workshops) to deepen their knowledge and understanding of the Group's activities. This plan, which promotes discussions, allows Vallourec to strengthen the close connections with its individual shareholders, and helps it to better respond to the concerns and expectations of its shareholders.

The entire scheme used by the Group for shareholders and investors is presented in Sections 2.6.2 "Relations with institutional investors and financial analysts" and 2.6.3 "Relations with individual shareholders" of this Registration Document.

4.4 Environmental commitment

The environmental data included in the 2016 environmental reporting scheme concerns all of the subsidiaries controlled by the Group. However, given the industrial size of the Vallourec & Sumitomo Tubos do Brasil plant, only 56% of the data from this plant has been consolidated (percentage corresponding to Vallourec's share of the capital) up to 1 October 2016, the date when the tubular activity of Vallourec Tubos do Brasil (VBR) was contributed to the new company VSB, 84.6% controlled by Vallourec. The data from VHET was consolidated up to the date of its disposal on 29 April 2016. Tianda Oil Pipe, which was acquired in late 2016, will only be taken into account in the next fiscal year.

The majority of the ratios are established using metric tons "processed", in other words the sum of production from the various units. This concept better accounts for the level of activity of the production units than metric tons shipped for two reasons. On the one hand, because it is more representative of the flows and stages of production, and on the other, because it is less affected by changes in inventory.

4.4.1 General environmental policy

Vallourec's manufacturing policy is to minimize the impact of its activities on the environment. This commitment is clearly explained in the Sustainable Development Charter published by the Group in 2011, and in the Group's Environmental Policy, which was signed by the Chairman of the Management Board and published in 2014.

In 2013, Vallourec created a five-year environmental roadmap for each of the following three industrial divisions: Upstream, OCTG and Vallourec Tubos do Brasil. These roadmaps constitute a strategic Environmental plan and identify targeted environmental projects (energy, water, waste, chemical hazards and noise) whose purpose is to minimize the Group's environmental footprint. They focus on defining objectives, determining the necessary resources (including capital expenditures to be made), promoting progress and cost savings, and setting priorities. They are monitored regularly and updated each year. Their horizon is extended annually in one-year increments, and currently concerns the 2016-2021 period. Since early 2017, these roadmaps have simultaneously been adopted by the new Europe-Africa, Middle East and Asia, North America and South America regions.

4.4.1.1 Environmental management

In accordance with Group rules and guidelines, the Director of each site is responsible for setting up an effective environmental management system that is tailored to the local context and the site's activity. The Director appoints an Environment Manager who heads up all actions in this area and functionally reports to the HSE Director of each region. The "Corporate" Environment procedures were updated in 2015, and are accessible on the portal.

The Environment Department, reporting to the Sustainable Development Department, coordinates all environmental initiatives. It is supported by the Environment Managers of the regions and production sites, who are responsible for implementing Vallourec's policies through:

- uniform management of environmental performance, risks, projects, communications and sharing among all Group entities;
- incentives for entities to improve their environmental performance; and
- development of environmental competencies.

These structures exist in all of the countries. The objective of this organization consists of structuring the organizations by region or country in order to better take into account the specific national regulations. Under the Transformation Plan, the global workforce now totals nearly 55 full-time equivalent people for the Group as a whole.

Exchanges among the countries are continuing to develop, fostering significant progress thanks to the benchmarking of performances and solutions, particularly during regional environmental conferences.

The Environmental Department is also responsible for coordinating and managing these internal benchmarking initiatives, as well as for gathering and consolidating all of the Group's environmental data. The results are consolidated monthly and communicated quarterly to the sites, the management line, and to the Group Management Committee (GMC) members, in the form of a report specific to each region and entity. In 2016, the Group installed a new application to manage safety and environmental data. This application simplifies the collection and verification of that data, and offers new functionalities for sites in view of facilitating their own local reporting.

4.4.1.2 Audits and certifications

Internal environmental audits are regularly organized in each country to assess compliance with regulations. Specifically, the Performance & Risk audit evaluates performance and risk levels for each environmental concern as well as the environmental management system (EMS) in place. The results are used to identify priorities and corresponding action plans. These audits are part of the process of preparing for certification audits which are now comprehensive, in other words, simultaneously concerning environmental, energy, quality and safety procedures at the regional level. Under this framework, preparation for the new ISO 14001-2015 standard was launched.

As at 31 December 2016, the Group's main sites were certified ISO 14001, which represents more than 89% of production. The certification of the Jeceaba site should occur in 2017, in an effort to achieve a 99% certification rate of Group units.

More generally, the Group's entities are subject to quality, health/safety, energy and environmental certifications.

4.4.1.3 Legal compliance

Regular audits are performed by outside specialists to assess compliance of the production sites' activities with statutory and regulatory requirements.

Through the regular and systematic review of regulatory developments, actions implemented in the context of continuous improvement, new investments or organizational changes can be developed or updated. In France, an environmental regulatory watch has been set up on a dedicated intranet portal, accessible by all production sites. This portal facilitates access to useful information for various sites, and in particular compiles the procedures that are periodically updated.

4.4.1.4 Training and education

Employee training and education on the environment, sustainable development and energy efficiency are carried out in the plants through poster campaigns, periodic publications, briefings and compliance programs, among other measures. The Global Compliance Program, developed and coordinated by the Group's Legal Department, has an educational component on compliance with environmental regulations (see Section 4.1.1 "Ethics and compliance" above and the Report of the Chairman of the Supervisory Board below in Appendix 1 to Chapter 7 of this Registration Document).

In 2016, the total number of training hours in the field of health, safety and the environment that were counted in the LMS system (which includes classroom training sessions delivered at the Group level, along with those in main location countries: Germany, Brazil, United States, France and the Middle East) amounted to 109,351 compared to 147,545 in 2015, or 22% of the total training, a considerable reduction compared to 2015 (31% of the total training hours).

4.4.1.5 Investments

The Group systematically incorporates sustainable development concerns in designing its investment projects. In particular, a health, safety and environment (HSE) analysis is conducted at the beginning of every project to assess the potential impacts and anticipate environmental risks.

A procedure on eco-design rules was established in 2015 as part of the reworking of major project governance. It is intended to highlight the best practices and techniques available for design that meets HSE challenges in the following main areas:

- optimization of working conditions by evaluating the ergonomics, lighting, heating and ventilation of workstations;
- energy savings by optimizing performance when choosing the type of energy used, recovery of available energy (use of process gases emitted by power generation, recovery of process heat, recovery of energy from engine braking etc.), better insulation of furnace walls for heat treatment of tubes and installation of sensors to optimize energy use (heating and lighting);
- reasonable use of natural resources and consideration of the consequences of climate change;
- reduction of atmospheric emissions via continuous improvement of capture systems, as well as carbon emissions. To that end, since early 2017 it has been requested for the most important projects to apply a single global price to carbon emissions of €40/metric ton in order to evaluate the sensitivity of these projects' profitability to the existence of carbon rating systems, which serve to develop it at the world level within the framework of the latest COP recommendations. Such a process may very clearly help the attractiveness of the project to evolve upward or downward. It allows the final decision to be influenced, above all if the project is structured and falls within the activities development policy;

- water management through recycling and recovery of rainwater using storage basins, and better quality through more efficient wastewater treatment plants and a reduction in the volumes of water discharged;
- waste management through improvements in collection, sorting and recycling;
- reduction of noise inside and outside the plants by emphasis on cutting noise emissions at source;
- the impacts for pending administrative authorizations.

In 2016, HSE investments reached €32.3 million, i.e. 9% of cash expenses. These investments are less significant than in 2015, notably because the investments in our forest area in Brazil were considerably reduced. We must in effect note that the Group's new industrial plan now only provides for direct operation of one blast furnace, which means the forest area is in over-capacity.

These investments by their nature concern:

- improvement in working conditions (ergonomics, noise reduction, lighting and heating);
- ensuring environmental compliance of work equipment (retention and aspiration, water and gas networks, fire protection systems and product storage);
- reduction in energy consumption: improvement in furnaces for heat treatment, automated lighting and building insulation;
- improved water management;
- management of the forest operated by Vallourec Florestal;
- the replacement of hazardous chemical substances;
- layout and safety of plants in terms of roofing, roads and parking;
- renewal of operating permits;
- reforestation projects and plans for carbonization furnaces to produce charcoal as a renewable energy source;
- water drainage projects and plans for construction of metalliferous tailings dams which present an inherent risk of significant damage.

Within the scope of these projects, and as concerns actions that have a direct environmental benefit, the following projects are noted:

- renovation of refractories of blast furnace no. 1 in Brazil and improvement of air supply;
- improvement of carbonization furnaces performance;
- renovation of furnace refractories in Brazil and the United States;
- establishment of continuous measurement systems;
- new water treatment station in Aulnoye, France;
- installation of regenerative burners in Mülheim, Germany;
- noise control actions in Rath, Germany;

Total provisions and guarantees for environmental risks are presented in Note 17 to the consolidated financial statements. This provision covers the cost of treating industrial land and cleaning up the mine once resources have been exhausted. The management of industrial and environmental risks is presented in general terms under 5.1.12.1 below.

4.4.1.6 Special situations

1. The mining extraction activities of Vallourec Mineração, which are not the Group's core business (i.e. the manufacture of seamless tubes), on their own generate environmental indicators that are out of proportion to the average environmental performance of the Group's sites. To ensure the consistency of the Group's consolidated information, the results of this company are not included. They are instead reported separately in Appendix 2 to this chapter.
2. The same applies to the pelletization unit established at the Jeceaba site in Brazil. This unit, which manufactures pellets using ore produced by Vallourec Mineraçao and other mines, and has high water consumption, supplies the blast furnaces of Belo Horizonte and Jeceaba, as well as other local steel metallurgists. Its level of activity is thus independent of Jeceaba's steel and tube mills. Consequently, the environmental information specific to it is presented separately in Appendix 2.
3. The Group's head office in Boulogne is also subject to environmental improvements. In 2016, "BREEAM In Use" certification was obtained with a level of "very good" for the two fields of "Asset Performance" and "Building Management". This classification is even more noteworthy since the building was designed in 2002-2003 and delivered in 2005, and does not meet the HQE criteria. It is simultaneously the result of a regular decrease in water consumption (-18% in 2016 and -25% in 2015) and energy consumption (-6% in 2016 and -6% in 2015), and the establishment of a collection system which recycles 80% of waste and, since 2015, recovers the bio-waste produced by the Company cafeteria.

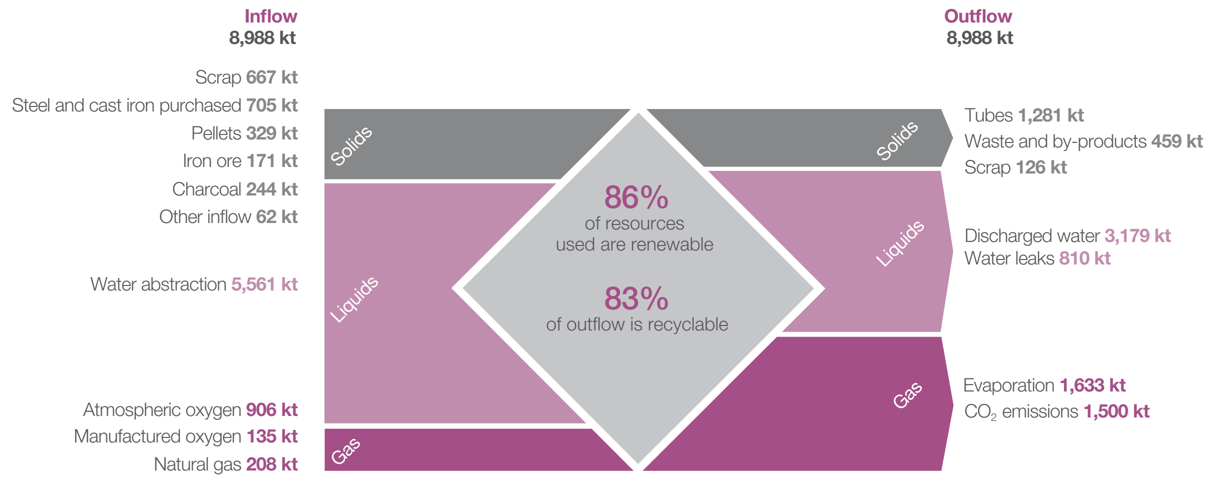
4.4.2 Sustainable use of resources

In 2016, the production level remained much lower than in 2010-2014. In 2016, processed volume, the total production from the various units, rose 8.6%, even though sales volume dropped 9%. Environmental figures nevertheless remained close to their 2015 values, except as concerns electricity. Consequently, the environmental performance measured by comparing these figures to metric tons processed notably improved, because the quantities used are not always proportionate to production due to the existence of fixed consumption. This will result in comments in each of the headings below.

4.4.2.1 Resources implemented

In 2013, the Group conducted an analysis for the first time of all mass flows necessary for tube production at all its industrial sites [1].

Raw materials footprint 2016



Water represents nearly 60% of the input
Direct CO_2 emissions are low
1 metric ton of tube shipped results in 331 kg of waste and by-products

This analysis is updated each year. In 2016, the production of 1,281 million metric tons of tubes required 8,988 million metric tons of different types of inputs, less than 1% more than in 2014, while processed production volume increased 8.6% and shipped production decreased 9%. It should be noted that water abstraction in 2016 represents 62% of the total resources.

It should also be emphasized in this regard that:

- 86% of the resources consumed are renewable (scrap and steel made from scrap, charcoal, water and oxygen), demonstrating the limited nature of the Group's net environmental footprint;
- more than 99% of production-related outputs can be considered recyclable if we consider that the CO_2 emitted is to be absorbed to reconstitute the biomass, or 83% if this assumption is not adopted;
- records show a stability in the main ratios which independently correspond to the sharp drop in activity recorded in 2015 and 2016.

Record of the raw materials footprint

	2013	2014	2015	2016
Input/output *(kt)*	13,800	12,937	8,951	8,988
Production shipped *(kt)*	**2,159**	**2,323**	**1,411**	**1,281**
% renewable resources	85	84	83	86
% ratio of shipments/input	15.6	18	15.8	14.2
Production processed *(kt)*	**5,456**	**5,508**	**2,826**	**3,068**

The updated analysis also points out the need to continue to deal with wastewater treatment and industrial waste disposal, areas in which the Group has taken action for several years. Conversely, as concerns carbon emissions, the analysis resulting from an improved knowledge of output specific to the forest the Group cultivates, is very positive (see below.)

In 2013, the Group also performed a life cycle analysis of two typical products in the Oil & Gas activity (tubing and casing) in cooperation with an end customer. The ten key impacts evaluated (including carbon, energy, water, resource depletion, toxicity, eutrophication) demonstrated the weak relative impact of the Group's products. The goal is to continue these analyses on other products, in cooperation with other customers. To this end the Group, with the aid of an outside consultancy firm, launched a specific tool designed to perform these types of analyses for products that are already available on the market or which are being created through R&D programs. This tool will be ready for use in the first quarter of 2017. It will only be implemented for R&D actions if a rapid qualitative analysis shows a minimum impact level. It will be used to provide information to the plants which, under the new ISO 14001 certification, must deal with the impact of the primary manufactured products for which they are responsible.

(1) With the exception of Vallourec Mineração Ltda (mining) and Vallourec Florestal Ltda (forestry) which do not manufacture tubes.

4.4.2.2 Consumption of raw materials

The steel Vallourec uses to manufacture tubes is primarily prepared in the Group's steel mills. Two processes are used: the blast furnace process (in Belo Horizonte and Jeceaba since mid-2014 (BOF – Basic Oxygen Furnace)) and the electric process in Jeceaba in Brazil, in Youngstown in the United States and in Saint-Saulve in France (EAF – Electric Arc Furnace). With this process, the Group favors the use of recycled scrap over the manufacture of new quantities of steel or cast iron.

The following key areas are the focus in order to increase the effectiveness of these processes:

- precisely documenting the steel mills' internal rules and requirements so as to obtain the different steel grades while maximizing the furnaces' energy efficiency;
- recovering the most scrap possible by tailoring the tube mills' sorting systems to the steel mills' requirements;
- adapting logistics channels.

Steel mill production in 2016

Plant *(metric tons)*	Blast furnaces			Electric furnaces		Steel mills
	Iron ore	Pellets	Charcoal	Scrap iron	Of which % of internal recycling	Scrap and cast iron used
VSB – Belo Horizonte – Brazil	144,752	216,113	158,940	40,764	100	219,336
VSB – Jeceaba – Brazil (56% consolidated) then 100%	26,301	112,839	84,830	120,269	17	198,410
Vallourec Tubes France – Saint-Saulve, France	0	0	0	175,679	14	175,679
Vallourec Star –Youngstown-USA	0	0	0	330,338	12	348,280
TOTAL	**171,053**	**328,951**	**243,770**	**667,050**	**19**	**941,705**

A drop in the internal scrap recycling rate is noted (19% in 2016 compared to 27% in 2015), primarily due to the low production of the Saint Saulve steel mill. It is noteworthy that internal use of the electric process was 71%, which contributed to the decreased use of natural raw materials and brought the total percentage of steel used from the electricity process to 53%.

4.4.2.3 Water management

The Group considers water management to be one of the major challenges of sustainable development, due to its importance to the well-being of populations, the risks of shortage, and because water quantitatively represents the main resource needed for the Group's production processes. It is mainly used for:

- solidifying liquid steel (continuous cast);
- cooling hot machinery (steel manufacturing and rolling tubes), representing approximately 50% of requirements;
- cooling tubes after heat treatment, representing approximately 25% of requirements;
- surface treatments, hydraulic operations, non-destructive tube tests and cooling of other tools in the manufacturing process.
- Emptying of dissolved or undissolved substances.

In recent years, the quality of plant waste has improved and water abstraction has decreased, primarily thanks to the establishment of tools that allow the rate of reuse to increase and rainwater to be collected. Abstractions went from 11.5 million m^3 in 2002 to 7.83 million m^3 in 2014 (despite the increased load of the new Jeceaba sites and the second tube mill in Youngstown) and to ☑ 5.67 million m^3 in 2016.

The relative abstraction thus steadily improved over the 2002-2014 period during which the production level was high, totaling 1.4 m^3/metric ton processed at year-end 2014. In 2015, it reached 1.99 m^3/metric ton dropping to 1.85 in 2016.

Nevertheless, even if production stops, the thermal processes (scrap melting, liquid steel bags, reheating furnaces) require that certain tools with energy consumption and a need for cooling be continually monitored. The "fixed portion" of the water needs is thus important, which explains the shift in ratios in 2015. The subject constitutes a cornerstone of progress and the majority of the plants using hot processes have started to improve this ratio in 2016.

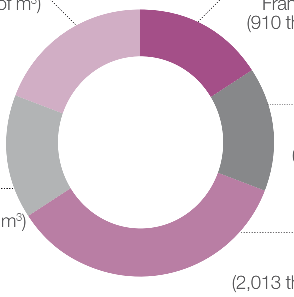
Rainwater collection and its use have already been extensively developed at certain major industrial sites. However, a lack of metering does not allow this to be shown in input, even though it does appear in waste. The current actions are thus more precisely determining the volumes collected, in order to better understand the water usage.

Under these conditions, and given the Group's new industrial footprint, and in particular the integration of Tianda, the medium-term objective will be set during the year.

For the four integrated steel mill/tube mill sites of Vallourec Tubos do Brasil, Vallourec & Sumitomo Tubos do Brasil, Saint-Saulve and Youngstown, the internal water recycling rate is on average 98.1%, which attests to a very low level of water abstraction, and to the excellent performance of the flow management systems.

Water abstraction – 2002-2016

Year	Total water abstraction *(m³)*	Water abstraction per metric ton processed *(m³/metric ton)*
2002	11,526,990	2.71
2007	9,554,272	1.78
2012	7,868,009	1.60
2013	8,857,826	1.60
2014	7,831,288	1.40
2015	5,630,516	1.99
2016	5,672,035	1.85



Process water can be discharged into municipal networks (most sites) or into the natural environment after being treated at internal purification plants. The Group aims to reduce the quantity of discharged wastewater by increasing internal reuse. To ensure wastewater quality and comply with local regulations, the sites monitor the following factors:

- SPM: suspended particulate matter;
- COD: chemical oxygen demand;
- TH: total hydrocarbons;
- metals (primarily iron, zinc, chrome and nickel). Total metal ratio per volume of water discharged (mg/liter) was 0.94 mg/l in 2016 (1.23 mg/l in 2015) for the companies included within the Group's consolidation scope, a level that is close to a record low.

ACTIONS TAKEN

Numerous actions to measure and monitor water needs were established to reduce specific water consumption (reduction, or even shutdown of pumps during production stoppages).

In order to monitor the proper adaptation of water used in the production of steel or tubes, so-called "comet" curves were traced to show the connection between abstraction and production. These curves confirm that abstractions are not proportionate enough to production, but also that the plants took action in 2016.

Since the primary use of water is cooling the tools and products, which occurs by evaporation, control of the air-cooling towers (measurement of temperature and flow, control of pumps and ventilators) will be part of the 2017 actions.

At the end of 2014, Vallourec Tubos do Brasil (VBR) launched a plan to reduce the risk of water rationing. This was despite an already very satisfactory industrial water reuse rate of 98%. VBR is the largest consumer of water in Belo Horizonte, and is extremely dependent on COPASA, the public entity in charge of water distribution.

Due to a chronic drought, the regional government requested that water consumption be reduced 30% compared to the 2014 benchmark, while envisaging an increase in the price of water. Consequently, VBR implemented an action plan in 2015 to reduce industrial and domestic water losses, increase internal water recirculation, drill wells and develop internal campaigns to change behavior in order to encourage the saving of water resources, and in particular lower the fixed consumption level, with an objective of reducing water consumption from the public network by 32% in comparison to 2014. In 2016, these actions continued to concern improving the flow measurement system and the completion of well drilling, which allowed abstractions to be reduced 26% compared to 2015.

At the Jeceaba plant, progress was also made, for example with the collection of rainwater to supply the pellet manufacturing plant.

In 2014, the Group established the full cost of water management for the four integrated steel mill/tube mill sites of VSB, VBR, Youngstown and Saint-Saulve with a specialized provider. These costs, which combine the costs of abstraction, rehabilitation in the natural environment or networks, staff, maintenance, energy, consumables, and amortization and depreciation were higher than original estimates.

This methodology was also applied in 2016 to Rath and Mülheim, two important tube mills. The resulting specific action plans will be adapted to the Group's new industrial configuration, with the knowledge that a shared cornerstone for improvement consists, as was done for Brazil, in establishing "smart" meters at strategic consumption points. This would enable real-time measurements to be taken, and actions to be rapidly implemented, in the event a discrepancy was noted.

Unit costs are variable from one plant to another, notably because certain sites must use the municipal networks, and the energy and maintenance costs are significant. This detailed knowledge of costs allowed the total water cost at the Barreiro plant to be reduced 25% compared to the 2014 reference.

THE WATER IMPACT INDEX

Water management is not limited to measuring abstraction in natural environments or municipal networks, or to monitoring the quantity and quality of waste. The materiality analysis mentioned above showed that the stakeholders devoted increased attention to water management. That is why the Group is tracking and analyzing its "water footprint" thanks to an indicator known as the "Water Impact Index". This indicator takes into account the volumes abstracted and discharged, the quality of the abstracted and discharged water, and stress factors (water scarcity and the hydrological context). The method for measuring the water stress factor was affirmed in 2014 after comparing existing methodologies. Expressed in equivalent m^3 as related to the site's production, it synthetically measures the impact of each site with regard to the available water resources in the basin to which it belongs. A better understanding of the overall impact of water use indeed allows actions to be better prioritized and investments to be made, such as improving measurement, reducing abstractions, improving quality, increasing the reuse rate, as well as reducing the total water management cost.

An initial study was conducted in 2012 based on 2011 data, with the participation of a specialized provider, at seven of the Group's sites located in Brazil, the United States, France and Germany. In 2015, the study was repeated with respect to water at the Group's ten most important sites, based on 2014 data. Since this data only changes slowly, we intend to repeat it in 2018 based on the new industrial footprint.

The following sites were analyzed: PTCT in Batam, Indonesia, Vallourec Star in Houston, Vallourec Star in Youngstown (steel and tube mill), Vallourec Tubos do Brasil in Belo Horizonte (steel and tube mill), Vallourec & Sumitomo Tubos do Brasil in Jeceaba (steel and tube mill), Vallourec Deutschland in Rath and Mülheim, Vallourec Tubes France in Saint-Saulve (steel and tube mill) and Vallourec Drilling Products in Tarbes. The sites analyzed represent nearly two-thirds of abstraction. It appears that only two of these sites belong to hydrological basins that are subject to water stress.

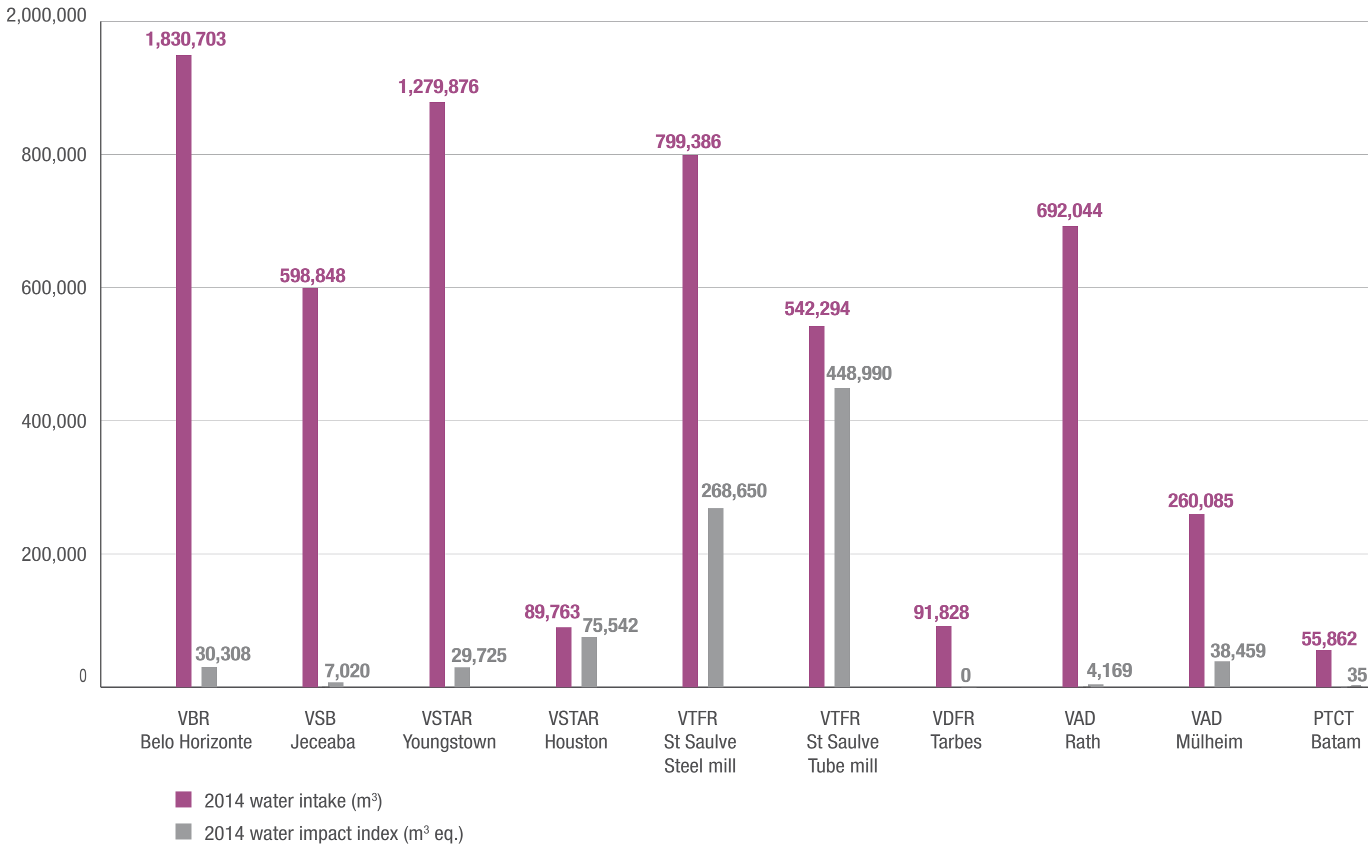
The application of the Water Impact Index demonstrated that the most critical sites were not only those where water abstraction was highest, as the chart below shows.

This chart likewise shows that the equivalent volumes calculated are very low, except for the two sites of Saint-Saulve and Houston, which attests to the Group's responsible water resource management.

The sale of a majority interest in the Saint-Saulve steel mill recently occurred, and the closure of the rolling mill at the same site will contribute to very considerably reducing the index value on this site. Consequently from 2017, there will only be one site of secondary importance that will present an impact, without anticipating the Tianda site, for which the study still needs to be done.

Lastly, since the abstraction and waste levels were lower in 2016 than in 2015, the overall impact is still less than shown in the graph.

Water abstractions and Water Impact Index in 2014



4.4.2.4 Energy policy

ENERGY CONSUMPTION

➔ Commitment to responsible performance

> Improve the energy efficiency of our equipment and reduce carbon emissions from our manufacturing processes

INDICATOR

Energy consumption in kWh/metric ton processed.

Energy consumption was ☑2,531 GWh for natural gas and ☑1,376 GWh for electricity, or **1,273 kWh/metric ton processed,** up 5.5% in absolute value and down 3% in specific value compared to 2015

As in 2015, it is difficult to compare the Group's energy performance to that of 2010-2014 due to the low level of production. Furthermore, adaptation measures such as the reduction of workstations and production stoppages kept fixed consumption at a high level and, consequently the energy ratios per metric ton processed remain significantly higher than during that period.

2017 OBJECTIVE

Given the recent acquisition of Tianda, the 2017 objective will be set during the year.

In 2016, energy consumption reached €175 million (or 5.9% of revenue in 2016) down from 2015, due to multiple reasons such as the level of production, the geographic mix of production, consumption conditions and currency effects.

The Group also uses biomass as a source of energy for its blast furnaces in Brazil. It owns 237,000 hectares of eucalyptus plantations and forests, for the production of charcoal, which serves to reduce the cast iron production process using iron ore.

The table below shows the energy sources used by the Group:

Energy source	Unit	Renewable Energy	Non-renewable Energy	Total
Electricity purchased	GWh	549	889	1,439
Electricity produced		13	-	13
Natural gas		-	2,729	2,729
Fuel		-	314	314 (a)
Charcoal		1,775	-	1,775
TOTAL	***GWH***	**2,337**	**3,932**	**6,269**
Energy consumed	%	37%	63%	100%

(a) Including since 2015, the fuel needed to produce electricity at certain sites, such as PTCT.

Renewables account for nearly 40% of the energy consumed on a Group scale. This remarkable situation is primarily a result of the energy contained in the charcoal produced by Vallourec Florestal, but also from the hydraulic power that is available in Brazil, along with power purchased on other markets from a renewable source. This percentage is slightly down from 2015, due to the reduced consumption of charcoal resulting from the low level of production in Brazil.

THE GREENHOUSE PROJECT

In an effort to significantly reduce all energy consumption, as of 2009, the Group established the GreenHouse project, which aims to reduce total gas and power consumption by 20% by 2020, for an equivalent scope, product mix and level of activity, using 2008 as the reference year. With this project, Vallourec is also acting to promote a "low-carbon" economy, contributing to reducing greenhouse gas emissions.

The GreenHouse project is rigorous in its approach and is supported by Vallourec Management System tools and methodologies (see above). It is one of the levers of the Group's Energy Policy, published in September 2014, and centers around the following main elements:

- sharing of best practices, led by Practice Communities which include energy and industrial process experts in all energy-related areas (thermal, electrical, compressed air and steam production processes) and the organization of numerous Continuing Improvement Groups acting exclusively in the energy sector to improve the Group's performance. Seven objectives on the different aspects of energy efficiency have been drafted and issued as a working document for the continuous improvement groups;
- numerous quick wins as a specific result of the actions in question;
- the introduction of thermal balances and energy audits:
  - thermal balances to date, covering over 80% of the Group's furnaces. The furnace performance analysis helps to identify areas for improvement and to propose investments to increase energy efficiency, such as the installation of regenerative burners, steam heat recovery systems and better insulation,
  - energy audits at the Group's major sites identify the equipment or workshops that use the most energy, and prioritize future actions;
- a self-assessment system for sites controlled by the project leaders.

The change in production in 2016 (-9.2% of metric tons shipped and +8.6% of metric tons processed compared with -39% of metric tons shipped and -48% of metric tons processed in 2015) led to a limited increase of 5.5% of energy consumed in the form of gas and electricity, reaching 3,907 GWh. Specific consumption conversely decreased 3% (see above).

Energy consumption per metric ton processed☑ thus totaled 825 kWh/t for gas, and 448 kWh/t for electricity (884 kWh/t and 426 kWh/t respectively in 2015), excluding the mine and pelletization unit.

The energy performance for each year was calculated until 2014 using a straight-line model of consumption, taking into account the production volume and mix effect represented by the percentage of heat treatment compared to the 2008 reference year. Production levels and the organization of production (periods of stoppage and work at a given post) for 2015 do not allow such a model to be used. It was thus not possible to determine the Group's intrinsic energy performance in 2016 in comparison to previous years, even though the actions at the site level continued to produce effects.

Consequently, and given that the Group's industrial footprint will be considerably modified in 2017, it will no longer be possible to refer to the 2008 consumption conditions. A new 2020 objective will thus be established based on new assumptions, by integrating the recent acquisition of Tianda.

THE VALLOUREC ENERGY MANAGEMENT SYSTEM

To take this to the next level and incorporate sustainable energy management into industrial processes, the Group developed the Vallourec Energy Management System based on the methodology of the GreenHouse project and international energy efficiency standard ISO 50001.

As mentioned in its Energy policy, Vallourec promises to certify its primary production facilities under ISO 50001. Therefore, the sites at the Vallourec Tubos do Brasil, Vallourec Oil & Gas UK, Vallourec Tubes France Saint-Saulve and Aulnoye, Vallourec Deutschland, Valinox Nucléaire France and Vallourec Changzhou plants were already certified as at 31 December 2016 and represent 38% of production. Other sites have engaged in the same process and work groups are underway in Brazil, the United States and Indonesia to obtain ISO 50001 certification.

The success of the processes and the sustainability of their results in particular, depend on:

- energy efficiency training: several hundreds of operators were trained in dedicated energy efficiency sessions in France, Brazil and Scotland, with experts from each site and the assistance of specialized organizations. The training is given in various technical disciplines, such as compressed air, thermal combustion, industrial cooling, lighting, mechanization and renewable energy;
- real-time metering systems, known as "Advanced Metering Management", at the largest sites in Brazil, France, Germany, Scotland and the United States.

  The VCHA plant in Changzhou (forge) stood out in energy savings and won the annual Vallourec Group Trophy in 2016, for its new management of billet furnace burners and combustion management, control of utilities upon stoppage of the forging machine, installation of solar panels with a third party investor, i.e. annual savings of more than €600,000.

EXPANSION OF ENERGY PERFORMANCE RESEARCH

Vallourec Florestal, which manages the Brazilian forest, also follows an energy efficiency research plan. Its teams developed a more efficient carbonization process which led to an improvement in the mass transformation rate of wood into charcoal from 29% to 35%. This led to (i) a decreased need for wood and cultivated areas for production of cast iron, (ii) a very considerable reduction in methane emissions as compared with m^3 of charcoal, as well as (iii) a reduction in the heat dispersed into the atmosphere.

4.4.3 Impact and emissions

4.4.3.1 Air quality

To preserve the quality of the air surrounding its plants, the Group systematically measures the levels of atmospheric emissions and implements appropriate solutions to limit each type of emission. The emissions produced by plants are vapors and particles.

VAPORS

- Nitrogen oxide emissions (NO_X) come from furnaces for steel billets and from the heat treatment of tubes. To limit these emissions, all furnaces are fired by natural gas, which is low in emissions, and every year some of the older burners are replaced by low-NO_X burners that meet the highest technical specifications for this type of emission. In 2016, there were 492 metric tons of NO_X emitted (485 metric tons in 2015).
- Emissions of volatile organic compounds (VOCs) come from our facilities for tube lubrication, lacquering and painting, and for degreasing and cleaning tubes and machinery parts. They also come from oily vapors from rolling or cold-forming facilities and machine tools. In 2016, nominal VOC emissions (before retention and filtration), were estimated at 339 metric tons (460 metric tons in 2015). This drop is due to the lower usage of paint and to the start of a shift towards water-based paints. Atmospheric emissions are thus quite a bit lower, and the measures taken show that the emissions comply with the applicable regulations. Actions are put in place every year to reduce VOC emissions at source; these action plans consist of eliminating emissions by using substitute products without VOCs, by coordinating with product suppliers and, if this is impossible, channeling and treating emissions.

After the progress of these last few years, the main source of the Group's VOC emissions is linked to the temporary protection of OCTG tubes. Efforts to limit VOC emissions in future years will concern the corresponding facilities. Vallourec Oil and Gas France's investment to use water-based paints for the "casing" line was validated by the OCTG sales and marketing teams. The drop in activity slowed implementation of the test program, but test orders were made in the second half of 2016. As concerns vapors from surface treatments, facilities are equipped with a treatment and retention system in compliance with applicable regulations.

	2012	2013	2014	2015	2016
VOC emissions *(kg/metric ton processed)*	0.10	0.09	0.11	0.17	0.11
NO_X emissions (kg/metric ton processed)	0.13	0.13	0.13	0.17	0.16

The total quantity of VOC per metric ton processed is similar to 2014. The drop in activity gradually took over the OCTG market, leading to a drop in surface treatment activity, which is the main sources of VOC emissions.

PARTICLES

- The main potential sources of particle emissions are steel mill furnaces. Every year, retention systems are improved to continuously reduce the corresponding emissions. Therefore, in the Vallourec steel mill in Saint-Saulve, which emits dust, in particular during scrap melting in its electric arc furnace, the roofing of the building housing this furnace is enclosed and the dust is drawn up to the baghouses, with an efficiency of more than 99%, and is then used within the zinc industry. As baghouses do not have an absolute performance level, a low quantity of dust is nevertheless emitted into the environment through the chimneys. The steel mill has measured the impact of dust dispersal and fall-out around its site.
- The conditions for placing refractories in bags were also modified with a view to avoiding the generation of dust. In Youngstown, since the installation of the dust extractors, the working environment has considerably improved. Particle retention is very efficient and abstractions show that the heavy metal content released (chrome, lead, nickel, etc.) is well below the authorized limits.
- Tube mills and finishing plants also produce dust from facilities for hot rolling, grinding and polishing tubes. Processes for sealing, aspiration and filtering are incorporated into the machinery to collect dust at source. Where necessary, these systems can be supplemented by aspiration devices and filters on the roof to capture diffused emissions.
- Trucks, cars and other handling equipment circulating outside the buildings are also a source of dust emissions. To ensure that personnel and neighbors are not inconvenienced by dust clouds, the road surfaces are coated with concrete or polymers.

4.4.3.2 Soil

FRENCH FACILITIES

In view of the sites' ages, all soil studies have been completed at the Group's initiative without being required by the authorities. The results of these investigations prompted some facilities to introduce piezometric sensor-based monitoring of underground water, after obtaining permission from the relevant authorities. The list of monitored sites is included in an official database known as BASOL.

As part of a new investment that required moving some machines, and in order to protect the environment, soil characterization was carried out at the Vallourec Drilling Products site in Villechaud. As total hydrocarbon contamination was identified, 71 metric tons of contaminated soil were sent for a treatment process, at a cost of €20,000. The last area was treated in 2014.

Vallourec Drilling Products in Cosne-sur-Loire continued to treat the areas of soil and groundwater contamination on the site, which will be strengthened after the transfer of the machines and the rehabilitation of the site in 2017.

In Aulnoye-Aymeries, the former miscellaneous materials disposal site underwent underground investigations; it will be confined and monitored following a new prefectural order.

FACILITIES IN OTHER COUNTRIES

After analyses, and with permission from the local authorities, groundwater monitoring systems were set up at two facilities in Germany. As far as the Group is aware, there is no contamination at the other sites.

In Brazil, the only potential risks relate to the Barreiro plant in areas of the site previously used to store waste. A depot formerly used to store slag (a by-product of the steelmaking process) and a former sludge depot were upgraded and a piezometric sensor-based groundwater monitoring system was introduced. A program to upgrade a former solid industrial waste storage site (wood, plastic, scrap, etc.) was launched in 2004. Its progress is in line with the commitment made to the authorities. Nearly €10 million will have been spent (€8.5 million at the end of 2015 and €1.5 million in 2016) to remove contaminated soil and incinerate it. A second section of work will begin in 2017, to redo the earthwork and drainage of roads.

In the United States, analyses were performed at the vast majority of production facilities. As far as the Group is aware, none of the analyzed sites are subject to significant contamination risk. The Tianda site in China still needs to be analyzed.

4.4.3.3 Waste and by-product management

➔ Commitment to responsible performance

> Respect our environment and protect biodiversity by preventing pollution of all kinds, reducing water consumption, recovering waste and reducing disturbances

INDICATOR

Percentage of waste recovered.

2016 OBJECTIVE

To reach a **95% rate of recovered waste** for the Group's full consolidation scope.

ACHIEVEMENT OF THE 2016 OBJECTIVE

The rate of recycled waste reached ☑ **94.4%**, below the set objective.

2017 OBJECTIVE

Given the Group's new industrial footprint, the 2017 objective will be set during the year.

As with all industrial activities, the Group generates significant quantities of various types of waste. In 2016, the Group produced 458,650 metric tons of waste (466,815 metric tons in 2015), 6% of which was hazardous (6.1% in 2015).

The key indicators for their management are as follows:

	2011	2012	2013	2014	2015	2016
Waste *(in thousands of metric tons)*	666	655	626	669	467	459
% waste/production processed	13	13	11	12	17	15
% hazardous waste	7.4	7.7	8.6	6.1	6.1	6.0
% recovery	89	91	92.7	93.5	94.8	☑94.4

Following still weak activity, and even though "processed" production increased 8.6%, the volume of waste decreased 1.5%. The actions that have been taken since 2014 continue to bear their fruits, even though certain sites had to favor dumping over incineration in 2016, for cost reduction reasons. Furthermore, the closure of certain production lines, and even of complete sites, along with restructurings, generated non-recoverable waste which contributed to lowering the ratio. Best practices nevertheless allowed a 94.4% recycling rate to be maintained. A breakdown of the waste produced appears below.

To mark its commitment to the environmental issue represented by waste management, the Supervisory Board, at the recommendation of the Appointments, Compensation and Governance Committee, introduced a waste recovery target in 2013 in the variable portion of Management Board members' compensation. In this same spirit, the Group joined the AFEP initiative launched in 2016 to promote the circular economy.

The "By-products" project

Waste management is a major economic and environmental concern for the Group, which considers that most of such waste should now be treated as value-added by-products and generate operating revenue. This is the objective of the "By-products" project.

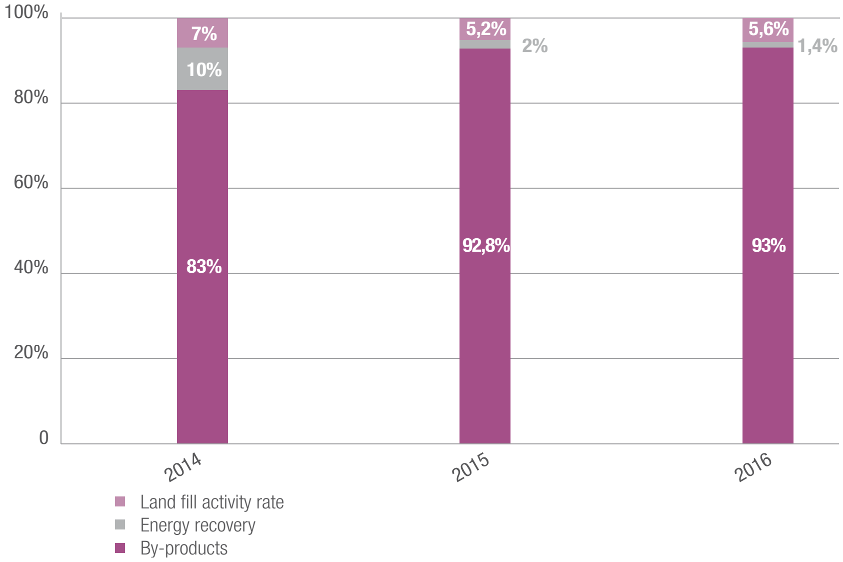
Waste is now considered a resource to be exploited rather than an unfortunate consequence of production. Depending on its origin and type, it is managed and treated differently in accordance with local regulations, with maximum emphasis on recycling of materials or energy recovery.

As the costs of eliminating waste are relatively high, it is satisfying to note, on the one hand:

- that the cost of eliminating waste (external expenses) has continued to regularly decrease since 2013;
- on the other hand, that income resulting from transfer/recovery of waste exceeds the amount of costs/elimination by 5%.

In a spirit of continuous improvement, all waste categories are monitored monthly by each site with the aim of reducing volumes. The percentage of recycled waste in the form of material (by-products) was 93%, that of waste burned to produce energy 1.4%, and that of landfill waste 5.6%.

Waste by end-use



The main levers of progress under the "By-products" project are as follows:

- reduction of waste volumes;
- identification, consolidation and optimization of output for process sludge (from rolling and surface treatment), metallic residues, scale and dust;
- identification of the best channels for recycling blast furnace slag sold to the cement industry, and the sale of metallic waste under multi-year contracts;
- increase in the recovery rate by favoring a recovery of materials rather than energy; VRB and VSB, after tests in 2013, have been using blast furnace sludge as a source of enrichment for the soil in eucalyptus forests, and as raw material for the ceramic industry. The steel mill sludge from the Belo Horizonte plant is now 100% recycled using iron ore particles to manufacture "sinter feed".

As an example, in 2016 the local teams opened new waste management channels and generated additional revenue by:

- choosing providers according to the type of waste and method of recovery: recycling of oil in Déville, sludge treatment in Youngstown, new treatment method for liquid phosphatation waste at VSB;
- in Brazil, using certain waste at the pelletization level resulted in savings. Savings were also generated by maximizing the separation of water/oil liquid waste, which allowed oil to be recycled;
- actions were taken on transport to optimize the frequency of removal (Déville) and the costs (VBR);
- the renegotiation of certain contracts also allowed certain revenue to be generated, such as the grease and oil treatment contract in Youngstown.

HAZARDOUS WASTE TREATMENT

Posing a risk to health and the environment, hazardous waste (classified as such due to the hazardous substances it contains) is subject to special treatment. The percentage relating to all waste, i.e. 6.0%, was stable in comparison to 2015.

The Group has identified two important hazardous waste categories on which it is working:

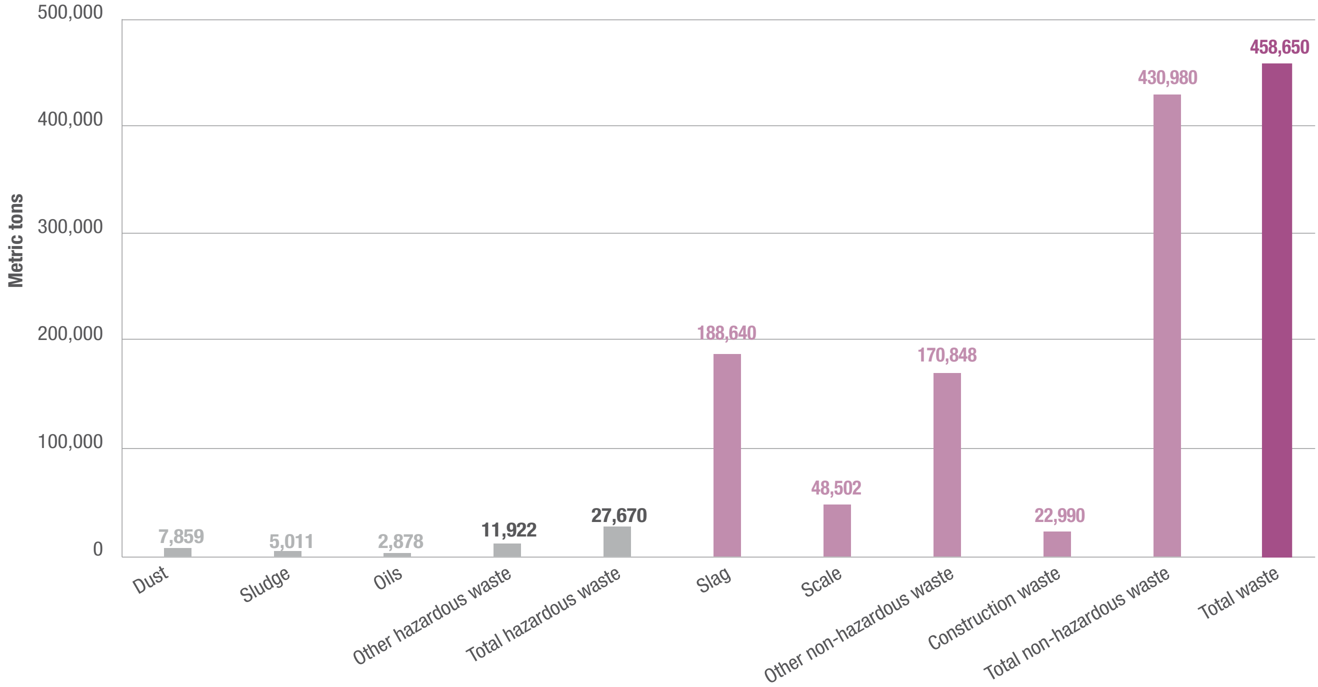
- organic waste (sludge, oils); and
- solid mineral waste (dust).

Hazardous waste requires specific management: handling and storage are subject to strict safety rules to preserve the environment and health of the staff handling them. Furthermore, this waste is generally not very recoverable as is, and processing costs are significant.

There are thus two possibilities that have been explored by the By-products project: either reducing the portion of hazardous substances at the source, or separating that portion from the rest of the waste concerned through pre-treatment. For example, the water treatment station at the Youngstown site was able to improve the separation of mill scale particles and oil, which is responsible for its hazardous classification. Non-oily mill scale, which is not classified as hazardous, may thus be recovered for its material. The establishment of small waste oil treatment units allowed for a corresponding decrease in the generation of this waste, which is reused internally after treatment.

QUANTITY OF WASTE

The waste generated in 2016 is broken down as follows:



FOOD WASTE

In compliance with the decree of 19 August 2016, the Group presents its approach to food waste even though Vallourec's activity has no connection to agribusiness. This approach will thus be limited to reporting the practices of the company restaurants at sites where one exists.

Boulogne Site, Group headquarters (France)

The restaurant, which welcomes nearly 200 people a day, is managed by the specialized provider Elior, which has established a policy to combat food waste, considering that this action is an integral part of its business and of its CSR strategy.

Barreiro and Jeceaba Sites (Brazil)

These sites welcome nearly 3,000 people on a daily basis; the company restaurants are managed by the foundation of the Brazilian subsidiary Sidertube.

Numerous actions have been taken to reduce food waste, and have had remarkable effects: between 2010 and 2016, the weight of individual food waste was reduced 45%.

VCHA Site in Changzhou (China)

Food services are subcontracted to a provider, which is responsible for waste management, under a contract which provides for combating food waste.

Rath Site (Germany)

Practices also consist of thoroughly analyzing needs and reusing surplus in accordance with hygiene rules.

4.4.3.4 Noise

Among actions to continue preventing noise pollution, in January 2012 the Sustainable Development Committee defined a noise action plan. This approach is now part of the discussion conducted by the Group in accordance with the Sustainable Development strategic 5-year plan to increase attention paid to employee health. The new Health and Safety policy published in 2016 clearly mentions it.

The Group's activities inevitably involve noise. The noise arises from various sources: steel mill furnaces, the cutting and storage of steel bars, the impact between tubes and steel-rolling processes. Several types of action are in place to limit noise, reduce it as far as possible or eliminate it entirely.

Vallourec's intent is thus to protect its employees and also to better respect the environment of the sites.

To determine noise levels, the first task is to identify, measure and analyze the sources of noise. Depending on local constraints, these measurements are taken internally, at the edge of the site, or at neighboring properties, if the plant is situated close to a residential area. At certain sites, very elaborate systems have been installed. They allow noise to be measured at very precise locations and to determine its source. Simulation software is often used to assess the reduction of noise levels that various insulating systems might provide.

The most effective actions are those that allow noise to be reduced at its source. For example, some plants replace pneumatic movement commands by hydraulic movement commands or incorporate rubber between tubes to avoid a much noisier direct impact. Similarly, the tubes are cleaned with Venturi-type nozzles instead of standard nozzles.

If source noise reduction is too much of a constraint or impossible, other actions can be undertaken, such as setting up barriers, containing the machinery or building soundproof walls. To limit the impact of noise on employee health, the Group's plants provide staff with earplugs and make their use a strict requirement in certain work areas. For greater comfort, the earplugs are custom-fitted. They filter certain frequencies to allow people to communicate while substantially reducing the noise from machinery. Employees at risk undergo regular medical checks for very early detection of any hearing loss.

Among actions to continue preventing noise pollution, in January 2012 the Sustainable Development Committee defined a noise action plan including the following measures:

- establishing noise maps on the most critical and representative sites of sound levels in different workshops and staff exposure based on their number and the length of time spent working in the areas concerned;
- analyzing and improving behaviors in the workshops;
- referring to best practices for new investments and refittings;
- improving employees' and providers' work conditions;
- reducing disturbance caused to local residents;
- favoring group protection over individual protection measures.

In 2016, around 80% of sites had noise mapping for workshops, and for the outside when local residents live nearby. 50% of them completed dosimetric measurements. The frequency with which interior or exterior measurements are repeated is, however, still insufficient.

The monthly Capex Committee meeting is also the time to check that noise issues have been properly considered, before authorizing any investment.

In recent years, a certain number of specific actions were carried out:

- the work continued in Germany at the Rath site, replacing plasticized surfaces with glass ones at the roof vents. The action and investment plan (€2.8 million since 2012) was regularly implemented, with the excellent result of having no complaints from local residents in 2016. The noise reduction work will continue in upcoming years;
- establishment of a system to measure urban background noise at Valinox Nucléaire Montbard;
- acoustic insulation of control rooms within VSB;
- replacement of siding at the Saint-Saulve steel mill and extension of the landscaped ridge.

4.4.4 Climate change

4.4.4.1 Greenhouse gas emissions (see detailed table in Appendix 5)

ANALYSIS OF EMISSIONS

Reducing greenhouse gases and, first and foremost, being aware of its emission level, is a goal for Vallourec.

1. It should be noted that in 2015 a detailed analysis of the carbon cycle for the forest operated in Brazil was completed with the aid of university and institutional experts.

   The aim of this study, which has been underway for several years, was to provide evidence that the Company had managed the forest in question responsibly from a carbon emissions standpoint, and that it had a sound methodological basis that would allow it to estimate the emissions with sufficient precision, and, correspondingly, to set a medium-term objective, which has not yet been done.

   The forest area operated by VBR consists of a so-called native forest, which represents approximately one third of the surface area. It is kept as is, while the other portion is cultivated. Every year, about one-seventh of the cultivated forest is cut down for the production of charcoal, and that area is then immediately replanted. As they grow, trees absorb CO_2. The trunks of harvested trees are transformed into charcoal, with a high carbon content, in furnaces designed for that purpose. The charcoal then enters the cast iron manufacturing process needed to manufacture steel in addition to iron ore. This process, which leads to the combustion of charcoal, results in CO_2 emissions. Until now, the generally accepted assumption of the profession in Brazil was that this CO_2 was gradually reabsorbed by the forest during its growth through photosynthesis.

   The aim of the study in question was to specify, over a long period, the quantity of carbon put into play from the two-fold perspective of measuring stock and measuring the intake of carbon and greenhouse gas, taking into account initial deforestation operations. It was conducted by the Sustainable Development Department of VBR, with the assistance of the University of Lavras, Professor Caetano of the University of Viçoza, and with the participation of Professor Sampaio as an expert consultant from the SR office of the GeoConsult consultancy firm, all under the methodological control of the National Forests Office, in France.

   The study considered the scientific research and data that have been available for the past 30 years, and in particular used the public aerial surveys, which allowed the scope and nature of the native or exploited forest to be reconstituted over this period.

   Particular care was taken, firstly in calculating the emissions at each stage in the processes of exploiting the forest and carbonization, using the scientifically recognized methods, and secondly, with regard to analyzing the phenomena of carbon sequestration in the atmospheric and underground biomass. The study lastly concerned the role of soil from the viewpoint of carbon retention, thanks in particular to on-site measurement initiatives on various kinds of soil, and around stumps and roots of trees at various states of growth. This study will be made public once it is finalized.

In essence it shows that, for the 1983-2013 period, the forest sequestered 29.6 million metric tons of CO_2 equivalent, after taking into account the particular power of methane as a greenhouse gas emitted during carbonization. It also shows that, after considering the CO_2 emissions during the cast iron manufacturing process in the blast furnaces, the net sequestration over this period is 7.4 million metric tons per year, or on average 250 metric tons per year; even though, until now, due to the conservative assumptions adopted, the estimated annual analysis used an emissions level of approximately 300 thousand metric tons.

Based on this information, it was thus possible to redefine a method for calculating the carbon analysis of the forest/blast furnace system that was used to establish the Group's carbon analysis in 2015 and 2016 on more precise bases.

This calculation in 2016 again shows a very significant level of sequestration, which is the result of the forest management process by our subsidiary Florestal, whose activity is consolidated. This is why we considered the sequestered carbon should be included in the calculation of "scope 1" emissions as a "negative" emission.

2. Emissions were calculated using the GHG protocol methodology, which distinguishes between direct emissions, indirect emissions from electricity consumption, and indirect emissions from other sources of emissions based on the Group's full scope. In short, the full simplified carbon analysis, detailed and commented on in the notes, is as follows:

Simplified carbon analysis

Type of emissions	2011	2012	2013	2014	2015	2016
Process emissions (scope 1) *(in thousands of metric tons)*	1,051	1,008	1,126	1,273	2,902.2	2,672.3
Total sequestration (scope 1) *(in thousands of metric tons)*					-3,275.7	-3,141.2
TOTAL DIRECT EMISSIONS (SCOPE 1) *(in thousands of metric tons)*	**1,051**	**1,008**	**1,126**	**1,273**	**-373.5**	**-468.8** ☑
Indirect emissions (scope 2) *(in thousands of metric tons)*	463	508	580	696.2	422.8	518.3 ☑
Indirect emissions (scope 3) *(in thousands of metric tons)*	3,034	2,963	3,195	2,889.9	1,782.9	1,811.3
TOTAL EMISSIONS *(in thousands of metric tons)*	**4,548**	**4,479**	**4,901**	**4,859**	**1,832.2**	**1,860.8**
Specific emissions *(in kg per metric ton processed)*	879	903	899	882	648	606

The Group uses the EAF (Electric Arc Furnace) manufacturing process, which emits low levels of CO_2, at three of its steel mills: Saint-Saulve (France), Youngstown (United States) and Jeceaba (Brazil). This industrial characteristic is, in addition to the sequestration phenomenon described above, one of the important reasons why the emissions have always been moderate, and even appear to be negative today as concerns scope 1.

In terms of scope 2, the indirect emissions resulting from the consumption of electric energy used increased by nearly 22% due to the high carbon content of this energy in the United States.

Scope 3 emissions are almost stable. The Group intends to review the methodology for calculating scope 3 emissions in more detail in 2017, applying new regulatory directives on the subject, in particular for "downstream" emissions.

3. With a negative ratio of direct CO_2 emissions per metric ton processed (or per gram of CO_2 per euro of sales), Vallourec is now exemplary compared to industrial groups of comparable size. In 2017, and given its new industrial footprint, the Group will establish and publish its emissions objectives for the upcoming years for Scopes 1 and 2.

This is pursuant to the commitment made as part of preparing for the COP 21 as a signatory to the initiative that was launched by 80 international businesses, the so-called "business proposals in view of a 2015 international climate change agreement at COP 21 in Paris" during the Business Climate Summit on 23 June 2015.

Lastly, since 2013, Vallourec has sought to enhance its public reporting in line with the "Carbon Disclosure Project". Its evaluation in terms of transparency and performance has improved, since its ratings between 2012 and 2015 respectively went up from 63 to 98, and from D to C. The results of the abovementioned study and the precision of the information provided helped to further raise the rating of our commitment to a low carbon economy, earning a rating of A- in 2016.

EMISSION REGULATION SYSTEMS

The Saint-Saulve steel mill comes under the scope of the European Directive of 23 April 2009 on the system for trading greenhouse gas quotas (ETS – Emissions Trading System). In 2016, the steel mill's allowance was 40,650 metric tons (67,700 metric tons in 2015). 2016 emissions, estimated to be 35,400 metric tons, decreased compared to 2015, and are lower than the allotted 2016 quotas. This drop is related to a level of production of the steel mill that is below its nominal capacity, and to improvements in energy efficiency.

Since 2013, both French and German tube mills and the Vallourec Drilling Products site in Aulnoye have fallen within the scope of Directive No. 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing the European Community Emissions Trading Scheme for the third period. In 2016, allowances for all tube mills totaled 281,500 metric tons, while emissions during the period were estimated at 227,400 metric tons.

It should also be noted that the substantial reduction in the European industrial footprint will necessarily have the effect of again modifying the amount of free allowances from which the Group has been able to benefit to date.

The impact of the mechanism on the Group's activity is not limited to consideration of its own emissions. European electricity suppliers are obligated to fully cover their CO_2 emissions with emissions rights, although it is not easy to measure the corresponding impact on the price of electricity supplied. Furthermore, steel suppliers and, in particular HKM, which uses the cast iron coke-ore process, are also obligated to purchase emission quotas. Therefore, given the current low price of these emission quotas, the full impact of the ETS system provisions on the Group's operating costs was almost zero in 2015.

In Brazil, the "Clean Development Mechanism" (CDM) project for power generation from natural gas-fired blast furnaces, which generated more than 170,000 metric tons of CO_2 in carbon credits between 2006 and 2015, was renewed by the relevant UN bodies. The plan to reduce methane emissions, thanks to a better carbonization process, was also approved by these same bodies and affects a total amount of nearly 200,000 metric tons of CO_2 equivalent.

4.4.4.2 Adaptation to the impact of climate change

In 2014, the Group conducted a study of the risks related to the consequences of climate change, distinguishing among eight regions with distinct climate characteristics, namely Nord-Pas-de-Calais (France), Burgundy (France), Rhine-Westphalia (Germany), Minas Gerais (Brazil), Ohio and Texas (United States), Batam Island (Indonesia) and the Shanghai region (China).

Upon an in-depth examination of the public documents and national adaptation plans, the main phenomena identified were the risks of flooding, heat waves and prolonged drought, periods of frost, disturbance of water resources and the evolution of marine or lacustrine life. Some exceptional events could become more frequent (storms and hurricanes) and damage the Group's facilities. The conditions under which the sites are operated could also worsen (availability of water needed for the tube manufacturing process, working conditions at the plants, operation of equipment during heat waves). In addition, the unique ecosystem of Group-operated forests could change or weaken over the long term. For each of these risks, a probability of occurrence was estimated, and the extent of the consequences also evaluated. Lastly, the upstream and downstream supply chains are also likely to be seriously impacted.

	Nord-Pas-de-Calais FRANCE		Burgundy FRANCE		Rhine-Westphalia GERMANY		Minas Gerais BRAZIL		Ohio/Cleveland UNITED STATES		Texas/Houston UNITED STATES		Batam INDONESIA		Shanghai CHINA	
	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact
Rising of average temperature	3	1	3	1	3	1	3	2			3	1	3	1	1	5
Heat waves	3	2	3	2	3	2			3	3	3	4	2	3	2	3
Drought	3	2	3	2	2	1	1	decrease	2	decrease	3	4	1	3		
Depletion of water resources	2	2	2	3	1	1	2	4			3	4	1	3	2	4
Snowfall/Frost	3	decrease	2	decrease	3	decrease			3	decrease						
Strong rains, flooding and mudslides	3	3	2	2	3	4	3	5	3	5	2	3	1	5	1	5
Storms, tornadoes, hurricanes, etc.					2	1	2	3			2	5	1	5	1	5
Rising sea level	N/A	N/A	N/A	N/A	N/A	N/A	2	3	N/A	N/A	3	5	3	3	2	5
Drop in levels of rivers, lakes and waterways									3	3						

1	2	3		decrease	1	2	3	4	5
uncertain	*probable*	*very probable*	*data unavailable*	*reduced frequency/intensity*	*weak impact*				*very strong/ costly impact*

A growing number of international industrial groups are beginning to adopt protective measures. Each industrial site is in charge of further examining, at a local level, the risks that have thus been identified, and of constructing an adjusted adaptation plan. This process starts from a general approach before focusing on the situations deemed to be most critical, and will be updated in 2018 in consideration of the Group's new industrial footprint, changes in risks and acurracy of their assessment. It is currently being recorded in the mapping of major risks which the company keeps up-to-date.

The raising of the Santa Barbara dam can be cited as an example. It serves to retain sediment from the operation of our Pau Branco mine in Brazil. The environmental authorities in the state of Minas Gerais recently decided that this type of dam should now be sized to absorb potential rainwater for 10,000 years instead of 100 years. Indeed one of the consequences of climate change is the increased possibility that a phenomenon of a certain intensity will occur.

4.4.5 Biodiversity

Summary surveys have been conducted during the past few years at the main Vallourec sites, to evaluate the impact of their activities on biodiversity. No major risk has been identified.

Some of the Group's specific activities nevertheless have a direct link to biodiversity and so very specific measures aimed at protecting it have been established for several years already, or are established for a specific project.

4.4.5.1 Actions conducted in Brazil

- The Brazilian subsidiary Vallourec Tubos do Brasil runs the environmental education center in Barreiro, on the outskirts of Belo Horizonte. This 20-hectare center includes three ecosystems: the "cerrado" (savanna), the transitional vegetation, and the "mata atlantica" (Atlantic forest).
- Brazilian subsidiary Vallourec Florestal carries out forestry activities for the production of charcoal, which is used as a source of energy in Brazilian steel mills. It conducts plant and wildlife monitoring programs in cooperation with the universities of Minas Gerais and Lavras, the aim of which is to measure the impact of activities on the natural environment and to establish appropriate management measures with a view to preserving and balancing biodiversity. The maintenance of "ecological corridors" guarantees the free circulation of animals. The company thus plays a fundamental role in nature conservation, protecting the region's natural ecosystems. With the help of cameras, a monitoring program has identified hundreds of bird species and dozens of mammal species, some of which are endangered.
- Vallourec Mineração performs mining activities in the city of Brumadinho, around 50 kilometers from the Barreiro industrial complex. In order to better control its activities' impact on the natural environment, Vallourec Mineração regularly monitors the biodiversity of its site as well as neighboring areas. A 200-hectare reserve has also been established in the Atlantic forest to serve as a conservation area for numerous animal species (for example, 148 different bird species have been counted there). The company also pays special attention to the environmental rehabilitation of mining areas. In 2008, 167,000 m^2 of land used for mining were rehabilitated by planting species native to the region. These areas are now covered with a wide variety of trees, grasses and legumes.
- For several years now, the Group has contributed to the Tamar project, which aims to protect the giant sea turtles in the Ubatuba region on the northeast coast of Brazil. This project, which has been ongoing for more than 20 years, has saved more than 5,000 specimens and created a scientific research and training center.

4.4.5.2 Case of the Aulnoye-Aymeries site

In France, environmental studies conducted as part of the project to extend the Aulnoye-Aymeries test station resulted in a decision to move and transplant a protected plant species from several stations. Protection of the existing ecosystem is also expanding, notably with the establishment of semi-watertight barriers which insulate operating activities from the wasteland used by the protected species of amphibians and reptiles. The oversight plan established in 2014 confirms the effectiveness of the measures taken.

An impact study on the Aulnoye-Aymeries area will be conducted in 2017 with a specialized provider, in and around this site, which is particularly important because it contains several plants and is located nearby designated natural areas (rural, humid, forest areas, the Sambre basin).

4.4.5.3 Actions taken in Indonesia

For several years, PT Citra Tubindo has been planting trees, specifically fruit trees, and has maintained a mangrove close to the facilities. These actions slow coastal erosion, halt the penetration of saltwater towards the interior, and protect the shores from storms, as well as enabling carbon to be retained, and the toxic products contained in the water to be absorbed. These actions are supported by the local populations, academic institutions and students.

APPENDIX

Appendix 1 – Report by one of the Statutory Auditors, appointed as independent third party, on the consolidated human resources, environmental and social information included in the management report

This is a free English translation 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 standards applicable in France.

For the year ended 31 December 2016

To the Shareholders,

In our capacity as Statutory Auditor of Vallourec S.A., (the "Company"), appointed as independent third party and certified by COFRAC under number 3-1049 (1), we hereby report to you on the consolidated human resources, environmental and social information for the year ended 31 December 2016, included in the management report (hereinafter named "CSR Information"), pursuant to article L.225-102-1 of the French Commercial Code (*Code de commerce*).

COMPANY'S RESPONSIBILITY

The Management Board is responsible for preparing a company's management report including the CSR Information required by article R.225-105-1 of the French Commercial Code in accordance with the procedures used by the Company (hereinafter the "Guidelines"), summarised in the management report and available on request from the company's head office.

INDEPENDENCE AND QUALITY CONTROL

Our independence is defined by regulatory texts, the French Code of ethics (*Code de déontologie*) of our profession and the requirements of article L.822-11-3 of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements and applicable legal and regulatory requirements.

STATUTORY AUDITOR'S RESPONSIBILITY

On the basis of our work, our responsibility is to:

- attest that the required CSR Information is included in the management report or, in the event of non-disclosure of a part or all of the CSR Information, that an explanation is provided in accordance with the third paragraph of article R.225-105 of the French Commercial Code (Attestation regarding the completeness of CSR Information);
- express a limited assurance conclusion that the CSR Information taken as a whole is, in all material respects, fairly presented in accordance with the Guidelines (Conclusion on the fairness of CSR Information);
- at the request of the company, express reasonable assurance, that information selected by the Group and identified by the symbol ☑ in the Chapter 4 in the management report is presented fairly, in all material respects, in accordance with the Guidelines (Reasonable assurance on a selection of CSR information).

Our work involved six persons and was conducted between September 2016 and March 2017 during an eleven weeks period. We were assisted in our work by our CSR experts.

We performed our work in accordance with the order dated 13 May 2013 defining the conditions under which the independent third party performs its engagement and with the professional guidance issued by the French Institute of statutory auditors (Compagnie nationale des commissaires aux comptes) relating to this engagement and with ISAE 3000 (2) concerning our conclusion on the fairness of CSR Information.

(1) "whose scope is available at www.cofrac.fr".

(2) ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.

1. Attestation regarding the completeness of CSR Information

Nature and scope of our work

On the basis of interviews with the individuals in charge of the relevant departments, we obtained an understanding of the Company's sustainability strategy regarding human resources and environmental impacts of its activities and its social commitments and, where applicable, any actions or programmes arising from them.

We compared the CSR Information presented in the management report with the list provided in article R.225-105-1 of the French Commercial Code.

For any consolidated information that is not disclosed, we verified that explanations were provided in accordance with article R.225-105, paragraph 3 of the French Commercial Code.

We verified that the CSR Information covers the scope of consolidation, i.e., the Company, its subsidiaries as defined by article L.233-1 and the controlled entities as defined by article L.233-3 of the French Commercial Code within the limitations set out in the methodological note, presented in Appendix 3 of the Chapter 4 "Corporate social responsibility information" of the management report.

Conclusion

Based on the work performed and given the limitations mentioned above, we attest that the required CSR Information has been disclosed in the management report.

2. Conclusion on the fairness of CSR Information

Nature and scope of our work

We conducted around twenty interviews with the persons responsible for preparing the CSR Information in the departments in charge of collecting the information and, where appropriate, responsible for internal control and risk management procedures, in order to:

- assess the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and understandability, and taking into account industry best practices where appropriate;
- verify the implementation of data-collection, compilation, processing and control process to reach completeness and consistency of the CSR Information and obtain an understanding of the internal control and risk management procedures used to prepare the CSR Information.

We determined the nature and scope of our tests and procedures based on the nature and importance of the CSR Information with respect to the characteristics of the Company, the human resources and environmental challenges of its activities, its sustainability strategy and industry best practices.

Regarding the CSR Information that we considered to be the most important, listed in the following table:

- at parent entity level, we referred to documentary sources and conducted interviews to corroborate the qualitative information (organisation, policies, actions), performed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data. We also verified that the information was consistent and in agreement with the other information in the management report;
- at the level of a representative sample of entities selected by us (1) on the basis of their activity, their contribution to the consolidated indicators, their location and a risk analysis, we conducted interviews to verify that procedures are properly applied and to identify potential undisclosed data, and we performed tests of details, using sampling techniques, in order to verify the calculations and reconcile the data with the supporting documents. The selected sample represents 54% of headcount considered as material data of social issues and between 34% and 95% of environmental data considered as material data of environmental issues (environmental data listed in the following environmental indicators table).

(1) *Human resources information excluding safety: SSPF (Saoudi Arabia), Palier (France), VBR Barreiro (Brasil) , Vallourec Sol. Tubulares (Brasil), Vallourec&Sumitomo Brasil (Brasil).*

Environmental information: SSPF (Saoudi Arabia), Vallourec Sol. Tubulares (Brasil), Vallourec&Sumitomo Brasil (Brasil), Vallourec Florestal Ltda. (Brasil), Vallourec Mineração Ltda. (Brasil), Vallourec Star Youngtown (USA), VTFR Déville (France), VBT Montbard (France).

Safety information: SSPF (Saoudi Arabia), Vallourec Sol. Tubulares (Brasil), Vallourec&Sumitomo Brasil (Brasil), VAD Rath (Germany), VAD Reisholz (Germany), VAD Mülheim (Germany).

Human resources indicators	Level of assurance
Headcount at 31/12	Reasonable
Breakdown of the workforce by age, gender and geographical area	
Hires	
Departures	
Lost Time Injury Rate	
Total Recordable Injury Rate	
Rate of completion of annual performance interviews among managers	
Rate of absenteeism	
Severity rate	Limited
Number of employees having participated in a training session	
Total number of training hours	

Environmental indicators	Level of assurance
Energy consumptions	Reasonable
CO_2 emissions (scopes 1 and 2) [(1)]	
Water intakes (per source)	
Percentage of waste recovered	
Hazardous and non-hazardous waste quantities	
Water discharged	Limited
Quality of water discharged	
Volume of raw materials used / recovered	

Qualitative information	
Human resources topics	■ Working time organization ■ Organization of social dialogue including information procedures, consultation and negotiation with the employees ■ Occupational health and safety conditions
Environmental topics	■ The organization of the company to integrate environmental issues and, if appropriate, the assessments and certification process regarding environmental issues ■ Measures of prevention, reduction or repair of discharges into the air, water and ground, impacting severely the environment ■ Adaptation to consequences of climate change
Social topics	■ Territorial, economic and social impact of the company activity: on the local populations ■ Conditions of the dialogue with stakeholders ■ Integration of social and environmental issues into the company procurement policy

For the remaining consolidated CSR Information, we assessed its consistency based on our understanding of the company.

We also assessed the relevance of explanations provided for any information that was not disclosed, either in whole or in part.

We believe that the sampling methods and sample sizes we have used, based on our professional judgement, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal control systems, the risk of not detecting a material misstatement in the CSR information cannot be totally eliminated.

Conclusion

Based on the work performed, no material misstatement has come to our attention that causes us to believe that the CSR Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

(1) Scope 1: stationary combustion, steel plant processes, methane emissions, internal transport - Scope 2: electricity.

3. Reasonable assurance on a selection of CSR Information

Nature and scope of the work

For the information selected by the Group and identified by the symbol ☑, presented in the management report, our audit consisted of work of the same nature as described in paragraph 2 above for CSR information considered the most important, but in more depth, particularly regarding the number of tests.

The selected sample represents 54% of headcount, and between 54% and 95% of quantitative environmental data identified by the symbol ☑.

We consider that this work enables us to express a conclusion of reasonable assurance for the information selected by the Group and identified by the symbol ☑.

Conclusion

In our opinion, the information selected by the Group and identified by the symbol ☑ is presented fairly, in all material respects, in accordance with the Guidelines.

Paris – La Défense, March 10, 2017

KPMG S.A.

Philippe Arnaud	Catherine Porta
Partner	*Partner*
Sustainability Services	

The Compagnie nationale des commissaires aux comptes (CNCC) does not consider the translation to be signed insofar as it is a free translation into English of the original French report. In effect, a signature is the manner in which a person identifies themselves in a document and by which they express their approval of the document contents. Furthermore, appending a signature to a report confers on it the quality of an original document while, in this particular case, the French version of the report is the original.

Appendix 2 – Individual environmental indicators of companies excluded from the consolidated environmental indicators

Environmental results of Vallourec Mineração and of the VSB pelletization unit

2016 results		Unit	Vallourec Mineração	Pelletization unit Vallourec & Sumitomo Tubos do Brasil
Production		Metric tons	4,002,305.9	623,745.8
Natural gas		kWh	-	197,903,544.7
		kWh/t	-	317.28
Electricity		kWh	39,162,567	36,961,370.7
		kWh/t	9.79	59.26
Water intake	Water tables	m^3	3,127,520	-
	Surface	m^3	176,602.2	119,796
		m^3	3,304,122.2	119,796
	TOTAL	**m^3/metric ton**	**0.83**	**0.19**
Discharged water		m^3	-	-
		m^3/metric ton	-	-
Waste generated	Non-hazardous	Metric tons	449.97	17,936.6
	Hazardous	Metric tons	136.24	294.2
		Metric tons	586.21	18,231.8
	TOTAL	**kg/t**	**0.15**	**29.23**
Recycled waste	Non-recycled waste	Metric tons	173.01	558.8
	Recovery rate	%	70.49	96.94
CO_2 emissions	Scope 1	metric tons of CO_2 equiv.	13,681.31	57,995
	Scope 2	metric tons of CO_2 equiv.	5,238.38	4,943.9
		metric tons of CO_2 equiv.	18,919.69	62,939
	TOTAL	**kg of CO_2 equiv./metric ton**	**4.73**	**100.9**

Vallourec Mineração Ltda operates the Pau Branco mine, located in the towns of Nova Lima and Brumadinho in the state of Minas Gerais. The Pau Branco mine has a total area of 1,373 hectares, of which 32% is industrial area, 20% is an environmental protection region, and 48% is unused space.

Vallourec & Sumitomo Tubos do Brasil operates a pelletization unit (processing of iron ore to improve the performance of the blast furnaces). This unit, which operates at its nominal capacity, supplies VSB and other Brazilian steel metallurgists.

Appendix 3 – Methodological note

Designed to inform shareholders and the greater public about the actions taken by Vallourec in favor of sustainable development, Chapter 4 of the Registration Document complies with the Grenelle 2 Law of 12 July 2010, and in particular Articles L.225-102-1, R.225-104 and R.225-105 of the French Commercial Code. The information contained herein is derived from database systems deployed worldwide, at each site concerned.

All of the CSR information published in Chapter 4 of the Registration Document was verified by an Independent Third Party Body, whose report appears on page 116 of this document.

These assertions clearly explain the Group's CSR strategy, as well as its actions in these areas.

GUIDELINE INDICATORS

Vallourec defined its guidelines by reproducing the list of CSR information that appears in Article R.225-101-1 of the French Commercial Code *(Code de commerce)*. See concordance table below. Other indicators were constructed based on those published by the Global Reporting Initiative (GRI), which proposes CSR reporting indicators for global companies.

Environmental and safety indicators were drawn from the "ERMIT" reporting system, and the "CR 360" system, which replaced it at the end of 2016, which allows for monthly monitoring and consolidation. They are included in a project definition worksheet provided by the Sustainable Development Department to its network of local contacts in the Group's four working languages (French, English, German and Portuguese).

Social indicators are also the subject of a precise and standardized Group-wide definition, and covered by a detailed procedure.

- Indicators related to workforce and hours

  The data is automatically collected by the GatheringTools system, and then sent to several SIRH tools, including Qbik (consolidating and management of social data). The Human Resources Department collects this data, which goes through an on-site correspondent.

- Training-related indicators

  The data is collected in the LMS (Learning Management System). Calculation and consolidation are completed by the Group Training Department: the Vallourec University Department.

REPORTING SCOPE

The environmental reporting scope is determined according to rules established by Vallourec's Sustainable Development Department. The environmental reporting scope includes:

1. industrial sites. The following are thus excluded from environmental reporting: the IT Europe data center in Saint-Saulve, the administrative offices and headquarters, and all sales offices. Research centers are also excluded, with the exception of Vallourec Research Center France, whose activity is more varied. As for the consolidation of safety indicators, all sites are included, with the exception of small sales offices;
2. sites belonging to Vallourec for more than six months. This rule is to be considered when a disposal or acquisition occurs. This is the case for Tianda, acquired at the end of 2016, which will not be considered for environmental issues. Furthermore, data from VHET, which was sold at the end of April 2016, will only be considered for the first quarter;
3. sites with active industrial operations during the year. This excludes construction sites that have not been in operation for more than six months;
4. sites for which Vallourec owns more than 50% of the voting rights. Conversely, the sites for which Vallourec is a minority shareholder are not integrated within the scope (for example, this is the case for the HKM steel mill in Germany);
5. given its importance, Vallourec & Sumitomo Tubos do Brasil, in which the Group held a 56% stake up to 30 September 2016, was consolidated accordingly for environmental data, then at 100% as of 1 October 2016;

The social reporting scope includes companies belonging to the tax consolidation scope apart from the Tianda company acquired at the end of December 2016.

CONSOLIDATION PRINCIPLES

1. With the exception of Vallourec & Sumitomo Tubos do Brasil, up to the end of September 2016, companies and sites included in the reporting scope in accordance with the rules described above are not accounted for using the equity method, but are treated equally in the reporting consolidation – that is, as 100% owned by the Group.
2. Precautionary principle: consolidation is established on the basis of prudent assessments to avoid transfer risk and reputational risk.
3. Accruals principle: all fiscal years are independent from one another.

Consolidation and auditing

Environmental indicators are consolidated and audited monthly by the Sustainable Development Department (timeliness, fairness, completeness). In case of doubt or inconsistency, the sites involved are questioned and must provide sufficient explanation to clarify the given indicators, as well as the achievement or shortfall of the targets set for the year. This step is essential to ensure the quality of the reports and the integrity of the indicator monitoring system within a continuous improvement process. In addition, to verify and compare the data, the Sustainable Development Department issues a quarterly summary to Management and to all sites.

Safety indicators are issued monthly, after verification, to General Management, the regions and divisions, and all sites.

PRODUCTION CALCULATIONS

By "metric ton processed", Vallourec means the metric ton produced in each plant (number of units of work produced in the plant), whether of steel, hot-rolled tubes or cold-finished tubes. The production of each plant is added together to calculate the total production in metric tons processed or work units.

For consolidated sites, such as Vallourec Star in Youngstown and Vallourec Tubos do Brasil S.A. in Belo Horizonte and VSB, total production is the sum of the steel and tubes produced.

Production of iron ore by Vallourec Mineração, the manufacture of pellets as well as the production of charcoal by Vallourec Florestal are, however, not included in the Group's total production.

By "metric ton shipped", Vallourec means the metric tons shipped to customers during the year. This production indicator is published in the Group's results.

Environmental data are routinely expressed in absolute and relative terms, in both graphs and tables of quantified results.

Relative values are divided either by production, expressed as metric tons of tubes processed (which allows different sites to be compared) or metric tons of tubes shipped, expressed as metric tons of tubes (which helps in estimating the environmental footprint of tubes shipped to customers).

VERIFICATION OF CSR INFORMATION

All of the CSR information published in Chapter 4 of the Registration Document was verified by an Independent Third Party Body. A selection of indicators identified by the symbol ☑ were covered by more in-depth verifications, with a check at the reasonable assurance level. For each piece of information presented, Vallourec has prepared a file to demonstrate a complete and rigorous implementation of its policy.

METHODOLOGICAL LIMITATIONS AND SPECIAL CASES

The following table lists some exceptions or special rules.

Issue	Plants concerned	Description
Determining the reporting scope (Rule No. 1)	Vallourec Mineração and the pelletization unit of Vallourec & Sumitomo Tubos do Brasil (VSB)	Vallourec Mineração in Brazil has a very different activity from the other Vallourec sites (production of iron ore to supply part of the consolidated Brazilian site Vallourec Tubos do Brasil). The same goes for the VSB pelletization unit, which supplies the Group's blast furnaces as well as outside customers. Their environmental indicators are monitored like in any Vallourec plant, but are not consolidated at Group level. They are reported on an individual basis in Appendix 2. Conversely, the safety and social indicators of Vallourec Mineração and the pelletization unit, along with the carbon emissions, are consolidated with all of the Group's other results.
Wastewater quality	Vallourec Tubes France (Saint-Saulve, Déville and Aulnoye steel and tube mills), Vallourec Drilling Tarbes, Vallourec Tubes Deutschland Rath, Vallourec Star Houston, PT Citra Tubindo	Indicators for monitoring wastewater quality (SPM, COD, TH and metals) are consolidated for sites that discharge wastewater directly into the environment after internal processing at their effluent treatment plants. These indicators are calculated based on the weighted average concentration per flows of discharged wastewater. Samples are taken quarterly in Germany and the United States, and at least weekly in France.
Waste	All plants	"Historical" waste (hazardous/non-hazardous) produced prior to the reporting period and stored on site is not counted in the total tonnage of consolidated waste.
Sludge from blast furnaces and steel mills	VSB	In Brazil, sludge generated by blast furnaces is classified as non-hazardous waste, and is a totally different type of waste from tube mill sludge.
Dust from blast furnaces and steel mills	VSB	In Brazil, dust generated by blast furnaces is classified as non-hazardous waste, and is a totally different type of waste from that produced by American and French steel mills.
Methane	Vallourec Florestal	When estimating methane emissions, the calculations are based on the statistical study in Appendices 5 and 6 of the "Project Design Document Form (CDM PDD) – Version 03" registered as a CDM 8606 project at UNFCCC: "Carbonization Project – Mitigation of Methane Emissions in the Charcoal Production of V & M Florestal, Minas Gerais, Brazil", which is available at: https://cdm.unfccc.int/Projects/DB/BVQI1354824411.24/view According to this study, process methane emissions depend on the gravimetric yield of wood carbonization in furnaces (Appendix 5), or the ratio between the final mass of dry charcoal (after combustion) and the initial mass of wood (Appendix 6).
Water consumption	Vallourec Mineração	As of 2011, on-site water consumption corresponds to process water only.
Raw materials	All plants	Indicators of raw materials (iron ore, iron ore pellets, charcoal, charcoal dust, scrap, cast iron) correspond to the amounts loaded into the furnaces. Scrap is considered by Vallourec as a by-product and is not included in either the waste or the recovery rate indicator.
Compensation	All	The "Compensation" indicator is calculated as the sum of staff compensation, social security charges and pension expenses.
Turnover	All	The turnover indicator is calculated as the ratio of the sum of the departures of permanent employees during the reporting period divided by the total permanent workforce at the end of the period. The reasons for departure included are: retirement, resignation, dismissal, and other (death, change of category, contract termination, termination after trial period).
Method of accounting for lost days following a workplace accident in the United States	All	In the United States, lost days for workplace accidents are not counted beyond the 180th day in accordance with OSHA regulations. This accounting method is specific to the United States and differs from the rule recommended by the Group for accounting for lost days.

Appendix 4 – Concordance table between the information required under Article R.225-105-1 of the French Commercial Code and the information in this chapter

1. CORPORATE SOCIAL INFORMATION		
a) Employment		
1.	Total number and breakdown of employees by gender, age and geographical segment	4.2.1.1 (p. 78-80)
2.	New hires and dismissals	4.2.1.2 (p. 82-84)
3.	Compensation and changes thereto	4.2.4 (p. 90)
b) Organization of work		
4.	Organization of working time	4.2.1.3 (p. 84-85)
5.	Absenteeism	4.2.1.3 (p. 85)
c) Employee relations		
6.	Dialog between employers and employees, including procedures for informing, consulting and negotiating with staff	4.2.3.1 (p. 88-89)
7.	Review of collective bargaining agreements	4.2.3.1 (p. 88-89)
d) Health and safety		
8.	Health and safety conditions at work	4.2.2 (p. 86-88)
9.	Review of agreements with trade unions or employee representatives on health and safety in the workplace	4.2.2 (p. 87)
10.	Workplace accidents, including their frequency and severity, and occupational illnesses	4.2.2 (p. 86-88)
e) Training		
11.	Training policies implemented	4.2.5.2 (p. 91-93)
12.	Total number of training hours	4.2.5.2 (p. 91)
f) Equal opportunity		
13.	Measures taken to promote gender equality	4.2.6.1 (p. 93)
14.	Measures taken to promote the employment and integration of the disabled	4.2.6.2 (p. 94)
15.	Anti-discrimination policy	4.1.3 / 4.2.6 (p. 78 / 93-94)
g) Promotion of and respect for the fundamental conventions of the ILO		
16.	Respect for freedom of association and right to collective bargaining	4.1.3 (p. 78)
17.	Elimination of discrimination in respect of employment and occupation	4.1.3 (p. 78)
18.	Elimination of forced or compulsory labor	4.1.3 (p. 78)
19.	Effective abolition of child labor	4.1.3 (p. 78)
2. ENVIRONMENTAL INFORMATION		
a) General environmental policy		
20.	Organization of the Company to take environmental issues and, where appropriate, environmental assessment or certification efforts into account	4.4.1 (p. 99-101)
21.	Employee training and information on environmental protection	4.4.1.4 (p. 100)
22.	Resources devoted to the prevention of environmental risks and pollution	4.4.1 and 5.1.12.1 (p. 99-101 / 135-136)
23.	The amount of provisions and guarantees for environmental risks, provided that such information is not likely to cause serious harm to the Company in an ongoing dispute	4.4.1.5 (p. 101) and Note 17 to the financial statements (p. 201)

b) Pollution and waste management		
24.	Measures to prevent, reduce or remediate discharges into the air, water and soil which seriously impact the environment	4.4.3 (p. 108-112)
25.	Waste prevention, recycling and elimination measures	4.4.3.3 (p. 109-111)
26	Combatting food waste	4.4.3.3 (p.111)
27.	Consideration of noise and other forms of pollution related to a specific activity	4.4.3.4 (p. 111-112)
c) Sustainable use of resources		
28.	Water consumption and water supply according to local constraints	4.4.2.3 (p. 103-105)
29.	Consumption of raw materials and measures to improve efficiency in their use	4.4.2.2 (p. 103)
30.	Energy consumption, measures to improve energy efficiency and use of renewable energy	4.4.2.4 (p. 106-107)
31.	Land use	4.4.3.2 (p. 108-109)
d) Climate change		
32.	Greenhouse gas emissions	4.4.4.1 (p. 112-114)
33.	Adaptation to the impacts of climate change	4.4.4.2 (p. 114-115)
e) Biodiversity protection		
34.	Measures to preserve or enhance biodiversity	4.4.5 (p. 115)
3. INFORMATION ON CORPORATE COMMITMENTS TO SUSTAINABLE DEVELOPMENT		
a) Regional, economic and social impact of the Company's activity		
35.	On employment and regional development	4.3.3.1 / 4.3.4 (p. 96-97 / 97-98)
36.	On neighbors or local populations	4.3.3.1 / 4.3.4 (p. 96-97 / 97-98)
b) Relations with persons or organizations with a stake in the Company's activities, including social integration associations, educational institutions, environmental protection associations, consumer associations and local residents		
37.	Conditions for dialog with such people or organizations	4.3.4 (p. 97-98)
38.	Partnership or sponsorship actions	4.3.4 (p. 97-98)
c) Subcontracting and suppliers		
39.	Consideration of social and environmental issues in the purchasing policy	4.3.3 (p. 96-97)
40.	Significance of subcontracting and consideration of suppliers' and subcontractors' CSR policies	4.3.3 (p. 96-97)
d) Fair practices		
41.	Actions to prevent corruption	4.3.3.3 / 4.1.2 (p. 97 / 77)
42.	Measures for consumer health and safety	4.3.2.3 (p. 95)
e) Other actions		
43.	Promotion of human rights	4.1.3 (p. 78)

Appendix 5 – Summary of workforce-related and environmental indicators

Environmental indicators

Indicators	Units	2011	2012	2013	2014	2015	2016
Production	Metric tons processed	5,175,558	4,959,229	5,456,271	5,508,079	2,826,499	3,068,607
	Metric tons shipped	2,251,000	2,092,000	2,159,000	2,322,800	1,410,865	1,281,500
Water abstraction	m^3/year	8,628,862	8,360,710	8,786,030	7,831,288	☑5,630,516	☑5,672,035
	m^3/metric ton processed	1.67	1.69	1.61	1.42	1.99	1.85
	m^3/metric ton shipped	3.83	3.99	4.07	3.37	3.99	4.43
Water discharged	m^3/year	5,257,296	5,596,360	5,494,232	4,087,062	3,616,090	3,179,631
	m^3/metric ton processed	1.02	1.13	1.01	0.74	1.28	1.04
	m^3/metric ton shipped	2.34	2.68	2.54	1.76	2.56	2.48
	Total metals mg/l. discharged	1.11	1.09	0.81	1.29	1.23	0.94
Waste							
Non-hazardous waste	Metric tons/year	616,828	604,425	572,669	628,005	438,266	430,980
Hazardous waste	Metric tons/year	48,985	50,544	53,737	40,909	28,549	27,670
% recovered waste	%	89	91	93	93	☑94.8	☑94.38
Total waste	Metric tons/year	665,813	654,969	626,406	668,914	466,815	458,650
	kg/metric ton processed	129	132	115	121	165	149
	kg/metric ton shipped	296	313	290	288	331	358
Energy							
Natural gas	GWh/year	3,496	3,257	3,708	3,751	☑2,498	☑2,531
	kWh/metric ton processed	675	657	680	681	884	825
	kWh/metric ton shipped	1,553	1,557	1,717	1,615	1,771	1,975
Electricity	GWh/year	1,598	1,603	1,812	1,873	☑1,205	☑1,376
	kWh/metric ton processed	309	323	332	340	426	448
	kWh/metric ton shipped	710	766	839	806	854	1,074
CO_2							
Total emissions (scope 1)	Metric tons/year	1,050,778	1,007,967	1,127,592	1,273,427	☑-373,538	☑-468,853
	kg CO_2 eq./metric ton processed	203	203	207	231	-132	-153
	kg CO_2 equivalent/metric ton shipped	467	482	522	548	-265	-366

Analysis of GHG emissions 2016

Scope	Type of emissions	Emissions excluding biomass	Emissions related to biomass	Methane emissions	N_2O emissions	Metric tons of CO_2	kg CO_2 / metric ton processed	% partial	% total
		Summary of GHG emissions (in tons of CO_2)							
Scope 1 Direct emissions	Natural gas combustion	468,262	-	-	-	468,262	153	-100%	25%
	Carbonization process	-	1,074,058	368,155	-	1,442,213	470	-308%	77%
	Atmospheric and underground sequestration	-	(3,141,185)	-	-	(3,141,185)	(1,024)	671%	-169%
	Production of iron and steel	49,588	679,216	-	-	728,803	238	-155%	39%
	Internal transportation	33,080	-	-	-	33,080	11	-7%	2%
	TOTAL – SCOPE 1	**550,930**	**(1,387,911)**	**368,155**	**-**	**(468,826)**	**(153)**	**100%**	**-25%**
Scope 2 Indirect emissions	Electricity purchased	518,356	-	-	-	518,356	169	100%	28%
	TOTAL – SCOPE 2	**518,356**	**-**	**-**	**-**	**518,356**	**169**	**100%**	**28%**
Scope 3 Other indirect emissions (a)	Upstream and downstream external transport ordered by the company	292,757	-	-	-	292,757	95	16%	16%
	Waste treatment	185,578	-	-	-	185,578	60	10%	10%
	Employee transportation	50,860	-	-	-	50,860	17	3%	3%
	Purchases of materials, goods and services	1,116,270	-	-	-	1,116,270	364	62%	60%
	Emissions related to the carbon content of industrial equipment proportionate to amortization and depreciation	165,841	-	-	-	165,841	54	9%	9%
	Emissions related to the transportation of energy	-	-	-	-	-	-	0%	0%
	TOTAL – SCOPE 3	**1,811,305**	**-**	**-**	**-**	**1,811,305**	**590**	**100%**	**97%**
TOTAL ACROSS ALL COMPONENTS		**2,880,591**	**(1,387,911)**	**368,155**	**-**	**1,860,835**	**606**	**-**	**-**

(a) The items appearing under this entry are those for which the company has an action or direct influence, and for which data is available. To date, emissions pertaining to client processes are neither known nor taken into account. In an effort to improve knowledge of scope 3 in light of its importance, the Group will again examine the content of these items in 2017, with the assistance of a specialized consultant, and will likewise evaluate, if possible, downstream emissions connected to customer activity.

Social indicators

	2011	2012	2013	2014	2015	2016
Workforce	22,204	23,177	24,053	23,709	20,964	☑18,325
Turnover (%)	8	10	9	12	17	9

	2011	2012	2013	2014	2015	2016
Safety						
LTIR [(a)]	2.79	2.6	2.26	1.32	1.24	1.41☑
TRIR [(b)]	9.4	7.1	5.51	4.23	3.25	2.61☑
Severity rate	0.11	0.11	0.12	0.06	0.07	0.06
Training						
Number of employees having participated in a training session	16,027	15,942	14,912	14,537	15,779	13,779
Number of training hours	677,931	597,379	582,000	513,597	473,009	506,459

(a) LTIR (Lost Time Injury Rate)*: number of accidents with lost time per million hours worked.*

(b) TRIR (Total Recordable Injury Rate)*: number of accidents declared per million hours worked.*

% of women (permanent employees)

	Production staff		Technical and supervisory staff		Managers		Total	
	2015	2016	2015	2016	2015	2016	2015	2016
Europe	2%	2%	32%	32%	21%	21%	11%	11%
Brazil	6%	5%	29%	28%	24%	24%	11%	11%
NAFTA	1%	1%	29%	27%	17%	23%	12%	11%
Asia	15%	11%	29%	31%	17%	19%	20%	19%
Middle East	-	-	17%	14%	10%	11%	6%	5%
Africa	14%	8%	15%	15%	-	-	13%	11%
WORLD	**4%**	**4%**	**30%**	**30%**	**21%**	**22%**	**12%**	**11%**

Breakdown between permanent and temporary staff

	Permanent		Temporary (including apprentices)		Interim	
	2015	2016	2015	2016	2015	2016
Europe	8,675	7,741	599	515	303	298
Brazil	7,278	6,422	132	124	0	0
Asia	1,379	992	192	78	152	121
NAFTA	2,274	2,036	2	0	83	193
Middle East	355	346	6	13	-	42
Africa	68	57	3	1	-	15

5

Risk factors

Investors are invited to consider all information featured in this Registration Document, including the risk factors described in this Section, before deciding whether to make an investment. As at the date of this Registration Document, these are the risks, the occurrence of which the Company believes could have a material adverse effect on the Group, its business, financial position, earnings, growth or outlook. The attention of investors is drawn to the fact that other risks may exist that have not been identified or which are not considered, as at the date of this Registration Document, likely to have a material adverse impact on the Group, its business, financial position, results, growth, outlook on the price of Company shares, or on the image of the Group or the Company.

5.1 Risk factors

The Group operates in a rapidly changing environment that generates numerous risks, some of which are outside its control.

The Group has assessed the risks that could have a material adverse impact on its business or results (or on its ability to achieve its targets) and considers there are no material risks other than those presented below. Nevertheless, other risks, of which it is not currently aware or which it does not currently regard as significant, could also have an adverse effect.

5.1.1 Risks linked to the Group's dependence on customers in the oil sector

The drop in oil prices had and will continue to have a significant impact on the amounts of investments made by Oil & Gas companies, which are Vallourec's main customers. This drop in the level of investment amounts had and will continue to have a significant impact on the volumes, revenue and results of the Group.

The Group's activity is dependent on the level of expenses incurred by Oil & Gas companies for exploration, production and development of oil and natural gas reserves. In 2016, approximately 60% of the Group's consolidated revenue was earned in the Oil & Gas sector, excluding Petrochemicals.

Spending by Oil & Gas companies has been significantly impacted by the sharp drop in world oil prices, which began in late 2014 due to the overproduction of oil compared to demand. This drop, which was exacerbated in late 2015 and early 2016, led Oil & Gas companies to intensify control of their costs, significantly reducing their expenses and optimizing their inventory levels, which had a significant impact on the demand for tubes. This considerable drop in the level of spending by Oil & Gas companies also had the effect of increasing pressure on tube prices.

The spot price per barrel of Brent dropped from an average price of USD 99 for fiscal year 2014, with a peak price of USD 115 in June 2014, to an average price of USD 52 for fiscal year 2015, and USD 44 for fiscal year 2016. In 2016, the spot price per barrel of Brent reached a cap of USD 26 on 20 January, before gradually picking-up during fiscal year 2016. As at 31 December 2016, the price per barrel of Brent was USD 54.94, compared to USD 36.6 on 31 December 2015.

The decline in oil prices, which continued until beginning of February 2016, resulted in an 18% drop in the average number of drilling rigs internationally (excluding North America), dropping by as much as 38% and 18% in Latin America and Europe, and less significant decreases in the regions where national companies that are less sensitive to the price per barrel operate (such as the Middle East, where the number of active rigs remained relatively stable). However, the recovery of Brent prices during fiscal year 2016 resulted in a slight increase in the number of active rigs in these areas starting in mid-2016. In the United States, the correlation between the price per barrel and the number of drilling rigs is even more discernible. West Texas Intermediate (WTI) went from an average price per barrel of USD 93 for fiscal year 2014, with a peak price of USD 107, to an average price of USD 49 for fiscal year 2015, and USD 43.8 in 2016, which translated to a 48% drop in the number of active drilling rigs between 2016 and 2015, along with an inventory reduction by tube distributors unitil mid-2016. The number of active rigs reached a low point in late May 2016 with 404 units, before beginning a gradual recovery, reaching 658 units at the end of December 2016. This increase coincided with a recovery in the price of WTI, which reached USD 53.72 in late December 2016, as compared to USD 37 at the end of December 2015. The International Energy Agency estimates that investments in Exploration and Production for Oil & Gas projects dropped approximately 24% between 2015 and 2016, to approximately USD 440 billion, after a nearly 26% drop between 2014 and 2015 [(1)]. According to the Group's internal estimates, the share of tube consumption in a complex and integrated offshore project is less than 2% of the total cost of the project, although this proportion varies according to the complexities and types of drilling. This share may reach up to 9% of the total cost of the project for unconventional onshore drilling in the United States. The drop in Exploration and Production investments thus had a direct impact on the consumption of tubes and on the Group's results. It is difficult to predict how long a lasting imbalance between supply and demand will persist, whether oil prices will stay at their current levels, or how the market which is still uncertain, will change. Entering 2017, the recovery in the Oil & Gas market in the U.S. is confirmed. However, International Oil Companies (IOCs) have not started sanctioning new offshore projects, delaying the recovery of the international OCTG market in volumes and prices.

In 2016, the new drop in investments in Exploration and Production had a significant impact on the Group's volumes, revenue, operating income and the free cash flows. For 2016, the Group recorded a 9% drop in volumes, a gross operating loss of €-219 million and a net loss of €-758 million. The share of its net financial debt-to-equity-ratio totaled 34.1% of equity at the end of 2016, compared to 50% at the end of 2015. The decrease in net debt in 2016 is mainly due to the €951 million net proceeds of the capital increase. As of early 2015, the Group established the Valens competitiveness plan (see Chapter 3 of this Registration Document), which includes plans to reduce investments, operating costs and capacity. On 1 February 2016, major strategic initiatives were announced to transform the Group's operating structure and improve its competitiveness over the short and long term (see Chapter 3 of this Registration Document). The Group nevertheless cannot be certain that these measures will be sufficient to limit the

(1) *International Energy Agency, World Energy Outlook 2016, published in November 2016.*

impact of the difficult market environment on its operating income or financial position (see Section 5.1.9 of this Registration Document). Moreover, if oil prices were to start falling again, this could have a significant adverse effect on the Group's activity, operating income, financial position and outlook.

Likewise, the investments of Oil & Gas companies could be subject to other negative factors such as changes in applicable laws and regulations, changes in the political situation or weather conditions. These factors could consequently have a negative impact on the Group's activity, results and outlook.

5.1.2 Risks linked to the cyclical nature of the tube market

The tube market is traditionally subject to cyclical trends which result both from economic changes as described above in the Oil & Gas sector, and from macroeconomic conditions which have an impact on the other business sectors of the Group, including Mechanicals, Automotive, Construction and Power Generation which, together, accounted for 35.2% of consolidated revenue in 2016. These sectors have important business cycles which follow the trends in the economic climate and which are likewise influenced by other factors, such as the growth outlook.

Deterioration in the global economic climate and the financial markets could have a significant adverse effect on the Group's sales, revenue, cash flow and outlook.

In order to prevent such risks from occurring, or to limit their impact, the Group implements the following measures:

- diversity of applications for its products in the Energy (hydrocarbon, nuclear and wind), Petrochemical, Mechanicals, Automotive, and Construction sectors;
- geographical diversity of its markets worldwide;
- promotion of long-term partnerships with major customers; and
- flexibility, i.e.:
  - the production substitution capability developed among some of the Group's 50 production sites in more than 20 countries,
  - seeking to reduce fixed costs at each of its sites, and
  - the capacity to broadly adjust variable costs as activity evolves.

5.1.3 Risks related to dependence on particular customers

In 2016, the Group generated 25% of its consolidated revenue from its five largest customers and 33% of its consolidated revenue from its ten largest customers (see above, Chapter 3, Section 3.2.2.3 "Principal customers" of this Registration Document). No customer accounted for more than 10% of the Group's consolidated revenue in 2016. Historically, customer loyalty has been strong (no sudden switches to another supplier) thanks to good relations with the Group and the quality of its products.

Nevertheless, most customers are not generally required to purchase a fixed amount of products or services over a given period and could decide to terminate their contracts, not renew them, or renew them on terms, particularly with respect to pricing, that are less favorable for the Group. This could have a significant adverse effect on the Group's business, financial position and results.

Generally, the Group has only very rarely been exposed to a significant risk on outstanding receivables of its main customers. Nevertheless, in a deteriorating world economic environment, the risk that a worsening of its customers' financial position will expose the Group to the risk of payment default cannot be ruled out.

5.1.4 Risks related to competition

The Group operates in a highly competitive international environment. To respond sufficiently to this competitive pressure, Vallourec's strategy is to stand out from its competitors by specializing in premium solutions for the energy markets. Meeting the complex needs of demanding customers in sophisticated markets requires a level of local know-how, innovation, quality, and related services that few manufacturers are in a position to provide.

The Group nonetheless faces competition with varying degrees of intensity in the Group's different sectors:

- in the Oil & Gas sector, the Group's main differentiating element is premium connections, for OCTG tubes in particular. These patented connections ensure perfect sealing for tube columns, thereby meeting customers' safety, environmental and performance requirements. However, strong competition in the OCTG commodity tubes market brings downward pressure to bear on prices throughout the market, including the prices of premium connections and tubes and in particular those that are the least differentiated. Oil companies, particularly IOCs, are seeking to develop a strategy of qualifying low-cost suppliers, particularly Chinese suppliers, for increasingly high-end products, as low-cost players have progressed technically and developed premium connections for the least differentiated categories. This has also had the effect of increasing pressure on the prices of established operators, who have significantly reduced their prices in an effort to be able to win tenders. This new competition has particularly impacted the Europe/Africa (EA) and Middle East/Asia (MEA) regions. The intensification of the competitive landscape in an increasingly globalized seamless tube market could cause losses in market share, and impact the Group's volumes, revenue and profitability;
- in the Group's other sectors of activity:
  - in the Power Generation sector, premium solutions contain high-alloy steel capable of withstanding extreme temperatures and pressure, requiring top-level metallurgical skills and state-of-the-art technology. The Group has noted increased competition since 2009, in particular in the Chinese market, due to the decision of some customers to give preference to local manufacturers who have entered the market for higher grade products, potentially at the expense of the stringency of the customers' technical requirements; and
  - in the Petrochemical, Mechanicals, Automotive and Construction sectors, the Group faces stronger competition as customer requirements are less sophisticated. The Group nevertheless has strong positions in Europe and Brazil, thanks to local operations that enable it to offer short lead times and related services. It works to innovate so as to create new, differentiated product ranges, such as fine-grain steel for industrial cranes and PREON® solutions for the construction of industrial buildings.

In order to prevent such risks from occurring, or to limit their impact, the Group implements the following measures:

- a premium-positioning strategy, underpinned by growth, innovation, close relations with customers and competitiveness;
- a major focus on innovation and the development of tubular solutions generating long-term partnerships with highly demanding customers;
- defense of the Group's industrial expertise through patents and protection of trade secrets; and
- a reduction in its cost base to protect its margin in a competitive environment leading to pressure on prices.

5.1.5 Risks related to the Group's activities in emerging countries

The Group conducts a significant part of its business in emerging countries, in particular because its strategy of being located close to its customers in these countries enables it to improve its responsiveness and to develop appropriate products and services in these countries. The risks associated with doing business in these countries may include political, economic and social instability (which can result in nationalization and expropriation of assets, uncertainty as to applicable law and inconsistent application of laws, and the impact of international sanctions), as well as financial instability and an increased exchange rate risk. There are also risks for personnel deployed on assignment or permanently (with a heightened risk of events such as industrial accidents or terrorism). The Group may not be in a position to take out insurance or hedge against all of these risks, and may also encounter problems in performing its activities in such countries, which could have an impact on its employees and/or results, growth or outlook.

In order to prevent such risks from occurring, or to limit their impact, the Group implements the following measures:

- for personnel deployed on temporary or permanent assignments: systematic health and safety risk assessment procedures, as well as systematic emergency and protection procedures for each of the high-risk countries where the Group frequently deploys personnel, and implemented on a case-by-case basis for the other countries, with the support of recognized outside providers in all cases; and
- for its business operations exposed to political, economic, social or financial instability and foreign exchange risks: alternative means of production situated in other countries and the development of business continuity plans designed to increase, as far as possible, the resilience of the business at local level.

5.1.6 Risks related to maintaining advanced technology on key products

The tubes market is subject to technological change. It is not possible at this point in time to foresee how such change could affect the Group's activities in the future.

Third party technological innovations could affect the competitiveness of the Group's existing products and services and have a negative impact on the value of existing patents and the revenue generated by the Group's licenses. The Group's financial results and outlook could be affected, and the Group might find itself at a competitive disadvantage if it were unable to develop or access (either alone or through partnerships) new technology, products or services ahead of its competitors, or if its new technology, products or services were not to have the success expected in the market.

Furthermore, the risk that competitors may access some of the Group's manufacturing secrets, or certain innovations that are not yet patented or that are not eligible to be patented, cannot be ruled out. The procedures established by the Group's Security Department and IT Department, as well as the signing of confidentiality agreements, can limit this risk, although it cannot be completely eliminated. The Group's results and outlook could therefore be affected.

In order to prevent such risks from occurring, or to limit their impact, the Group implements the following measures:

- a major program of investment in new production tools and in innovation, leading to the opening in 2011 of new production centers, R&D units and test stations close to the Group's markets, especially in the United States and Brazil;
- monitoring technological developments in the market to systematically gain access to the most recent techniques and their commercialization;
- protecting inventions through patents in key countries as well as maintaining and defending these patents (through the Intellectual Property Department); and
- protecting expertise, including trade secrets, through systematic confidentiality agreements and dedicated procedures.

5.1.7 Risks related to intellectual property

Risks related to intellectual property primarily stem from:

- disputes brought by third parties against the Group;
- the appropriation of its technologies by competitors; and
- fraudulent use by third parties of its trademarks.

To limit the impact of these risks, the Group has an Intellectual Property Department and a Legal Department comprised of qualified and experienced personnel who are responsible for (i) taking the necessary measures to protect and ensure its intellectual property rights are respected, while complying with the rights of third parties, and (ii) educating Group employees on the importance of better protecting and defending its intangible assets.

Preserving the Group's intellectual property also entails protecting its investments in research and development, and its technological edge.

To that end, the Group pursues its efforts at both national and international levels to:

- protect its innovations through patents and secrecy (e.g. confidentiality agreements, specific procedures to maintain trade secrets);
- protect its distinctive marks, such as trade names, domain names and trademarks; and
- preserve the value of its intellectual property through its global network of licensees.

However, the laws and regulations in some countries in which the Group operates do not necessarily provide such extensive and effective protection for intellectual property rights, and/or the means to combat counterfeiting at this time as countries such as France, Germany or the United States.

That is why the Group is also participating in efforts to raise the awareness of the public authorities and other market players concerned, and is simultaneously developing technical trademarking and authentication techniques for there to be greater product traceability, including by intermediate distributors and customers themselves.

These actions and technical solutions are key elements in the counterfeiting prevention policy used by the Group.

Like other tubular products and accessories manufacturers, the Group has indeed been faced with the existence of counterfeit products for sale on the market, which use the trademarks of Vallourec and its subsidiaries, and are sometimes even accompanied by false certificates. Counterfeiting activities aim to confuse customers in terms of the source of products, thereby allowing the counterfeiters to unfairly derive a profit from the Group's investments and reputation. There are thus multiple risks involved: in addition to the risk of losing customers drawn to cheaper products, there is a material risk of accidents if the counterfeit products have problems with quality and do not comply with the applicable standards. These risks could have an impact on the Group's image, and, indirectly on its financial results.

In order to more effectively combat counterfeiting, in 2015 the Group not only created a Counterfeit Committee, but has moreover, for a little over a year, been one of the founding members of the "Steel Alliance Against Counterfeiting" (SAAC), which combines the most well-known manufacturers of tubular products in the world market to combat counterfeiting.

If, despite all of the measures taken, the Group were unable to successfully protect, maintain and defend its intellectual property, it would risk losing a portion of its technological edge, customers and income sources; this could have a significant adverse effect on its activities, results and image.

5.1.8 Risks related to the Group's external and internal growth strategy

In pursuing its development strategies, the Group has engaged, and could in the future engage in external and internal growth operations, through the acquisition of businesses and companies, and the construction of new production units, as well as the development of partnerships. Although the Group examines and defines the details of all investment projects according to a very strict procedure, the underlying assumptions for the profitability of investment projects may be invalidated or the Group may not manage to successfully consolidate the acquired or merged companies. Consequently, the expected benefits of future or already completed external or internal growth operations may not be realized within the expected time frame or to the expected extent, and this could affect the Group's financial position. These operations include risks that are linked to difficulties in the integration of personnel, activities, technologies and customers.

Although the Group takes great care when drafting and negotiating acquisition, sale and partnership development contracts, and uses guarantees and other methods to hedge against certain risks, it cannot rule out the possibility that a liability, impairment of assets or claim may arise as a result of one of these contracts.

5.1.9 Risks related to the industrial restructuring plan

On 1 February 2016, the Group announced strategic initiatives aiming to accelerate Vallourec's transformation, which was initiated when the Valens plan was announced in early 2015 (see Chapter 3 of this Registration Document), particularly through an industrial restructuring project aiming to:

- streamline industrial production, in particular by reducing European capacities by 50% and focusing activities on value-added solutions and products;
- optimize its industrial footprint by developing new, more competitive production centers, in particular in Brazil and China; and
- significantly reduce costs in the context of the industrial plan.

Although the Group rolled out the strategic initiatives linked to the industrial restructuring plan in 2016 in accordance with the schedule and that it implemented what was necessary to attain the objectives announced within this plan, the Group could encounter many difficulties as follows:

- Vallourec has successfully consulted with the relevant workers' councils which have given their opinions regarding certain strategic initiative operations. The conclusion of these consultations allowed Vallourec to implement an employment protection plan (PSE) in France. The Group cannot rule out that disputes relating to the execution of this PSE may arise which could have adverse repercussions on the Company's financial situation, results, outlook and image.
- Vallourec could encounter difficulties with implementing measures to provide cost reductions and/or could fail to achieve the operational benefits and the savings expected from the combination of production sites, in particular through the merger of Vallourec & Sumitomo Tubos do Brasil and Vallourec Tubos do Brasil, and the acquisition of Tianda Oil Pipe.
- The Group's customers could turn to other suppliers if they think that the Group's products and services, or the time frame for delivering the Group's products, do not meet their expectations following the transfer of production to Brazil or China.
- The Group cannot guarantee that implementing the industrial restructuring will be sufficient given the particularly poor economic climate, nor that it will achieve the results it anticipates within the expected timeframes. If the Group were unable to effectively implement the industrial reorganization or if it did not produce the expected results, this could have a significant adverse effect on its results, financial position and outlook.

5.1.10 Risks related to the Company's objectives

For the purposes of its operational organization and in order to allocate its resources, Vallourec has set a number of targets for 2017 and in the medium-term regarding indicators such as free cash flow, EBITDA and net debt (see Section 3.6 "Outlook" of this Registration Document).

These medium-term targets are based on data, assumptions and estimates which Vallourec considered to be reasonable which it announced its Transformation Plan on 1 February 2016 (see Section 3.6.2 "Medium-term outlook"), dependent on the date of recovery in the global Oil & Gas activity. These targets are also dependent on the implementation of the industrial restructuring plan, for which the risks involved are described in Section 5.1.9 of these Registration Document.

At the start of 2017, the recovery in the Oil & Gas markets was confirmed in the United States. However, international oil companies have not yet launched new projects resulting in a delay in the recovery of volumes and prices on the international OCTG market. As mentioned above, the medium-term outlook is dependent on the date of recovery of the global Oil & Gas activity, particularly offshore. Taking into account the current market environment, this date remains uncertain.

However, the Group is confident in its ability to deliver contributions to EBITDA resulting from the strategic initiatives that are not linked to a recovery of volumes.

In addition to the risks relating to the strategic initiatives described above, these data, assumptions and estimates are likely to evolve or be modified, due to uncertainties that are linked to the economic environment and, above all, to the level of spending by companies in the Oil & Gas sector, from which the Group draws the bulk of its revenue. This sector has been suffering from a downturn since mid-2014 and there is significant uncertainty regarding when it will recover. Given the changes in the sectors in which the Group is active, it is also difficult to reliably assess its outlook and forecast its needs, particularly in terms of capacity and operating resources, technology requirements and product volumes.

Any change in the assumptions presented in Chapter 3 of this Registration Document and any unforeseen events impacting the Group's assumptions might impact the Group's ability to achieve its objectives and could consequently have an adverse effect on the Company's share price.

5.1.11 Risks related to impairments of goodwill and fixed assets

The downturn in the market in which the Group participates, and in particular in the Oil & Gas sector, has led the Group to record charges for goodwill impairment and the write-down of the carrying value of certain fixed assets totaling €1,103.7 million in 2014, €296.2 million in 2015, and €71.4 million in 2016 linked to the restructuring of tube plants in Europe and in Brazil.

At 31 December 2016, goodwill was €382.7 million, an increase of €40 million following the acquisitions in 2016 (see Chapter 6.1 C Note 1 and Note 34 in the notes to the consolidated financial statements).

The Group cannot rule out the possibility that the occurrence of future events could result in an additional impairment of certain fixed assets and/or goodwill. Potential significant impairments could have an adverse effect on the financial position and results of the Group for the fiscal year for which such charges could be recorded, and on its liquidity (with regard to the ratio contained in the banking agreements described below in Section 5.1.14.2).

5.1.12 Operating risks

5.1.12.1 Industrial and environmental risks

DESCRIPTION OF THE INDUSTRIAL AND ENVIRONMENTAL RISKS

In the various countries in which the Group operates, particularly in Europe, the United States, Brazil and China, its production activities are subject to numerous environmental regulations that are extensive and constantly changing. These regulations concern, in particular, management of major accidents, the use of chemicals (REACH regulations in Europe), disposal of wastewater, disposal of special industrial waste, air and water pollution, CO_2 emissions and site protection. The Group's activities could, in the future, be subject to even more stringent regulations requiring it to incur expenditure in order to comply with regulations or pay new taxes.

All French plants require authorization to operate in accordance with the provisions of Law No. 76-663 of 19 July 1976, as amended, relating to facilities classified for environmental protection and with Decree No. 77-1133 of 21 September 1977 codified in Article R.512-1 of the French Environmental Code. Any major changes at these sites (investments, extensions, reorganization, etc.) require the updating of said authorizations in collaboration with the local Regional Departments for the Environment, Land-use Planning and Housing (*Directions régionales de l'environnement, de l'aménagement et du logement* – DREAL).

The Group endeavors to strictly comply with these authorizations and, more generally, with the laws and regulations applicable in France and abroad on environmental matters, according to the principles presented in its Sustainable Development Charter and in the Group's Environmental Policy, which the Management Board approved in 2014. The Group is also striving to take all precautions allowing it to prevent environmental incidents; it should be noted that almost all of the sites are ISO 14001 certified, production of certified sites corresponding to 89.5% of the total production. This rate takes into account the disposal of Vallourec Heat Exchanger Tubes, but not the most recent acquisition (end of 2016) of the Tianda site in China; this is also explained by the fact that the Jeceaba Brazilian site is not yet certified.

It is clear that the very nature of the Group's industrial activity carries environmental risks. The Group could consequently be faced with an environmental accident that could have a material impact on the continuing operation of the sites concerned, and on its financial position.

In addition, the regulatory authorities and courts may require the Group to carry out investigations and clean-up operations, or even restrict its activities or close its facilities temporarily or permanently, and/or require it to pay fines. Given the long industrial history of several of the Group's sites (whether currently in use or obsolete), the soil or ground water may have been polluted and pollution may be discovered or occur in the future. Vallourec could be required to decontaminate the sites concerned. As regards its former activities, the Group could be held responsible in the event of damage to persons or property, which could adversely affect Vallourec's results. To that end, and applying the regulations, the estimated cost for clean-up of the French sites concerned in the event of cessation of their activities totals almost €3 million. The Group's commitment with the Regional Departments for the Environment, Land-use Planning and Housing to provide any necessary amounts is covered by a bank guarantee.

The accounting data relating to environmental matters is recorded in the Group's consolidated balance sheet under "Provisions" (see Chapter 6.1 C Note 17 to the consolidated financial statements). Future expenses for rehabilitation of sites are recognized by the Group using the accounting principles described in Section 6.1.7, paragraph 2.12 to the consolidated financial statements.

EVALUATION OF INDUSTRIAL AND ENVIRONMENTAL RISKS

Operating entities assess the industrial and environmental risks of their activities before developing them, and then regularly during operations. They comply with the regulatory requirements of the countries in which the activities are carried out and have developed specific risk measurement procedures. The new environmental organization, based on a regional approach, simplifies the risk assessment in question.

At sites with significant technological risks, risk analyses are performed when new activities are developed and updated, and when significant changes are made to existing installations. They are then periodically updated using a methodology adapted to local regulatory obligations. Each site prepares its own emergency or internal prevention measures depending on the risk analysis relating to the establishment. In France, the level of risk is reduced since only the Valinox establishment in Montbard is covered by "Seveso III" with a "lower tier" classification.

Similar measures are taken at the Group's other European industrial sites.

In addition, environmental impact studies are carried out before any industrial development including, in particular, an analysis of the initial state of the site, taking account of its vulnerabilities and the choice of measures to reduce or prevent incidents. These studies also take into account the impact of the site's activities on the health of neighboring populations. They are performed using common methodologies. In countries that implement authorization procedures and monitor project progress, no project is launched until the appropriate authorities approve it based on the studies submitted to them.

All Vallourec entities monitor regulatory changes in order to ensure that they comply at all times with local and international regulations and standards relating to measurement and management of industrial and environmental risk.

In 2014, the Group, with the assistance of a specialized firm, conducted an analysis of the risks related to climate change. This study relied on available scientific information and existing national adaptation plans. For each of the Group's major industrial basins, it identified risks and estimated their probability of occurrence and severity. It is now the responsibility of each site to establish the measures to be taken with regards to personnel and equipment, in order to reasonably prepare for the identified risks. These measures should be added to the sites' environmental roadmaps. For example, upon more extensive consideration of climate change-related risks, the Brazilian authorities determined that the risk of exceptional rain in a 100-year period should be substantially increased in relation to the dam flood barrier intended to collect certain sediments resulting from the operation of our mine. Consequently, a project to raise the corresponding dikes was prepared and approved, and work is underway.

The study also highlighted that the supply chain is likewise subject to these climate risks. It is thus the responsibility of the Purchasing Department, in conjunction with the most affected suppliers, to examine the measures to be adopted under the supplier risk assessment plan.

MANAGEMENT AND TRACKING OF INDUSTRIAL AND ENVIRONMENTAL RISKS

Risk assessment results in the establishment of risk management measures designed to reduce the likelihood of accidents and limit their consequences and environmental impact. These measures relate to the design of the facilities, strengthening of protective measures, organizations to be put in place, and even compensation for any environmental impact if it seems inevitable. These studies may be accompanied, on a case-by-case basis, by an assessment of the cost of the measures to control risk and reduce impact.

Vallourec seeks to limit the industrial and environmental risk inherent in its activities by setting up efficient organizational structures and quality, safety and environmental management systems, obtaining certification or assessing its management systems, performing stringent inspections and audits, training staff and heightening the awareness of all parties involved, as well as by implementing a policy of environmentally friendly investments that reduce industrial risks. Each significant investment project is assessed according to a precise methodology. This process is formalized with the use of a mandatory model document which explains the various kinds of impact ("eco-design" sheet). The Capex Committee, which examines the characteristics of the most important projects on a monthly basis, in view of approving them stage by stage, systematically analyzes these kinds of projects and may postpone their approval if they are deficient.

5.1.12.2 Other operational risks

RISKS RELATED TO OCCUPATIONAL SAFETY AND HEALTH

The importance of the industrial labor force to the Group's business makes the management of employees' health and safety particularly vital. Health and safety management is a priority for the Group and a fundamental value for Vallourec. Despite the efforts used by the Group, Vallourec cannot rule out the fact that occupational accidents and illnesses may arise that could render the Group liable in the event of serious illnesses or accidents.

Determined to act on all safety levers, in 2016 Vallourec continued its "CAPTEN + Safe" safety improvement program. At the end of 2016, the Lost Time Injury Rate (LTIR) was 1.41, slightly higher than in 2015 (1.24), while the reported accident rate reached 2.61, clearly improved from 2015 (3.3). It is noteworthy that starting in 2016, the Group incorporated subcontractor safety performance into its statistics for the first time. Vallourec did not have any fatal accidents in 2016.

The safety improvement program includes the following measures at all Group sites:

- establishing safety management committees at all levels of the Company;
- safety visits conducted by supervisory staff at all organizational levels;
- employee involvement in reporting all incidents or hazardous actions, even those that are most minor;
- ongoing risk assessment for safety concerns and preventive actions;
- establishing continuous improvement teams (CITs) on safety issues; and
- the roll out of a specific action plan to prevent fatal accidents.

As regards health, the Group pursued its action program with a view to reducing physical hardship at work and preventing psychosocial and chemical risks (see Chapter 4, "Corporate Social Responsibility Information" above).

In France, some of the Group's subsidiaries are involved in civil proceedings relating to the use of asbestos. These proceedings were initiated by certain employees or former employees who believed they had contracted an occupational illness linked to asbestos, with the aim of obtaining a judgment that would give them supplementary social security benefits. Although the outcome of all the current asbestos-related cases cannot be predicted with reasonable certainty, the Group does not expect them to have a material adverse effect on its financial position and the image of the Company and the Group. However, the Group cannot be sure that the number of existing cases linked to asbestos or new cases will not have material adverse effects on its financial position. Despite all the attention that the Group pays to the health and safety of its employees, the occurrence of accidents or an increase in occupational illnesses remains a risk.

RISKS RELATED TO AN INDUSTRY THAT CONSUMES RAW MATERIALS AND ENERGY

Tube production consumes raw materials such as iron ore, coal, coke and scrap. The Group has some in-house sources of supply and diversifies its external sources of supply whenever possible.

More generally, raw materials and energy represent a significant expense for the Group.

An increase in the price of raw materials and energy leads to a corresponding increase in the production cost of the Group's finished products. Uncertainty surrounding economic trends along with a highly competitive environment in the international market for tubes means that the Group's ability to effect any increases in raw materials and energy prices in its orders is uncertain. This could reduce Group margins and have a negative impact on earnings.

These risks carry a probability and impact that Vallourec aims to reduce through the following measures:

- owning some of its own sources of supply (iron ore mine, eucalyptus plantation in Brazil) and maintaining a variety of external sources of supply wherever possible;
- continuously reducing consumption, particularly by computer-modeling of furnaces and making processes more reliable; and
- effecting any changes in supply prices on the Group's revenue through the adjustment of its selling prices.

RISKS RELATED TO DEFECTIVE OR FAULTY PRODUCTION

The Group's positioning in the market for premium tubular solutions requires the implementation of a demanding quality control program for its products and services. However, the Group cannot totally eliminate the risk that some of its products or services may have production or manufacturing defects, or faults which could potentially cause damage to property, personnel or installations attached to the tubes, lead to an interruption of business for customers or third parties, or cause environmental damage. Although the Group follows quality control procedures for its products and services that meet the most rigorous benchmark requirements in order to provide products and services without production defects or faults, defects or faults could occur in Group products or services. This could potentially require damages to be paid by the Group, cause a fall in demand for these products and services, or damage their reputation for safety and quality, resulting in a significant impact on the financial position, earnings and image of the Company's and the Group's businesses.

These risks carry a probability and impact that Vallourec aims to reduce through the following measures:

- implementing a product quality control process that takes account of the requirements of the most rigorous standards such as ISO 9001, ISO/TS, API, EN 10210, and ABNT in Brazil;
- obtaining qualification from the most demanding customers, especially on nuclear and oil markets;
- a continuous improvement approach, driven by Vallourec Management System (VMS), and based on three pillars: Total Quality Management (TQM) plans, steering committees and continuous improvement teams (CITs);
- a focus on the major quality risks that could unfavorably impact customers;
- additionally, since 2015, strengthened management of customer claims so as to reduce the risks that defects would reappear as much as possible. To do so, a specific methodology known as "8 D" was put in place; and
- contractually limiting its liability, to the extent possible.

RISKS RELATED TO GROUP EQUIPMENT FAILURES

The Group's success in meeting orders depends on a high level of asset reliability. The Group could nevertheless suffer breakdowns of equipment or unavailability for other reasons such as damage, fire, explosion or a computer virus. Such failures could cause delays in the delivery of orders in progress or subsequent orders for which these assets were to be used. Although the Group follows a regular maintenance program in order to keep all of its assets in good working order, it cannot exclude the possibility that breakdowns could occur. Equipment failures may lead to dissatisfaction on the part of the Group's customers, have an impact on the cost of orders and, therefore, significantly affect the financial position, results and image of the Company or the Group.

These risks carry a probability and impact that Vallourec aims to reduce through the following measures:

- a regular maintenance program to maintain all assets in good working order;
- the roll-out of regular external audits to prevent damage, including from equipment breakdowns, fires, explosions and natural disasters; and
- a business continuity plan (BCP) at the Group's main sites to reduce the impact of equipment failure on customers and costs, by preparing rapid solutions to restore operations and/or alternative production processes.

RISKS RELATED TO WEAKNESSES IN INTERNAL CONTROL AND/OR RISK OF FRAUD

The Group's international profile involves complex processes at entities with different levels of sophistication in terms of internal control, evolving in a variety of legal environments, and running different information systems. In this context, Vallourec runs a risk of completing inaccurate and/or inappropriate or fraudulent transactions or operations. Some of the Group's activities are performed in countries which have a risk of corruption, which exposes it to civil and/or criminal sanctions which could have a negative impact on the Group's financial position or image.

To limit these risk factors, Vallourec began in 2013 a plan to strengthen its internal control mechanism, which is designed to better structure and coordinate the actions taken. This process particularly relies on a body of rules and procedures that is disseminated to all subsidiaries. These rules and procedures are regularly updated to ensure they are in line with changes in Vallourec's processes and risks.

The essential values of Vallourec also incorporate an ethical component. The Group's requirements have been formally established in the Code of Ethics, which has been extensively disseminated among all personnel.

In 2016, an amended version of the Code of Ethics was adopted and rolled out within the Group's entities in order to strengthen Vallourec's commitments to combat corruption and abide by competition rules, all while maintaining the values and principles of action for employees, associates, customers, suppliers and stakeholders.

In order to ensure that the principles and controls required by all of the procedures are respected, regular audits are conducted by the Internal Audit Department, according to the multi-year audit plan.

RISKS RELATED TO INFORMATION SYSTEMS

The Group uses complex information systems (in particular to manage its sales, logistics, accounting and reporting), which are essential for conducting its commercial and industrial activity. Despite a policy to strengthen the emergency programs of its information systems and infrastructure, a failure of one of them could have a material adverse impact on the activity, financial position, results or outlook of the Group.

The Group could be the subject of complex attacks targeting its IT networks. A growing number of companies have indeed recently been the victims of intrusions or attempted intrusions in their information systems. The techniques implemented to hack, disrupt, degrade the quality of or sabotage information systems are constantly evolving; they are sometimes not listed and it is often impossible to identify them before an attack is launched. Despite all of the precautions taken and its multiple means of defense, the Group might not be able to protect itself against such hacking techniques, or to rapidly establish an appropriate and effective response system. Any breakdown or interruption in the Group's IT systems that is linked to such intrusions or to other factors, could have a material adverse effect on the activity, financial position, results or outlook of the Group.

RISKS RELATED TO HUMAN RESOURCES

Vallourec's success depends on retaining key personnel within the Group and recruiting qualified staff. It also depends to a large extent on the strong and continuing contribution made by its key executives. If the Group were to lose an important member of its management team, whether to a competitor or for any other reason, this could reduce its capacity to implement its industrial or business strategy successfully.

The Group has put in place a number of Human Resource management programs designed to limit the possible impact of these risks, which have increased in the current economic climate, such as performance appraisals, succession planning for key employees in each division, and programs to develop different categories of personnel, including future leaders. These different programs are monitored regularly by the Group Management Committee.

The Group's performance also depends on the talents and efforts of highly qualified staff. Its products, services and technology are complex and its future growth and success depend largely on the skills of its engineers and other key personnel. Ongoing training of already skilled staff is also necessary to maintain a high level of innovation and adapt to technological change. The ability to recruit, retain and develop top-quality teams is a critical factor for the Group's success, and particular attention is currently being devoted to it, as a failure to do so could have a negative impact on its operating performance or development. In order to limit the risks related to the economic climate and to the launch of the transformation plan, Human Resources management programs are being monitored, and those programs which impact employee retention have been particularly strengthened.

5.1.13 Legal risks

5.1.13.1 Call options stipulated in certain industrial cooperative agreements linking Vallourec to Nippon Steel & Sumitomo Metal Corporation (NSSMC [1]) and Sumitomo Corporation

Certain industrial cooperative agreements linking the Group to Nippon Steel & Sumitomo Metal Corporation (NSSMC) and Sumitomo Corporation contain reciprocal change of control clauses under the terms of which each party has, in certain circumstances, a call option over the other party's interest or a termination right depending on the circumstances, in the event of a change of control of the other party (or of the entity that controls it).

NSSMC and/or Sumitomo Corporation therefore have, in the event of a change of control of Vallourec Tubes or of Vallourec, the right to acquire the shares held by the Group in the capital of VAM USA LLC (resulting from the merger on 27 February 2009 of VAM USA and V & M Atlas Bradford® in the United States).

The agreements entered into on 1 February 2016 (see Section 3.4.2 "Significant Events in 2016 and Early 2017" of this Registration Document), which came into effect on 1 October 2016, amended the reciprocal change of control clauses relating to Vallourec & Sumitomo Tubos Do Brasil, now known as Vallourec Soluções Tubulares do Brasil (VSB), in order to take into account Vallourec Tubos do Brasil's contribution of almost all of its assets to VSB, and thus the expansion of VSB's business scope. In the event of a change in control of Vallourec Tubes, Vallourec Tubos do Brasil or Vallourec, NSSMC benefits from the right to acquire the Jeceaba plant which was the scope of VSB's business before the 1 February 2016 agreement came into effect.

In return, the Group has the right, in certain circumstances, to acquire the shares held by the NSSMC group and Sumitomo Corporation in VSB in the event of a change in control of NSSMC or Nippon Steel and Sumikin Tubos do Brasil (or the entities controlling them).

Moreover, in the event of a change of control of Vallourec Oil & Gas France (VOGFR), Vallourec Tubes, or Vallourec, NSSMC has the right to cancel the Research and Development contract entered into by VOGFR and NSSMC on 1 April 2007, while retaining the right to use the Research and Development results jointly obtained and to enable any licensees to benefit from such results, as VOGFR benefits from the same rights in the event of a change in control of NSSMC. If NSSMC exercises its right of cancellation, it will also be entitled to continue to use the VAM® trademarks for three years from the date of such cancellation.

5.1.13.2 Tax risks

As an international group that carries out its activities in numerous countries, the Group has structured its sales, industrial and financial activities in conformity with the various regulatory requirements to which it is subject, and according to its sales, industrial and financial objectives. To the extent that the laws and regulations of the various countries in which the Group's entities are located or operate do not establish clear or definitive guidelines, the tax regime that is applied to its activities, transactions or intragroup restructurings (whether past or future), is or may sometimes be based on interpretations of French or foreign tax regulations and laws. The Group cannot guarantee that these interpretations will not be challenged by the competent tax administrations in the jurisdictions concerned. More generally, any breach of the current tax laws and regulations in the countries in which the Group or Group entities are located or operate could result in reassessments of taxes owed, or the payment of late interest, fines and penalties. Furthermore, the tax laws and regulations could change or be modified through their interpretation and application by the jurisdictions or tax administrations concerned, in particular in the context of joint initiatives occurring on an international or community scale (OECD, G20, European Union).

Each of the preceding factors could result in an increase in the Group's tax burden, and have a material adverse impact on its financial position and results.

The Group has been and may in the future be subject to recovery proceedings and tax disputes in some countries in which the Group entities are located or operate. When the Group considers that a loss relating to the tax disputes is probable, a provision is made according to the best estimate of foreseeable expenses. The outcome of the ongoing tax proceedings might, however, differ from the Group's forecasts and positions, or from the amount that may be provisioned in the consolidated financial statements. The Group cannot provide assurance that these provisions will be sufficient to cover the amounts to be actually disbursed at the end of these proceedings.

The Group's future results, the French and foreign tax rules, and tax controls or disputes could limit the Group's capacity to use its tax deficits, and thus impact its financial position.

The Group has significant tax losses (for which the accounting impacts are described in Note 5 to the Group's consolidated financial statements for the fiscal year ended 31 December 2016 which appears in Section 6.1 C "Consolidated financial statements" of this Registration Document).

The Group's ability to effectively use these losses will depend on a number of factors, including (i) the ability to achieve tax benefits and the extent to which such benefits cover losses, (ii) the limits applicable to any tax losses imposed by the French and foreign laws and regulations, (iii) the consequences of current or future tax audits or disputes, and (iv) any changes in the applicable laws and regulations.

The impact of these factors could increase the tax pressure to which the Group is subject, and thus have an adverse effect on its effective tax rate, financial position and results.

(1) On 1 October 2012, Sumitomo Metal Industries merged with Nippon Steel. The newly-merged organization was named Nippon Steel & Sumitomo Metal Corporation (NSSMC).

5.1.13.3 Risks related to disputes

In the normal course of its business, the Group is involved in lawsuits and may be subject to inspections or inquiries by tax or customs authorities, and other national and supranational authorities. The Group recognizes a provision whenever a tangible risk is identified and a reliable estimate of the cost arising from said risk can be made.

To the Group's knowledge, at this time, with the exception of disclosures in Note 17 to the consolidated financial statements, there are no governmental, judicial or arbitration proceedings, including any proceeding of which the Company is aware that is pending or has been threatened, which could have or has had material effects on the financial position or profitability of the Company and/or Group over the last 12 months.

5.1.14 Market risks (interest rate, foreign exchange, credit and equity risks) and liquidity risk

Given its financial structure, the Group is exposed to (i) market risks, including interest rate, foreign exchange, credit and equity risks, and (ii) liquidity risk.

A description of market and liquidity risks is provided in Notes 8 and 16 to the consolidated financial statements in Chapter 6, Section 6.1 of this Registration Document.

5.1.14.1 Market risks

INTEREST RATE RISK

The Group is exposed to interest rate risk on its variable-rate debt.

In December 2009, Vallourec & Sumitomo Tubos do Brasil, now known as Vallourec Soluções Tubulares do Brasil (VSB), took out a loan from BNDES (Banco Nacional de Desenvolvimento Econômico e Social). As at 31 December 2016, BRL 56.9 million of this loan, at a fixed rate of 4.5%, had been drawn. Vallourec Soluções Tubulares do Brasil also entered into a fixed-rate finance lease in 2010.

Vallourec issued:

- in December 2011, a €650 million bond, maturing in February 2017, with a fixed annual coupon of 4.25%;
- in August 2012, two long-term private placement bonds totaling €455 million. The respective amounts and terms of these two private placement bonds are €400 million for seven years with an annual coupon of 3.25% for one, and €55 million for 15 years with an annual coupon of 4.125% for the other; and
- in September 2014, a €500 million bond, maturing in September 2024, with a fixed annual coupon of 2.25%.

As at 31 December 2016, financial debt exposed to changes in variable interest rates was €247.4 million (about 10% of total gross debt). No other material fixed-rate credit facility will reach contractual maturity in the 12 months following the 31 December 2016 reporting date, apart from the €650 million bond maturing in February 2017; the outstanding amount, as at 31 December 2016, of €307.2 million in commercial paper with a maximum 12-month maturity, and various credit facilities (€82 million as at 31 December 2016) of Brazilian and Chinese subsidiaries.

Given the Group's interest rate risk hedging policy, the impact of a 1% rise in interest rates applied to short-term rates in the euro zone, Brazilian and Chinese rates, and British and American money market rates, would result in a €2.5 million increase in the Group's annual financial expenses, based on an assumption of complete stability of the financial debt and constant exchange rates, and after taking into account the effects of any hedging instruments. This impact does not take into account the interest rate risk on commercial paper with a maximum maturity of 12 months and on cash in short-term investments (with a maximum maturity of three months).

The tables below summarize the Group's position with regard to interest rate risk in 2016 and 2015:

Total debt as at 31/12/2016

In € thousands	Other borrowings	Cash
Fixed rate on date granted	2,325,628	–
Variable rate on date granted swapped to fixed rate	0	–
Fixed rate	2,325,628	–
Variable rate	247,460	1,286,722
TOTAL	**2,573,088**	**1,286,722**

Total debt as at 31/12/2015

In € thousands	Other borrowings	Cash
Fixed rate on date granted	1,990,269	–
Variable rate on date granted swapped to fixed rate	0	–
Fixed rate	**1,990,269**	**–**
Variable rate	159,528	630,540
TOTAL	**2,149,797**	**630,540**

FOREIGN EXCHANGE RISK

Foreign currency translation risk

The assets, liabilities, revenues and expenses of the Group's subsidiaries are expressed in various currencies. The Group's financial statements are presented in euros. The assets, liabilities, revenues and expenses denominated in currencies other than the euro are translated into euros at the applicable rate so that they can be included within the financial statements.

If the euro rises (or falls) against another currency, the value in euros of the various assets, liabilities, revenues and expenses initially recognized in that other currency will fall (or rise). Therefore, changes in the value of the euro may have an impact on the value in euros of the assets, liabilities, revenues and expenses not denominated in euros, even if the value of these items in their original currency has not changed.

In 2016, net income, Group share, was generated to a significant extent by subsidiaries that prepare their financial statements in currencies other than the euro (mainly in US dollars and the Brazilian real). A 10% change in exchange rates would have had an upward or downward impact on net income, Group share, of around €55.2 million. In addition, the Group's sensitivity to long-term foreign exchange rate risk is reflected in the changes that have occurred in recent years in the foreign currency translation reserves booked to equity (a loss of €176.6 million as at 31 December 2016), which in recent years have been linked mainly to movements in the US dollar and the Brazilian real.

Foreign currency translation reserve – Group share

In € thousands	31/12/2015	31/12/2016
USD	320,968	343,878
GBP	(5,789)	(11,583)
Brazilian real (BRL)	(863,699)	(529,697)
Chinese yuan (CNY)	58,473	34,276
Others	(10,528)	(13,448)
TOTAL	**(500,575)**	**(176,574)**

As far as the Group is aware, translation risk is unlikely to threaten its financial equilibrium.

Transaction risk

The Group is subject to exchange rate risk due to its business exposure linked to sales and purchase transactions entered into by some of its subsidiaries in currencies other than their functional currency.

The main foreign currency involved is the US dollar (USD): a significant portion of the Group's transactions (approximately 42.5% of Group revenue in 2016) are invoiced in US dollars by companies whose functional currency is not the US dollar. Exchange rate fluctuations between the euro, the Brazilian real and the US dollar may therefore affect the Group's operating margin. Their impact is, however, very difficult to quantify for two reasons:

- there is an adjustment phenomenon on selling prices denominated in US dollars related to market conditions in the various sectors of activity in which Vallourec operates;
- certain sales and purchases, even though they are denominated in euros, are influenced by the level of the US dollar. They are therefore indirectly and at some time in the future affected by movements in the US currency.

The Group estimates that during a "normalized" period of activity, such as, for example, fiscal year 2014, a 10% variation in the euro/US dollar exchange rate would have a transaction impact of approximately €100 million on sales in USD of European subsidiaries. The Group actively manages its exposure to foreign exchange risk to reduce the sensitivity of its net profits to currency fluctuations by setting up hedges once the order is placed and sometimes once a quotation is given.

Orders, receivables, payables and operating cash flows, are thus hedged with financial instruments, mainly forward purchases and sales.

Order cancellations could therefore result in the cancellation of hedges implemented, leading to the recognition in the consolidated income statement of gains and losses with regard to these canceled hedges.

To be eligible for hedge accounting as defined under IAS 39, the Vallourec Group has developed its cash management and invoicing systems to facilitate the traceability of hedged transactions throughout the duration of the hedging instruments.

As at 31 December of the last two years, forward foreign exchange contracts to hedge foreign currency-denominated purchases and sales amounted to the following:

Hedging contracts with regard to commercial transactions – Exchange rate risk

In € thousands	31/12/2015	31/12/2016
Forward exchange contract: forward sales	1,065,094	1,074,559
Forward exchange contract: forward purchases	55,879	45,218
Currency options: sales	–	–
Currency options: purchases	–	–
Raw materials and energy: call options	–	–
TOTAL	**1,120,973**	**1,119,777**

Contract maturities as at 31/12/2016

Contracts on commercial transactions *In € thousands*	Total	1 year	1 to 5 years	> 5 years
Exchange contracts: forward sales	1,074,559	1,057,065	17,494	–
Exchange contracts: forward purchases	45,218	45,120	98	–
Currency options: sales	–	–	–	–
Currency options: purchases	–	–	–	–
Raw materials and energy: call options	–	–	–	–
TOTAL	**1,119,777**	**1,102,185**	**17,592**	**–**

Forward sales correspond mainly to sales of US dollars (€1,074 million of the €1,119 million total). These contracts were transacted at an average forward EUR/USD rate of 1.14 and an average forward USD/BRL rate of 3.70. In 2016, as in 2015, the hedges entered into generally covered an average period of about 10 months and mainly hedged highly probable future transactions and foreign currency receivables.

In addition to hedges on commercial transactions, Vallourec has, since 2011, implemented forward sales for USD 276.8 million (€243.5 million).

These instruments are intended to hedge the foreign currency loans established by the financial holding company Vallourec Tubes in the currency of the subsidiaries receiving them. The forward purchases and sales mature at various times in 2017, as and when the hedged loans and borrowings mature.

CREDIT RISKS

Vallourec is subject to credit risk on financial assets for which no impairment provision has been made and whose non-recovery could affect the Company's results and financial position.

The Group has identified three main types of receivables that have these characteristics:

- security deposits paid in connection with tax disputes and the tax receivables due to the Group in Brazil;
- trade and other receivables;
- derivatives that have a positive fair value:
  - security deposits and tax receivables due to the Group in Brazil: there is no specific risk in respect of these receivables, even if the outcome of the disputes is unfavorable, since the risk has already been assessed and a provision recognized in respect of these receivables, and the funds have already been paid in full or in part,
  - the Group's policy on the impairment of trade and other receivables is to recognize a provision when indications of impairment are identified. The impairment is equal to the difference between the carrying amount of the asset and the present value of expected future cash flows, taking into account the position of the counterparty.

As at 31 December 2016, the Group considers that there is no reason to assume that there is any risk in respect of receivables for which no provision has been made and which are less than 90 days overdue. Trade receivables more than 90 days past due and not impaired amounted to €16.4 million as at 31 December 2016, or 3% of the Group's total net trade receivables.

However, Vallourec believes that its credit risk is limited given its existing customer risk management procedures, which include:

- the use of credit insurance and documentary credits;
- the long-standing nature of the commercial relationship with the Group's major customers; and
- its commercial collection policy.

In addition, as at 31 December 2016, trade receivables not yet due amounted to €436.2 million, i.e. 81% of total net trade receivables. The following table provides an analysis by maturity of these trade receivables:

As at 31 December 2016	0 to 30 days	30 to 60 days	60 to 90 days	90 to 180 days	over 180 days	Total
Not due *(in € millions)*	229.4	115.1	50.7	40.6	0.4	436.2

Equity risk

Treasury shares held by Vallourec as at 31 December 2016 include (i) shares allotted to cover allocation plans for certain employees and executive corporate officers of the Group and (ii) shares allocated to the liquidity contract account managed by Rothschild & Cie Banque.

(i) Regarding the shares allotted to cover allocation plans for certain employees and executive corporate officers of the Group, Vallourec holds:

- 3,094 treasury shares acquired in 2008 after the definitive allocation of 26,844 shares in 2011, 70,050 shares in 2013 and 12 shares in 2014, under the various performance share plans;
- 55,036 treasury shares acquired in 2011 under the share buyback program of 7 June 2011, upon the definitive allocation of 27,534 shares in 2012, 86,377 shares in 2013, 91,929 shares in 2014, 108,600 shares in 2015 and 30,524 shares in 2016 under the various performance share plans;
- 79,716 treasury shares acquired in 2012 under the share buyback plan of 31 May 2012, upon the definitive allocation of 94,600 shares in 2014, and 225,684 shares in 2016, under the various performance share plans; and
- 300,000 treasury shares acquired in 2014.

These figures take into account the 2:1 stock split on 9 July 2010. The Management Board, in consultation with the Supervisory Board, has decided to allocate these treasury shares to cover the Group's performance share and employee share ownership plans.

(ii) Vallourec has a liquidity contract with Rothschild & Cie Banque, which has been in effect since 2 July 2012. The contract has a term of 12 months and is automatically renewable for successive 12-month terms. It complies with the Code of Conduct (Charte de déontologie) issued by the French Association of Financial Markets (Association Française des Marchés Financiers) and approved by the French securities regulator (Autorité des Marchés Financiers) on 21 March 2011.

In 2016, as part of this liquidity contract, total purchases were for 1,025,000 shares, i.e. 0.23% of the share capital as at 31 December 2016, for a total amount of €4,145,895 and at a weighted average price of €4.0448 euros per share. No shares were sold under the liquidity contract in 2016. In 2016, the liquidity contract generated a capital loss of €20,796,889.

As at 31 December 2016, the balance on the liquidity account comprised:

- 2,400,000 shares;
- €5,627,237.

Vallourec also holds shares in Nippon Steel & Sumitomo Metal Corporation (NSSMC) (see Chapter 6, Consolidated financial statements, Note 4 "Other non-current assets") for a total amount of €75.2 million as at 31 December 2016.

To the best of its knowledge, the Group had no other exposure to equity risk as at 31 December 2016.

5.1.14.2 Liquidity risk

As at 31 December 2016, the maturities of current bank loans and other borrowings totaled €1,453,096 thousand; the maturities of non-current bank loans and other borrowings totaling €1,120,648 thousand are shown in the table below:

Breakdown by maturity of non-current loans and other borrowings (> 1 year)

In € thousands	> 1 year	> 2 years	> 3 years	> 4 years	5 years or more	Total
As at 31/12/2015	**702,822**	**42,682**	**412,558**	**14,078**	**590,815**	**1,762,955**
■ Finance lease	37,017	10,606	10,636	10,672	44,101	113,032
■ Other non-current borrowings	16,979	411,006	12,387	3,991	563,253	1,007,616
AS AT 31/12/2016	**53,996**	**421,612**	**23,023**	**14,663**	**607,354**	**1,120,648**

The Group's financial resources are primarily composed of bank financing and bond financing.

The majority of long-term and medium-term bank financing has been put in place in Europe through Vallourec and its sub-holding company Vallourec Tubes and, to a lesser extent, the subsidiaries in Brazil (see below).

Bond financing is arranged exclusively by Vallourec.

Within the context of deteriorating market conditions and results of the Group, Vallourec's rating was downgraded to B, with a negative outlook. This drop could increase the Group's financing costs, and, in particular, make it more difficult to issue investment grade bonds.

IN EUROPE

In February 2014, Vallourec took out a revolving credit facility for an amount of €1.1 billion, maturing in February 2019, plus two one-year extension options. In addition to the first one-year extension that was obtained for the amount of €1.078 billion, a second extension was granted in July 2016 in the amount of €989 million. The new maturity date is in 2021. This credit line is available for the Group's general funding purposes. As at 31 December 2016 this line had not been drawn.

In June 2015, Vallourec agreed to a bilateral line of €90 million until February 2019 with two one-year extension options, which were granted in July 2016. As at 31 December 2016, this line had not been drawn.

In September 2015, Vallourec took out a revolving credit facility for an amount of €400 million, maturing in July 2019, with a one-year extension option which was granted in July 2016 for the total amount. The new maturity date is in 2020. This line of credit replaces four medium-term bilateral lines of €100 million each which were granted to Vallourec Tubes and will mature in July 2017. As at 31 December 2016, this line had not been drawn.

In May 2016, Vallourec took out a revolving credit facility for €450 million maturing in February 2020. As at 31 December 2016, this line had not been drawn.

In addition to the financing put in place by Vallourec, Vallourec Tubes has two medium-term bilateral lines of €100 million each, maturing in July 2017. As at 31 December 2016, neither of these two lines had been drawn.

Each of these bank facilities requires Vallourec and Vallourec Tubes to maintain their consolidated net debt-to-equity ratio at less than or equal to 75%, calculated as at 31 December each year. For 2018, 2019, and 2020, this ratio was taken to 100% for all Vallourec's bank facilities through amendments of 17 March 2017. In the event of non-compliance with this ratio requirement, lenders would be entitled to demand early repayment of the outstanding drawn amounts. Vallourec was in compliance with this ratio requirement as at 31 December 2016. As defined in the financing agreements, the "bank covenant ratio" is the ratio between the Group's net consolidated debt and the Group's equity, restated for gains and losses on derivatives and valuation differences (gains and losses on the consolidated subsidiaries in foreign currencies).

A change in control of Vallourec could require the repayment of some or all of the loans, to be decided by the participating banks. The financing agreements also provide that the entire debt will be immediately due and payable if the Group defaults on one of its debt obligations (cross default) or, in the case of specified major events, with consequences for the Group's business or financial position and its ability to repay its debt.

In addition to this bank financing, the Group aims to diversify its sources of financing on the markets. For example, Vallourec launched a commercial paper program on 12 October 2011 to meet its short-term needs. The program has a €1 billion ceiling. As at 31 December 2016, Vallourec had outstanding €307.2 million for maturities ranging from one month up to one year. This commercial paper program is rated B by Standard & Poor's.

On 7 December 2011, Vallourec issued a €650 million bond maturing in February 2017, with a fixed annual coupon of 4.25%.

In August 2012, Vallourec also issued two long-term private bond issues totaling €455 million. The amounts and terms of these two private placements are €400 million for seven years with an annual coupon of 3.25% for one, and €55 million for 15 years with an annual coupon of 4.125% for the other.

On 30 September 2014, Vallourec issued a €500 million bond, maturing in September 2024, with a fixed annual coupon of 2.25%.

As at 31 December 2016, the market value of these fixed-rate bonds was €651.8 million, €416.2 million, €63 million, and €530.2 million, respectively.

These bond issues were intended to diversify and increase the amount and extend the maturity of the financial resources available to the Group.

They specifically include a change of control clause that would trigger the mandatory early redemption of the bonds at the request of each bondholder in the event of a change of control of Vallourec (in favor of a person or a group of people acting jointly), entailing a reduction in the Company's financial rating.

The bonds may also be redeemed early at the request of the bondholder or Vallourec, depending on the case, in the event of certain standard cases of default for this type of bond issuance or a change in Vallourec's position or in the tax regulations.

IN BRAZIL

In December 2009, Vallourec & Sumitomo Tubos do Brasil, now known as Vallourec Soluções Tubulares do Brasil (VSB), took out a loan of BRL 448.8 million from BNDES (Banco Nacional de Desenvolvimento Econômico e Social). This fixed-rate loan at 4.5% is denominated in Brazilian reals and has a term of eight years. Amortization began on 15 February 2012. As at 31 December 2016, the residual amount outstanding on this loan was BRL 56.9 million.

In 2010, the same company entered into a finance lease with a nominal value of BRL 570 million relating to equipment needed to operate the plant at Jeceaba. As at 31 December 2016, the residual amount outstanding on this finance lease was BRL 323.3 million.

IN THE UNITED STATES

The Group's US companies have a set of bilateral bank lines that were renewed in 2016 for a total of USD 80 million. The amount used as at 31 December 2016 totaled USD 80 million. These facilities with maturities of less than one year include clauses relating to the debt of each of the companies involved and a change of control clause.

In 2013, Vallourec Star LP set up a finance lease with a nominal value of USD 64.3 million and a final maturity of five years. As at 31 December 2016, the residual amount outstanding of this contract was USD 35.9 million.

As at 31 December 2016, the Group complied with its covenants and the terms and conditions for obtaining and maintaining all of the above facilities.

All the facilities described above adequately covered the Group's liquidity requirements as at 31 December 2016.

5.2 Risk management and tracking mechanism

In addition to the internal control procedures issued by the functional departments and to promote the improvement and expansion of internal control, Vallourec has a risk management policy in place. The Risk Management Department is responsible for rolling out this policy consistently throughout the Group. The Group Risk Manager assists the divisions, regions and the Group in identifying and analyzing their risks, through a periodic self-assessment method.

A mapping of the risks is in place for each of Vallourec's divisions and regions, and for the Group as a whole. Each mapping incorporates the main risks, along with their impacts, probability of occurrence, and current level of control. These risks may be legal, operational, strategic or financial. All Group divisions have applied this policy since 2007. The committees validate the appropriateness and completion of action plans drawn up according to problems that need to be addressed.

The Group Risk Manager organizes centralized reporting on risk management in conjunction with the Risk Managers of the main divisions.

A more detailed description of the risk management process is included in the Report of the Chairman of the Supervisory Board, drawn up in accordance with the provisions of Article L.225-68 of the French Commercial Code (*Code de commerce)* (see Appendix 1 to Chapter 7 of this Registration Document).

5.3 Insurance policy

The Group's policy with regard to protection against risks of accident is based on an operational program of developing, rolling out and managing preventative measures, supplemented by insurance policies. This policy is coordinated by the Human Resources Department for the safety of individuals and by the Risks and Insurance Department for all other aspects.

Industrial risks insured within the Vallourec Group are covered by two main types of insurance taken out with first-rate insurers:

- property insurance; and
- civil liability insurance.

The Group's policy with regard to establishing insurance coverage for industrial risks is designed to achieve the following objectives:

- to take out shared insurance policies to ensure, firstly, the consistency of transferred risks and insurance coverage purchased and, secondly, to leverage economies of scale, while taking into account the specific characteristics of the Group's different businesses and contractual or legal constraints; and
- to optimize thresholds and means of action in the insurance or reinsurance markets by appropriate deductibles.

The risk management and insurance policy consists of defining, in collaboration with the internal structures at each subsidiary, major catastrophic risk scenarios (maximum possible claim), assessing the financial consequences for the Group if the claims materialized, helping implement measures designed to limit the likelihood and the scale of damage, and deciding whether to maintain the financial consequences of such events within the Group or transfer them to the insurance market.

The Group's insurance policy consists of defining the overall insurance coverage policy for the Group's activities, in particular using the analysis of the requirements of the subsidiaries, and selecting and structuring adequate insurance solutions, with the help of an internal provider (the broker Assurval, a wholly-owned subsidiary of Vallourec) and external providers (brokers, consultants, insurers).

Implementation of the risk insurance policy is closely coordinated with the risk management policy. It takes into particular account the insurability of the risks linked to the Group's activities, the capacity available in the insurance and reinsurance markets, the premiums proposed in light of the guarantees provided, and exclusions, limits, sub-limits and deductibles.

Key actions in 2016 focused on:

- pursuing an active policy, aimed at reducing the frequency and severity of accidental risks of fire or explosion at industrial sites, and detecting other exposure to natural or environmental catastrophes; over the last fiscal year, more than 85% of the insured values were included in a multirisk audit carried out by the insurer's loss prevention engineers, under the framework of a plan to conduct annual visits to the Group's major industrial sites;
- organizing a mechanism for distributing casualty premiums according to the subsidiary scoring criteria established by the insurer with a bonus/malus depending on the score, in an effort to encourage subsidiaries to fine-tune their objectives for preventing damage from fire/equipment breakdowns; and
- communicating detailed information on the Company to the insurance and reinsurance markets.

The Group takes out global insurance coverage for all its subsidiaries for third party liability and physical loss. The amounts covered vary according to the financial risks defined in the loss scenario, arbitration decisions as to whether to keep the risk internal or use external coverage, and the insurance terms offered by the market (available capacity and premium prices). The main insurance contracts that cover all Group divisions are detailed below.

5.3.1 Insurance for property damage and business interruption

This insurance covers all direct physical loss to the Group's property, not subject to exclusions, as well as any costs and consequential losses.

Deductibles applied to physical loss range from €100,000 to €1,000,000 per claim, according to the severity of the risk concerned.

The Group program provides coverage based on a proportion of the total value or based on contractual limits per claim. In the latter case, the limits are established on the basis of major accidents estimated according to insurance market rules.

Insurance for operating losses and supplementary operating expenses is taken out on a case-by-case basis according to each risk analysis, taking into account the existing emergency plans.

5.3.2 Civil liability insurance

5.3.2.1 General civil liability insurance

This insurance covers the Group for any liability arising as a result of injury or loss caused to third parties, either resulting from the Group's operations or after delivery of goods or services, as well as for professional civil liability.

The indemnity also includes a limit on liability.

In respect of both property and civil liability insurance, contracts are split between a main Group contract and local contracts integrated into the main contract. The Group contract prevails where terms or limits differ from those of local contracts issued by the lead insurer.

The insured cap for third-party general liability and products was raised in 2011, 2012 and 2014, to take account of the increased size of the Group and the prevailing levels of compensation on the market in this area.

5.3.2.2 Employee benefits

Under the conditions provided for by law and Company-level agreements, insurance programs covering employees against risks related to accidents and medical costs have been put in place at the operating entities. An assistance-repatriation insurance policy for employees seconded abroad covers all Vallourec Group subsidiaries.

5.3.2.3 Civil liability of corporate officers

The Group has taken out liability insurance covering corporate officers against the risk of claims made against them that could result in them being held personally, jointly and severally liable for loss suffered by third parties and which could be attributed to a real or alleged professional error committed by them during performance of their duties.

The policy described above gives a picture of the Group's situation for prior periods at a given moment in time and cannot be considered representative of a permanent situation. The Group's policy with regard to insurance may change at any time according to market conditions, opportunities and the Management Board's assessment of the risks incurred and the adequacy of insurance coverage. The Group cannot guarantee that it will not suffer an uninsured loss.

6

Assets, financial position and results

6.1 Consolidated financial statements

6.1.1 Valllourec Group's statement of financial position

In € thousands	Notes	31/12/2015	31/12/2016
NON-CURRENT ASSETS			
Net intangible assets	1	148,821	124,982
Goodwill	1	329,569	382,684
Gross property, plant and equipment	2.1	6,205,411	6,351,197
Less: accumulated amortization, depreciation and provisions	2.1	(3,044,350)	(2,733,583)
Net property, plant and equipment	2.1	3,161,061	3,617,614
Biological assets	2.2	154,694	88,411
Associates	3	176,835	124,800
Other non-current assets	4	233,133	348,571
Deferred tax assets	5	148,783	190,269
TOTAL		**4,352,896**	**4,877,331**
CURRENT ASSETS			
Inventories and work in progress	6	1,066,165	1,034,749
Trade and other receivables	7	544,904	546,218
Derivatives – assets	8	20,341	57,985
Other current assets	9	307,474	283,019
Cash and cash equivalents	10	630,540	1,286,722
TOTAL		**2,569,424**	**3,208,693**
Assets held for sale and discontinued operations	11	68,964	46,327
TOTAL ASSETS		**6,991,284**	**8,132,351**

In € thousands	Notes	31/12/2015	31/12/2016
EQUITY	13		
Capital		271,377	902,476
Additional paid-in capital		1,058,872	1,404,786
Consolidated reserves		2,794,668	1,993,343
Reserves, financial instruments		(54,279)	(33,482)
Foreign currency translation reserve		(500,575)	(176,574)
Net income for the period		(864,753)	(758,016)
Treasury shares		(59,642)	(49,003)
Equity, Group share		**2,645,668**	**3,283,530**
Non-controlling interests	**15**	**391,941**	**494,432**
TOTAL EQUITY		**3,037,609**	**3,777,962**
Shareholder loan	34	-	83,172
NON-CURRENT LIABILITIES			
Bank loans and other borrowings	16	1,762,955	1,120,648
Employee benefit commitments	19	224,477	226,763
Provisions	17	10,515	95,688
Deferred tax liabilities	5	216,172	80,494
Other long-term liabilities	18	31,731	25,712
TOTAL		**2,245,850**	**1,549,305**
CURRENT LIABILITIES			
Provisions	17	238,107	280,296
Overdrafts and other short-term borrowings	16	386,842	1,453,096
Trade payables		523,476	530,391
Derivatives – liabilities	8	152,430	105,293
Tax liabilities		13,981	10,163
Other current liabilities	20	332,854	299,462
TOTAL		**1,647,690**	**2,678,701**
Liabilities held for sale and discontinued operations	11	60,135	43,211
TOTAL EQUITY AND LIABILITIES		**6,991,284**	**8,132,351**

6.1.2 Consolidated income statement

In € thousands	Notes	2015	2016
Revenue	23	3,803,423	2,965,061
Cost of sales [(a)]	24	(3,352,744)	(2,726,709)
Sales, general and administrative costs [(a)]	25	(512,829)	(447,602)
Others	26	(15,097)	(9,466)
EBITDA		**(77,247)**	**(218,716)**
Depreciation of industrial assets	28	(302,632)	(283,274)
Other depreciation and amortization	28	(44,279)	(48,522)
Impairment of assets and goodwill	29	(296,222)	(71,391)
Asset disposals, restructuring costs and non-recurring items	29	(117,960)	(127,471)
OPERATING INCOME/(LOSS)		**(838,340)**	**(749,374)**
Financial income		36,764	29,764
Interest expenses		(111,695)	(124,922)
Net interest expenses		(74,931)	(95,158)
Other financial income and expenses		7,423	(26,313)
Other discounting expenses		(7,259)	(8,864)
NET FINANCIAL INCOME/(LOSS)	30	**(74,767)**	**(130,335)**
PRE-TAX INCOME/(LOSS)		**(913,107)**	**(879,709)**
Income tax	31	15,178	80,166
Share in net income/(loss) of associates	33	(25)	(8,003)
NET INCOME/(LOSS) FROM CONTINUING OPERATIONS		**(897,954)**	**(807,546)**
CONSOLIDATED NET INCOME/(LOSS)		**(897,954)**	**(807,546)**
Attributable to non-controlling interests		(33,201)	(49,530)
Group share		**(864,753)**	**(758,016)**
Group share:			
Net earnings per share	14	(6.6)	(2.3)
Net diluted earnings per share	14	(6.6)	(2.3)

(a) Before depreciation and amortization.

6.1.3 Statement of comprehensive income

In € thousands	Notes	2015	2016
CONSOLIDATED NET INCOME/(LOSS)		**(897,954)**	**(807,546)**
Other comprehensive income:			
Actuarial gains and losses on post-employment benefits		20,607	(9,015)
Tax attributable to actuarial gains and losses on post-employment benefits		(32,257)	(1,070)
Items that will not be reclassified to profit or loss		**(11,650)**	**(10,085)**
Exchange differences on translating net assets of foreign entities	13 and 15	(172,450)	340,411
Change in fair value of hedging financial instruments		27,477	13,791
Change in fair value of available-for-sale securities		(8,049)	9,343
Tax relating to the change in fair value of hedging financial instruments		(9,211)	(3,827)
Tax attributable to the change in fair value of available-for-sale securities		-	-
Items that may be reclassified subsequently to profit or loss		**(162,233)**	**359,718**
OTHER COMPREHENSIVE INCOME/(LOSS) (NET OF TAX)		**(173,883)**	**349,633**
TOTAL COMPREHENSIVE INCOME/(LOSS)		**(1,071,837)**	**(457,913)**
Attributable to non-controlling interests		7,698	(31,954)
Group share		**(1,079,535)**	**(425,959)**

6.1.4 Statement of changes in equity, Group share

In € thousands	Capital	Additional paid-in capital	Consolidated reserves	Foreign currency translation reserve	Reserves – changes in fair value of financial instruments – net of tax	Treasury shares	Net income or loss for the period	Total equity, Group share	Total non-controlling interests	Total equity
POSITION AS AT 31 DECEMBER 2014	**261,196**	**991,846**	**3,823,895**	**(287,704)**	**(64,507)**	**(57,773)**	**(923,594)**	**3,743,359**	**426,253**	**4,169,612**
Change in foreign currency translation reserve	-	-	-	(212,871)	-	-	-	(212,871)	40,421	(172,450)
Financial instruments	-	-	-	-	18,277	-	-	18,277	(11)	18,266
Actuarial gains and losses on retirement commitments	-	-	(12,139)		-	-	-	(12,139)	489	(11,650)
Available-for-sale financial assets	-	-	-	-	(8,049)	-	-	(8,049)	-	(8,049)
Other comprehensive income (loss)	-	-	*(12,139)*	*(212,871)*	*10,228*	-	-	*(214,782)*	*40,899*	*(173,883)*
2015 NET INCOME/ (LOSS)	**-**	**-**	**-**	**-**	**-**	**-**	**(864,753)**	**(864,753)**	**(33,201)**	**(897,954)**
Comprehensive Income	-	-	*(12,139)*	*(212,871)*	*10,228*	-	*(864,753)*	*(1,079,535)*	*7,698*	*(1,071,837)*
Appropriation of 2014 net income/(loss)	-	-	(923,594)	-	-	-	923,594	-	-	-
Change in share capital and additional paid-in capital	4,000	13,252	-	-	-	-	-	17,252	-	17,252
Change in treasury shares	-	-	(6,604)	-	-	(1,869)	-	(8,473)	-	(8,473)
Dividends paid	6,181	53,774	(104,120)	-	-	-	-	(44,165)	(25,080)	(69,245)
Share-based payments	-	-	1,467	-	-	-	-	1,467	-	1,467
Changes in consolidation scope and other	-	-	15,763	-	-	-	-	15,763	(16,930)	(1,167)
POSITION AS AT 31 DECEMBER 2015	**271,377**	**1,058,872**	**2,794,668**	**(500,575)**	**(54,279)**	**(59,642)**	**(864,753)**	**2,645,668**	**391,941**	**3,037,609**
Change in foreign currency translation reserve	-	-	-	322,704	-	-	-	322,704	17,707	340,411
Financial instruments	-	-	-	-	10,393	-	-	10,393	(429)	9,964
Actuarial gains and losses on retirement commitments	-	-	(10,383)	-	-	-	-	(10,383)	298	(10,085)
Available-for-sale financial assets	-	-	-	-	9,343	-	-	9,343	-	9,343
Other comprehensive income (loss)	-	-	*(10,383)*	*322,704*	*19,736*	-	-	*332,057*	*17,576*	*349,633*
2016 NET INCOME/ (LOSS)	**-**	**-**	**-**	**-**	**-**	**-**	**(758,016)**	**(758,016)**	**(49,530)**	**(807,546)**
Comprehensive Income	-	-	*(10,383)*	*322,704*	*19,736*	-	*(758,016)*	*(425,959)*	*(31,954)*	*(457,913)*
Appropriation of 2015 net income/(loss)	-	-	(864,753)	-	-	-	864,753	-	-	-
Change in share capital and additional paid-in capital	631,099	345,914		-	-	-	-	977,013	-	977,013
Change in treasury shares	-	-	(10,403)	-	-	10,639	-	236	-	236
Dividends paid	-	-	(207)	-	-	-	-	(207)	(2,162)	(2,369)
Share-based payments	-	-	4,164	-	-	-	-	4,164	-	4,164
Changes in consolidation scope and other (see Note 34)	-	-	80,257	1,297	1,061	-	-	82,615	136,607	219,222
POSITION AS AT 31 DECEMBER 2016	**902,476**	**1,404,786**	**1,993,343**	**(176,574)**	**(33,482)**	**(49,003)**	**(758,016)**	**3,283,530**	**494,432**	**3,777,962**

6.1.5 Statement of changes in non-controlling interests

In € thousands	Consolidated reserves	Foreign currency translation reserve	Reserves – changes in fair value of financial instruments – net of tax	Net income or loss for the period	Non-controlling interests
POSITION AS AT 31 DECEMBER 2014	**342,219**	**37,548**	**839**	**45,647**	**426,253**
Change in foreign currency translation reserve	-	40,421	-	-	40,421
Financial instruments	-	-	(11)	-	(11)
Actuarial gains and losses on retirement commitments	489	-	-	-	489
Available-for-sale financial assets	-	-	-	-	-
Other comprehensive income (loss)	*489*	*40,421*	*(11)*	*-*	*40,899*
2015 NET INCOME/(LOSS)	**-**	**-**	**-**	**(33,201)**	**(33,201)**
Comprehensive Income	*489*	*40,421*	*(11)*	*(33,201)*	*7,698*
Appropriation of 2014 net income/(loss)	45,647	-	-	(45,647)	-
Dividends paid	(25,080)	-	-	-	(25,080)
Changes in scope and other	(13,710)	(3,220)	-	-	(16,930)
POSITION AS AT 31 DECEMBER 2015	**349,565**	**74,749**	**828**	**(33,201)**	**391,941**
Change in foreign currency translation reserve	-	17,707	-	-	17,707
Financial instruments	-	-	(429)	-	(429)
Actuarial gains and losses on retirement commitments	298	-	-	-	298
Available-for-sale financial assets	-	-	-	-	-
Other comprehensive income (loss)	*298*	*17,707*	*(429)*	*-*	*17,576*
2016 NET INCOME/(LOSS)	**-**	**-**	**-**	**(49,530)**	**(49,530)**
Comprehensive Income	*298*	*17,707*	*(429)*	*(49,530)*	*(31,954)*
Appropriation of 2015 net income/(loss)	(33,201)	-	-	33,201	-
Dividends paid	(2,162)	-	-	-	(2,162)
Changes in scope and other	135,422	614	571	-	136,607
POSITION AS AT 31 DECEMBER 2016	**449,922**	**93,070**	**970**	**(49,530)**	**494,432**

6.1.6 Statement of cash flows

In € thousands	Notes	2015	2016
Consolidated net income (including non-controlling interests)		**(897,954)**	**(807,546)**
Net amortization, depreciation and provisions		764,051	448,807
Unrealized gains and losses linked to changes in fair value		(11,332)	5,902
Income and expenses linked to share options and equivalent		1,467	4,164
Capital gains and losses on disposals		14,207	43,281
Share of net income in associates	3	25	8,003
Dividends reclassified as other flows linked to investing activities		(1,687)	(1,050)
Cash flow from operating activities after net financial cost and taxes		**(131,223)**	**(298,439)**
Net financial cost	30	74,931	95,158
Tax expense (including deferred taxes)	31	(15,178)	(80,166)
Cash flow from operating activities before net financial cost and taxes		**(71,470)**	**(283,447)**
Interest paid		(111,695)	(124,922)
Tax paid		(82,691)	(20,481)
Interest received		36,764	29,762
Cash flow from operating activities		**(229,092)**	**(399,088)**
Change in operating working capital requirements	12	632,117	179,631
NET CASH FLOW FROM OPERATING ACTIVITIES (1)		**403,025**	**(219,457)**
Cash outflows for acquisitions of property, plant and equipment and intangible assets	2.1	(254,910)	(168,802)
Cash outflows for acquisitions of biological assets	2.1	(13,193)	(6,584)
Cash inflows from disposals of property, plant and equipment and intangible assets		4,575	2,857
Impact of acquisitions (changes in consolidation scope)	34	-	(162,341)
Cash of subsidiaries acquired (changes in consolidation scope)		-	30,510
Impact of disposals (changes in consolidation scope)		-	29,139
Cash of subsidiaries sold (changes in consolidation scope)		-	1,018
Other cash flows from investing activities		(11,322)	11,349
Impact of reclassification to assets held for sale and discontinued operations		(4,000)	(4,646)
NET CASH FLOW FROM (USED IN) INVESTING ACTIVITIES (2)		**(278,850)**	**(267,500)**
Increase and decrease in equity		17,252	979,647
Dividends paid during the year			
■ Dividends paid in cash to shareholders in the parent company		(44,165)	-
■ Dividends paid to non-controlling interests		(24,998)	(2,427)
Movements in treasury shares		(8,473)	236
Proceeds drawn from new borrowings		416,525	719,823
Repayments of borrowings		(857,736)	(585,601)
Change in percentage interest in controlled companies		-	-
Other cash flows from financing activities		(51,840)	(16,269)
CASH FLOW FROM FINANCING ACTIVITIES (3)		**(553,435)**	**1,095,409**
IMPACT OF CHANGES IN EXCHANGE RATES (4)		**(54,889)**	**44,103**
CHANGE IN CASH (1 + 2 + 3 + 4)		**(484,149)**	**652,555**
Opening net cash		**1,108,708**	**624,559**
Closing net cash		**624,559**	**1,277,114**
Change		(484,149)	652,555

Net cash represents cash and cash equivalents less bank overdrafts with an initial maturity of less than three months.

Statement of changes in net debt in 2016

In € thousands	Notes	31/12/2015	Change	31/12/2016
Gross cash (1)	10	630,540	656,182	1,286,722
Bank current accounts in debit and overdrafts (2)	16	5,981	3,627	9,608
CASH (3) = (1) - (2)		**624,559**	**652,555**	**1,277,114**
Gross financial debt (4)	16	2,143,816	420,320	2,564,136
NET FINANCIAL DEBT = (4) - (3)		**1,519,257**	**(232,235)**	**1,287,022**

Statement of changes in net debt in 2015

In € thousands	Notes	31/12/2014	Change	31/12/2015
Gross cash (1)	10	1,146,913	(516,373)	630,540
Bank current accounts in debit and overdrafts (2)	16	38,205	(32,224)	5,981
CASH (3) = (1) - (2)		**1,108,708**	**(484,149)**	**624,559**
Gross financial debt (4)	16	2,655,312	(511,496)	2,143,816
NET FINANCIAL DEBT = (4) - (3)		**1,546,604**	**(27,347)**	**1,519,257**

6.1.7 Notes to the consolidated financial statements for the year ended 31 December 2016

In € thousand (€m) unless stated otherwise

A – Consolidation principles

1. Basis of preparation and presentation of the financial statements

The consolidated financial statements for the year ended 31 December 2016, including the related notes to the consolidated financial statements, were approved by Vallourec's Management Board on 20 February 2017 and will be submitted for approval at the Shareholders' Meeting.

Pursuant to EC Regulation No.1606/2002 adopted on 19 July 2002 for all listed companies in the European Union, Vallourec has prepared its consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union, using the standards and interpretations applicable as at 31 December 2016. These financial statements are available on the Company's website: www.vallourec.fr.

The IFRS framework covers the standards issued by the International Accounting Standards Board (IASB), as well as the International Accounting Standards (IAS) and their interpretations as issued by the Standing Interpretations Committee (SIC) and the International Financial Reporting Interpretations Committee (IFRIC).

The accounting principles and measurement methods have been applied consistently to the periods presented, with the exception of:

New mandatory standards

The application of the standards mandatory as of 1 January 2016 has no significant impact on the consolidated financial statements, with the exception of the amendment to IAS 41"Bearer plants", as the modifications concern bearer plants entering into the scope of application of IAS 16 - Property, Plant and Equipment. Products from bearer plants remain within the scope of application of IAS 41. This change was applied prospectively in line with the provisions contained in IAS 8 §24.

New standards not applied early

The IASB issued IFRS 15 – Revenue from Contracts with Customers, which introduced a new model of accounting for these revenues for contracts with customers and will replace IAS 11, IAS 18 and the IFRIC and SIC interpretations related to revenue recognition.

The IASB completed its project to replace IAS 39 – Financial Instruments: Recognition and Measurement by publishing the final version of IFRS 9 – Financial Instruments. IFRS 9 specifically introduces changes to the classification of financial assets, the impairment model, and hedge accounting.

The IASB issued IFRS 16 – Leases, which introduces a new accounting model for lease agreements and which will replace IAS 17 and related interpretations.

The Group is currently assessing the potential impact of first-time adoption of these texts which could become mandatory on 1 January 2018 (IFRS 15 and IFRS 9) and on 1 January 2019 (IFRS 16), and does not plan to opt for early application.

The Group has not opted for early application of any other standards or interpretations that will be mandatory for fiscal years beginning on or after 1 January 2017.

2. Accounting principles and methods

2.1 General measurement principles

The consolidated financial statements are prepared using the historical cost convention, except for biological assets, derivative financial instruments that are measured at fair value, as well as financial assets measured at fair value through profit and loss or equity (see Section 2.16).

2.2 Use of estimates and judgment

The preparation of the financial statements under IFRS leads Vallourec's management to use estimates and formulate assumptions that affect the carrying amount of certain assets and liabilities, income and expenses, and some of the information in the notes to the financial statements.

Such assumptions are inherently uncertain, and actual results could differ from these estimates. The Group regularly reviews its estimates and assumptions in order to take into account past experience and any factors deemed relevant in prevailing economic conditions. In the current economic climate (uncertainty about business trends, a highly-competitive international environment and volatility in costs of raw materials and energy) the uncertain nature of some estimates may be more pronounced.

Accounts and information subject to significant estimates include the measurement of the following items:

- property, plant and equipment, intangible assets and goodwill (see Sections 2.5, 2.7 and 2.8);
- financial assets (see Section 2.16.1);
- derivative financial instruments (see Section 2.16.4);
- inventories and work in progress (see Section 2.10);
- provisions (see Section 2.12);
- biological assets (see Section 2.5.6);
- assets held for sale and discontinued operations (see Section 2.11); and
- deferred taxes (see Section 2.17).

The Group must use assumptions and judgments to evaluate the level of control in certain associates, notably to define relevant activities and identify substantive rights, as well as the type of joint arrangement in question for a jointly controlled business. These judgments are revised if facts and circumstances change.

2.3 Consolidation of subsidiaries

The consolidated financial statements include the financial statements of Vallourec and its subsidiaries for the period from 1 January to 31 December 2016.

2.3.1 CONTROLLED ENTITIES

Subsidiaries are fully consolidated from the date of acquisition. They cease to be consolidated when control is transferred outside the Group.

Definition

There is control when the Group (i) holds power over an entity, (ii) is exposed to or is entitled to variable returns due to its connections with the entity and (iii) has the capacity to exercise its power over the entity so as to influence the amount of the returns it obtains.

Accounting method

The consolidated financial statements include all of the assets, liabilities, and comprehensive income of the subsidiary.

Non-controlling interests represent the share of interest which is not directly or indirectly attributable to the Group. The results and other items of comprehensive income are divided between the Group and non-controlling interests. The comprehensive income of the subsidiaries is divided between the Group and the non-controlling interests, including when this distribution results in allocating a loss to the non-controlling interests.

Changes in the percent interest in subsidiaries that do not result in a change of control are considered transactions impacting equity, as they are transactions that are performed with shareholders acting in this capacity.

The effects of these transactions are recorded in equity for the net tax amount and thus do not have an impact on the Group's consolidated income statement.

These transactions are moreover presented in the cash flow statement under financing or investment operations, as applicable.

The financial results of acquired companies are included in the consolidated income statement from their effective acquisition dates. The results of companies sold are included until the date control ceases.

Cash flows on the income statement and statement of financial position related to intra-Group commercial and financial transactions are eliminated.

2.3.2 CONSOLIDATION OF JOINT OPERATIONS

Definition

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement.

Joint operations

The Group, as a co-participant in a joint operation, records the following items as concerns its interests in the joint operation:

- its assets, including its share of the assets that are jointly held, where applicable;
- its liabilities, including its share of the liabilities that are jointly held, where applicable;
- the income it has drawn from the sale of its share of the production that is generated by the joint operation;
- the expenses it has incurred, including its share of the expenses jointly incurred, where applicable.

The consolidated financial statements include, line-by-line, the representative portion of the Group's interests in each item of the assets, liabilities and comprehensive income, established in compliance with IFRS.

Over the course of 2016, the Group took control of its main joint operation, conducted in partnership with Nippon Steel Sumitomo Metal Corp. (NSSMC) in the Vallourec & Sumitomo Tubos do Brasil (VSB) entity. Up until 1 October 2016, the qualification of this entity as a joint operation is underpinned by the legal form and the terms of the joint arrangement.

2.3.3 INTERESTS IN JOINT VENTURES AND ASSOCIATES

Definition

Associates are companies in which the Group exercises significant influence over operating and financial policies without having control.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

The Group's investments in joint ventures and associates are accounted for using the equity method.

Equity Associates

The equity method provides for an investment in an associate being initially recorded at cost, and then subsequently adjusted for the change in the Group's share in the income and other comprehensive income of the associate.

An investment is recorded under the equity method as of the date when the entity becomes an associate or joint venture. When an associate or joint venture is acquired, the difference between the cost of the investment and the Group share in the net fair value of the identifiable assets and liabilities of the entity is recorded under goodwill. In the event that the net fair value of the identifiable assets and liabilities of the entity is higher than the cost of the investment, the difference is recorded under income.

Shares in the net income of associates are incorporated in the net income of the activities pursued, whether or not their activities are an extension of the Group's activities.

Impairment testing

The provisions of IAS 39 – Financial Instruments: Recognition and Measurement, apply to determine whether or not it is necessary to perform an impairment test for its investment in an associate. If necessary, the total book value of the investment (including goodwill) undergoes impairment testing according to the provisions prescribed by IAS 36 – Impairment of Assets.

2.3.4 CHANGE OF CONTROL

Loss of significant influence or joint control

Whenever the investment no longer constitutes an associate, the equity method is no longer applied. Any retained interest in the former associate that constitutes a financial asset, is measured at fair value on the date the interest ceases to be an associate or joint venture.

Acquisition of a joint operation or equity-accounted company

Pursuant to IFRS 3, the previously-held equity interests are remeasured at fair value, giving rise to gains and losses on disposals ("Assets disposals, restructuring costs and non-recurring items") and the assets acquired and liabilities assumed are accounted for at fair value as at the acquisition date.

2.4 Foreign currency translation

2.4.1 TRANSLATION OF SUBSIDIARIES' FOREIGN CURRENCY FINANCIAL STATEMENTS

The presentation currency of the consolidated financial statements is the euro.

Assets and liabilities of foreign subsidiaries, including goodwill, are translated at the official exchange rates on the reporting date. The income statements of foreign subsidiaries are translated at the average exchange rate for the period.

The ensuing translation differences are recorded in equity. The Group's share of such differences is recorded on the separate line, "Foreign currency translation reserve".

2.4.2 TRANSLATION OF FOREIGN CURRENCY TRANSACTIONS

Foreign currency transactions are translated into the company's functional currency. When the transaction is subject to a hedge (see paragraph 2.16.4), it is translated at the spot rate on the day the hedging instrument is set up. In the absence of a hedge, foreign currency transactions are translated at the prevailing exchange rates on the transaction date.

Monetary assets and liabilities denominated in foreign currencies are translated at the closing exchange rates prevailing on that date. Translation differences resulting from difference between these rates and the rates at which the transactions were initially recorded are included in financial income or loss.

2.5. Property, plant and equipment and biological assets

2.5.1 MEASUREMENT AT COST NET OF DEPRECIATION AND IMPAIRMENT

Except when acquired as part of a business combination, property, plant and equipment are recorded at their acquisition or production cost. They are not subject to remeasurement. At each reporting date, the acquisition cost is reduced by accumulated depreciation and any provisions for impairment determined in accordance with IAS 36 – Impairment of Assets (see paragraph 2.9).

2.5.2 COMPONENT APPROACH

The main components of an asset having a useful life different from that of the main asset (furnaces, heavy industrial equipment, etc.) are identified by the technical departments and depreciated over their own useful lives.

Subsequent expenditure on replacement of the component (i.e. the cost of the new component) is capitalized, provided that future economic benefits are still expected to be derived from the main asset.

The component approach is also applied to expenditure on major overhauls that are planned and carried out at intervals of over one year. Such expenditure is identified as a component of the asset's acquisition price, and is depreciated over the period between two overhauls.

2.5.3 MAINTENANCE AND REPAIR COSTS

Recurring maintenance and repair costs that do not meet the criteria for the component approach are expensed when they are incurred.

2.5.4 AMORTIZATION AND DEPRECIATION

Depreciation of property, plant and equipment is calculated on a straight-line basis over the useful lives summarized below. Land is not depreciated.

Main categories of property, plant and equipment	Straight-line depreciation Useful life
Buildings	
Administrative and commercial buildings	40
Industrial buildings/Infrastructure	30
Fixtures and fittings	10
Technical plant, equipment and tools	
Industrial plant	25
Specific production equipment	20
Standard production equipment	10
Other (automated equipment, etc.)	5
Other tangible assets	
Motor vehicles	5
Office equipment and furniture	10
Computer equipment	3

Depreciation of new industrial sites in the development stage is calculated according to the production-units method for assets used directly in the production process and the straight-line depreciation method for other assets.

2.5.5 PROPERTY, PLANT AND EQUIPMENT ACQUIRED AS PART OF A BUSINESS COMBINATION

Property, plant and equipment acquired as part of a business combination are measured at fair value on the acquisition date. They are depreciated using the straight-line method over the remaining useful life at the acquisition date.

2.5.6 BIOLOGICAL ASSETS

The Group owns biological assets in Brazil, which mainly consist of eucalyptus plantations cultivated for the Group's coke requirements. They are valued according to the principles defined by IAS 41 – Agriculture. The existence of an active market in Brazil requires the Group to measure these assets at fair value less selling costs upon initial recognition and at each reporting date.

2.6 Leases

Assets financed by finance leases, which transfer almost all of the risks and rewards of ownership to the Group, are capitalized on the statement of financial position at the lesser of the fair value of the leased property or the present value of the minimum lease payments. The corresponding liability is recorded under financial liabilities.

Lease payments are split between interest expense and amortization of the obligation so as to obtain a constant interest rate on the balance of the loan liability.

Assets leased under finance leases are depreciated over their useful life in accordance with Group rules (see paragraph 2.5) or the lease term, whichever is shorter.

Leases under which the lessor retains almost all of the risks and rewards of ownership are operating leases. Payments on operating leases are expensed on a straight-line basis over the term of the contract.

2.7 Goodwill

The Group measures goodwill as the surplus of:

- the total of:
  - the fair value of the consideration transferred,
  - the amount of any non-controlling interests in the acquired entity,
  - in the case of a step acquisition, the fair value at the acquisition date of the acquirer's previously held interest in the acquiree; and
- the net fair value at the acquisition date of the identifiable assets acquired and liabilities assumed.

For major acquisitions, fair value measurements are done with the help of independent experts.

The decision to apply the partial or total goodwill method is made separately for each business combination.

Pursuant to IAS 36 – Impairment of Assets, they are tested for impairment at least once a year, or more frequently if there is an indication of impairment. The testing procedures are designed to ensure that the recoverable amount of the cash-generating unit to which the goodwill is assigned or allocated is at least equal to its net carrying amount (see paragraph 2.9 – Impairment of property, plant and equipment and intangible assets). If an impairment loss is recognized, an irreversible provision is recorded in operating profit under "Impairment of assets and goodwill".

Pursuant to IFRS 3 and IAS 10.22, the Group recognizes in equity the difference between the price paid and the share of non-controlling shareholders acquired or sold in controlled companies.

Acquisition costs incurred by the Group in carrying out the business combination, such as referral agents' commissions, legal and due diligence fees and other professional or consultancy fees, are expensed when they are incurred.

2.8 Intangible assets

2.8.1 RESEARCH AND DEVELOPMENT COSTS

In accordance with IAS 38 – Intangible Assets, research costs are expensed and development costs are capitalized as intangible assets if the company can show:

- its intention, and its financial and technical capability, to bring the development project to completion;
- that it is probable that the future economic benefits attributable to the development expenditure will flow to the company;
- its ability to reliably measure the cost of the intangible asset during its development phase;
- its ability to use or sell the intangible asset.

Significant R&D projects are reviewed based on information available from the corporate departments coordinating the research in order to identify and analyze any current projects that have entered the development phase, as defined under IAS 38.

The Group's development projects to design new or improved products and manufacturing processes, particularly in its oil and energy-related activities, are already at a very advanced stage before they qualify for capitalization as assets under IAS 38 criteria. It is very difficult to show the existence of long-term additional future economic benefits that can be clearly distinguished from the normal costs of maintaining and upgrading production plants and products to preserve the Group's technological and competitive edge. As a result, in 2016 as in 2015, no costs incurred on major projects were identified that met the standard's criteria.

2.8.2 OTHER INTANGIBLE ASSETS

Intangible assets acquired separately are recognized at cost. They are mainly patents and trademarks, which are amortized on a straight-line basis over their useful lives.

Intangible assets acquired as part of a business combination are recorded separately from goodwill if their fair value can be measured during the acquisition phase. Those with a finite life are amortized over their estimated useful lives for the Company.

Greenhouse gas emission allowances received free of charge are recognized at nil value (in accordance with IAS 20). A provision is recognized when allowances granted by the government are inadequate to cover actual emissions. Notes 17 and 22 to the financial statements contain information about the methods used to value unused allowances at the end of the reporting period.

2.8.3 IMPAIRMENT

Intangible assets are tested for impairment in accordance with the provisions of IAS 36 – Impairment of Assets (see paragraph 2.9).

2.9 Impairment of property, plant and equipment and intangible assets

To perform impairment tests, property, plant and equipment and intangible assets are grouped into Cash-Generating Units (CGUs). CGUs are standard groups of assets whose on-going use generates cash inflows which are largely independent of the cash inflows generated by other groups of assets.

The recoverable value of a CGU is the higher of the following:

- its value in use, which corresponds to the present value of the forecasted future cash flows it generates, without taking into account planned investment into capacity and expected gains in terms of productivity;
- its fair value less costs of disposal.

The test base of a CGU is comprised of net current and non-current operating assets.

An impairment test is carried out:

- at least once a year for CGUs with indefinite useful lives, a category that, for the Group, is limited to goodwill.
- for the other CGUs, if indications of impairment appear.

A Group stock market value that is less than its consolidated net assets during a business cycle, or a negative outlook associated with the economic, legislative or technological environment or with the business sector, constitutes general indications of impairment liable to result in impairment tests on all the Group's CGUs.

Impairment tests involve comparing the recoverable amount of the CGU with its test base. An impairment is recognized if the value in use is lower than the carrying amount.

When the recoverable amount of the CGU is less than its carrying amount, an impairment loss is recognized on a separate line in the income statement. When a CGU includes goodwill, the impairment loss is first deducted from goodwill and then, where applicable, the CGU's other assets.

2.10 Inventories and work in progress

Inventories are valued at the lesser of cost or net realizable value, and provisions for impairment are recognized if necessary.

Net realizable value is the estimated selling price in the ordinary course of business less estimated costs of completion and the estimated costs necessary to make the sale.

Inventory costs of raw materials, goods for resale and other supplies comprises the purchase price excluding taxes, less discounts, rebates and other payment deductions obtained, plus incidental costs of purchase (transportation, unloading expenses, customs duties, buying commissions, etc.). These inventories are measured at weighted average cost.

The cost of work in progress and intermediate and finished goods consists of the production cost excluding financial expenses. Production costs comprise raw materials, factory supplies and labor, and direct and indirect industrial overheads attributable to processing and production, based on normal capacity. General and administrative expenses are excluded from this measurement.

2.11 Assets held for sale and discontinued operations

A non-current asset or group of related assets and liabilities is considered to be held for sale, in accordance with IFRS 5 – Non-current Assets Held for Sale and Discontinued Operations, when:

- it is available for immediate sale in its current condition; and
- its sale is highly probable. This is the case when management is committed to a plan to sell the asset and an active program to locate a buyer at a reasonable price, and the sale is expected to take place in less than one year.

Non-current assets, groups of assets or activities held for sale are measured at the lower of their carrying amount and their fair value (estimated selling price), net of selling costs. They are presented on a separate line in assets and liabilities and are no longer amortized or depreciated.

Only entire business lines of discontinued operations are disclosed separately in the income statement.

2.12 Provisions

A provision is recognized when, at the reporting date, the Group has a present obligation (legal or constructive) as a result of a past event and it is probable that an outflow of resources embodying future economic benefits will be required to settle the obligation.

Provisions are discounted to present values if the time value of money is material (for example, in the event of provisions for environmental risks or site clean-up costs). The increase in the provisions associated with the passage of time is recognized as a financial expense.

In the case of restructuring, a provision may be recognized only if, at the reporting date, the Company has announced the restructuring and drawn up a detailed plan or started to implement the plan.

Provisions are booked with regard to disputes (technical, guarantees, tax audits, etc.) if the Group has an obligation to a third party at the reporting date. They are determined based on the best estimate of the expense likely to be required to settle the obligation.

2.13 Retirement commitments and similar obligations

The Group participates in the funding of supplementary retirement plans and other long-term employee benefits, in accordance with constructive or legal requirements. The Group offers these benefits by means of either defined-contribution or defined-benefit plans.

In the case of defined-contribution plans, the Group's only obligation is the payment of premiums. Contributions paid to the plans are recognized as expenses for the period. If applicable, provisions are recognized for outstanding contributions at the reporting date.

Provisions are recognized for retirement commitments and similar obligation arising from defined benefit plans and are measured based on an actuarial calculation performed at least once a year by independent actuaries. The projected unit credit method is applied as follows: each period of service creates an additional unit of benefit entitlement, and each of these units is measured separately to determine the Group's employee benefit obligations.

The calculations take into account the specific features of the various plans and assumptions for the retirement date, career advancement, salary increases, as well as the probability of the employee still being employed by the Group at retirement age (turnover rates, mortality tables, etc.). The obligation is discounted based on the interest rates of long-term bonds of prime issuers.

Retirement commitments and similar obligations mainly relate to the Group's French subsidiaries and its subsidiaries in Germany, the United Kingdom, the United States and Brazil.

Other employee benefits for which the Group recognizes provisions are:

- in the case of French and foreign subsidiaries, benefits in connection with long-service awards;
- in the case of certain subsidiaries in the United States and Brazil, coverage of medical expenses.

The obligation is presented on the statement of financial position, net of plan assets measured at fair value (if applicable).

2.14 Share-based payments

IFRS 2 "Share-based Payment" requires the measurement and recognition of the benefits arising from share option and performance share allocation plans that are equivalent to compensation of the beneficiaries: these are recognized as payroll costs spread over the vesting period, with a corresponding increase in equity.

Changes in value after the award date have no impact on the option's initial measurement. The number of options taken into account in measuring the plan is adjusted at each reporting date to reflect the probability of the beneficiaries' continued service at the end of the vesting period.

- Some members of executive management and employees benefit from the share subscription or share purchase options that entitle them to purchase an existing share or to subscribe to a capital increase at an agreed price.

  Options must be measured using the Black & Scholes model on the date they are awarded.
- Some members of executive management and employees benefit from share allocation plans where vesting conditions are related to performance criteria (percentage of consolidated EBITDA). These plans are measured using a binomial model to project share prices.
- Vallourec offers employee shareholding plans reserved for its employees. These plans are measured using a binomial model to project share prices.

2.15 Treasury shares

Treasury shares held by the Group are recognized at their acquisition cost as a deduction from equity. Proceeds from the sale of these shares are booked directly as an increase in equity so that gains or losses on disposal do not affect consolidated profit.

2.16 Financial instruments

Financial instruments include financial assets and liabilities as well as derivatives.

The presentation of financial instruments is defined by IFRS 7 and IAS 32. The measurement and recognition of financial instruments are governed by IAS 39 and IFRS 13.

Changes in the fair value of derivatives are recognized in the financial statements. Changes in the fair value of hedged items are also recognized at each reporting date (see paragraph 2.16.4 – Derivative instruments and hedge accounting).

In addition, in accordance with IAS 32, the sale of puts to non-controlling interest shareholders of a company under exclusive control results in the recognition of a financial liability equal to the discounted fair value of the estimated repurchase amount. The Group recognizes this financial liability by deducting it from the amount attributable to non-controlling interests and, for the remaining portion of the liability, by deducting it from equity, Group share.

2.16.1 FINANCIAL ASSETS (EXCLUDING HEDGE DERIVATIVES)

Financial assets include:

- non-current financial assets: other equity interests and associated receivables, construction participation loans and guarantees;
- current financial assets, including accounts receivable and other trade receivables, short-term derivative instruments and cash and cash equivalents (investment securities).

Initial measurement

Non-derivative financial assets are initially measured at fair value on the transaction date, including transaction costs, except for assets measured at fair value through profit or loss.

In most cases, the fair value on the transaction date is the historical cost, (i.e. the acquisition cost of the asset).

Classification and measurement at the end of the reporting period

Financial assets (excluding hedging derivatives) are classified according to IAS 39 in one of the following four categories for their measurement on the balance sheet:

Category	Measurement	Recognition of changes in value
Financial assets measured at fair value through profit or loss	Fair value	Changes in fair value recognized in profit or loss
Held-to-maturity assets	Amortized cost	Not applicable
Loans and receivables	Amortized cost	Not applicable
Available-for-sale financial assets	General convention: fair value But amortized cost for equity instruments whose fair value cannot be reliably estimated (e.g. shares not listed on an active market)	Changes in fair value recognized in other comprehensive income Not applicable

Financial assets for which changes in fair value are recognized in profit or loss

This category of assets includes:

- assets held for transactional purposes, i.e. that have been acquired by the business with the aim of generating short-term income; in the Group, the assets concerned are all cash assets (investment securities, cash and cash equivalents, etc.).

  Investment securities (French SICAV and FCP mutual funds, etc.) are measured at fair value at the reporting date, and changes in fair value are recognized in financial income/(loss). They are therefore not tested for impairment. Fair value is determined mainly by reference to market quotations;
- asset derivative instruments that are not expressly designated as hedging instruments.

Held-to-maturity assets

These are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Company has the intention and ability to hold to maturity, other than loans and receivables and financial assets classified by the Company in the other two categories (measured at fair value through profit or loss; available-for-sale).

In the Group, the only assets in this category are security deposits and guarantees.

Loans and receivables

These are mainly non-derivative financial assets with fixed or determinable payments that are not listed on an active market.

In the Group, this category includes:

- receivables associated with participating interests, long-term loans and construction participation loans;
- accounts receivable and other trade receivables.

The amortized cost of short-term receivables such as trade receivable is usually equal to their historical cost.

Loans to employees are measured using the effective interest rate method applied to estimated future cash flows until the maturity dates of the loans.

Available-for-sale financial assets

Available-for-sale financial assets are mainly those that have not been classified in any of the other three categories.

In the Group, the main assets in this category are investments in equity instruments. In general, these are:

- unlisted shares whose fair value cannot be reliably estimated. They are recorded at their cost and undergo impairment testing when the consolidated financial statements are prepared;
- listed shares measured at their fair value at the reporting date. This fair value is determined based on the stock market price at the reporting date.

Changes in fair value are recognized directly in equity, unless a significant or long-term fall in fair value below the acquisition cost is recorded. In this case, the corresponding loss is definitively recorded in the income statement.

The “significant or long-term” nature is defined in Note 4 – Other non-current assets, on a case-by-case basis.

Impairment testing of financial assets

Financial assets measured at amortized cost and available-for-sale financial assets measured at cost must be tested for impairment at each reporting date if there is any indication of impairment, such as:

- significant financial difficulties or a high probability that the counterparty will suffer bankruptcy or restructuring;
- a high risk of non-recovery of receivables;
- the lender, for economic or legal reasons relating to the borrower’s financial difficulties, granting the borrower payment facilities not initially provided for;
- an effective breach of contract, such as the failure to make a payment (of interest, principal or both);
- the disappearance of an active market for the financial asset concerned.

In the case of assets measured at amortized cost, the amount of impairment is equal to the difference between the carrying amount of the asset and the present value of the estimated future cash flows, taking into account the counterparty’s situation, and determined on the basis of the financial instrument’s original effective interest rate.

The impairment thus determined is recognized in financial income or loss for the period.

As regards held-to-maturity investment and loans and receivables, if, during subsequent financial years, the conditions that led to the impairment cease to exist, the impairment must be reversed, although the reversal must not result in a carrying amount that, on the date the impairment is reversed, exceeds what the amortized cost would have been had the impairment not been recognized.

As regards unlisted equity interests classified as available-for-sale whose fair value cannot be reliably determined, no impairment previously recognized in the income statement may be reversed in subsequent periods, even in the event of an increase in the value of the securities concerned.

2.16.2 CASH AND CASH EQUIVALENTS

This item consists of bank current account balances and investment securities (units in short-term cash UCITS and mutual and investment funds) that are immediately available (not pledged), risk-free and have a low volatility level.

The cash flow statement is drawn up on the basis of the cash as defined above, net of overdrafts and other short-term bank borrowings that mature in less than three months.

The net debt referred to in the cash flow statement corresponds to total financial debt less cash and cash equivalents.

2.16.3 FINANCIAL LIABILITIES

The Group's financial liabilities include bank loans which bear interest, bond issues and finance leases, as well as liability derivatives.

Borrowings are classified as current liabilities for the portion to be repaid within 12 months after the reporting date and as non-current liabilities for payments due in more than 12 months.

Interest-bearing borrowings are initially recorded at fair value less associated transaction costs. These costs (loan issue expenses and premiums) are taken into account in the calculation of the amortized cost using the effective interest rate method. They are recognized in financial profit or loss on an actuarial basis over the life of the liability.

At each reporting date, financial liabilities are then measured at amortized cost using the effective interest rate method, in addition to the specific procedures associated with hedge accounting (see below).

Variable rate borrowings for which interest rate swaps have been entered into are accounted for using the cash flow hedge method. Changes in the fair value of swaps, linked to movements in interest rates, are recognized in equity for the effective portion, with the balance being recognized in financial profit or loss.

2.16.4 DERIVATIVE INSTRUMENTS AND HEDGE ACCOUNTING

Group exposure to foreign exchange risk on commercial transactions

In addition to the hedging of certain financial liabilities (see paragraph 2.16.3), the Group enters into hedging contracts mainly to manage its exposure to foreign exchange risks arising from the orders and sales of certain subsidiaries in currencies other than their functional currency. In particular, a significant share of Vallourec's revenue is invoiced by European companies in US dollars. Exchange rate fluctuations between the euro and the dollar may therefore affect the Group's operating margin.

The Group manages its exposure to foreign exchange risk by setting up hedges based on regularly updated forecasts of customer orders. Operating receivables and incomes that will be generated by the orders are thus hedged by financial instruments, mainly forward currency sales.

To a lesser extent, the Group also enters into forward currency purchases to hedge its foreign currency purchase commitments.

Measurement and presentation of derivatives

Changes in the value of derivatives with respect to their date of implementation are measured at each reporting date.

The fair value of forward currency contracts is calculated on the basis of market data and conditions. Since they hedge commercial transactions, these derivatives are presented on the statement of financial position under current assets and current liabilities.

Hedge accounting

Hedging of commercial transactions falls within the category of cash flow hedges.

The Group applies hedge accounting in strict compliance with the criteria of IAS 39:

- documentation of the hedging relationship: nature of the underlying hedged item, term of the hedge, hedging instrument used, spot rate of the hedge, forward points etc.;
- in the case of cash flow hedges, carrying out an effectiveness test on implementation of the derivative and updating the test at least once per quarter.

Hedge accounting within the Group is as follows:

At the reporting date, changes in the hedging instrument with respect to its date of implementation are measured at fair value and recognized on the statement of financial position as derivative assets or liabilities. The following are shown separately:

- the change in the intrinsic value of the hedging instrument (difference between the spot rate on the date of implementation of the hedge and the spot rate on the measurement date, i.e. the reporting date).

  If the hedge is effective, and as long as the sale (or purchase) hedged is not recognized, changes in the intrinsic value are recognized in equity, in accordance with the principles of cash-flow hedge accounting,

  If the hedging instrument is not effective (a rare occurrence, given the procedures introduced by the Group), the change in the intrinsic value of the derivative is recognized in financial income or loss;
- the change in the time value (premium/discount). This change is systematically recognized in financial profit or loss, since this component is not included in the hedging relationship.

The revenue (purchase) corresponding to the sales forecasts (purchase orders) hedged is recognized at the spot rate on the date of implementation of the hedging contract. The account receivable (account payable) is initially recognized at the same spot rate.

At the end of each reporting period, hedged foreign currency accounts receivable and accounts payable are measured and recognized at the exchange rate applicable on the reporting date. The difference between that rate and the rate used on initial recognition (spot rate on the date of implementation of the hedge) or the rate applicable on the last reporting date constitutes an exchange gain or loss recognized in financial profit or loss for the period.

Once the hedged item (foreign currency receivable or payable) is recorded on the statement of financial position, the change in the intrinsic value of the hedging instrument previously recognized in equity is recorded in financial income or loss. Changes in the value of the hedging instrument and the receivable or debt covered then have a symmetrical impact on financial income or loss.

2.17 Income tax

Income tax expense comprises current tax and deferred tax.

In accordance with IAS 12, deferred taxes are recognized, using the liability method, for temporary differences existing at the reporting date between the tax bases of assets and liabilities and their carrying amounts and unused tax losses, under the conditions set out below.

The main types of deferred tax recognized are:

- long-term deferred tax assets (provisions for retirement commitment of French companies), which are likely to be recovered in the foreseeable future;
- deferred tax assets for short-term recurring items (provision for paid time off, etc.) or non-recurring items (employee profit-sharing, provisions for liabilities that are not deductible for tax purposes, etc.) when they are likely to be recovered in the foreseeable future;
- deferred tax associated with the cancellation of entries made solely for tax purposes in local financial statements (regulated provisions, etc.) and any restatements to ensure the consistency and comparability of the parent company or consolidated financial statements;
- tax loss carryforwards.

The rates used to calculate deferred taxes are the tax rates expected to apply during the period in which the asset will be realized or the liability settled, based on tax regulations that have been adopted or substantially adopted at the reporting date.

Deferred taxes are not discounted to present value.

Current and deferred tax expenses are recognized as income or expenditure in the income statement unless they relate to a transaction or event that is recognized under other comprehensive income or directly in equity (see hedge accounting in paragraph 2.16.4 and actuarial gains and losses on post-employment obligations in 2.13 – Retirement benefits and similar obligations).

Deferred taxes are presented on separate lines in the statement of financial position under non-current assets and non-current liabilities.

Net deferred tax assets are recognized only for those companies and tax groups that, based on a review at each reporting date, appear reasonably likely to recover these assets in the foreseeable future.

2.18 Revenue

Revenues from the sale of finished goods are recognized in the income statement when the following conditions are satisfied:

- the main risks and rewards of ownership have been transferred to the buyer;
- the seller retains neither managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- it is likely that the financial benefits associated with the sale will flow to the entity;
- the amount of the revenues and costs incurred (or to be incurred) as a result of the sale can be reliably determined.

Revenues from services are recognized in the income statement in proportion to the stage of completion at the reporting date.

No revenue is recognized if there are significant uncertainties as to the recovery of the amount due or the associated costs.

In the event of a sale with reservation of title, the sale is recognized on delivery of the goods if the risks and rewards have been transferred to the buyer.

Revenues are measured at the fair value of the consideration received or receivable, as determined by the agreement entered into between the Company and the customer, net of any trade discounts or volume rebates agreed.

See paragraphs 2.4.2 and 2.16.4 for the procedures for recognizing sales denominated in foreign currencies.

2.19 Determination of operating income

The income statement format used by the Group employs a classification by function.

Operating income or loss is calculated as the difference between pre-tax revenues and expenses other than those of a financial nature or relating to the income or losses of associates, and excluding any income or losses from discontinued operations or assets held for sale.

EBITDA is an important indicator for the Group, enabling it to measure its performance from continuing operations. It is calculated by taking operating profit before amortization and depreciation and excluding certain operating revenues and expenses that are unusual in nature or occur rarely, such as:

- impairment of goodwill and fixed assets determined in the context of impairment tests in accordance with IAS 36 (see paragraph 2.9);
- significant restructuring expenses, or those related to adjustments to headcount in respect of major events or decisions;
- capital gains or losses on disposals;
- revenue and expenses resulting from major litigation, significant roll-out operations or capital transactions (e.g. costs of integrating a new activity).

2.20 Earnings per share

Earnings per share are calculated by dividing consolidated net profit or loss by the weighted average number of shares outstanding during the fiscal year.

Diluted earnings per share are calculated taking into account the maximum impact of the conversion of dilutive common shares (options, performance shares) and using the "share repurchase" method as defined in IAS 33 "Earnings per Share".

3. Segment information

The segments presented according to the Group's internal organization comply with the definition of operating segments identified and grouped according to IFRS 8. This information corresponds to that reviewed by the Executive Committee.

The Group presents its segment information based on the following operating segments, reconciled with consolidated data:

- Seamless tubes. This segment covers all the entities with production and marketing plants dedicated to the Group's main activity, i.e. the production of hot-rolled seamless carbon and alloy steel tubes, both smooth and threaded, for the oil and gas industry. This activity is characterized by a highly integrated manufacturing process, from production of the steel and hot-rolling to the final stages, facilitating the manufacture of products that are suitable for a variety of markets (including oil & gas, power generation, chemicals and petrochemicals, automotive and mechanical engineering);
- Specialty Products. This segment incorporates a number of activities whose characteristics are very different from those described above, but which are not presented separately due to their relative immateriality. This treatment is authorized by IFRS 8. This activity includes the production of stainless steel and titanium tubes as well as specific forming and machining activities.

In addition, geographical information is presented, distinguishing between five areas determined based on an analysis of the specific risks and returns associated with them:

- the European Union;
- North America (United States, Mexico and Canada);
- South America (mainly Brazil);
- Asia;
- rest of the world (mainly the Middle East).

Operating segments

Note 32 shows, for each operating segment, information on the income and results as well as selected information on the assets, liabilities and capital expenditure for fiscal years 2016 and 2015.

Geographical information

In addition to segment information, Note 32 shows, by geographical area, information on sales (by geographical location of customers), capital expenditure and selected information on assets (by operating areas) for fiscal years 2016 and 2015.

B – Consolidation scope

	% interest 31/12/2015	% control 31/12/2015	% interest 31/12/2016	% control 31/12/2016
Fully consolidated companies				
Kestrel Wave Investment Ltd – Hong Kong	100.0	100.0	100.0	100.0
P.T. Citra Tubindo Tbk – Indonesia	81.72	81.72	81.72	81.72
Serimax Angola Ltd – United Kingdom (4)	100.0	100.0	80.0	80.0
Serimax Australia Pty Ltd – Australia (4)	100.0	100.0	80.0	80.0
Serimax Do Brasil Serviços de Soldagem e Fabricaçao Ltda – Brazil (4)	100.0	100.0	80.0	80.0
Serimax Field Joint Coating Ltd – United Kingdom (4)	60.0	100.0	48.0	80.0
Serimax Holdings S.A.S. – France (4)	100.0	100.0	80.0	80.0
Serimax Ltd – United Kingdom (4)	100.0	100.0	80.0	80.0
Serimax North America Llc – United States (4)	100.0	100.0	80.0	80.0
Serimax OOO – Russia (4)	100.0	100.0	80.0	80.0
Serimax Russia S.A.S. – France (4)	100.0	100.0	80.0	80.0
Serimax S.A.S. – France (4)	100.0	100.0	80.0	80.0
Serimax South East Asia Pte Ltd – Singapore (4)	100.0	100.0	80.0	80.0
Serimax Welding Services Malaysia sdn bhd – Malaysia (4)	100.0	100.0	80.0	80.0
Tianda Oil Pipe Co. Ltd – China (5)	19.5	19.5	99.0	99.0
Tubos Soldados Atlântico – Brazil	100.0	100.0	100.0	100.0
Umax Services Ltd – Great Britain	100.0	100.0	-	-
Vallourec Al Qahtani Tubes LLC – Saudi Arabia	75.0	75.0	75.0	75.0
Valinox Nucléaire S.A.S. – France	100.0	100.0	100.0	100.0
Valinox Nucléaire Tubes Guangzhou Co. Ltd – China	100.0	100.0	100.0	100.0
Vallourec Changzhou Co. Ltd – China	100.0	100.0	100.0	100.0
Vallourec Asia Pacific Corp. Pte Ltd – Singapore	100.0	100.0	100.0	100.0
Vallourec Automotive Components (Changzhou) Co., Ltd – China (1)	95.0	100.0	-	-
Vallourec Bearing Tubes – France	100.0	100.0	100.0	100.0
Vallourec Beijing Co. Ltd – China	100.0	100.0	100.0	100.0
Vallourec Canada Inc. – Canada	100.0	100.0	100.0	100.0
Vallourec Deutschland GmbH – Germany	100.0	100.0	100.0	100.0
Vallourec Drilling Oil Equipment Manufacturing LLC – United Arab Emirates	100.0	100.0	100.0	100.0
Vallourec Drilling Products France – France	100.0	100.0	100.0	100.0
Vallourec Drilling Products Middle East FZE – Dubai	100.0	100.0	100.0	100.0
Vallourec Drilling Products USA Inc. – United States	100.0	100.0	100.0	100.0
Vallourec Fittings – France	100.0	100.0	100.0	100.0
Vallourec Florestal Ltda – Brazil	100.0	100.0	100.0	100.0
Vallourec Heat Exchanger Tubes – France (1)	95.0	95.0	-	-
Vallourec Heat Exchanger Tubes (Changzhou) Co., Ltd – China (1)	62.5	100.0	-	-
Vallourec Heat Exchanger Tubes Asia – France (1)	62.5	65.8	-	-
Vallourec Heat Exchanger Tubes Inc. – United States (1)	95.0	100.0	-	-
Vallourec Heat Exchanger Tubes Ltd – India (1)	95.0	100.0	-	-
Vallourec Holdings Inc. – United States	100.0	100.0	100.0	100.0
Vallourec Industries Inc. – United States	100.0	100.0	100.0	100.0
Vallourec Middle East FZE – United Arab Emirates	100.0	100.0	100.0	100.0

	% interest 31/12/2015	% control 31/12/2015	% interest 31/12/2016	% control 31/12/2016
Vallourec Mineração Ltda – Brazil	100.0	100.0	100.0	100.0
Vallourec Nigeria Ltd – Nigeria	100.0	100.0	100.0	100.0
Vallourec O and G Nigeria Ltd – Nigeria	100.0	100.0	100.0	100.0
Vallourec Oil & Gas (China) Co., Ltd – China	100.0	100.0	100.0	100.0
Vallourec Oil & Gas France S.A.S. – France	100.0	100.0	100.0	100.0
Vallourec Oil & Gas Kenya Limited. – Kenya	-	-	100.0	100.0
Vallourec Oil & Gas Nederland B.V. - Netherlands	100.0	100.0	100.0	100.0
Vallourec Oil & Gas UK Ltd – United Kingdom	100.0	100.0	100.0	100.0
Vallourec Oil & Gas Mexico SA de CV – Mexico	100.0	100.0	100.0	100.0
Vallourec One S.A.S. – France	100.0	100.0	100.0	100.0
Vallourec Russia – Russia	100.0	100.0	100.0	100.0
Vallourec S.A. – France	100.0	100.0	100.0	100.0
Vallourec Saudi Arabia Ltd – Saudi Arabia	80.0	80.0	80.0	80.0
Vallourec Services S.A. – France	100.0	100.0	100.0	100.0
Vallourec Star, LP – United States	80.5	80.5	80.5	80.5
Vallourec Soluções Tubulares do Brasil – Brazil (3)	-	-	84.6	84.6
Vallourec Transportes e Serviços do Brasil Ltda – Brazil	100.0	100.0	100.0	100.0
Vallourec Tube-Alloy LP – United States	100.0	100.0	100.0	100.0
Vallourec Tubes France S.A.S. – France	100.0	100.0	100.0	100.0
Vallourec Tubes S.A.S. – France	100.0	100.0	100.0	100.0
Vallourec Tubos do Brasil S.A. – Brazil	100.0	100.0	100.0	100.0
Vallourec Umbilicals S.A.S. – France	100.0	100.0	100.0	100.0
Vallourec Uruguay – Uruguay	100.0	100.0	-	-
Vallourec USA Corporation – United States	100.0	100.0	100.0	100.0
VAM Changzhou Oil & Gas Premium Equipments – China (2)	51.0	50.0	100.0	100.0
VAM Far East – Singapore	51.0	51.0	51.0	51.0
VAM Field Services Angola – Angola	100.0	100.0	100.0	100.0
VAM Field Services Beijing – China	51.0	51.0	51.0	51.0
VAM Holding Hong Kong Limited – Hong Kong (2)	51.0	50.0	100.0	100.0
VAM USA – United States	51.0	51.0	51.0	51.0
Joint operations				
Vallourec & Sumitomo Tubos do Brasil Ltda – Brazil (3)	56.0	50.0	-	-
Associates				
Hüttenwerke Krupp Mannesmann (HKM) – Germany	20.0	20.0	20.0	20.0
Poongsan Valinox – Korea (1)	47.5	50.0	-	-
Xi'an Baotimet Valinox Tubes – China (1)	37.1	49.0	-	-

- The main changes in scope of consolidation in fiscal year 2016 were as follows:

(1) On 29 April 2016, Vallourec completed the sale of its subsidiary Vallourec Heat Exchanger Tubes to American Industrial Acquisition Corporation (AIAC).

(2) In August 2016, Vallourec acquired all shares in VAM Holding Hong Kong Ltd, a holding company, and in Vam Changzhou Oil and Gas (a threading business in China). These two companies are consolidated as joint operations until 30 September 2016, then fully consolidated into the Group's financial statements.

(3) On 1 October 2016, Vallourec completed the contribution of the tubular activity of Vallourec Tubos do Brasil (VBR), a wholly-owned subsidiary, to Vallourec & Sumitomo Tubos do Brasil (VSB), a joint operation in which Vallourec holds a 56% interest. This transaction resulted in Vallourec acquiring control of VSB (renamed Vallourec Soluções Tubulares do Brasil), by increasing its holding from 56% to 84.6%, with the remaining 15.4% non-controlling interests being transferred to the NSSMC and Sumitomo Corp. partners. The new entity, VSB, is fully consolidated in the Group's financial statements as of 1 October 2016, and the Japanese partners' interests are recorded as non-controlling interests.

(4) On 28 October 2016, Serimax and Technip finalized a strategic partnership in the field of offshore pipeline welding. As part of this partnership, Technip acquired a 20% shareholding in Serimax.

(5) As of 2 December 2016, Vallourec holds 99.0% of the capital of Tianda Oil Pipe after acquiring in November a majority share of 50.6% and 28.9% by an unconditional mandatory takeover bid followed by withdrawal from the Hong Kong stock market. Tianda Oil Pipe was consolidated using the equity method (19.5%) for 2016 and the acquisition was recorded in the Group's balance sheet as at 31 December 2016.

The effects of the main transactions are set out in detail in Note 34. If the changes in scope had taken place on 1 January 2016, Group revenue would have stood at €3,277 million, compared to €2,965 million.

There are no significant unconsolidated subsidiaries or interests.

- There was no significant change in scope in fiscal year 2015.

C – Notes to the financial statements (in € thousand)

Notes 1 to 20 provide details of changes in balance sheet.

During the 2016 fiscal year, for each item under assets and liabilities, the changes in scope described in Section 6.1.7.B were presented in detail in two specific lines:

- “Acquisitions from business combinations”. These concern the full consolidation of Vallourec & Sumitomo Tubos do Brasil, Tianda Oil Pipe, VAM Holding Hong Kong, and VAM Changzhou leading to the recording of the assets and liabilities of these entities at fair value.
- “Disposals from business combinations”. These concern the disposal of assets and liabilities held by companies previously under joint control (Vallourec & Sumitomo Tubos do Brasil (56%), VAM Holding Hong Kong (51%) and VAM Changzhou (51%)).

NOTE 1 Intangible assets and goodwill

	Concessions, patents, licenses and other rights	Other intangible assets	Total intangible assets	Goodwill
GROSS VALUES				
As at 31/12/2014	**99,805**	**494,489**	**594,294**	**550,994**
Acquisitions	711	1,896	2,607	-
Disposals	(272)	(556)	(828)	-
Reclassification to assets held for sale and discontinued operations	(3,556)	(12,620)	(16,176)	(6,415)
Impact of changes in exchange rates	(3,255)	36,585	33,330	53,124
Other changes	6,096	2,476	8,572	
As at 31/12/2015	**99,529**	**522,270**	**621,799**	**597,703**
Acquisitions	412	1,091	1,503	-
Disposals	-	(575)	(575)	-
Acquisitions from business combinations (see Note 34)	1,044	-	1,044	40,239
Disposals from business combinations	(5,332)	-	(5,332)	-
Reclassification to assets held for sale and discontinued operations	(1,132)	-	(1,132)	-
Impact of changes in exchange rates	3,207	17,398	20,605	18,693
Other changes	(3,764)	1,773	(1,991)	(3,509)
AS AT 31/12/2016	**93,964**	**541,957**	**635,921**	**653,126**
DEPRECIATION AND IMPAIRMENT				
AS AT 31/12/2014	**(71,420)**	**(356,964)**	**(428,384)**	**(218,776)**
Net depreciation expenses for the fiscal year	(7,100)	(26,999)	(34,099)	-
Impairment (see Notes 2.3, 28 and 29)	-	-	-	(36,316)
Disposals	268	495	763	-
Reclassification to assets held for sale and discontinued operations	3,306	11,657	14,963	6,415
Impact of changes in exchange rates	3,266	(30,353)	(27,087)	(19,457)
Other changes	989	(123)	866	-
As at 31/12/2015	**(70,691)**	**(402,287)**	**(472,978)**	**(268,134)**
Net depreciation expenses for the fiscal year	(6,898)	(25,236)	(32,134)	-
Impairment (see Notes 2.3, 28 and 29)	(82)	-	(82)	-
Disposals	-	569	569	-
Disposals from business combinations	4,640	-	4,640	-
Reclassification to assets held for sale and discontinued operations	888	-	888	-
Impact of changes in exchange rates	(2,863)	(12,681)	(15,544)	(5,948)
Other changes	3,086	616	3,702	3,640
AS AT 31/12/2016	**(71,920)**	**(439,019)**	**(510,939)**	**(270,442)**
NET VALUES				
As at 31/12/2015	**28,838**	**119,983**	**148,821**	**329,569**
AS AT 31/12/2016	**22,044**	**102,938**	**124,982**	**382,684**

Intangible assets

Vallourec devotes significant efforts on an on-going basis to Research and Development, particularly in the field of energy. These efforts cover three main areas:

- manufacturing processes (charcoal, steel-making, tube-rolling, non-destructive testing, forming, welding and machining);
- new products and product improvements;
- new services (customer support for tube design, use and processing).

No costs were identified in connection with major projects that meet the criteria for capitalization as assets.

Other intangible assets relate to technology and know-how, trademarks, order books and customer relationships acquired mainly in connection with business combinations. They are amortized on a straight-line basis over their useful life (amortization period of 5.5 to 15 years).

Other than goodwill, there are no intangible assets with indefinite useful lives.

Goodwill

Cash-generating unit (CGU) (see Section 2.9 – Impairment of property, plant and equipment and intangible assets)	Vallourec do Brasil	Vallourec North America	Vallourec Europe	Serimax	Others	Total
As at 31/12/2014	**3,136**	**292,583**	-	**36,316**	**183**	**332,218**
Impact of changes in exchange rates	(55)	33,905	-		(183)	33,667
Impairment (see Notes 2.3, 28 and 29)	-	-	-	(36,316)	-	(36,316)
As at 31/12/2015	**3,081**	**326,488**	-	-	-	**329,569**
Impact of changes in exchange rates and other	2,021	10,855	-	-	-	12,876
Impairment (see Notes 2.3, 28 and 29)	-	-	-	-	-	-
Acquisitions (see Note 34)	35,625	-	4,614	-	-	40,239
AS AT 31/12/2016	**40,727**	**337,343**	**4,614**	**-**	**-**	**382,684**

The impairment tests as at 31 December 2016 are presented in Note 2.3.

NOTE 2.1 Property, plant and equipment

	Land	Buildings	Technical installations, industrial equipment and tools	Current property, plant and equipment	Other tangible assets	Total
GROSS VALUES						
As at 31/12/2014	**118,326**	**972,721**	**4,694,984**	**328,406**	**291,808**	**6,406,246**
Acquisitions	974	6,209	23,175	187,181	17,469	235,008
Disposals	(14)	(6,442)	(51,313)	(142)	(11,746)	(69,657)
Reclassification to assets held for sale and discontinued operations	(1,410)	(13,217)	(62,589)	(1,717)	(3,353)	(82,286)
Impact of changes in exchange rates	(15,950)	(36,652)	(162,885)	(19,638)	(20,201)	(255,326)
Other changes	2,524	35,985	189,714	(253,054)	(3,743)	(28,574)
As at 31/12/2015	**104,450**	**958,604**	**4,631,086**	**241,036**	**270,234**	**6,205,411**
Acquisitions	-	7,055	38,538	110,819	11,978	168,390
Disposals	(3,511)	(1,424)	(41,655)	(2,822)	(6,930)	(56,342)
Reclassification to assets held for sale and discontinued operations	(200)	(59,649)	(230,658)	(3,440)	(1,998)	(295,945)
Acquisitions from business combinations (see Note 34)	23,570	106,734	600,149	31,486	3,492	765,431
Disposals from business combinations	(2,803)	(196,442)	(758,293)	(17,294)	(29,634)	(1,004,466)
Impact of changes in exchange rates	15,625	65,254	319,974	13,207	35,968	450,028
Other changes	13,729	27,068	211,756	(238,585)	104,722	118,690
AS AT 31/12/2016	**150,860**	**907,200**	**4,770,897**	**134,407**	**387,832**	**6,351,197**
DEPRECIATION AND IMPAIRMENT						
As at 31/12/2014	**(27,610)**	**(408,164)**	**(2,298,490)**	**(4,685)**	**(144,048)**	**(2,882,997)**
Net depreciation expenses for the fiscal year	(1,263)	(34,329)	(209,611)	(94)	(54,600)	(299,897)
Impairment losses (Note 2.3)	-	(26,059)	(135,796)	(800)	(547)	(163,202)
Disposals	-	3,015	44,678	-	11,270	58,963
Reclassification to assets held for sale and discontinued operations	-	7,823	48,811	-	2,164	58,798
Impact of changes in exchange rates	4,622	26,287	127,788	(210)	10,504	168,991
Other changes	(74)	960	(6,495)	964	19,639	14,994
As at 31/12/2015	**(24,325)**	**(430,467)**	**(2,429,115)**	**(4,825)**	**(155,618)**	**(3,044,350)**
Net depreciation expenses for the fiscal year	(1,324)	(32,533)	(221,442)	837	(37,963)	(292,425)
Impairment losses (Note 2.3)	(10,013)	(207)	(44,356)	(3,034)	(462)	(58,072)
Disposals	3,510	2,399	36,723	2,593	2,020	47,245
Disposals from business combinations	1,340	112,777	448,316	-	13,010	575,443
Reclassification to assets held for sale and discontinued operations	48	56,431	218,413	-	1,793	276,685
Impact of changes in exchange rates	(4,927)	(26,159)	(151,007)	122	(16,529)	(198,500)
Other changes	(6,321)	(11,719)	(9,466)	445	(12,548)	(39,609)
AS AT 31/12/2016	**(42,012)**	**(329,478)**	**(2,151,934)**	**(3,862)**	**(206,297)**	**(2,733,583)**
NET VALUES						
As at 31/12/2015	**80,125**	**528,137**	**2,201,971**	**236,211**	**114,616**	**3,161,061**
AS AT 31/12/2016	**108,848**	**577,722**	**2,618,963**	**130,545**	**181,535**	**3,617,614**

"Impairment losses" recorded as at 31 December 2016 are primarily linked to the strategic initiatives announced on 1 February 2016, chiefly consisting in the closure of two rolling mills (Saint-Saulve and Deville in France), one threading line (Mülheim in Germany), one heat treatment line (Bellshill in Scotland), and a blast furnace in Brazil.

Capital expenditure excluding changes in scope

	2015		2016	
	Intangible assets and property, plant and equipment	Biological	Intangible assets and property, plant and equipment	Biological (see Note 2.2)
Europe	108,711	-	95,600	-
North America	66,370	-	18,001	-
South America	46,396	13,193	47,151	6,584
Asia	15,501	-	9,020	-
Others	637	-	120	-
TOTAL	**237,615**	**13,193**	**169,892**	**6,584**
	250,808		**176,476**	
Note 1: acquisition of intangible assets	2,607	-	1,503	-
Note 2.1: acquisition of property, plant and equipment	235,008	13,193	168,390	6,584
TOTAL CAPITAL EXPENDITURE	**237,615**	**-**	**169,893**	**-**
Changes in fixed asset liabilities and partner contributions	17,295		(1,090)	
TOTAL	**254,910**	**13,193**	**168,802**	**6,584**
Statement of cash flows: capital expenditure paid out during the period:	268,103		175,386	

Leases

The finance lease signed in 2010 by Vallourec Soluções Tubulares do Brasil (formerly VSB) for the construction of a water treatment facility had a net carrying amount of €72 million as at 31 December 2016.

NOTE 2.2 Biological assets

Change in biological assets	2015	2016
As at 1 January	**213,923**	**154,694**
Investments	13,193	6,584
Valuation at fair value	9,848	6,756
Net depreciation expenses for the period	(12,915)	(7,237)
Impairment losses	(7,290)	(3,957)
Reclassification to inventory	(8,744)	(9,660)
Foreign exchange differences	(53,321)	28,033
Other changes	-	(86,802)
AS AT 31 DECEMBER	**154,694**	**88,411**

The Group's Brazilian subsidiary Vallourec Florestal cultivates eucalyptus plantations mainly to produce the charcoal used in the blast furnaces of Vallourec do Brasil and Vallourec & Sumitomo do Brasil.

As at 31 December 2016, the company cultivated approximately 113,224 hectares of eucalyptus over a total area of 230,441 hectares.

In 2016, Vallourec Florestal posted revenue of €54.2 million, against €68.7 million in 2015.

As a result of the amendments to IAS 16 and IAS 41 applicable as of 1 January 2016, eucalyptus roots are considered as bearer biological assets, and are reclassified under property, plant and equipment (see Note 2.1).

NOTE 2.3 Impairment of property, plant and equipment and intangible assets

Cash-Generating Units

As at 31 December 2015, the main CGUs used in the Group's configuration and organization were Vallourec Europe, Vallourec do Brasil, Vallourec North America, Vallourec Heat Exchanger Tubes, Valinox Nucléaire, Serimax, and Vallourec & Sumitomo Tubos do Brasil.

The contribution of the tubular activity of Vallourec Tubos do Brasil (Vallourec do Brasil CGU) to Vallourec & Sumitomo Tubos do Brazil, on 1 October 2016, led to the combining of assets held in Brazil under a new CGU, Vallourec do Brasil. The figures for Vallourec do Brasil and Vallourec & Sumitomo Tubos Do Brasil between 2015 and 2016 are therefore not comparable. In addition, Vallourec Heat Exchanger Tubes was sold in 2016.

As a result of this new configuration, the Group's CGUs as at 31 December 2016 are Vallourec Europe, Vallourec do Brasil, Vallourec North America, Valinox Nucléaire, and Serimax.

Impairment indications

The Group has faced a deteriorating economic environment since 2014 (a drop in exploration and production investments by oil companies, volatility of raw materials and energy, and a highly competitive international environment) which has continued throughout 2015 and 2016. In response to the continued decline in oil prices since the end of 2014, oil and gas companies have further tightened their cost control, leading them to reduce capital expenditure and rationalize inventories in the areas of exploration, production and development of oil and natural gas reserves. This has had a significant impact on the demand for pipes and on their prices. This reduction in demand, combined with lower prices resulting from competitive pressures from incumbent gas operators and the arrival of new competitors, exacerbated by the deflationary pressures of our customers, has significantly altered the Group's competitiveness and the profitability of activities, and has been analyzed as a general indication of impairment, requiring the implementation of impairment tests for all the Group's CGUs as at 31 December 2014, including those that do not contain intangible assets with an unlimited useful life. This led the Group to recognize an impairment of €1,061 million as at 31 December 2014 on property, plant and equipment and intangible assets of the Vallourec Europe CGU (€539 million) and the Vallourec & Sumitomo do Brasil CGU (€522 million).

The tests performed as at 31 December 2015 led the Group to recognize impairment losses on the Serimax CGU (€36 million impairment of goodwill, see Note 1), in addition to impairments of individual assets that were recognized elsewhere (see Note 2.1).

As at 31 December 2016, the Group has performed impairment tests on all CGUs in order to monitor impairment on property, plant and equipment recorded in 2014.

Test bases

The test bases of the Vallourec Europe and Vallourec North America CGUs consist of the following:

In € million	Vallourec Europe	Vallourec North America
Non-current operating assets	973	1,788
Current operating assets	424	165
Test base	1,397	1,953

The test base of the Vallourec Europe CGU comprises the assets of several subsidiaries that are active in the production cycle of the products marketed by this CGU: rolling mills in France, Germany, and China, and tube finishing lines. The Saint Saulve steel mill was reclassified as at 31 December 2016 under "assets held for sale" and is not included in the test base.

These bases are net of depreciation.

Recoverable value

For each CGU tested, the recoverable value is considered as equal to the value in use.

It therefore corresponds to the present value of the forecasted future cash flows it generates.

Future cash flows

For the term of the BPs, i.e. 5 years

The Group's five-year strategic plan was presented to the Supervisory Board in December 2016. In this plan, the Group used assumptions for 2017 that were consistent with the data recorded in late 2016. Its assumptions also included a gradual recovery of the Oil & Gas business in 2017 in certain markets, and in 2018 for the others.

The next five years should bring a gradual increase in investment by oil companies, as well as a deflationary environment in part offset by (i) optimization of the new industrial routes presented in the Vallourec transformation plan in February 2016, (ii) a favorable change in the values of the main currencies (USD and BRL), and (iii) the benefits of the competitiveness plans launched by the Group since 2015.

Exchange rate assumptions are consistent over the period with those used at the end of 2016.

A three-year extrapolation period from 2022 to 2024

Given that the main players in the Oil & Gas market have been subject to profound structural changes since 2014, the effects of which are expected beyond the five-year period, the return of investment by oil companies to normal levels is not expected by the end of the term of the strategic plan.

These new circumstances have led us to model a three-year extrapolation period after the final year of the strategic plan.

This period, taken into account for the first time in 2016, also makes it possible to gradually converge the revenue growth rates for the final year of the strategic plan towards the perpetuity growth rate.

2025 is projected to perpetuity by applying a growth rate of 1.5% to 2%, depending on the CGU concerned. These perpetuity growth rates take account of long-term inflation and growth forecasts for Vallourec's main markets, particularly Oil & Gas.

Discount rate

The CGU discount rates correspond to their weighted average cost of capital ("WACC"), corresponding to the weighted average cost of equity and the cost of debt after tax.

The main components of weighted average cost of capital are:

- the risk-free rate corresponding to the 10-year French Treasury bond (OAT) rate,
- the systematic risk obtained by combining:
  - the Europe share market risk premium corresponding to the expected yield rate on this market minus the risk-free rate,
  - betas per activity calculated on the basis of samples of listed companies in the sector strictly comparable to the CGU in terms of activity;
- the specific risk linked to countries ("country risk") for activities situated outside of Europe.

The cost of debt after tax is calculated by adding to the risk-free rate the loan spread observed on the bond maturing on 30 September 2024 issued by Vallourec and taking tax into account.

Sectoral gearing which makes it possible to weight the cost of equity and the cost of debt after tax, and which corresponds to the net financial debt/stock market capitalization median of comparable companies.

All of the above parameters have been calculated over an average period of five years.

Applying these parameters leads to a discount rate of 7.8% for Europe, 7.3% for North America, 8.8% for Vallourec do Brasil, 7.6% for Serimax and 6.8% for Valinox Nucléaire.

Impairment test results

The tests performed do not result in the recognition of impairment losses.

The adaptive measures regarding the seamless pipe production units, announced in February 2016, have led to the recognition of €70 million in impairment (€49 million for the Vallourec Europe CGU and €24 million for the Vallourec do Brasil and Vallourec North America CGUs).

It should be noted that if the extrapolation period had not been taken into account and the 2015 WACC components not been maintained to calculate the 2016 WACC, this would not have led to the recognition of impairment losses in 2016 for the main CGUs.

Sensitivity analyses

The results of the sensitivity analyses of the Vallourec Europe and Vallourec North America CGUs are presented in the table below.

CGU sensitivity analysis *(in millions of euros)*		**Vallourec Europe**	**Vallourec North America**
Test bases as at 31 December 2016		1,397	1,953
CGU VALUE IN USE		**2,304**	**3,094**
Sensitivity to the discount rate	+0.5 pt	2,067	2,772
	-0.5 pt	2,583	3,485
EBITDA sensitivity	-10% per year	1,917	2,416
	+10% per year	2,691	3,754
EUR/USD foreign exchange rate sensitivity	+5 cts	1,717	2,852
	-5 cts	2,949	3,361
Perpetuity growth rate sensitivity	+0.5 pt	2,477	3,383
	-0.5 pt	2,156	2,855
IMPAIRMENT LOSS		**-**	**-**

The table above shows that:

- for the Vallourec Europe and Vallourec North America CGUs, the values of use as at 31 December 2016 are higher than the test bases, as indicated above;
- the future cash flows of these CGUs are sensitive to changes in the value of their export transactions denominated in a currency other than that of the country where they are based (mainly USD). Unhedged cash flows were measured at the exchange rate of 31 December 2016, consistent with the balance sheet values to be tested.

Given the sensitivity of DCF calculations to the assumptions used, the Group decided to maintain the impairment losses recorded at the end of 2014 and 2015 on the Vallourec Europe CGU.

In 2016, the acquisition of VSB resulted in the valuation of the assets of the Jeceaba plant (Brazil) at fair value, thereby fixing the impairment recorded in 2014.

NOTE 3 Associates

The Group's main associates (individual carrying amount greater than €50 million) are listed below.

	HKM	**Tianda Oil Pipe**	**Others**	**Total**
Activity	**Steel mill**	**Tube manufacturing**		
Business location	**Germany**	**China**		
As at 31/12/2014	**76,688**	**57,446**	**49,991**	**184,125**
Capital increase	4,000	-	4,074	8,074
Impact of changes in exchange rates	-	2,370	4,136	6,506
Dividends paid	(6)	(6,272)	(4,474)	(10,752)
Reclassification to assets held for sale and discontinued operations	-	-	(11,044)	(11,044)
Others	-	-	(49)	(49)
Contribution to net income of the period		(436)	411	(25)
As at 31/12/2015	**80,682**	**53,108**	**43,045**	**176,835**
Capital increase	-	-	-	-
Impact of changes in exchange rates	-	(2,726)	1,098	(1,628)
Dividends paid	(1)	(7,261)	-	(7,262)
Changes in consolidation scope	-	(35,521)	379	(35,142)
Others	-	-	-	-
Contribution to net income of the period	5	(7,600)	(408)	(8,003)
AS AT 31/12/2016	**80,686**	**-**	**44,114**	**124,800**

As at 31 December 2015, only HKM and Tianda Oil Pipe were identified as significant associates of the Group. As at 31 December 2016, Vallourec acquired Tianda Oil Pipe, which is now fully consolidated with a holding rate of 99.03%, after the acquisition in November of a majority share of 50.61% and the successful unconditional mandatory takeover bid. Tianda Oil Pipe was consolidated using the equity method (19.5%) for 2016 and the acquisition was recorded in the Group's balance sheet as at 31 December 2016 (see Note 34).

The condensed financial data (100%) for HKM is presented below.

HKM	31/12/2015	31/12/2016
Non-current assets	651,985	689,483
Current assets	565,029	689,409
Non-current liabilities	584,339	465,117
Current liabilities	229,267	510,343
Net assets	**403,408**	**403,432**
Sales	2,001,550	1,831,087
Operating income/(Loss)	4,474	2,706
Net income from continuing operations	-	-
Other comprehensive income (loss)	-	-
Total comprehensive income (loss)	-	25
Dividends paid to the Group	6	5

The reconciliation of the condensed financial data from the HKM associate with the book value of the Group's interests in this associate is as follows:

HKM	31/12/2015	31/12/2016
Net assets	403,408	403,432
Group's percentage interest in HKM	20%	20%
Goodwill	-	-
Others	-	-
Value of investments in equity affiliates	80,682	80,686
HKM net income/(loss)	-	25
Group's percentage interest in HKM	20%	20%
Share of net income	-	5

The Group likewise holds interests in other associates (which, considered individually, are not significant) for an overall book value of €44 million as at 31 December 2016, compared with €43 million as at 31 December 2015.

NOTE 4 Other non-current assets

	Other equity interests	Loans	Other financial assets	Other non-current assets	Provisions	Total
As at 31/12/2014	**73,885**	**6,713**	**41,571**	**314,375**	**(1,480)**	**435,064**
Impact of changes in exchange rates	(300)	19	(6,550)	(40,732)	374	(47,189)
Changes in gross values	(6,419)	(1,902)	9,175	(147,634)	(173)	(146,953)
Other changes	-	(171)	(7,534)	(84)	-	(7,789)
As at 31/12/2015	**67,166**	**4,659**	**36,662**	**125,925**	**(1,279)**	**233,133**
Impact of changes in exchange rates	548	124	6,047	22,193	(523)	28,389
Changes in gross values	9,278	(8)	3,396	20,714	-	33,380
Increase in provisions	-	-	-	-	(1,828)	(1,828)
Reversals of provisions	-	-	-	-	2,919	2,919
Acquisitions from business combinations (see Note 34)	-	853	7,478	104,823	-	113,154
Disposals from business combinations	-	(477)	(4,188)	(67,581)	-	(72,246)
Other changes	2,584	(120)	8,639	9,209	(8,642)	11,670
AS AT 31/12/2016	**79,576**	**5,031**	**58,034**	**215,283**	**(9,353)**	**348,571**

At 31 December 2016, available-for-sale equity securities (included in "Other equity interests") related almost exclusively to Nippon Steel & Sumitomo Metal Corp., listed on the Tokyo Stock Exchange and acquired in 2009 for a total of €81.9 million.

A seven-year partnership agreement signed on 31 December 2009 between Vallourec and Nippon Steel & Sumitomo Metal Corp. includes a cross-shareholding in which each company holds a stake of about USD 120 million in the other. Nippon Steel & Sumitomo Metal Corp. and Vallourec are partners in Vallourec & Sumitomo Tubos do Brasil, working together to produce the VAM® line of premium joints.

In view of the strategic and long-term nature of the investment, Vallourec set thresholds above which a decline in net asset value of the Nippon Steel & Sumitomo Metal Corp. shares would be an event of a "significant or long-term nature" requiring the recognition of an impairment loss in the income statement:

- 3 years for the prolonged nature of a decline;
- 40% for the significant nature of a decline.

At 31 December 2016, the change in fair value of these shares, based on their NAV of €73.3 million, shows a gain for the period of €9.4 million recognized in equity. For the record, the NAV of these shares as at 31 December 2015 was €63.9 million. The aggregate loss of €8.6 million as at end December 2016 is recorded in equity.

Other financial investments consist mainly of interest-bearing security deposits, mainly paid in connection with tax disputes in Brazil (€41 million at 31 December 2016; see also Note 16).

Other non-current assets consist mainly of €178.6 million in deferred tax receivables in Brazil and the United States.

In 2015, the impact of the application of the Amendment to IFRS 11 resulted in a €165 million drop in non-current assets, in consideration for long-term liabilities.

Maturities of other non-current assets	1 to 5 years	5 years or more	Total
GROSS VALUES AS AT 31/12/2015			
Loans	2,357	2,302	4,659
Other investments in equity instruments	-	67,166	67,166
Other financial assets	103,659	58,928	162,587
TOTAL	**106,016**	**128,396**	**234,412**
GROSS VALUES AS AT 31/12/2016			
Loans	3,414	1,617	5,031
Other investments in equity instruments	-	79,576	79,576
Other financial assets	208,287	65,030	273,317
TOTAL	**211,701**	**146,223**	**357,924**

NOTE 5 Deferred taxes

The main bases used to calculate deferred taxes are:

- recurring: provisions for paid leave and the additional social security levy on businesses (*contribution sociale de solidarité des sociétés*);
- non-recurring: cancellation of regulated provisions, employee profit-sharing, non-tax deductible provisions and any restatements to ensure the consistency and comparability of the parent company or consolidated financial statements;
- long-term recurring: non-tax deductible provisions for retirement commitments, non-tax deductible provisions for assets and remeasurements of assets acquired in connection with a business combination.

Deferred taxes are recognized using the liability method.

The rates used are the recovery rates known at the reporting date.

The French supplementary business taxes (*Cotisation Foncière des Entreprises and Cotisation sur la Valeur Ajoutée des Entreprises*) are recognized as operating expenses.

	2015	2016
Deferred tax assets	148,783	190,269
Deferred tax liabilities	216,172	80,494
NET DEFERRED TAX ASSETS/(DEFERRED TAX LIABILITIES)	**(67,389)**	**109,775**

Presentation of deferred taxes by type

As at 31/12/2016	Assets	Liabilities	Net deferred tax liabilities
Non-current assets	-	241,012	
Other assets and liabilities	39,836		
Inventories	28,154	-	
Employee benefit commitments	9,380	-	
Derivatives	748	-	
Distributable reserves and foreign currency translation reserves	-	1,851	
NET BALANCE	**78,118**	**242,863**	**(164,745)**
Recognition of tax losses	274,520	-	274,520
TOTAL	**352,638**	**242,863**	**109,775**

As at 31/12/2015	Assets	Liabilities	Net deferred tax liabilities
Non-current assets	-	210,260	
Other assets and liabilities	-	42,001	
Inventories	21,273	-	
Employee benefit commitments	12,717	-	
Derivatives	165	-	
Distributable reserves and foreign currency translation reserves	-	1,851	
NET BALANCE	**34,155**	**254,112**	**(219,957)**
Recognition of tax losses	152,568	-	152,568
TOTAL	**186,723**	**254,112**	**(67,389)**

The Group's deferred taxes (gross values) as at 31 December 2016 and 31 December 2015 are broken down as follows:

As at 31/12/2016	Gross value	Corresponding deferred tax	Recognized deferred tax	Unrecognized or impaired deferred tax
Tax loss carryforwards	2,447,210	787,571	274,520	513,051
Other tax assets	-	-	(84,251)	421,281
TOTAL TAX ASSETS	**-**	**787,571**	**190,269**	**934,332**
Tax liabilities	-	-	(80,494)	-
TOTAL TAX LIABILITIES	**-**	**-**	**(80,494)**	**-**
TOTAL	**-**	**-**	**109,775**	**934,332**

As at 31/12/2015	Gross value	Corresponding deferred tax	Recognized deferred tax	Unrecognized or impaired deferred tax
Tax loss carryforwards	1,565,529	487,253	152,568	334,686
Other tax assets	-	-	(3,785)	246,788
TOTAL TAX ASSETS	**-**	**487,253**	**148,783**	**581,474**
Tax liabilities	-	-	(216,172)	-
TOTAL TAX LIABILITIES	**-**	**-**	**(216,172)**	**-**
TOTAL	**-**	**-**	**(67,389)**	**581,474**

Tax loss carryforwards relate mainly to Vallourec Soluções Tubulares do Brasil (formerly VSB), the French tax group, Vallourec Changzhou (China), Vallourec Star (United States) and Vallourec Deutschland (Germany) and Vallourec Saudi Arabia.

The deferred tax assets are recognized when there is reasonable assurance of being able to recover these deferred tax assets in the foreseeable future. When it is estimated that allocating these carryforwards to future taxable profits would be uncertain, no deferred tax asset is recognized and, where applicable, deferred tax assets at the opening date are impaired.

As at 31 December 2016, Vallourec & Sumitomo Tubos do Brasil, previously 56% consolidated, is fully consolidated following the acquisition of the company on 1 October 2016. Analyses conducted concluded with reasonable assurance that the net deferred tax assets could be recovered within a period of more than 10 years, but less than the average useful life of the industrial assets (in the amount of €139.2 million).

Changes in deferred taxes are broken down as follows:

Net deferred tax assets/(liabilities)	2015	2016
AS AT 1 JANUARY	**(33,144)**	**(67,389)**
Impact of changes in exchange rates	(34,755)	20,244
Recognized in profit or loss	45,037	119,500
Recognized in reserves	(12,753)	(4,725)
Reclassification to assets held for sale and discontinued operations	(3,936)	-
Others	(27,838)	42,145
AS AT 31 DECEMBER	**(67,389)**	**109,775**

The amount of the deferred tax recognized in reserves corresponds mainly to the change in deferred taxes calculated on derivatives and actuarial gains and losses on retirement commitments and similar obligations.

NOTE 6 Inventories and work in progress

	Raw materials and merchandise	Goods in production	Intermediate and finished goods	Total
GROSS VALUES				
As at 31/12/2014	**555,308**	**612,725**	**495,428**	**1,663,461**
Changes in inventories recognized in the income statement	(66,443)	(292,395)	(48,881)	(407,719)
Impact of changes in exchange rates	(12,049)	37,953	(35,426)	(9,522)
Reclassification to assets held for sale and discontinued operations	(13,545)	(284)	(12,386)	(26,215)
Other changes	5,300	-	8,742	14,042
As at 31/12/2015	**468,571**	**357,999**	**407,477**	**1,234,047**
Changes in inventories recognized in the income statement	(51,142)	(43,414)	(73,642)	(168,198)
Impact of changes in exchange rates	25,584	1,494	26,953	54,031
Acquisitions from business combinations (see Note 34)	133,274	1,546	104,534	239,354
Disposals from business combinations	(56,308)	(622)	(55,014)	(111,944)
Reclassification to assets held for sale and discontinued operations	(24,500)	-	-	(24,500)
Other changes	3,241	1,812	12,670	17,723
AS AT 31/12/2016	**498,720**	**318,815**	**422,977**	**1,240,512**
IMPAIRMENT				
As at 31/12/2014	**(89,206)**	**(25,799)**	**(58,425)**	**(173,430)**
Impact of changes in exchange rates	980	(1,320)	4,419	4,079
Allowances [(a)]	(38,789)	(8,208)	(38,921)	(85,918)
Reversals of provisions	33,454	13,572	34,816	81,842
Reclassification to assets held for sale and discontinued operations	2,127	-	2,927	5,054
Other changes	(959)	1,425	25	491
As at 31/12/2015	**(92,393)**	**(20,330)**	**(55,159)**	**(167,882)**
Impact of changes in exchange rates	(3,220)	247	(4,428)	(7,401)
Allowances [(a)]	(52,973)	(11,806)	(32,761)	(97,540)
Reversals of provisions	33,904	6,666	35,112	75,683
Disposals from business combinations	57	-	5,515	5,572
Reclassification to assets held for sale and discontinued operations	11,211	-	-	11,211
Other changes	(3,018)	655	(23,043)	(25,406)
AS AT 31/12/2016	**(106,432)**	**(24,567)**	**(74,764)**	**(205,763)**

(a) Provisions for inventories of raw materials and consumables include a €9 million impairment loss in 2016 for spare parts related to industrial assets (€11 million in 2015).

The cost of any underutilized capacity is excluded from the value of inventories. Made-to-order products are impaired, where applicable, for the unaffected portion and valued at scrap-metal prices (if applicable). Inventories are impaired based on their net realizable values.

Net values	Raw materials and merchandise	Goods in production	Intermediate and finished goods	Total
As at 31/12/2015	376,178	337,669	352,318	1,066,165
AS AT 31/12/2016	**392,288**	**294,248**	**348,213**	**1,034,749**

NOTE 7 Trade and other receivables

	Advances and partial payments on orders	Trade and other receivables (gross)	Provisions for depreciation	Total
As at 31/12/2014	**35,471**	**1,128,838**	**(18,655)**	**1,145,654**
Impact of changes in exchange rates	(4,992)	(98)	3,714	(1,376)
Changes in gross values	(17,311)	(480,791)	-	(498,102)
Increase in provisions	-	-	(58,599)	(58,599)
Reversals of provisions	-	-	10,462	10,462
Reclassification to assets held for sale and discontinued operations	(531)	(24,148)	209	(24,470)
Other changes	-	(36,719)	8,054	(28,665)
As at 31/12/2015	**12,637**	**587,082**	**(54,815)**	**544,904**
Impact of changes in exchange rates	1,580	22,879	(3,429)	21,030
Changes in gross values	(2,870)	(120,533)	-	(123,403)
Increase in provisions	-	-	(8,690)	(8,690)
Reversals of provisions	-	-	28,654	28,654
Acquisitions from business combinations (see Note 34)	21,139	90,322	-	111,461
Disposals from business combinations	(1,326)	(21,092)	147	(22,271)
Reclassification to assets held for sale and discontinued operations	(13)	(7,217)	-	(7,230)
Other changes	(3,032)	(388)	5,183	1,763
AS AT 31/12/2016	**28,115**	**551,053**	**(32,950)**	**546,218**

NOTE 8 Financial instruments

Financial assets and liabilities

Financial assets and liabilities are measured and presented in the statement of financial position in accordance with the various categories specified by IAS 39.

8.1 Impact of IAS 32 and IAS 39 on equity and net income

As explained in Section 2.16 – Accounting principles and methods, the main impact of IAS 32 and IAS 39 relates to the accounting treatment of hedging contracts entered into by the Group in connection with commercial purchase and sale transactions in foreign currencies and the accounting treatment of available-for-sale financial assets. The other effects of the transition to IAS 32 and IAS 39 have had little impact on the financial statements (measurement of housing loans to employees using the effective interest rate method and measurement at fair value of investment securities).

Regarding foreign exchange hedges, the hedging relationship is based on the spot exchange rates. Premiums and discounts on derivatives are systematically considered ineffective and recognized in the income statement (financial income or loss). Currency receivables and payables have been revalued at the spot rate at 31 December.

From a net liability position of €131.5 million as at 31 December 2015, hedging assets moved to a net liability position of €47.3 million as at 31 December 2016.

Fluctuations in the euro against the US dollar in 2016 accounts for most of the €16.1 million change in the intrinsic value of hedges of forecast sales and purchases in foreign currencies and the €24.7 million change in the intrinsic value of hedges of foreign currency receivables and payables.

Financial instruments of a speculative nature remain exceptional and arise when a hedging relationship is ineffective under the terms of IAS 39. Their changes in value do not have a material impact on foreign exchange gains or losses.

Statement of financial position items	As at 31/12/2015	As at 31/12/2016	Changes in 2016 Total	Changes in 2016 Reserves	Changes in 2016 Net Income
1 – Derivatives recognized in the statement of financial position [(a)]					
Changes in the intrinsic value of forward sales of currencies and forward purchases [(b)] associated with order books and commercial tenders	(40,727)	(24,626)	16,101	13,149	2,952
Changes in the intrinsic value of forward sales of currencies (and forward purchases) associated with trade receivables (and accounts payable [(b)]) *	(41,788)	(17,140)	24,648	2,109	22,539
Changes in the intrinsic value of forward sales of currencies (and forward purchases) associated with finance receivables (and financial payables)	(54,701)	(18,193)	36,508	180	36,328
Recognition of premium/discount *	4,062	9,785	5,723	8,012	(2,289)
Recognition of changes in fair value of interest rate swaps	-	-	-	-	-
Changes in values linked to hedging instruments set up under employee share ownership plans	1,625	2,866	1,241	56	1,185
SUBTOTAL: DERIVATIVES	**(131,529)**	**(47,308)**	**84,221**	**23,506**	**60,715**
■ of which derivatives – assets	20,341	57,985			
■ of which derivatives – liabilities	152,429	105,293			
■ of which reclassification to assets held for sale	(559)	-			
2 – Receivables (payables) hedged in currencies –translation gain/loss					
Measurement as at the reporting date exchange rate (trade payables [(b)] and accounts receivable)	36,877	20,389	(16,488)	-	(16,488)
Measurement as at the reporting date exchange rate (financial liabilities and accounts receivable)	55,299	16,907	(38,392)	-	(38,392)
IMPACT OF HEDGING TRANSACTIONS	**(39,353)**	**(10,012)**	**29,341**	**23,506**	**5,835**
3 – Measurement of other investments in equity instruments at fair value	**(13,951)**	**(8,665)**	**5,286**	**5,286**	**-**
TOTAL	**(53,304)**	**(18,677)**	**34,627**	**28,792**	**5,835**

(a) Assets and liabilities offset in this table: + = asset, ( ) = liability.

(b) Non-significant amounts.

** The impact on reserves includes, in particular, the effects of the acquisition of Vallourec & Sumitomo Tubos do Brasil.*

The change in the fair value of financial instruments hedging foreign exchange risk, which affected equity as at 31 December 2015, was -€40.7 million. In 2016, around 94% of the positive change in fair value attached to the order book and commercial tenders at the end of 2015 was transferred from equity to the statement of comprehensive income, under "translation gain/loss". This amount represents the impact of the changes in value of foreign exchange hedges for the order book and commercial tenders as at 31 December 2015, which were fully or partially unwound or converted into receivables during 2016.

This corresponds mainly to the hedges of receivables in US dollars, which represent over 85% of the hedges with an impact on equity as at 31 December 2016.

Statement of financial position items	As at 31/12/2014	As at 31/12/2015	Changes in 2015 Total	Reserves	Net Income
Derivatives recognized in the statement of financial position [(a)]					
Changes in the intrinsic value of forward sales of currencies and forward purchases [(b)] associated with order books and commercial tenders	(71,636)	(40,727)	30,909	30,188	721
Changes in the intrinsic value of forward sales of currencies (and forward purchases) associated with trade receivables (and accounts payable [(b)])	(55,329)	(41,788)	13,541	-	13,541
Changes in the intrinsic value of forward sales of currencies (and forward purchases) associated with finance receivables (and finance payables)	(29,459)	(54,701)	(25,242)	-	(25,242)
Recognition of premium/discount	9,077	4,062	(5,015)	(2,449)	(2,566)
Recognition of changes in fair value of interest rate swaps	-	-	-	-	-
Changes in values linked to hedging instruments set up under employee share ownership plans	2,259	1,625	(634)	(262)	(372)
SUBTOTAL: DERIVATIVES	**(145,088)**	**(131,529)**	**13,559**	**27,477**	**(13,918)**
■ of which derivatives – assets	28,211	20,341			
■ of which derivatives – liabilities	173,300	152,429			
■ of which reclassification to assets held for sale	-	(559)			
2 – Receivables (payables [(b)]) hedged in currencies –translation gain/loss					
Measurement as at the reporting date exchange rate (trade payables [(b)] and accounts receivable)	52,584	36,877	(15,707)	-	(15,707)
Measurement as at the reporting date exchange rate (financial liabilities and accounts receivable)	30,529	55,299	24,770	-	24,770
IMPACT OF HEDGING TRANSACTIONS	**(61,975)**	**(39,353)**	**22,622**	**27,477**	**(4,855)**
3 – Measurement of other investments in equity instruments at fair value	**(6,321)**	**(13,951)**	**(7,630)**	**(7,630)**	**-**
TOTAL	**(68,296)**	**(53,304)**	**14,992**	**19,847**	**(4,855)**

(a) Assets and liabilities offset in this table: + = asset, ( ) = liability.

(b) Non-significant amounts.

The change in the fair value of financial instruments hedging foreign exchange risk, which affected equity as at 31 December 2014, was -€71.6 million. In 2015, around 81% of the positive change in fair value attached to the order book and commercial tenders at the end of 2014 was transferred from equity to the statement of comprehensive income, under "translation gain/loss". This amount represents the impact of the changes in value of foreign exchange hedges for the order book and commercial tenders as at 31 December 2014, which were fully or partially unwound or converted into receivables during 2015.

This corresponds mainly to the hedges of receivables in US dollars, which represent nearly all the hedges with an impact on equity as at 31 December 2015.

8.2 Information on the nature and extent of market risk and how it is managed by the Group

Market risk is comprised of interest rate, foreign exchange (conversion and transactions), credit and equity risk. Liquidity risk is addressed in Note 16.

Interest rate risk

Management of medium- and long-term financing within the euro zone is centralized at Vallourec and the sub-holding company Vallourec Tubes.

Total liabilities

As at 31/12/2016	Other borrowings	Cash
Fixed rate on date granted	2,325,628	-
Variable rate on date granted swapped to fixed rate	-	-
Fixed rate	**2,325,628**	**-**
Variable rate	**247,460**	**1,286,722**
TOTAL	**2,573,088**	**1,286,722**

As at 31/12/2015	Others borrowings	Cash
Fixed rate on date granted	1,990,269	-
Variable rate on date granted swapped to fixed rate	-	-
Fixed rate	**1,990,269**	**-**
Variable rate	**159,528**	**630,540**
TOTAL	**2,149,797**	**630,540**

The Group is exposed to interest rate risk on its variable rate debt.

The amount of loans with fixed rates on the dates granted primarily consists of bonds and commercial paper issued by Vallourec:

- on 7 December 2011, Vallourec issued a €650 million bond maturing in February 2017, with a fixed annual coupon of 4.25%;
- in August 2012, two long-term private bond issues for a total of €455 million. The amounts and terms of these two private bond issues are €400 million for seven years with an annual coupon of 3.25% for one, and €55 million for 15 years with an annual coupon of 4.125%;
- on 30 September 2014, a €500 million bond issue, maturing in September 2024, with a fixed annual coupon of 2.25%;
- outstanding commercial paper in the amount of €307.2 million.

Furthermore, in December 2009, Vallourec Soluções Tubulares do Brasil took out a loan with BNDES (Banco National de Desenvolvimento Econômico e Social). As at 31 December 2016, BRL 56.9 million of this loan, at a fixed rate of 4.5%, had been drawn. Vallourec Soluções Tubulares do Brasil also concluded a fixed-rate finance lease in 2010.

As at 31 December 2016, financial debt exposed to changes in variable interest rates was €247.5 million (about 10% of total liabilities).

No significant line of fixed-rate financing will reach contractual maturity during the 12 months after 31 December 2016, except for:

- the €650 million bond issue maturing in February 2017;
- €307.2 million in outstanding commercial paper maturing in more than one year;
- €82 million for various lines of financing in the Group's subsidiaries.

Given the Group's interest rate risk hedging policy, the impact of a 1% rise in short-term rates in the euro zone, on Brazilian and Chinese rates and UK and US money market rates would result in a €2.5 million increase in the Group's annual financial expenses, based on an assumption of complete stability of the financial liabilities and constant exchange rates, and after taking into account the effects of any hedging instruments. This impact does not take into account the interest rate risk on commercial paper with a more than one year maturity or on short-term cash investments (of no more than three months).

Foreign currency translation risk

The assets, liabilities, revenues and expenses of the Group's subsidiaries are expressed in various currencies. The Group financial statements are presented in euros. The assets, liabilities, revenues and expenses denominated in currencies other than the euro have to be translated into euros at the applicable rate so that they can be consolidated.

If the euro rises (or falls) against another currency, the value in euros of the various assets, liabilities, revenues and expenses initially recognized in that other currency will fall (or rise). Therefore, changes in the value of the euro may have an impact on the value in euros of the assets, liabilities, revenues and costs not denominated in euros, even if the value of these items in their original currency has not changed.

In 2016, net income, Group share, was generated to a significant extent by subsidiaries that prepare their financial statements in currencies other than the euro (mainly in US dollars and the Brazilian real). A 10% change in exchange rates would have had an upward or downward impact on net income, Group share, of around €55.2 million.

In addition, the Group's sensitivity to long-term foreign exchange rate risk is reflected in the changes that have occurred in recent years in the foreign currency translation reserves booked to equity (-€176,6 million as at 31 December 2016) which, in recent years, have been linked mainly to movements in the US dollar and Brazilian real.

Foreign currency translation reserve – Group share	31/12/2015	31/12/2016
USD	320,968	343,878
GBP	(5,789)	(11,583)
Brazilian real (BRL)	(863,699)	(529,697)
Chinese yuan (CNY)	58,473	34,276
Others	(10,528)	(13,448)
TOTAL	**(500,575)**	**(176,574)**

Transaction risk

The Group is subject to exchange rate risks due to its business exposure linked to sales and purchase transactions entered into by some of its subsidiaries in currencies other than their functional currency.

The main foreign currency involved is the US dollar (USD): a significant portion of Vallourec's transactions (approximately 42.5% of Group sales in 2016) are invoiced in US dollars by companies whose functional currency is not the US dollar.

Exchange rate fluctuations between the euro, the Brazilian real (BRL) and the US dollar may therefore affect the Group's operating margin. Their impact is, however, very difficult to quantify for two reasons:

1. There is an adjustment effect on selling prices denominated in US dollars related to market conditions in the various sectors of activity in which Vallourec operates;
2. Certain sales and purchases, even though they are denominated in euros or Brazilian reals, are influenced by the level of the US dollar. They are therefore indirectly and at some time in the future affected by movements in the US currency.

The Group actively manages its exposure to foreign exchange risk to reduce the sensitivity of its net profits to currency fluctuations by setting up hedges once the order is placed and sometimes once a quotation is given.

Order cancellations could therefore result in the cancellation of hedges in place, leading to the recognition in the consolidated income statement of gains and losses with regard to these canceled hedges.

We estimate that a 10% rise or fall in the currencies used in all hedges implemented by the Group would result in a €71.3 million decrease or increase in the intrinsic value recognized in consolidated equity as at 31 December 2016. Most of these amounts would be due to changes in the US dollar against the euro, and to a lesser extent, the Brazilian real against the US dollar.

To be eligible for hedge accounting as defined under IAS 39, the Vallourec Group has developed its cash management and invoicing systems to facilitate the traceability of hedged transactions throughout the duration of the hedging instruments.

At 31 December 2016, the following amounts were outstanding under forward foreign exchange contracts to hedge purchases and sales denominated in foreign currencies:

Hedging contracts with regard to commercial transactions – Exchange rate risk	2015	2016
Forward exchange contract: forward sales	1,065,094	1,074,559
Forward exchange contract: forward purchases	55,879	45,218
Currency options: sales	-	-
Currency options: purchases	-	-
Raw materials and energy: call options	-	-
TOTAL	**1,120,973**	**1,119,777**

Contract maturities at 31 December 2016

Contracts on commercial transactions	Total	< 1 year	1 to 5 years	> 5 years
Exchange contracts: forward sales	1,074,559	1,057,065	17,494	-
Exchange contracts: forward purchases	45,218	45,120	98	-
Currency options: sales	-	-	-	-
Currency options: purchases	-	-	-	-
Raw materials and energy: call options	-	-	-	-
TOTAL	**1,119,777**	**1,102,185**	**17,592**	**-**

Forward sales correspond mainly to sales of US dollars (€1,074 million of the €1,119 million total). These contracts were transacted at an average forward EUR/USD rate of 1.14 and an average forward USD/BRL rate of 3.70.

In 2016, as in 2015, the hedges entered into generally covered an average period of about 10 months and mainly hedged highly probable future transactions and foreign currency receivables.

In addition to hedges on commercial transactions, Vallourec has implemented hedging contracts for financial loans and receivables denominated in foreign currencies:

- since 2011, forward sales for USD 276.8 million (€243.5 million).

These instruments are intended to hedge either the debt denominated in USD, or the foreign currency loans established by the financial holding company Vallourec Tubes in the currency of the subsidiaries receiving them. The forward purchases and sales mature at various times in 2017, as and when the hedged loans and borrowings mature.

Other than its foreign-currency-denominated borrowings, Vallourec does not hedge any of the other foreign currency assets and liabilities in its consolidated statement of financial position (foreign currency translation risks).

Credit risks

Vallourec is subject to credit risk in respect of its non-impaired financial assets. Failure to recover these assets could affect the Company's results and financial position.

The Group has identified four main types of receivables that have these characteristics:

- 1% building loans granted to Group employees;
- security deposits paid in connection with tax disputes and the tax receivables due to the Group in Brazil;
- trade and other receivables;
- derivatives that have a positive fair value.

1. 1% building loans granted to the Group's employees: these loans do not expose the Group to any credit risk since the full amount of the loan is written off as soon as there is any delay in the collection of the amounts due. It should be noted that these loans are valued using the effective interest rate method applied to the expected cash flows until the maturity date of these loans (contractual interest rates may be lower);
2. Security deposits and tax receivables due to the Group in Brazil: there is no specific risk with respect to these receivables, even if the outcome of the disputes is unfavorable, since the risk has already been assessed and a provision recognized for these receivables, and the funds have already been paid in full or in part;
3. The Group's policy on the impairment of trade receivables is to recognize a provision when indications of impairment are identified. The impairment is equal to the difference between the carrying amount of the asset and the present value of expected future cash flows, taking into account the position of the counterparty.

The Group considers that as at 31 December 2016 there is no reason to assume that there is any risk in respect of receivables for which no provision has been made and which are less than 90 days overdue. Trade receivables more than 90 days past due and not impaired amounted to €16.4 million at 31 December 2016, or 3% of the Group's total net trade receivables.

Vallourec considers that the risk is limited given its existing customer risk management procedures, which include:

- the use of credit insurance and documentary credits;
- the long-standing nature of the Group's commercial relations with major customers;
- the commercial collection policy.

Vallourec remains subject to country risk which could impact the payment of some of its receivables.

In addition, as at 31 December 2016, trade receivables not yet due amounted to €436.2 million, or 81% of total net trade receivables.

4. As concerns the derivatives that have a positive fair value, the Group only deals with highly-rated counterparties. The credit risk is considered to be insignificant.

The maturities of these trade receivables are as follows (in € thousands):

As at 31/12/2016	0 to 30 days	30 to 60 days	60 to 90 days	90 to 180 days	> 180 days	Total
Trade receivables outstanding	229,394	115,136	50,707	40,570	388	436,195

Equity risk

Treasury shares held by Vallourec as at 31 December 2016 include:

Shares allocated to various share ownership plans for some of the Group's employees, executive management and corporate officers.

In this context, Vallourec holds:

- 3,094 treasury shares acquired in 2008 after the definitive allocation of 26,844 shares in 2011, 70,050 shares in 2013 and 12 shares in 2014, under the various performance share plans;
- 55,036 treasury shares acquired in 2011 under the share buyback plan of 7 June 2011, upon the definitive allocation of 27,534 shares in 2012, 86,377 shares in 2013, 91,929 shares in 2014, 108,600 shares in 2015 and 30,524 shares in 2016 under the various performance share plans;
- 79,716 treasury shares acquired in 2012 under the share buyback program of 31 May 2012, upon the definitive allocation of 94,600 shares in 2014 and 225,684 shares in 2016 under the various performance share plans;
- 300,000 treasury shares acquired in 2014.

The Management Board, in consultation with the Supervisory Board, has decided to allocate these treasury shares to cover the Group's performance share and employee share ownership plans.

Additionally, Vallourec signed a liquidity contract with Rothschild & Cie Banque in 2012. It was implemented under the annual general authorization for the share buyback program approved by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016 (seventeenth resolution).

On 8 April 2014, Vallourec committed to a supplementary contribution of €12.5 million, €5 million of which were paid at the end of 2014 in order to allow Rothschild & Cie Banque to ensure its continued participation under the contract.

As at 31 December 2016, the liquidity account at Rothschild & Cie Banque comprised the following:

- 2,400,000 shares valued at €15.7 million as at 31 December;
- €5,627,237.

Classification and measurement of financial assets and liabilities

The amounts recognized in the statement of financial position are based on the measurement methods used for each financial instrument.

2016	Notes	Category [a]	Gross value at 31/12/2016	Amortized cost	Fair value through equity	Fair value through profit or loss
ASSETS						
Other non-current assets	**4**					
Listed equity interests		AFS	73,282	-	73,282	-
Other equity interests		AFS	6,294	-	6,294	-
Loans		L&R	5,031	5,031	-	-
Other financial assets		L&R/AHM [2]	58,034	58,034	-	-
Trade and other receivables	**7**	**L&R**	**551,053**	**551,053**	**-**	**-**
Derivatives – assets	**8**					
Hedging financial instruments		CFH	1,764	-	1,764	-
Hedging financial instruments [f]		A-FVTPL	56,222	-	-	56,222
Speculative financial instruments		A-FVTPL	-	-	-	-
Other current assets	**9**	**L&R**	**283,019**	**283,019**	**-**	**-**
Cash and cash equivalents	**10**	**A-FVTPL**	**1,286,722**	**-**	**-**	**1,286,722**
LIABILITIES						
Bank loans and other borrowings [c] [e]	**16**	**AC-EIR**	**214,556**	**214,556**	**-**	**-**
Others	**16**	**AC-EIR**	**636,348**	**636,348**	**-**	**-**
Finance leases	**16**	**AC-EIR**	**113,031**	**113,031**	**-**	**-**
Bond issue	**16**	**AC-EIR**	**950,373**	**950,373**	**-**	**-**
Overdrafts and other short-term borrowings [d] [e]	**16**	**AC-EIR**	**659,436**	**659,436**	**-**	**-**
Trade and other payables		**AC**	**530,391**	**530,391**	**-**	**-**
Derivatives – liabilities	**8**					
Hedging financial instruments		CFH	26,390	-	26,390	-
Hedging financial instruments		L-FVTPL	78,901	-	-	78,901
Speculative financial instruments		L-FVTPL	2	-	-	2
Other current liabilities	**20**	**AC**	**299,462**	**299,462**	**-**	**-**

(a) A-FVTPL – Financial assets measured at fair value through profit or loss
AHM – Assets held to maturity
L&R – Loans and receivables
AFS – Available-for-sale financial assets
CFH – Cash flow hedges
L-FVTPL – Financial liabilities measured at fair value through profit or loss
AC – Amortized cost
AC-EIR – Amortized cost according to the effective interest rate method

(b) In the Group, the only assets in this category are security deposits and guarantees.

(c) Borrowings classified within non-current liabilities maturing in more than 12 months.

(d) Borrowings that must be repaid within 12 months are classified as current liabilities.

(e) Variable rate borrowings for which interest rate swaps have been entered into are accounted for using the cash flow hedge method. Changes in the fair value of the swap contracts, linked to interest rate movements, are recognized in equity to the extent of their effectiveness. Otherwise, they are recognized under financial income.

(f) Including the Value 12, Value 13, Value 14, Value 15 and Value 16 warrants, whose fair value as at 31 December 2016 was €1.7 million.

Financial instruments measured at fair value are classified by category on the basis of their measurement method. Fair value is measured:

(A) mainly based on quoted prices on an active market; equity securities are valued this way;

(B) on the basis of observable methods and data and with reference to the financial markets (yield curve, forward prices, etc.).

			Fair value		
2016 Statement of financial position headings and classes of instruments	**Category**	**Total fair value on statement of financial position**	**Listed prices (A)**	**Internal model with observable inputs (B)**	**Internal model with unobservable inputs**
ASSETS					
Listed equity interests	AFS	73,282	73,282	-	-
Other equity interests	AFS	6,294	-	6,294	-
Derivatives – assets					
Hedging financial instruments	CFH	1,764	-	1,764	-
Speculative financial instruments	L-FVTPL	-	-	-	-
Cash and cash equivalents	**A-FVTPL**	**1,286,722**	**1,286,722**	**-**	**-**
LIABILITIES					
Derivatives – liabilities					
Hedging financial instruments	CFH	105,291	-	105,291	-
Speculative financial instruments	L-FVTPL	2	-	2	-

2015	Notes	Category [a]	Gross value at 31/12/2015	Amortized cost	Fair value through equity	Fair value through profit or loss
ASSETS						
Other non-current assets	**4**					
Listed equity interests		AFS	63,939	-	63,939	-
Other equity interests		AFS	3,227	-	3,227	-
Loans		L&R	4,659	4,659	-	-
Other financial assets		L&R/AHM [2]	36,662	36,662	-	-
Trade and other receivables	**7**	**L&R**	**587,082**	**587,082**	**-**	**-**
Derivatives – assets	**8**					
Hedging financial instruments		CFH	5,126	-	5,126	-
Hedging financial instruments [f]		A-FVTPL	15,215			15,215
Speculative financial instruments		A-FVTPL	-	-	-	-
Other current assets	**9**	**L&R**	**307,474**	**307,474**	**-**	**-**
Cash and cash equivalents	**10**	**A-FVTPL**	**630,540**	**-**	**-**	**630,540**
LIABILITIES						
Bank loans and other borrowings [c] [e]	**16**	**AC-EIR**	**238,010**	**238,010**	**-**	**-**
Others	**16**	**AC-EIR**	**229,873**	**229,873**	**-**	**-**
Finance leases	**16**	**AC-EIR**	**78,017**	**78,017**	**-**	**-**
Bond issue	**16**	**AC-EIR**	**1,597,916**	**1,597,916**	**-**	**-**
Overdrafts and other short-term borrowings [d] [e]	**16**	**AC-EIR**	**5,981**	**5,981**	**-**	**-**
Trade and other payables		**AC**	**523,476**	**523,476**	**-**	**-**
Derivatives – liabilities	**8**					
Hedging financial instruments		CFH	45,833	-	45,833	-
Hedging financial instruments [f]		L-FVTPL	106,596	-	-	106,596
Speculative financial instruments		L-FVTPL	-	-	-	
Other current liabilities	**20**	**AC**	**332,854**	**332,854**	**-**	**-**

(a) A-FVTPL– Financial assets measured at fair value through profit or loss
AHM – Assets held to maturity
L&R – Loans and receivables
AFS – Available-for-sale financial assets
CFH – Cash flow hedges
L-FVTPL– Financial liabilities measured at fair value through profit or loss
AC – Amortized cost
AC-EIR – Amortized cost according to the effective interest rate method

(b) In the Group, the only assets in this category are security deposits and guarantees.

(c) Borrowings classified within non-current liabilities maturing in more than 12 months.

(d) Borrowings that must be repaid within 12 months are classified as current liabilities.

(e) Variable rate borrowings for which interest rate swaps have been entered into are accounted for using the cash flow hedge method. Changes in the fair value of the swap contracts, linked to interest rate movements, are recognized in equity to the extent of their effectiveness. Otherwise, they are recognized under financial income.

(f) Including the Value 11, Value 12, Value 13, Value 14 and Value 15 warrants, whose fair value as at 31 December 2015 was €1.6 million.

Financial instruments measured at fair value are classified by category on the basis of their measurement method. Fair value is measured:

(A) mainly based on quoted prices on an active market; equity securities are valued this way;

(B) on the basis of observable methods and data and with reference to the financial markets (yield curve, forward prices, etc.).

2015 Statement of financial position headings and classes of instruments	Category	Total fair value on statement of financial position	Fair value		
			Listed prices (A)	Internal model with observable inputs (B)	Internal model with unobservable inputs
ASSETS					
Listed equity interests	AFS	63,939	63,939	-	-
Other equity interests	AFS	3,227	-	3,227	-
Derivatives – assets					
Hedging financial instruments	CFH	5,126	-	5,126	-
Speculative financial instruments	L-FVTPL	-	-	-	-
Cash and cash equivalents	**A-FVTPL**	**630,540**	**630,540**	**-**	**-**
LIABILITIES					
Derivatives – liabilities					
Hedging financial instruments	CFH	152,429	-	152,429	-
Speculative financial instruments	L-FVTPL		-	-	-

NOTE 9 Other current assets

	Employee-related receivables and recoverable payroll taxes	Tax receivables excluding income tax	Prepaid expenses	Government, income tax	Other receivables	Total
As at 31/12/2014	**5,951**	**105,667**	**50,609**	**44,458**	**136,470**	**343,155**
Impact of changes in exchange rates	(730)	(11,936)	(1,370)	(8,843)	(14,267)	(37,146)
Provision allowances or reversals	-	-	-	-	(1,495)	(1,495)
Reclassification to assets held for sale and discontinued operations	(60)	(508)	(295)	(253)	(1,975)	(3,091)
Other changes	(1,232)	(15,370)	779	17,741	4,133	6,051
As at 31/12/2015	**3,929**	**77,853**	**49,723**	**53,103**	**122,866**	**307,474**
Impact of changes in exchange rates	436	10,232	2,804	6,636	11,320	31,428
Provision allowances or reversals	-	-	-	-	4,110	4,110
Acquisitions from business combinations (see Note 34)	85	29,635	3,173	10,479	79,790	123,162
Disposals from business combinations	(48)	(16,596)	(1,776)	(5,868)	(28,834)	(53,122)
Reclassification to assets held for sale and discontinued operations	(139)	(801)	(718)	-	-	(1,658)
Other changes	592	11,233	(2,183)	(25,697)	(112,320)	(128,375)
AS AT 31/12/2016	**4,855**	**111,556**	**51,023**	**38,653**	**76,932**	**283,019**

The decrease in the “Other changes” item is explained by the elimination of the 44% share in the receivables with VSB at the end of 2016.

NOTE 10 Cash and cash equivalents

	Investment securities (gross)	Cash and cash equivalents	Total
As at 31/12/2014	**806,485**	**340,428**	**1,146,913**
Impact of changes in exchange rates	(61,317)	8,885	(52,432)
Reclassification to assets held for sale and discontinued operations	-	(4,000)	(4,000)
Other changes	(284,642)	(175,299)	(459,941)
As at 31/12/2015	**460,526**	**170,014**	**630,540**
Impact of changes in exchange rates	50,408	(5,856)	44,552
Reclassification to assets held for sale and discontinued operations	-	(4,646)	(4,646)
Acquisitions from business combinations (see Note 34)	47,871	6,953	54,824
Disposals from business combinations	(25,921)	(688)	(26,609)
Other changes	417,592	170,469	588,061
AS AT 31/12/2016	**950,476**	**336,246**	**1,286,722**

Cash and cash equivalents” comprises cash in bank current accounts and investment securities (shares in short-term cash UCITS and mutual and investment funds) that are immediately available (not pledged), risk-free and have a low volatility level.

NOTE 11 Assets held for sale and discontinued operations

Net values	31/12/2015	31/12/2016
Assets held for sale and discontinued operations	68,964	46,327
Liabilities held for sale and discontinued operations	(60,135)	(43,211)
NET CARRYING AMOUNT OF ASSETS / LIABILITIES HELD FOR SALE	**8,829**	**3,116**

These assets and liabilities are as follows:

	31/12/2015	31/12/2016
Non-current assets	40,360	19,505
Current assets	80,608	26,822
Non-current liabilities	(2,107)	(3,232)
Current liabilities	(58,028)	(39,979)
Impairment of assets	(52,004)	-
NET CARRYING AMOUNT OF ASSETS / LIABILITIES HELD FOR SALE	**8,829**	**3,116**

On 29 April 2016, Vallourec completed the sale of its subsidiary Vallourec Heat Exchanger Tubes (VHET), classified under assets held for sale at the end of 2015, to American Industrial Acquisition Corporation (AIAC).

On 21 July 2016, Vallourec announced that it had entered into exclusive negotiations with the Ascometal Group with a view to selling it a majority interest in the steel mill at Saint-Saulve.

Vallourec and Asco Industries completed the acquisition on 26 January 2017 by the latter of a majority interest in the steel mill at Saint-Saulve.

Accordingly, these assets are presented under assets held for sale at the end of December 2016.

NOTE 12 Change in operating working capital requirements

Gross values	31/12/2015	Translation difference	Change	Changes in consolidation scope, reclassifications and other	31/12/2016
Inventories	1,234,047	54,031	(168,198)	120,632	1,240,512
Trade receivables	599,719	24,459	(123,403)	78,393	579,168
Trade payables	(523,476)	(8,235)	84,172	(82,852)	(530,391)
Other receivables and payables	7,306	28,826	5,281	41,265	82,678
Gross working capital (1)	**1,317,596**	**99,081**	**(202,148)**	**157,438**	**1,371,967**
Impact of hedging instruments (2)			**22,517**		
TOTAL (1) + (2)			**(179,631)**		
Change in working capital in the statement of cash flows			179,631		

NOTE 13 Equity

Capital

Vallourec's issued capital is comprised of 451,238,005 ordinary shares with a nominal value of €2 per share, fully paid-up, compared with 135,688,432 as at 31 December 2015.

2016

On 3 May 2016, Vallourec increased its capital maintaining shareholders' preferential subscription right for a gross amount of €480 million, resulting in the creation of 217,101,488 new shares. This capital increase, combined with the reserved issuance of mandatory convertible bonds for a gross amount of €514 million subscribed by Bpifrance Participations SA and Nippon Steel & Sumitomo Metal Corporation, enabled Vallourec to complete the overall capital increase for a net amount of €951 million.

Upon the issuance of the capital increase maintaining shareholders' preferential subscription right and redemption of the bonds on 3 May 2016 for BPI and on 20 June 2016 for NSSMC, the capital stands at 444,638,049 ordinary shares with a par value of €2 each (compared to 135,688,432 as at 31 December 2015).

On 14 December 2016, under the Value 16 employee share ownership plan 6,599,956 new shares were subscribed at a price of €3.99 for the leveraged plan and €3.75 for the standard plan, for a capital increase of €25.9 million, including issue premium net of expenses.

2015

On 25 June 2015, the option for payment of the dividend in shares, approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2015, resulted in the creation of 3,090,460 new shares issued at the price of €19.40, for a capital increase of €59.9 million, including additional paid-in capital net of expenses.

On 15 December 2015, under the Value 15 employee share ownership plan 1,999,997 new shares were subscribed at a price of €8.83 for the leveraged plan and €8.32 for the standard plan, for a capital increase of €17.3 million, including issue premium net of expenses.

Reserves, financial instruments

Under IAS 39 Financial Instruments, postings to this reserve account are made for two types of transaction:

- effective currency hedges assigned to the order book and commercial tenders. Changes in the intrinsic values at the year-end are recognized in equity;
- variable rate borrowings for which interest rate swaps (fixed rate) have been contracted. These are accounted for in accordance with the cash flow hedge method. Changes in the fair value of the swap contracts, linked to interest rate movements, are recognized in equity.

Foreign currency translation reserve

This reserve arises as a result of the translation of the equity of subsidiaries outside the euro zone. The change in the reserve corresponds to fluctuations in exchange rates used to translate the equity and net profit of these subsidiaries. Components of the reserve are reversed to income only in the case of a partial or total disposal and loss of control of the foreign entity.

	USD	GBP	Brazilian real (BRL)	Chinese yuan (CNY)	Others	Total
As at 31/12/2014	**158,184**	**(8,728)**	**(479,818)**	**50,497**	**(7,839)**	**(287,704)**
Change	162,784	2,939	(383,881)	7,976	(2,689)	(212,871)
As at 31/12/2015	**320,968**	**(5,789)**	**(863,699)**	**58,473**	**(10,528)**	**(500,575)**
Change	22,910	(5,794)	334,002	(24,197)	(2,920)	324,001
AS AT 31/12/2016	**343,878**	**(11,583)**	**(529,697)**	**34,276**	**(13,448)**	**(176,574)**

Main exchange rates used (euro/currency): translation of balance sheet items (closing rate) and income statement items (average rate)

For €1.00	USD	GBP	Brazilian real (BRL)	Chinese yuan (CNY)
2015				
Average rate	1.11	0.73	3.70	6.97
Reporting date rate	1.09	0.73	4.31	7.06
2016				
Average rate	1.11	0.82	3.86	7.35
Reporting date rate	1.05	0.86	3.43	7.32

NOTE 14 Earnings per share

Basic earnings per share are calculated by dividing the net income for the year attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding in the same period.

Diluted earnings per share are calculated by dividing the net income for the year attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding in the same period, adjusted for the dilution effect of options.

Details of the earnings and numbers of shares used to calculate basic and diluted earnings per share are presented below:

Earnings per share	2015	2016
Net income (loss) attributable to ordinary shareholders for basic earnings per share	**(864,753)**	**(758,016)**
Weighted average number of ordinary shares for basic earnings per share	130,613,382	332,737,362
Weighted average number of treasury shares for basic earnings per share	(486,826)	(2,279,971)
Weighted average number of shares for earnings per share	130,126,556	330,457,391
EARNINGS PER SHARE *(in €)*	**(6.6)**	**(2.3)**
Earnings per share comparable to 2016 *(in €)*	(6.6)	
Dilution effect – stock purchase and subscription options and performance shares	-	155,548
Weighted average number of ordinary shares for diluted earnings per share	130,126,556	330,612,939
DILUTED EARNINGS PER SHARE *(in €)*	**(6.6)**	**(2.3)**
Earnings per share comparable to 2016 *(in €)*	(6.6)	

Dividends paid during the year:	2015	2016
■ for the previous fiscal year *(in €)*	0.81	
■ interim dividend for the current fiscal year *(in €)*	-	-

NOTE 15 Non-controlling interests

	Reserves	Translation difference	Net income/ (loss)	Total
As at 31/12/2015	350,393	74,749	(33,201)	391,941
AS AT 31/12/2016	**450,892**	**93,070**	**(49,530)**	**494,432**

Contribution at reporting date	As at 31/12/2015	As at 31/12/2016
Main American entities [a]	368,447	330,144
Others	23,494	164,288
TOTAL	**391,941**	**494,432**

(a) Non-controlling interests are primarily held by Sumitomo Corp. and Nippon Steel Sumitomo Metal Corp.

The increase in 2016 of non-controlling interests is explained by the changes in the scope of consolidation described in Section 6.1.7.B, chiefly concerning VSB and Serimax.

Contributions to net income	As at 31/12/2015	As at 31/12/2016
Main American entities [a]	(28,701)	(48,404)
Others	(4,500)	(1,126)
TOTAL	**(33,201)**	**(49,530)**

(a) Non-controlling interests are primarily held by Sumitomo Corp. and Nippon Steel Sumitomo Metal Corp.

The amounts presented are the amounts which appear in the financial statements for wholly-owned entities, which were prepared in accordance with IFRS, upon fair value adjustments made at the time of acquisition, and adjustments for standardization with the Group's accounting principles.

Main American entities	As at 31/12/2015	As at 31/12/2016
Current assets	217,372	222,682
Non-current assets	1,694,943	1,632,387
Current liabilities	251,636	393,127
Non-current liabilities	222,366	191,400
NET ASSETS	**1,438,313**	**1,270,542**
Non-controlling interests	368,447	330,144
Revenue	671,788	426,730
Net income	(148,385)	(207,413)
Other comprehensive income (loss)	153,564	28,079
TOTAL COMPREHENSIVE INCOME	**5,179**	**(179,334)**
Net income attributable to non-controlling interests	(28,701)	(48,404)
Other items of comprehensive income attributable to non-controlling interests	39,004	10,438
Cash flow from operating activities	85,137	(52,381)
Cash flow used in investing activities	(61,474)	(16,045)
Cash flow from (used in) financing activities	(113,209)	(36,393)
Impact of changes in exchange rates	(10,958)	(7,624)
NET CASH FLOWS	**(100,504)**	**(112,443)**

NOTE 16 Bank loans and other borrowings

Liquidity risk

The Group's financial resources are composed of bank financing and market financing.

The majority of long-term and medium-term bank financing has been put in place in Europe through Vallourec and its sub-holding company Vallourec Tubes and, to a lesser extent, via the subsidiaries in Brazil and the United States (see below).

Market financing is arranged exclusively by Vallourec.

In Europe

In February 2014, Vallourec took out a multi-currency revolving credit facility for an amount of €1.1 billion, maturing in February 2019, plus two one-year extension options. In addition to the first one-year extension obtained for €1.078 billion, the second extension was granted in July 2016 for the sum of €989 million and maturity rescheduled for 2021. This credit line is available for the Group's general funding purposes. As at 31 December 2016 this line had not been drawn.

In June 2015, Vallourec agreed a bilateral line of €90 million until February 2019 with two one-year extension options, which were granted in July 2016. As at 31 December 2016 this line had not been drawn.

In September 2015, Vallourec took out a revolving credit facility for €400 million, maturing in July 2019, with a one-year extension option which was granted in July 2016 for the full amount, and maturity rescheduled for 2020. This replaces four medium-term bilateral lines of €100 million each granted to Vallourec Tubes and maturing in July 2017. As at 31 December 2016 this line had not been drawn.

In May 2016, Vallourec took out a revolving credit line for €450 million maturing in February 2020. As at 31 December 2016 this line had not been drawn.

In addition to the financing put in place by Vallourec, Vallourec Tubes has available two medium-term bilateral lines of €100 million each, maturing in July 2017. As at 31 December 2016, neither of these two lines was drawn.

Each of these bank facilities requires Vallourec to maintain its consolidated net debt-to-equity ratio at no more than 75%, calculated as at 31 December each year. A change in control of Vallourec could require the repayment of some or all of the debt, which would be decided separately by each bank. It is also stipulated that the entire debt will be immediately due and payable if the Group defaults on one of its debt obligations (cross default), or in case of a major event with consequences for the Group's business or financial position and its ability to repay its debt.

In addition to bank financing, the Group has sought to diversify its funding sources by using market financing. For example, Vallourec launched a commercial paper program on 12 October 2011 to meet its short-term needs. The program has a €1 billion ceiling.

At 31 December 2016, Vallourec had an outstanding debt of €307.2 million for maturities of up to one year. This commercial paper program was rated B by Standard & Poor's.

On 7 December 2011, Vallourec issued a €650 million bond maturing in February 2017, with a fixed annual coupon of 4.25%.

In August 2012, Vallourec also issued two long-term private bonds totaling €455 million. The amounts and terms of these two private bond issues are €400 million for seven years with an annual coupon of 3.25% for one, and €55 million for 15 years with an annual coupon of 4.125%.

On 30 September 2014, Vallourec issued a €500 million bond, maturing in September 2024, with a fixed annual coupon of 2.25%.

The market values of these fixed-rate bonds issues are €651.8 million, €416.2 million, €63 million and €530.2 million, respectively.

These bond issues were intended to diversify and increase the amount and extend the maturity of the financial resources available to the Group.

These bond issues specifically include a change-of-control clause that would trigger the mandatory prepayment of the bonds at the request of each bondholder in the event of a change of control of the Company (in favor of a person or a group of people acting in concert) leading to a downgrade of Vallourec's financial rating.

In addition, these bonds may be subject to a request for prepayment should any of the common default scenarios for this type of transaction arise. Early redemption may also be requested in some cases by either the Company or the bondholder, particularly in respect of a change in Vallourec's position or tax status.

As at 31 December 2016, the Group complied with its covenants and the terms and conditions for obtaining and maintaining all of the above facilities. Together, the above resources were sufficient to cover the Group's cash requirements as at 31 December 2016.

In Brazil

In December 2009, Vallourec Soluções Tubulares do Brasil (formerly VSB), contracted a loan of BRL 448.8 million from BNDES (Banco Nacional de Desenvolvimento Econômico e Social). This fixed-rate loan at 4.5% is denominated in Brazilian reals and has a term of eight years. It is amortizable from 15 February 2012. As at 31 December 2016, BRL 56.9 million of this loan had been drawn.

In 2010, this same company in Brazil concluded a finance lease with a nominal value of BRL 570 million relating to equipment needed to operate the plant at Jeceaba. As at 31 December 2016, the residual amount outstanding on this finance lease was BRL 323.3 million.

In the United States

The Group's US companies have a set of bilateral bank lines that were renewed in 2016 for a total of USD 80 million. The amount used as at 31 December 2016 totaled USD 80 million. These under 12 month facilities include clauses relating to the debt of each of the companies involved and a change of control clause.

In 2013, Vallourec Star set up a finance lease with a nominal value of USD 64.3 million and a final maturity of five years. As at 31 December 2016, the residual amount outstanding on this finance lease was USD 35.9 million.

Financial liabilities - Non-current liabilities

	Bank borrowings	Finance leases	Bond issue	Other borrowings	Total
As at 31/12/2014	**84,303**	**101,575**	**1,595,662**	**333**	**1,781,873**
New debt	22,002	-	2,254	7,556	31,812
Repayments	(4,544)	(12,329)	-	(3,463)	(20,336)
Impact of changes in exchange rates	(23,057)	(11,034)	-	2,936	(31,155)
Other changes	-	(195)	-	956	761
As at 31/12/2015	**78,704**	**78,017**	**1,597,916**	**8,318**	**1,762,955**
New debt	-	-	942	-	942
Repayments	(39,526)	(13,834)	-	(232)	(53,592)
Impact of changes in exchange rates	15,075	12,833	-	(10,289)	17,619
Current/non-current reclassifications	-	-	(648,485)	(21)	(648,506)
Acquisitions from business combinations (see Note 34)	4,865	81,853	-	(4,527)	82,191
Disposals from business combinations	(2,724)	(45,838)	-	7,761	(40,801)
Other changes	-	-	-	(160)	(160)
AS AT 31/12/2016	**56,394**	**113,031**	**950,373**	**850**	**1,120,648**

Financial liabilities - Current liabilities

	Bank overdrafts	Bond issues	Bank borrowings (< 1 year)	Accrued interest not yet due on bank borrowings	Other financial liabilities (< 1 year)	Total
As at 31/12/2014	**38,195**	**-**	**234,481**	**33,656**	**605,302**	**911,634**
Impact of changes in exchange rates	2,503	-	(5,867)	22	(50,144)	(53,486)
Reclassification to assets held for sale and discontinued operations	-	-	(1)	-	-	(1)
Other changes	(34,717)	-	(69,307)	(306)	(366,975)	(471,305)
As at 31/12/2015	**5,981**	**-**	**159,306**	**33,372**	**188,183**	**386,842**
Current/non-current reclassifications	-	648,485	-	(3)	21	648,503
Impact of changes in exchange rates	41	-	15,751	-	44,939	60,731
Acquisitions from business combinations (see Note 34)	-	-	49,085	-	250,683	299,768
Disposals from business combinations	-	-	(27,487)	-	(144,109)	(171,596)
Other changes	3,586	1,343	(38,493)	74	262,338	228,848
AS AT 31/12/2016	**9,608**	**649,828**	**158,162**	**33,443**	**602,055**	**1,453,096**

Debt by currency

	USD	EUR	BRL	Others	Total
As at 31/12/2015 - in thousands of currency unit	261,770	1,715,789	739,043	n/a	n/a
As at 31/12/2015 – in € thousand	240,443	1,715,789	171,404	22,161	2,149,797
As at 31/12/2016 - in thousands of currency unit	**448,869**	**1,948,186**	**604,012**	**n/a**	**n/a**
AS AT 31/12/2016 – IN € THOUSANDS	**425,832**	**1,948,186**	**176,071**	**23,655**	**2,573,744**

Breakdown by maturity of non-current loans and other financial liabilities (> 1 year)

	> 1 year	> 2 years	> 3 years	> 4 years	5 years or more	Total
As at 31/12/2015	**702,822**	**42,682**	**412,558**	**14,078**	**590,815**	**1,762,955**
Finance leases	37,017	10,606	10,636	10,672	44,101	113,032
Other non-current borrowings	16,979	411,006	12,387	3,991	563,253	1,007,616
AS AT 31/12/2016	**53,996**	**421,612**	**23,023**	**14,663**	**607,354**	**1,120,648**

Breakdown by maturity of current loans and other financial liabilities

2016	< 3 months	> 3 months and < 1 year	Total
Non-convertible bond issues	649,828	-	649,828
Bank borrowings	18,747	139,415	158,162
Other borrowings	286,053	297,715	583,768
Finance lease liabilities	1,924	16,363	18,287
Accrued interest on borrowings	24,463	8,980	33,443
Bank overdrafts (negative cash and cash equivalents)	9,606	2	9,608
AS AT 31/12/2016	**990,621**	**462,475**	**1,453,096**

Debt by interest rate

The following table groups the current and non-current portions of bank and other borrowings.

	Rate < 3%	Rate 3 to 6%	Rate 6 to 10%	Rate > 10%	Total
As at 31/12/2015					
Fixed rate on date granted	673,482	1,240,592	76,195	-	1,990,269
Variable rate on date granted swapped to fixed rate	-	-	-	-	-
Fixed rate	673,482	1,240,592	76,195	-	1,990,269
Variable rate	129,978	2,232	22,001	5,317	159,528
TOTAL	**803,460**	**1,242,824**	**98,196**	**5,317**	**2,149,797**
As at 31/12/2016					
Fixed rate on date granted	814,145	1,481,302	12,521	18,316	2,326,284
Variable rate on date granted swapped to fixed rate	-	-	-	-	-
Fixed rate	814,145	1,481,302	12,521	18,316	2,326,284
Variable rate	2,256	127,123	116,051	2,030	247,460
TOTAL	**816,401**	**1,608,425**	**128,572**	**20,346**	**2,573,744**

Debt contracted at a rate higher than 6% relates to companies based in Brazil.

Debt at a fixed rate of less than 3% on the date granted relates mainly to commercial paper and to the €500 million bond issue.

NOTE 17 Provisions

Non-current liabilities	Provisions for environmental risks	Reorganization measures	Tax risks (income and other taxes, inspections, etc.)	Others	Total
As at 31/12/2014	**13,437**	**-**	**-**	**-**	**13,437**
Provisions for the period	752	-	-	-	752
Provisions used	-	-	-	-	-
Impact of changes in exchange rates	(3,452)	-	-	-	(3,452)
Others	(222)	-	-	-	(222)
As at 31/12/2015	**10,515**	**-**	**-**	**-**	**10,515**
Provisions for the period	629	13,988	14,222	6,451	35,290
Provisions used	(8)	(3,034)	(2,935)	(5,301)	(11,278)
Impact of changes in exchange rates	2,921	89	8,041	497	11,548
Acquisitions from business combinations (see Note 34)	-	-	-	2,780	2,780
Disposals from business combinations	-	-	-	(477)	(477)
Current/non-current reclassifications	-	11,000	25,512	9,172	45,684
Other changes	1,323	140	929	(766)	1,626
AS AT 31/12/2016	**15,380**	**22,183**	**45,769**	**12,356**	**95,688**

Provisions for use in over one year (e.g., provisions for tax disputes in Brazil) were reclassified as non-current.

Provisions for environmental risks

The environment provision covers the cost of treating industrial land, as well as the clean-up costs for the mine in Brazil: amounts are provided as and when minerals are extracted, based on the volumes extracted.

Provision for tax risks

This provision mainly relates to risks in connection with tax disputes in Brazil, some of which are covered by security deposits (see Note 4).

Current liabilities	Disputes and commercial commitments	Unfilled orders – losses on completion	Reorganization measures	Tax risks (income and other taxes, inspections, etc.)	Others	Total
As at 31/12/2014	**41,602**	**27,559**	**22,265**	**34,481**	**37,089**	**162,996**
Provisions for the period	32,478	61,783	73,453	11,926	15,881	195,521
Provisions used	(24,255)	(27,559)	(13,063)	(4,770)	(10,422)	(80,069)
Other reversals	(6,880)	-	(949)	(7,308)	(6,216)	(21,353)
Impact of changes in exchange rates	(5,073)	(258)	(3)	(8,605)	(7,130)	(21,069)
Reclassification to liabilities held for sale and discontinued operations	(451)	(390)	-	-	(104)	(945)
Changes in scope and other	-	(275)	(583)	19	3,865	3,026
As at 31/12/2015	**37,421**	**60,860**	**81,120**	**25,743**	**32,963**	**238,107**
Provisions for the period	37,566	65,912	98,336	75	20,499	222,388
Provisions used	(22,607)	(20,429)	(34,965)	(10)	(28,958)	(106,969)
Other reversals	(4,719)	(2,433)	-	-	-	(7,152)
Impact of changes in exchange rates	5,109	2,592	(168)	(1)	5,845	13,377
Acquisitions from business combinations (see Note 34)	-	22,497	-	-	1,067	23,564
Disposals from business combinations	-	-	-	-	(598)	(598)
Reclassification to liabilities held for sale and discontinued operations	-	-	(26,000)	-	(40)	(26,040)
Current/non-current reclassifications	(3,673)	(32)	(11,000)	(25,512)	(5,467)	(45,684)
Other changes	112	(20,657)	(20,569)	-	10,417	(30,697)
AS AT 31/12/2016	**49,209**	**108,310**	**86,754**	**295**	**35,728**	**280,296**

Provisions for disputes, commercial commitments and losses on unfilled orders

Provisions are booked with regard to disputes if the Group has an obligation to a third party at the reporting date. They are determined based on the best estimate of the expense likely to be required to settle the obligation.

Provisions for adaptation and restructuring measures

The provisions for adaptation and restructuring measures cover the estimated costs of the plans announced in 2015 and 2016, mainly concerning Europe. They include the following costs:

- redundancy and end-of-contract compensation paid to personnel no longer required by the company;
- costs of maintaining personnel after the shutdown of operations and until the site closure (compensation for unworked notice periods, for example);
- contract termination compensation paid to suppliers;
- outstanding rents payable after the shutdown of operations until the end of the rental agreement.

Other current provisions

This item comprises various provisions with regard to customer discounts, late-payment penalties and other risks identified at the reporting date, with none being individually material.

Contingent liabilities

In connection with investigations by Brazilian authorities relating to procedures involving Petrobras and targeting its tube suppliers, V&M do Brasil S.A. was cited in the decision of a federal judge dated 19 May 2016. This decision provided for authorities to visit the facilities of certain tube suppliers for purposes of collecting evidence. V&M do Brasil S.A. was not one of the suppliers that was visited. The company is offering its cooperation with judicial authorities in connection with the pursuit of these investigations. No provision has been constituted in relation to this matter.

For 2016 and 2015, actual annual greenhouse gas emissions were lower than the allowance granted by the French government, so no provisions were booked in this regard.

NOTE 18 Other long-term liabilities

Other long-term liabilities	
As at 31/12/2014	**215,426**
Impact of changes in exchange rates	(32,902)
Other changes	(150,793)
As at 31/12/2015	**31,731**
Impact of changes in exchange rates	4,637
Other changes	(10,656)
AS AT 31/12/2016	**25,712**

Other long-term liabilities are primarily composed of other non-operating liabilities of more than one year and a €165 million shareholder loan granted on 31 December 2014 to Vallourec & Sumitomo Tubos do Brasil, a joint operation. In 2015, the impact of the application of the Amendment to IFRS 11 translated to a €165 million drop in long-term liabilities, offset by non-current assets, which declined by the same amount (see Note 4).

NOTE 19 Employee benefit commitments

	Germany	France	United Kingdom	Others	Total
As at 31/12/2015					
Present value of the obligation	**289,596**	**54,246**	**140,527**	**85,336**	**569,705**
Retirement benefits	251,294	51,929	140,527	80,657	524,407
Early retirement commitments	23,068	-	-	-	23,068
Long-service awards and medical benefits	15,234	2,317	-	4,679	22,230
Fair value of plan assets	(151,402)	(7,875)	(156,572)	(29,379)	(345,228)
NET LIABILITY	**138,194**	**46,371**	**(16,045)**	**55,957**	**224,477**
As at 31/12/2016					
Present value of the obligation	**315,841**	**38,251**	**135,041**	**94,818**	**583,951**
Retirement benefits	260,016	36,657	135,041	70,723	502,437
Early retirement commitments	39,765	-	-	-	39,765
Long-service awards and medical benefits	16,060	1,594	-	24,095	41,749
Fair value of plan assets	(166,984)	(8,022)	(148,517)	(33,665)	(357,188)
NET LIABILITY	**148,857**	**30,229**	**(13,476)**	**61,153**	**226,763**

The main actuarial assumptions used for the measurement of post-employment benefit obligations, taking account of the plans' durations, are as follows:

Main actuarial assumptions	Germany	France	United Kingdom	Others
As at 31/12/2015				
Discount rate	2.10%	2.10%	3.80%	from 4.35% to 17.95%
Actual return on plan assets	2.10%	2.10%	3.80%	from 4.35% to 17.95%
Salary increase rate	2.00%	1.30%	3.35%	from 3% to 11.5%
As at 31/12/2016				
Discount rate	1.55%	1.55%	2.70%	from 4.15% to 10.39%
Long-term return on plan assets	1.55%	1.55%	2.70%	from 4.15% to 10.39%
Salary increase rate	2.00%	1.40%	3.50%	from 3% to 10%

Commitments are valued by independent actuaries. The assumptions used take account of the specific characteristics of the plans and companies concerned.

Experience gains and losses in 2016 generated €9.7 million in gains for the Group (against €9.5 million in gains in 2015).

In 2017, the Group expects to pay €34.1 million of benefits under defined benefit plans, including €21.9 million in Germany, €5.7 million in the United Kingdom, €2.1 million in France and €2.5 million in Brazil.

Plans that are fully or partially outsourced represented a total obligation of €501 million at 31 December 2016 for assets of €357 million.

In the euro zone, the discount rate is based on the iBoxx index (AA-rated corporate bonds with a maturity of 10 or more years, estimated on the date the obligations are valued). This index uses a basket of bonds of financial and non-financial companies. The rates have not been restated to reflect credit risk not factored into the selected bond baskets.

Actual returns on plan assets exceeded estimates by €28 million. In 2016, a general drop in discount rates resulted in an overall increase in liabilities, generating actuarial losses for the year of €48.6 million.

Over the course of the year, the Group carried out restructuring plans that affected employee benefit commitments, particularly in France and Germany.

France

Obligations in France correspond to retirement benefits, supplemental pension plans and long-service award-type benefits.

On 31 December 2016 a sensitivity test to the discount rate was performed: a 1% variation of this rate would result in a change of about €3.9 million in these commitments.

On 14 September 2005, a supplemental pension plan with its own plan assets was set up for executive management. The plan is partially outsourced to an insurance company. Since it is a defined benefit plan, it is valued on an actuarial basis and recognized in accordance with revised IAS 19 in the case of active employees.

During the fiscal year, the plan was closed and the benefits frozen, resulting in a €4.9 million reduction in commitment.

As at 31 December 2016, the obligation represents €11.5 million for assets of €7.8 million.

The restructuring plan in France reduced commitments by €10.5 million.

Germany

The Group's employees in Germany benefit from a variety of mechanisms (retirement benefits, deferred compensation, long-service awards and early retirement), which constitute long-term obligations for the Group.

On 31 December 2016 a sensitivity test to the discount rate was performed: a 1% variation of this rate would result in a change of about €30.9 million in these commitments.

The restructuring plan has increased commitments by €16.6 million (early retirement).

United Kingdom

The Group helps fund a defined benefit pension plan for Group employees. The obligations are outsourced and managed by leading institutions in the financial markets.

On 31 December 2016 a sensitivity test to the discount rate was performed: a 1% variation of this rate would result in a change of about €24.8 million in these commitments.

Brazil

In Brazil, employers help to fund termination benefits and long-service awards. Retirement benefits are partially outsourced in a pension fund with total assets of €1.1 million in 2016 (vs. €0.4 million in 2015). A €0.8 million contribution was paid (€0.4 million in 2015).

Mexico

Obligations in Mexico are not material for the Group.

USA

The assumption for increased medical benefits is regressive from 2016 to 2021: from 6.0% to 4.0% for workers and retirees.

There were no significant events during 2016 that could have a material impact on the obligation.

Other countries

Provisions are made for obligations in other countries in accordance with local standards. They are not considered material at Group level.

Expenses incurred during the year include the additional rights acquired for an additional year of service, the change in existing rights at the beginning of the year due to discounting, past service costs recorded in the period, the actual return on plan assets, the effects of plan reductions or liquidations and the amortization of actuarial gains and losses. The portion relating to the discounting of rights is recognized in financial income/(loss) and the return on plan assets is recorded in investment income. These expenses are broken down as follows:

Expenses for the fiscal year

In € thousands	Germany	France	United Kingdom	Others	Total
As at 31/12/2016					
Current service cost	9,336	2,173	2,719	3,529	17,757
Interest expense	5,882	923	4,682	6,481	17,968
Actual return on plan assets	(3,179)	(165)	(5,295)	(1,293)	(9,932)
Net actuarial losses/(gains) for the year	2,612	45	-	1,145	3,802
Cost of past services [(a)]	-	(4,922)	-	(4,680)	(9,602)
Impact of any reduction or liquidation [(b)]	16,388	(10,556)	1,073	(3,677)	3,228
NET EXPENSE	**31,039**	**(12,502)**	**3,179**	**1,505**	**23,221**
ACTUAL RETURN ON PLAN ASSETS	**7,617**	**147**	**28,289**	**1,884**	**37,937**

(a) *In France, corresponds to the closing and freezing of the 2005 supplemental pension plan for executive management.*

(b) *Primarily consists of the restructurings in France (reduction of the obligation in return for the creation of a restructuring provision) and in Germany (increase in the early retirement plan).*

In € thousands	Germany	France	United Kingdom	Others	Total
As at 31/12/2015					
Current service cost	8,114	3,734	3,862	4,208	19,918
Interest expense	4,662	948	5,515	5,676	16,801
Actual return on plan assets	(2,502)	(135)	(5,502)	(1,284)	(9,423)
Net actuarial losses/(gains) for the year	4,027	(69)	-	(505)	3,453
Cost of past services	(3,065)	41	-	(702)	(3,726)
Impact of any reduction or liquidation	11,190	(2,169)	-	(465)	8,556
NET EXPENSE	**22,426**	**2,350**	**3,875**	**6,928**	**35,579**
ACTUAL RETURN ON PLAN ASSETS	**2,038**	**169**	**437**	**(518)**	**2,126**

The changes in assets associated with these benefits are as follows:

Changes in related assets	Germany	France	United Kingdom	Others	Total
As at 31/12/2014	**147,164**	**7,706**	**149,691**	**28,058**	**332,619**
Value of assets	147,164	7,706	149,691	28,058	332,619
Actual return on assets	2,038	169	437	(518)	2,126
Contributions	2,200	-	6,100	590	8,890
Benefits paid	-	-	(8,837)	(1,381)	(10,218)
Acquisitions, disposals, liquidations	-	-	-	(225)	(225)
Impact of changes in exchange rates	-	-	9,181	2,855	12,036
As at 31/12/2015	**151,402**	**7,875**	**156,572**	**29,379**	**345,228**
Value of assets	151,402	7,875	156,572	29,379	345,228
Actual return on assets	7,617	147	28,289	1,884	37,937
Contributions	7,965	-	5,514	2,827	16,306
Benefits paid	-	-	(18,872)	(1,413)	(20,285)
Acquisitions, disposals, liquidations	-	-	-	97	97
Impact of changes in exchange rates	-	-	(22,986)	891	(22,095)
AS AT 31/12/2016	**166,984**	**8,022**	**148,517**	**33,665**	**357,188**

Changes in the obligation	Germany	France	United Kingdom	Others	Total
As at 31/12/2014	**282,228**	**57,275**	**153,075**	**84,323**	**576,901**
Current service cost	8,114	3,784	3,862	4,208	19,968
Interest expense	4,662	973	5,515	5,676	16,826
Employee contributions	-	-	751	79	830
Actuarial losses (+)/gains (-) generated during the year	-	-	-	-	-
Remeasurement:					
■ Experience-related adjustments	14,718	(612)	(6,290)	1,699	9,515
■ Actuarial gains and losses arising from changes in demographic assumptions	(460)	-	(1,455)	(966)	(2,881)
■ Actuarial gains and losses arising from changes in financial assumptions	(12,187)	(206)	(15,705)	(3,017)	(31,115)
Acquisitions/disposals	-	-	-	11	11
Benefits payments	(15,710)	(3,056)	(8,837)	(3,104)	(30,707)
Plan amendments	(3,065)	-	-	(687)	(3,752)
Reclassification to assets/liabilities held for sale	-	(1,666)	-	-	(1,666)
Foreign exchange differences	-	-	9,611	(2,190)	7,421
Others	11,296	(2,246)	-	(696)	8,354
As at 31/12/2015	**289,596**	**54,246**	**140,527**	**85,336**	**569,705**

Changes in the obligation	Germany	France	United Kingdom	Others	Total
As at 31/12/2015	**289,596**	**54,246**	**140,527**	**85,336**	**569,705**
Current service cost	9,336	2,173	2,719	3,529	17,757
Interest expense	5,882	923	4,682	6,481	17,968
Employee contributions	-	-	582	38	620
Actuarial losses (+)/gains (-) generated during the year	-	-	-	-	-
Remeasurements:					
■ Experience-related adjustments	(168)	(1,694)	(5,938)	(1,891)	(9,691)
■ Actuarial gains and losses arising from changes in demographic assumptions	-	-	-	(813)	(813)
■ Actuarial gains and losses arising from changes in financial assumptions	11,829	2,726	30,977	3,018	48,550
Acquisitions/disposals	(93)	(72)	-	627	462
Benefits payments	(17,134)	(1,450)	(18,872)	(3,889)	(41,345)
Plan amendments	-	(4,922)	-	(4,325)	(9,247)
Reclassification to assets/liabilities held for sale	-	(3,192)	-	-	(3,192)
Foreign exchange differences	-	-	(20,709)	7,822	(12,887)
Other [(a)]	16,593	(10,487)	1,073	(1,115)	6,064
As at 31/12/2016	**315,841**	**38,251**	**135,041**	**94,818**	**583,951**

(a) Primarily consists of the restructurings in France (reduction of the obligation in return for the allowance of a restructuring provision) and in Germany (increase in the early retirement plan).

Movements during the year in net liabilities recognized on the statement of financial position were as follows:

Change in net liability	Germany	France	United Kingdom	Others	Total
NET LIABILITY/(ASSET) AT 31/12/2014	**135,064**	**49,569**	**3,384**	**56,265**	**244,282**
Total expense for the period	22,426	2,350	3,875	6,928	35,579
Amount recognized in Other comprehensive income – Remeasurement	(1,492)	(648)	(18,385)	(82)	(20,607)
Benefits or contributions to funds	(17,910)	(3,069)	(5,349)	(2,217)	(28,545)
Reclassification to assets/liabilities held for sale	-	(1,666)	-	-	(1,666)
Impact of changes in exchange rates	-	-	429	(4,560)	(4,131)
Changes in scope and other	106	(165)	1	(377)	(435)
NET LIABILITY/(ASSET) AT 31/12/2015	**138,194**	**46,371**	**(16,045)**	**55,957**	**224,477**
Total expense for the period	31,039	(12,502)	3,179	1,505	23,221
Amount recognized in Other comprehensive income – Remeasurement	4,611	1,008	2,045	1,351	9,015
Benefits or contributions to funds	(25,099)	(1,450)	(4,932)	(5,264)	(36,745)
Reclassification to assets/liabilities held for sale	-	(3,192)	-	-	(3,192)
Impact of changes in exchange rates	-	-	2,277	6,569	8,846
Changes in scope and other	112	(6)	-	1,035	1,141
NET LIABILITY/(ASSET) AT 31/12/2016	**148,857**	**30,229**	**(13,476)**	**61,153**	**226,763**

Plan assets are broken down as follows:

United Kingdom	31/12/2016 In share	31/12/2015 In share
Equities (UK and overseas)	43.00%	45.00%
Bonds	4.00%	21.00%
Real Estate	13.00%	14.00%
Other (Cash and Index-Linked Gilts)	40.00%	20.00%

USA	31/12/2016 In share	31/12/2015 In share
Equities	53.00%	52.00%
Bonds	37.00%	37.00%
Real Estate	8.00%	9.00%
Others	2.00%	2.00%

Germany	31/12/2016 In share	31/12/2015 In share
Equities	24.00%	25.48%
Bonds	76.00%	74.52%
Real Estate	-	-
Others	-	-

In France, 100% of the assets are placed in the general assets of an insurance company.

Sensitivity analysis

Calculating the projected obligation of a defined benefit plan is sensitive to the above assumptions.

A change of 1% in the respective assumptions would have the following impacts on the defined benefit obligation at the reporting date:

In € million	1% increase	1% decrease
Discount rate	(70)	86
Salary increase rate	16	(10)
Guaranteed rate of pension increase	40	(34)

Amounts expensed for defined contribution plans	Production staff	Directors, management, technical and supervisory staff	Total
As at 31/12/2015			
Employer's share of retirement contributions	6,217	12,971	19,188
Life insurance paid by the employer	3,889	2,807	6,696
Other retirement contributions	378	12	390
TOTAL	**10,484**	**15,790**	**26,274**
As at 31/12/2016			
Employer's share of retirement contributions	4,026	8,581	12,607
Life insurance paid by the employer	3,650	2,625	6,275
Other retirement contributions	-	567	567
TOTAL	**7,676**	**11,773**	**19,449**

Other employee benefits (options and performance shares)

The impact on the income statement of employee share ownership plans is presented in Note 25.

After application of the adjustments provided for in Articles L.228-99 et R.228-91 of the French Commercial Code and pursuant to the rules governing performance share and share option plans. At its meeting on 2 May 2016, the Vallourec Supervisory Board sought to protect the rights of holders of performance shares and share options by ensuring that the capital increase decided on 7 April 2016 did not affect said rights. The information below takes into account the impacts of this decision.

Share subscription plans

CHARACTERISTICS OF THE PLANS

The Vallourec Management Board authorized share subscription plans from 2009 to 2016 for some executive management and corporate officers of the Group.

The characteristics of these plans are as follows (figures for the 2009 plan are restated to reflect the 2:1 stock split on 9 July 2010 and the subsequent doubling of the number of shares):

	2009 Plan	2010 Plan	2011 Plan	2012 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
Grant date	01/09/2009	01/09/2010	01/09/2011	31/08/2012	02/09/2013	15/04/2014	15/04/2015	18/05/2016
Maturity date	01/09/2013	01/09/2014	01/09/2015	01/03/2017	03/03/2018	15/04/2018	15/04/2019	18/05/2020
Expiration date	01/09/2019	01/09/2020	01/09/2021	30/08/2020	01/09/2021	15/04/2022	15/04/2023	18/05/2024
Exercise price in euros	31.02	42.72	36.44	22.21	27.70	23.13	13.57	3.90
Number of options granted	964,107	853,641	1,140,431	883,602	1,003,746	622,261	683,413	537,895

CHANGE IN NUMBER OF UNEXPIRED OPTIONS

For all of these plans, the change in the number of unexpired options is as follows:

In number of options	2015	2016
Options outstanding as at 1 January	3,190,049	2,860,088
Options exercised	-	-
Options lapsed	(143,600)	-
Options canceled [(a)]	(596,711)	(62,852)
Impact of the capital increase on the plans prior to 2016	-	1,667,736
Options distributed	410,350	537,895
OPTIONS OUTSTANDING AS AT 31 DECEMBER	**2,860,088**	**5,002,867**
Options available for exercise	960,423	1,318,249

(a) The reported figures correspond to the theoretical number of shares originally allocated with a performance factor of 1 for plans that were vesting, and to the actual number of shares allocated for plans that had matured.

As at 31 December 2016, the average exercise price is €40 and the average remaining lifespan 5 years.

Measurement of Plans [(a)]	2015 Plan	2016 Plan
Share price at allocation date	26.03 €	3.36 €
Volatility [(b)]	29.00%	31.00%
Risk-free rate [(c)]	0.21%	0.35%
Exercise price	13.57 €	3.90 €
Dividend rate [(d)]	3.00%	3.00%
Fair value of the option [(e)]	3.37 €	0.53 €

(a) The binomial model of projecting share prices has been used to measure the fair value of the options granted.

(b) Volatility corresponds to historical volatility observed over a period corresponding to the duration of the plans.

(c) The risk-free rate corresponds to the zero-coupon rate (source: French Institute of Actuaries – Institut des Actuaires).

(d) The expected dividend rates have been determined on the basis of analysts' expectations and the Group's dividend policy.

(e) The fair value for the Management Board and the Operational Committee is €0.53 for the 2016 plan.

Performance share allocation plans

CHARACTERISTICS OF THE PLANS

The Vallourec Management Board authorized performance share plans from 2011 to 2016 for some employees and corporate officers of the Group.

The characteristics of these plans are as follows:

Performance share plans	2011 Plan	2012 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
Allocation date	30/03/2011	30/03/2012	29/03/2013	16/12/2014	15/04/2015	18/05/2016
Vesting period	2 years (French residents and members of the Management Board) or 4 years (non-French residents)	2 years (French residents and members of the Management Board) or 4 years (non-French residents)	3 years (French residents and members of the Management Board) or 4 years (non-French residents)	3 years (French residents) or 4 years (non-French residents)	3 years (French residents) or 4 years (non-French residents)	3 years (French residents) or 4 years (non-French residents)
Holding period	2 years (French residents and members of the Management Board) or none (non-French residents)	2 years (French residents and members of the Management Board) or none (non-French residents)	2 years (French residents and members of the Management Board) or none (non-French residents)	2 years (French residents) or none (non-French residents)	2 years (French residents) or none (non-French residents)	2 years (French residents) or none (non-French residents)
Performance conditions	Yes [a]	Yes [b]	Yes [c]	Yes [d]	Yes [e]	Yes [f]
Theoretical number of shares allocated	214,271	286,718	391,200	661,861	388,583	610,001

(a) Definitive allocation of shares in 2013 for French residents and members of the Management Board, and in 2015 for non-French residents. For all beneficiaries (excluding Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2011 and 2012. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Management Board, the definitive allocation of shares in 2013 will be based on the following three criteria assessed for fiscal years 2011 and 2012: revenue growth on a like-for-like basis; the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis; and the performance of the Vallourec share on the regulated NYSE Euronext Paris stock market against a benchmark panel. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(b) Definitive allocation of shares in 2014 for French residents and members of the Management Board, and in 2016 for non-French residents. For all beneficiaries (excluding Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2012 and 2013. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the definitive allocation of shares will be based on the following three criteria assessed for fiscal years 2012 and 2013: revenue growth on a like-for-like basis; the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis; and the performance of the Vallourec share on the regulated NYSE Euronext Paris stock market against a benchmark panel. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(c) Definitive allocation of shares in 2016 for French residents and members of the Management Board, and in 2017 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2013, 2014 and 2015. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the definitive allocation will be based on the following three criteria assessed for fiscal years 2013, 2014 and 2015: revenue growth on a like-for-like basis; the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis; and the performance of the Vallourec share on the regulated NYSE Euronext Paris stock market against a benchmark panel. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(d) Definitive allocation of shares in 2017 for French residents and members of the Management Board, and in 2018 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2014, 2015 and 2016. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, final allocation shall depend on the following four criteria, assessed in 2014, 2015 and 2016: the rate of return on capital employed (ROCE), compared with the ROCE in the budget, consolidated revenue on a like-for-like basis, as compared with the revenue in the budget, the relative stock market performance of the Vallourec share on the regulated NYSE Euronext market in Paris, as compared with a benchmark panel, and the relative EBITDA performance as compared with the same panel as for the previous criterion. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(e) Definitive allocation of shares in 2018 for French residents and members of the Management Board, and in 2019 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2015, 2016 and 2017. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the final award will depend on the following two criteria, assessed for 2015, 2016 and 2017: the rate of return on capital employed on a consolidated basis (ROCE), compared to the ROCE in the strategic plan, and the Total Shareholder Return (TSR) for 2015, 2016 and 2017. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(f) Definitive allocation of shares in 2019 for French residents and members of the Management Board, and in 2020 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the consolidated EBITDA achieved by the Group in 2016, 2017 and 2018 reported in the budget. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the final award will depend on the following two criteria, assessed for 2016, 2017 and 2018: the rate of return on capital employed on a consolidated basis (ROCE), compared to the ROCE in the strategic plan, and the Total Shareholder Return (TSR) for 2016, 2017 and 2018. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

International performance share allocation plans for employees	2-4-6 Plan (2011)	2-4-6 Plan (2012)	2-4-6 Plan (2013)	2-4-6 Plan (2014)
Allocation date	15/12/2011	30/03/2012	29/03/2013	15/04/2014
Vesting period	2 years (French residents) or 4 years (non-French residents)	2 years (French residents) or 4 years (non-French residents)	3 years (French residents) or 4 years (non-French residents)	3 years (French residents) or 4 years (non-French residents)
Holding period	2 years (French residents) or none (non-French residents)	2 years (French residents) or none (non-French residents)	2 years (French residents) or none (non-French residents)	2 years (French residents) or none (non-French residents)
Performance condition	Ratio of EBITDA to revenue (2012 and 2013)	Ratio of EBITDA to revenue (2012 and 2013)	Ratio of EBITDA to revenue (2013, 2014 and 2015)	Ratio of EBITDA to revenue (2014, 2015 and 2016)
Theoretical number of shares allocated	78,318	130,116	191,144	208,100

Free share allocation plans (without performance condition)	Value 11 Plan	Value 12 Plan	Value 13 Plan	Value 14 Plan	Value 15 Plan	Value 16 Plan
Allocation date	18/11/2011	06/12/2012	10/12/2013	16/12/2014	15/12/2015	14/12/2016
Vesting period	4.6 years	4.6 years	4.6 years	4.6 years	4.6 years	4.6 years
Theoretical number of shares allocated	10,339	7,032	6,445	6,336	2,744	3344

In 2016, in order to meet the legal and tax requirements of each country, several different employee share ownerships plans (ESOP) were offered:

- Leveraged company mutual fund *(fonds commun de placement entreprise levier – FCPE levier)*: employees subscribe via a company mutual fund to a number of Vallourec shares at a price discounted by 15% and receive, at the end of the vesting period, a performance multiple on their Vallourec shares as well as protection of their initial investment, excluding currency effects. The increase multiple is achieved through the transfer of the discount, dividends and other financial rights related to ownership of the shares to the bank structuring the transaction through a swap contract;
- Standard company mutual fund (fonds commun de placement classique – FCPE classique): employees subscribe via a company mutual fund to Vallourec shares at a price discounted by 20% and receive any dividends;
- Share and Stock Appreciation Rights (SAR): employees, by buying one share at a price discounted by 15%, receive one SAR (protection on their initial investment, excluding currency effects, and a performance multiple on said share), which will be paid by the employer, in cash, at the end of the holding period. The resulting liability (SAR) is covered by warrants provided to the employer by the bank structuring the transaction. The warrants are issued in consideration of the issue of shares reserved for the bank at a price discounted by 15%.
- Cash and Stock Appreciation Rights (SAR): employees, by depositing funds in an interest-bearing bank account, receive SARs (performance multiple on the deposit), which will be paid to the employee by the employer in cash at the end of the holding period. The resulting liability (SAR) is covered by warrants provided to the employer by the bank structuring the transaction. The warrants are issued in consideration of the issue of shares reserved for the bank at a price discounted by 15%.

The IFRS 2 expense resulting from the benefit granted to the employee under the terms of the ESOP is measured on the grant date. The fair value of the benefit corresponds, in the case of the standard offering, to the value of the economic benefit granted less the cost to the employee of the non-transferability of the share, and, for the leveraged plans, to the estimated present value of the amounts ultimately paid to the employee. In the case of the “Share and SAR” plan, the discount on the share held by the employee and the measurement of the option protecting the initial investment are added.

This benefit led to the recognition of a personnel cost of €1.28 million in 2016 compared to €0.7 million in 2015.

The IFRS 2 expense resulting from the SARs is measured again at each quarter-end by reference to the fair value corresponding to the estimated present value of the amounts ultimately paid to the employee. The liability to employees resulting from SARs resulted in an expense included in personnel costs of €0.1 million.

In accordance with IAS 39, the income from warrants is remeasured at each quarter-end by reference to the fair value of the derivative instrument.

The expense corresponding to the warrants paid by the bank to the employer was added to the employees’ investment and recognized in personnel expenses for €0.1 million in 2016 since it is intended to cover income associated with SARs (see above).

CHANGE IN NUMBER OF SHARES

For all of these plans, the change in the number of shares being vested is as follows:

(in number of shares)	2015	2016
Number of shares being vested as at 1 January	1,530,765	1,455,690
Shares delivered	(153,652)	(252,486)
Shares canceled [(a)]	(165,964)	(250,602)
Impact of the capital increase on the plans prior to 2016	-	636,709
Shares allocated	244,541	610,001
NUMBER OF SHARES BEING VESTED AS AT 31 DECEMBER	**1,455,690**	**2,199,312**

(a) The reported figures correspond to the theoretical number of shares originally allocated, with a performance factor of 1 for plans that were vesting, and to the actual number of shares allocated for plans that had matured.

Measurement of Plans [(a)]	2015 Plan	Value 15 Plan	2016 Plan	Value 16 Plan
Share price at allocation date	26.03 €	9.09 €	3.36 €	4.83 €
Risk-free rate [(b)]	0.03%	0.03%	-0.10% (France), -0.22% (other countries)	-0.29%
Dividend rate [(c)]	3%	3%	3%	3%
Fair value of the share	€13,26 (French residents) or €14,40 (non-French residents)	4.88 €	€2.74 (French residents) or €2.97 (non-French residents)	4.15 €

(a) The binomial model of projecting share prices has been used to determine the fair value of the shares allocated. The employee benefit corresponds to the fair value of the shares allocated, taking into account the impossibility of receiving dividends during the vesting period and the cost to the employee of the non-transferability of shares during the holding period.

(b) The risk-free rate corresponds to the zero-coupon rate (source: French Institute of Actuaries – Institut des Actuaires).

(c) The expected dividend rates were determined based on analysts' expectations (external information) and the Group's dividend policy.

NOTE 20 Other current liabilities

	Social security liabilities	Tax liabilities	Liabilities associated with the acquisition of assets	Deferred income	Other current liabilities	Total
As at 31/12/2014	**279,324**	**51,764**	**46,923**	**8,540**	**51,706**	**438,257**
Impact of changes in exchange rates	(7,061)	(2,773)	(3,326)	192	1,575	(11,393)
Reclassification to liabilities held for sale and discontinued operations	(6,734)	(1,911)	(306)	-	(422)	(9,373)
Other changes	(45,688)	(15,060)	(18,443)	(3,269)	(2,177)	(84,637)
As at 31/12/2015	**219,841**	**32,020**	**24,848**	**5,463**	**50,682**	**332,854**
Impact of changes in exchange rates	8,314	725	1,233	-	2,667	12,939
Acquisitions from business combinations (see Note 34)	16,235	3,129	1,208	-	16,542	37,114
Disposals from business combinations	(7,916)	(1,754)	(677)	-	(3,209)	(13,556)
Reclassification to liabilities held for sale and discontinued operations	(4,101)	(69)	(1,630)	-	-	(5,800)
Other changes	(34,991)	(4,154)	(4,488)	(4,179)	(16,277)	(64,089)
AS AT 31/12/2016	**197,382**	**29,897**	**20,494**	**1,284**	**50,405**	**299,462**

NOTE 21 Information on related parties

The following transactions were entered into with related parties:

	Sales to related parties	Purchases from related parties	Related party receivables	Related party payables
As at 31/12/2015				
HKM	2,602	257,524	386	59,736
Rothschild & Cie [(a)]	-	1,011	-	-
Joint operations	39,803	135,958	70,847	52,794
As at 31/12/2016				
HKM	601	212,294	21	46,340

(a) Rothschild & Cie is deemed to be a related party because the Chairman of the Rothschild group's merchant bank was a member of the Group's Supervisory Board until May 2015.

Purchases mainly concern the acquisition of steel rounds from HKM, which are used as raw manufacturing materials by the European rolling mills of Vallourec Deutschland and Vallourec Tubes France.

Compensation of the management and supervisory boards

The total compensation paid to members of the Executive Committee, as constituted at 31 December (9 people in 2016, against 9 in 2015), as well as pension liabilities at the reporting date, were as follows:

	2015	2016
Compensation and benefits in kind	5,530	5,489
Share-based payments *	163	95
Pension commitments	968	1,020
Supplementary pension commitments	9,491	7,857

* *Information provided based on the 2016, 2015, 2014, 2013, 2012 and 2011 share subscription option, performance share and employee share ownership plans.*

As regards post-employment benefits for executive management, there is no specific plan. Executive management are covered by the Vallourec Group's supplemental pension plan (a benefit plan introduced in 2005 and closed on 31 December 2015), as well as by plans under Articles 83 and 82 of the French General Tax Code set up on 1 April 2016. These plans do not give rise to any commitments.

At 31 December 2016, no loans or guarantees had been granted to executive management by the parent company or its subsidiaries.

NOTE 22 Contingent liabilities and commitments

For its activities in Europe, the Group was granted a greenhouse gas emissions allowance of 322,128 metric tons in 2016.

Vallourec is concerned by the third emissions trading period (2013-2020), not only for the Saint Saulve steel mill, but for its tube mills as well. Although since 2013, some of the quotas granted are no longer free and are auctioned on the market, the metallurgy sector has been classed as exposed to the risk of "carbon leakage" and will benefit from free quotas up until 2020. The European authorities are currently working on the rules applicable after 2020, but all indications suggest that the metallurgy sector will continue to benefit from free allocations.

Off-statement of financial position commitments received (excluding financial instruments)

	2015	2016
Firm non-current asset orders	8,556	12,203
Guarantees and commitments received	119,735	99,255
Other commitments received	17,619	14,697
TOTAL	**145,910**	**126,155**
OFF-STATEMENT OF FINANCIAL POSITION COMMITMENTS GIVEN (EXCLUDING FINANCIAL INSTRUMENTS)	**466,157**	**657,324**

Commitments given by maturity

	2016	< 1 year	> 1 year	> 5 years
Statement of financial position				
Long-term financial debts	2,573,744	1,453,096	513,294	607,354
Off-statement of financial position				
Market guarantees and letters of credit given	123,351	57,247	66,104	-
Other securities, mortgages and pledges given	136,688	-	2,255	134,433
Long-term lease *	269,712	23,203	190,393	56,116
Firm asset orders given	12,203	12,203	-	-
Other obligations	115,370	45,923	69,447	-
TOTAL	**657,324**	**138,576**	**328,199**	**190,549**

* *In light of the future application of IFRS 16 - Leases, lease agreements have been subject to an extensive review.*

	2015	< 1 year	> 1 year	> 5 years
Statement of financial position				
Long-term financial debts	2,149,797	386,842	1,172,140	590,815
Off-statement of financial position				
Market guarantees and letters of credit given	139,385	110,325	29,060	-
Other securities, mortgages and pledges given	62,000	97	1,794	60,109
Long-term lease	70,793	10,461	28,519	31,813
Firm asset orders given	6,758	2,145	4,613	-
Other obligations	187,221	151,661	26,962	8,598
TOTAL	**466,157**	**274,689**	**90,948**	**100,520**

The main exchange rates used for income statement items are set out in Note 13.

Income statement items are translated at the average rate.

NOTE 23 Revenue

	2015	2016
Europe	849,351	646,620
North America (NAFTA)	1,095,599	559,314
South America	596,171	466,819
Asia and the Middle East	852,413	847,677
Rest of the world	409,889	444,631
TOTAL	**3,803,423**	**2,965,061**

If the changes in scope had taken place on 1 January 2016, revenue would have stood at €3,277 million, compared to €2,965 million.

NOTE 24 Cost of sales

	2015	2016
Direct cost of sales	(214,653)	(157,163)
Cost of raw materials consumed	(1,201,140)	(934,634)
Labor costs	(836,619)	(746,980)
Other manufacturing costs	(956,744)	(891,984)
Change in non-raw material inventories	(143,588)	4,052
TOTAL	**(3,352,744)**	**(2,726,709)**
Depreciation and amortization	(302,632)	(283,274)
TOTAL (INCLUDING DEPRECIATION AND AMORTIZATION)	**(3,655,376)**	**(3,009,983)**

Other manufacturing costs” mainly include the costs of energy and consumables, and the costs of outsourcing, maintenance and provisions.

NOTE 25 Sales, general and administrative costs

	2015	2016
Research and Development costs	(81,938)	(60,453)
Selling and marketing costs	(99,155)	(86,400)
General and administrative costs	(331,736)	(300,749)
TOTAL	**(512,829)**	**(447,602)**
Depreciation and amortization	(44,279)	(48,522)
TOTAL (INCLUDING DEPRECIATION AND AMORTIZATION)	**(557,108)**	**(496,124)**

Personnel expenses and average headcount of consolidated companies

	2015	2016
Personnel costs expenses		
Wages and salaries	(796,209)	(762,855)
Employee profit-sharing and bonuses	(32,802)	(18,716)
Expenses related to share subscription and share purchase options and performance shares [(a)]	(1,467)	(4,164)
Social security costs	(289,079)	(208,278)
TOTAL	**(1,119,557)**	**(994,013)**

(a) Including a €0.8 million expense for all share subscription plans for 2016 (compared to 0.8 million for 2015).

Closing headcount of consolidated companies [(a)]	2015	2016
Managers	3,358	3,299
Technical and supervisory staff	3,334	3,107
Production staff	12,615	12,836
TOTAL	**19,307**	**19,242**

(a) In 2015, the headcount of companies recognized as joint operations is included based on the percentage interest held by the Group.

Group headcount as at 31 December 2016 was 19,242 people, compared with 19,307 as at 31 December 2015.

Changes in the scope of the Group in 2016 had the following effects on headcount: an increase of 1,514 people linked to the consolidation of Tianda OP, and 699 people linked to the acquisition of VSB (previous 44% share not taken into account) and a reduction of 583 people following the sale of VHET.

NOTE 26 Others

	2015	2016
Employee profit-sharing and bonuses	(32,802)	(21,605)
Fees for concessions and patents	30,653	20,798
Other income and expenses	(12,948)	(8,659)
TOTAL	**(15,097)**	**(9,466)**

Provision allowances, net of reversals	2015	2016
Provision allowances net of reversals included in EBITDA amounted to	(37,167)	(35,661)

NOTE 27 Fees paid to the statutory auditors and members of their networks

	KPMG		Deloitte	
Amount (excl tax)	2015	2016	2015	2016
AUDIT				
Certification of parent company and consolidated financial statements				
Issuer	212	412	212	412
%	19%	27%	12%	19%
Fully consolidated subsidiaries	790	775	1,510	1,497
%	70%	50%	87%	68%
Other services directly associated with the statutory audit				
Issuer	70	288	0	219
%	6%	19%	0%	10%
Fully consolidated subsidiaries	62	68	14	70
%	5%	4%	1%	3%
TOTAL	**1,134**	**1,543**	**1,736**	**2,198**

NOTE 28 Accumulated depreciation and amortization

	2015	2016
By function		
Depreciation of industrial assets	(302,632)	(283,274)
Depreciation and amortization – Research and Development	(9,797)	(11,006)
Depreciation and amortization – Sales and Marketing Department contracts	(11,558)	(11,510)
Depreciation and amortization – general and administrative expenses	(22,924)	(26,006)
TOTAL	**(346,911)**	**(331,796)**
By type		
Net amortization of intangible assets (see Note 1)	(34,099)	(32,134)
Net depreciation of property, plant and equipment (see Note 2)	(299,897)	(292,425)
Net depreciation and amortization of biological assets	(12,915)	(7,237)
TOTAL	**(346,911)**	**(331,796)**

Depreciation of new industrial sites in the development stage is calculated according to the production-units method for assets used directly in the production process and the straight-line depreciation method for other assets.

NOTE 29 Impairment of assets and goodwill, asset disposals and restructuring costs

	2015	2016
Reorganization measures (net of expenses and provisions)	(101,431)	(111,186)
Gains and losses on disposals of non-current assets and other	(16,529)	(16,285)
TOTAL	**(117,960)**	**(127,471)**

	2015	2016
Impairment of intangible assets (see Note 1)	-	(82)
Impairment of property, plant and equipment (see Note 2)	(163,202)	(58,072)
Impairment of goodwill (see Note 1)	(36,316)	-
Other impairment of assets	(96,704)	(13,237)
TOTAL	**(296,222)**	**(71,391)**

Restructuring costs (€111 million) and impairment losses (€71 million) are primarily linked to the strategic initiatives announced on 1 February 2016 (closure of production units in Europe and reorganization of the Brazilian industrial plan, in particular).

Income from the sale of fixed assets primarily concerns transactions in connection with business combinations carried out in 2016.

NOTE 30 Financial income/(loss)

	2015	2016
Financial income		
Income from investment securities	35,908	27,713
Income from disposals of investment securities	856	2,051
TOTAL	**36,764**	**29,764**
Interest expenses	**(111,695)**	**(124,922)**
Net interest expenses	**(74,931)**	**(95,158)**
Other financial income and expenses		
Income from securities	1,687	1,050
Income from loans and receivables	1,479	1,484
Exchange (losses) and gains and changes in premiums/discounts	401	(27,419)
Provision allowances, net of reversals	(2,078)	(2,859)
Other financial income and expenses	5,934	1,431
TOTAL	**7,423**	**(26,313)**
Other discounting expenses		
Interest expense pension obligation	(7,998)	(8,080)
Financial income from discounted assets and liabilities	739	(784)
TOTAL	**(7,259)**	**(8,864)**
FINANCIAL INCOME/(LOSS)	**(74,767)**	**(130,335)**

NOTE 31 Reconciliation of theoretical and actual tax expense

Breakdown of the tax expense	2015	2016
Current tax expense	(29,861)	(39,334)
Deferred taxes (see Note 5)	45,039	119,500
NET EXPENSE (-) / INCOME (+)	**15,178**	**80,166**
Consolidated net income/(loss)	(897,927)	(799,542)
Tax expense	15,178	80,166
CONSOLIDATED NET INCOME/(LOSS) BEFORE TAX	**(913,105)**	**(879,708)**
Statutory tax rate of consolidating company (see Note 5)	34.43%	34.43%
Theoretical tax	314,382	302,883
Impact of main tax loss carryforwards	(196,725)	(144,660)
Impact of permanent differences	(75,901)	(47,015)
Other impacts	(11,793)	(6,576)
Impact of differences in tax rates	(14,785)	(24,466)
NET EXPENSE (-) / INCOME (+)	**15,178**	**80,166**
ACTUAL TAX RATE	**2%**	**9%**

The 9% rate mainly reflects the items detailed below:

- The impact of tax loss carryforwards and timing differences mainly concerns the non-recognition of deferred tax assets (DTAs) for the year in France, Germany and China.
- Permanent differences consist of the impact of financial expenses, net income attributable to minority interests, withholding taxes, the impact of the combination of our two Brazilian subsidiaries and the impact of free share allocations.
- Differences in taxation mainly reflect the range of tax rates applied in each country (France 34.4%, Germany 31.6%, United States 35%, Brazil 34.0%, China 25.0% and Saudi Arabia 20%).

NOTE 32 Segment information

Operating segments

The following tables provide information on the income and results for each operating segment, as well as certain information on the assets, liabilities and investments for the 2016 and 2015 fiscal years.

Information on results, assets and liabilities by operating segment

2016	Seamless tubes	Specialty Products	Holdings & miscellaneous [(a)]	Inter-segment transactions	Total
Income statement					
Sales to external customers	2,857,621	106,666	774	-	2,965,061
EBITDA	(197,037)	(1,246)	(19,681)	(752)	(218,716)
Depreciation and amortization	(312,769)	(17,827)	(1,535)	335	(331,796)
Impairment of assets and goodwill	(71,391)	-	-	-	(71,391)
Asset disposals and restructuring costs	(128,977)	6,168	12,338	(17,000)	(127,471)
OPERATING INCOME/(LOSS)	**(710,174)**	**(12,905)**	**(8,878)**	**(17,417)**	**(749,374)**
Unallocated income					3,451
Unallocated expenses					(133,786)
Pre-tax income					(879,709)
Income tax					80,166
Net income of associates					(8,003)
Consolidated net income/(loss)					(807,546)
Statement of financial position					
Non-current assets	4,994,760	135,672	3,799,975	(4,053,076)	4,877,331
Current assets	1,850,276	48,149	92,267	(68,721)	1,921,971
Cash	523,980	670	1,341,008	(578,936)	1,286,722
Assets held for sale and discontinued operations	46,327	-	-	-	46,327
TOTAL ASSETS	**7,415,343**	**184,491**	**5,233,250**	**(4,700,733)**	**8,132,351**
Cash flows					
Property, plant and equipment, intangible assets and biological assets	(172,832)	(3,590)	(54)	-	(176,476)

(a) Vallourec and Vallourec Tubes.

2015	Seamless tubes	Specialty Products	Holdings & miscellaneous [(a)]	Inter-segment transactions	Total
Income statement					
Sales to external customers	3,700,576	208,272	(105,425)	-	3,803,423
EBITDA	(46,503)	12,962	(39,569)	(4,137)	(77,247)
Depreciation and amortization	(323,902)	(21,671)	(1,674)	336	(346,911)
Impairment of assets and goodwill	(242,921)	(53,301)	-	-	(296,222)
Asset disposals and restructuring costs	(104,848)	(3,089)	(10,023)	-	(117,960)
OPERATING INCOME/(LOSS)	**(718,174)**	**(65,099)**	**(51,266)**	**(3,801)**	**(838,340)**
Unallocated income					44,187
Unallocated expenses					(118,954)
Pre-tax income					(913,107)
Income tax					15,178
Net income of associates					(25)
Consolidated net income/(loss)					(897,954)
Statement of financial position					
Non-current assets	4,480,204	149,243	3,713,881	(3,990,432)	4,352,896
Current assets	1,891,569	55,830	94,872	(103,387)	1,938,884
Cash	446,851	12,305	984,339	(812,955)	630,540
Assets held for sale and discontinued operations	-	68,964	-	-	68,964
TOTAL ASSETS	**6,818,624**	**286,342**	**4,793,092**	**(4,906,774)**	**6,991,284**
Cash flows					
Property, plant and equipment, intangible assets and biological assets	245,759	4,430	619	-	250,808

(a) Vallourec and Vallourec Tubes.

Geographical regions

The following tables provide information by geographical region on sales (by location of the Group's customers) and capital expenditure as well as certain information on assets (by regions where the companies operate).

2016	Europe	America of the North	America of the South	Asia	Rest of the World	Total
Revenue						
Sales to external customers	646,620	559,314	466,819	847,677	444,631	2,965,061
Statement of financial position						
Property, plant & equipment, intangible assets, biological assets and goodwill (net)	638,356	1,744,411	1,363,030	466,358	1,536	4,213,691
Cash flows						
Property, plant and equipment, intangible assets and biological assets	95,600	18,001	53,735	9,020	120	176,476

2015	Europe	America of the North	America of the South	Asia	Rest of the World	Total
Revenue						
Sales to external customers	849,351	1,095,599	596,171	852,413	409,889	3,803,423
Statement of financial position						
Property, plant & equipment, intangible assets, biological assets and goodwill (net)	690,947	1,816,203	941,838	342,255	2,902	3,794,145
Cash flows						
Property, plant and equipment, intangible assets and biological assets	108,711	66,370	59,589	15,501	637	250,808

NOTE 33 Share in net income/(loss) of associates

The contribution to the consolidated net income of associates is as follows:

	2015	2016
HKM	-	5
Poongsan Valinox	(428)	117
Subsidiaries of P.T. Citra Tubindo	1,758	(327)
Tianda Oil Pipe	(436)	(7,600)
Xi'an Baotimet Valinox Tubes	(919)	(198)
TOTAL	**(25)**	**(8,003)**

NOTE 34 Business combinations

Acquisition of Vallourec Soluções Tubulares do Brasil

On 1 October 2016, upon the fulfillment of the conditions precedent, Vallourec completed the acquisition of Vallourec & Sumitomo Tubos do Brasil (VSB), a joint operation owned at 56% by Vallourec and 40.4% by NSSMC, with Sumitomo Corp. holding the remaining 3.6%.

The transaction consisted in the contribution by Vallourec of the assets of Vallourec Tubos do Brasil (VBR) to Vallourec & Sumitomo Tubos do Brasil (VSB) and the incorporation into the capital of a shareholder loan by NSSMC. Upon the completion of the transaction, Vallourec holds an 84.6% majority interest in the new entity, named Vallourec Soluções Tubulares do Brasil, with Nippon Steel & Sumitomo Metal Corporation (NSSMC) holding 15% and Sumitomo Corp. 0.4%.

The acquisition of VSB forms part of Vallourec's Transformation plan announced at the beginning of February 2016, which will provide the Group with a highly competitive production division in Brazil and enable it to supply its Brazilian and overseas customers with premium products and solutions. Vallourec Soluções Tubulares do Brasil, which will benefit in full from the optimal performance offered by VSB's state-of-the-art PQF® rolling mill and premium finishing facilities, will generate significant industrial and administrative synergies.

NSSMC has signed a new supply agreement for 300,000 tons of pipes per year produced at the Jeceaba site.

The new entity is consolidated in the Group's financial statements as of 1 October 2016, and the interests of NSSMC and Sumitomo Corp. are recorded as non-controlling interests.

As an exchange transaction involving no cash consideration, the fair value of the transferred assets was determined as the fair value of the interest previously held in VSB plus the fair value of the transferred minority interests in VBR.

This acquisition of control of VSB by Vallourec, whose holding is increased from 56% to 84.6%, is accompanied by a transfer of minority interests to the Japanese partners in the order of 15.4%.

Upon the completion of these transactions, the overall impact on Group equity and non-controlling interests totals €212 million as at 31 December 2016.

Pursuant to IFRS 3:

- the pre-existing supply agreements between Vallourec and VSB have been valued on the basis of their discounted cash flows and this remeasurement has been taken into account in the determination of the income from the disposal of the previously-held interest;

- the previously-held interest in VSB has been remeasured at fair value, giving rise to gains and losses on disposals recorded under "Assets disposals, restructuring costs and non-recurring items";
- the VSB assets and liabilities acquired are recorded at fair value as at the acquisition date. The non-controlling interests in the new VSB have been remeasured as a proportion of the fair value of the assets and liabilities acquired, using the "partial goodwill" method.
- the disposal of non-controlling interests in VBR has, pursuant to IFRS 10, been recorded as a transaction between shareholders, and the difference between the fair value and the share of net assets is recorded in equity.

Acquisition of Tianda Oil Pipe Co. Ltd

As at 31 December 2016, Vallourec acquired Tianda, which is now fully consolidated with a holding rate of 99.0%, after the acquisition in November of a majority share of 50.6% and the successful unconditional mandatory takeover bid. Tianda Oil Pipe was consolidated using the equity method (19.5%) for 2016 and the acquisition was recorded in the Group's balance sheet as at 31 December 2016.

The key figures concerning these transactions are as follows (at 100% before intra-Group eliminations):

Calculation of goodwill *(in € thousand)*			**VSB**	**TIANDA OP**
Consideration transferred [(a)]		**(1)**	**124,123**	**158,005**
Non-current assets	Fair value		914,009	139,528
■ including net property, plant and equipment			622,582	139,528
Current assets	Fair value		445,732	173,269
■ including cash			46,314	7,180
TOTAL ASSETS		**(2)**	**1,359,741**	**312,797**
Shareholder loan [(b)]	Fair value		77,879	
Non-current liabilities	Fair value		314,546	
■ including non-current financial liabilities			300,419	
Current liabilities	Fair value		506,612	118,310
■ including current financial liabilities			434,630	
TOTAL LIABILITIES		**(3)**	**899,037**	**118,310**
Net position after fair value adjustment		**(4) = (2) - (3)**	**460,704**	**194,487**
Fair value of the previously-held interest		**(5)**	**301,573**	**39,218**
Non-controlling interest in the acquired entity		**(6)**	**70,633**	**1,877**
REMAINING GOODWILL		**(1) + (5) + (6) - (4)**	**35,625**	**4,614**

a) *The acquisition of Tianda was completed in cash for €158 million and constitutes the main acquisition under the item «Impact of acquisitions (changes in consolidation scope)» in the statement of cash flows.*

(b) *The shareholders' loan comprises an advance granted to Vallourec Soluções Tubulares do Brasil (formerly VSB) by NSSMC as at 31 December 2016 for €83 million.*

The acquisition of VSB is an exchange transaction without counterparty paid in cash.

NOTE 35 Subsequent events

On 26 January 2017, Vallourec and Asco Industries completed the acquisition by the latter of a majority interest in the Saint-Saulve steel mill. SAS Ascoval is owned 60% by Asco Industries and 40% by Vallourec Tubes France, and will be consolidated using the equity method.

6.2 Parent company financial statements

6.2.1 Statement of financial position

Assets

In € thousand	31/12/2015	31/12/2016
NON-CURRENT ASSETS		
Intangible assets	414	414
Property, plant and equipment	93	93
Equity interests	3,056,437	3,856,437
Treasury shares	11,824	15,720
Long-term investments	63,975	75,202
Receivables, loans and other investments	1,700,000	1,700,000
TOTAL I	**4,832,743**	**5,647,866**
CURRENT ASSETS		
Operating receivables	2,102	5,294
Other receivables	162,846	534,764
Investment securities	31,924	25,485
Cash and cash equivalents	9	13
Prepaid expenses	6,470	10,577
Deferred expenses	7,031	4,799
Translation differences – unrealized losses	10	-
Premiums/discounts – assets	8	-
TOTAL II	**210,401**	**580,932**
TOTAL ASSETS (I + II)	**5,043,144**	**6,228,798**

Equity and liabilities

In € thousand	31/12/2015	31/12/2016
EQUITY		
Capital	271,377	902,476
Additional paid-in capital	1,062,562	1,408,476
Revaluation reserve	634	634
Reserves	84,868	85,886
Retained earnings	1,741,965	1,802,485
Net income/(loss) for the period	61,538	(17,841)
TOTAL I	**3,222,944**	**4,182,116**
PROVISIONS FOR CONTINGENCIES AND LIABILITIES	16,700	12,107
Financial liabilities	1,729,086	1,960,373
Operating liabilities	8,374	14,002
Other liabilities	66,040	60,200
Translation differences – unrealized gains	-	-
TOTAL II	**1,820,200**	**2,046,682**
TOTAL EQUITY AND LIABILITIES (I+II)	**5,043,144**	**6,228,798**

6.2.2 Income statement

In € thousand	31/12/2015	31/12/2016
Revenue	3,769	5,758
Provision reversals and expenses transferred	9,004	9,787
Other income	25	-
External services	(13,371)	(8,526)
Taxes and similar	(600)	(484)
Personnel expenses	(4,339)	(4,125)
Other operating expenses	(7,467)	(11,223)
Amortization, depreciation and provisions	(4,592)	(4,962)
OPERATING INCOME/(LOSS)	**(17,572)**	**(13,775)**
Financial income	**185,647**	**89,344**
From equity interests	101,780	461
Other long-term securities and receivables	65,497	53,533
Other interest and similar income	247	156
Provision reversals and financial expenses transferred	17,959	35,127
Foreign exchange gains	164	67
Net income on disposal of investment securities	-	-
Financial expenses	**(107,556)**	**(102,248)**
Amortization and provisions	44,101	(23,029)
Interest and similar expenses	(63,286)	(79,158)
Foreign exchange losses	(169)	(61)
Net capital gain/loss on disposal of marketable securities	-	-
FINANCIAL INCOME/(LOSS)	**78,091**	**(12,904)**
NET INCOME FROM CONTINUING OPERATIONS BEFORE TAX	**60,519**	**(26,680)**
Exceptional income	-	-
Exceptional expenses	(13)	-
EXCEPTIONAL INCOME/(LOSS)	**(13)**	**-**
Income tax	1,032	8,839
NET INCOME/(LOSS)	**61,538**	**(17,841)**

6.2.3 Notes to the parent company financial statements for the year ended 31 December 2016

In € thousand unless stated otherwise.

Notes to the statement of financial position (before allocation) for the year ended 31 December 2016, which totals €6,228.8 million, and to the income statement, which shows a net loss of €17.8 million.

The fiscal year runs for 12 months, from 1 January to 31 December.

Vallourec prepares consolidated financial statements.

A – Significant events, measurement methods and comparability of financial statements

On 3 May 2016, Vallourec increased its capital maintaining shareholders' preferential subscription rights for a gross amount of €480 million, resulting in the creation of 217,101,488 new shares. This capital increase, combined with the reserved issuance of mandatory convertible bonds for a gross amount of €514 million subscribed by Bpifrance Participations SA and Nippon Steel & Sumitomo Metal Corporation ("NSSMC"), enabled Vallourec to complete the overall capital increase for a net amount of €951.1 million.

Upon the issuance of the capital increase maintaining shareholders' preferential subscription rights and redemption of the bonds on 3 May 2016 for BPI and on 20 June 2016 for NSSMC, the capital stands at 444,638,049 ordinary shares with a par value of €2 each (compared to 135,688,432 as at 31 December 2015).

On 14 December 2016, under the Value 16 employee share ownership plan 6,599,956 new shares were subscribed at a price of €3.99 for the leveraged plan and €3.75 for the standard plan, for a capital increase of €25.9 million, including issue premium net of expenses.

The presentation and measurement methods used in the preparation of the financial statements for the year under review are the same as those used for the previous year.

B – Accounting principles

The parent company financial statements are prepared in accordance with French GAAP (ANC Regulation No. 2014-03) and the fundamental accounting concepts (true and fair view, comparability, going concern, accuracy, reliability, conservatism and consistency of accounting methods).

Property, plant and equipment

In accordance with ANC Regulation No. 2014-03, the Company uses the component approach, which relies on technical analyses to individually account for significant parts of an item of property, plant and equipment, owing to their uses and utilization rates.

Measurement of property, plant and equipment includes:

- the acquisition or production cost, except for assets acquired before 31 December 1976 which are remeasured and stated at their transfer value;
- discounts, rebates and other payment deductions;
- costs directly attributable to asset implementation;
- any dismantling costs;
- financial expenses related to the asset's acquisition are excluded.

Depreciation of property, plant and equipment is calculated on a straight-line or accelerated basis over the expected useful life of the asset.

Tax depreciation is calculated using the diminishing value method over the shortest period between the useful life and the duration of use, except for components depreciated over their actual lives.

Impairment of property, plant and equipment, and intangible assets

The value in use of property, plant and equipment and intangible assets is tested whenever there is an indication of impairment; such indications are reviewed at each balance sheet date.

If an asset's market value falls significantly below its carrying amount, an impairment charge is booked and the asset is restated at its market value.

Associates

The gross value of equity interests comprises their purchase cost, excluding associated expenses, and the amount of any capital increases.

Securities acquired in foreign currencies are recorded at their acquisition price translated into euros at the rate applicable on the date of the transaction.

Provisions for impairment of shareholdings are calculated with reference to their value in present use, which takes account of various criteria such as their consolidated net worth, profitability, share price and the Company's growth outlook.

Treasury shares

Treasury shares recorded in non-current assets on the statement of financial position comprise:

- shares allocated to the Group's various share ownership plans for some employees, executive management and corporate officers;
- shares held under the terms of the liquidity contract.

Pursuant to CRC Regulation No. 2008-15 dated 4 December 2008 relating to the accounting treatment of share purchase or subscription plans and performance share plans for employees, shares allocated for these plans are not impaired based on market value due to the obligation to allocate such shares to employees and the provision recognized as a liability (see below in the section relating to provisions for contingencies and liabilities).

For treasury shares held under the terms of the liquidity contract, their carrying amount is the lower value of their acquisition cost and their market value (defined as the average price over the previous month).

Treasury shares are presented in the balance sheet as follows:

- treasury shares acquired before 2008 and available for allocation to employees are classified as non-current assets;
- treasury shares acquired since 2008 and available to be allocated to employees are classified as investment securities;
- treasury shares acquired for the liquidity contract are classified as non-current assets.

Receivables and payables

Receivables and payables are measured at their nominal value.

Trade receivables are impaired when there is a risk of non-recovery.

Impairment ratios are applied to each receivable based on probabilities of recovery.

CICE

In accordance with the ANC circular published on 28 February 2013, the French Competitiveness and Employment Tax Credit (CICE) is recorded as a reduction of personnel expenditure, offset by a receivable from the parent company in the form of a tax credit that may be applied against the corporate income tax liability.

Investment securities

Investment securities are measured at acquisition cost plus accrued income for the period, or at market value if lower.

Treasury shares acquired since 2008 and available to be allocated to employees are classified as investment securities.

Translation of transactions in foreign currencies and financial instruments

Revenue and expenses denominated in foreign currencies backed by qualified hedges are recorded at the spot rate on the date of implementation of the hedge.

As a result, the change in time value (premium/discount) is recognized separately from revenue in financial income/(loss) for the period.

The change in time value of hedges on purchase orders is also recognized in financial income/(loss).

The premium/discount is recognized on the reporting date. The aggregate value of the change in time value (i.e. the change between the forward price of the hedge on the reporting date and the initial spot rate on the date of implementation of the hedge) is recognized at each reporting date on the statement of financial position – Derivative instruments (and offset against financial income/(loss). The change in the premium/discount between the beginning and the end of the period impacts financial income/(loss).

Receivables, cash and cash equivalents and payables in foreign currencies are stated on the statement of financial position using the exchange rate applicable on the reporting date.

Unrealized losses resulting from the translation into euros are measured net of any forward hedges and recognized as a provision for foreign exchange risk.

Vallourec uses various financial instruments to reduce its foreign exchange and interest rate risk. All positions are taken by means of instruments traded either on organized markets or over-the-counter and are measured at their market value and recognized as off-balance-sheet items at each reporting date.

Provisions for contingencies and liabilities

Retirement pensions

Pensions are paid by an external organization and the Company therefore has no obligations in this respect.

Retirement benefits

Commitments in respect of benefits paid to retiring employees are measured based on an actuarial calculation and provisioned as a liability in the statement of financial position.

As at 31 December 2016 the discount rate was based on the iBoxx € Corporates AA 10+ index. This index uses a basket of bonds of financial and non-financial companies. They are based on the assumption that all employees leaving the Group will do so on a voluntary basis.

Actuarial gains or losses are amortized using the corridor rule over the average remaining working lives of employees.

The actuarial assumptions used vary depending on the specific arrangements of the Company's retirement plan(s) and collective agreement(s).

The following assumptions are used:

- discount rate of 1.55% (including inflation);
- inflation rate of 0.5%;
- staff turnover rate variable according to age and category;
- generational mortality table TPGF2005 / TPGH2005.

Provisions on shares earmarked for employee share allocations

Pursuant to CRC Regulation No. 2008-15 dated 4 December 2008 relating to the accounting treatment of share purchase or subscription plans and performance share plans for employees; as soon as an outflow of resources becomes probable, the Company recognizes a provision for a contingent liability. This provision is measured based on the product of:

- the acquisition cost of the shares or their net carrying amount (when they were already owned) on the date they were allocated to the ESOP less the price likely to be paid by the beneficiaries;
- the number of shares that are expected to be allocated given the provisions of the allocation scheme (satisfaction of conditions regarding continuous service and performance) as assessed on the reporting date.

A provision for contingencies and liabilities has been recognized at each reporting date since these plans were put in place on a *pro rata* basis, equal to the costs relating to the allocations of performance shares to employees, executive management and corporate officers of Vallourec and its subsidiaries.

Other provisions

All disputes (technical, tax, etc.) and risks have been recognized as provisions for the estimated probable risk at the reporting date.

Exceptional income and expenses

In general, exceptional income and expenses comprise amounts of an extraordinary nature, i.e. those that fall outside the scope of the Company's continuing operations.

C – Notes to the statement of financial position

1. Movements in non-current assets

Non-current assets *In € thousand*	31/12/2015	Acquisition Allowances	Disposal Reversals of provisions	31/12/2016	Revaluation reserve	Related parties
INTANGIBLE ASSETS	**414**	**-**	**-**	**414**	**-**	**-**
Trademarks	414	-	-	414	-	-
PROPERTY, PLANT AND EQUIPMENT	**93**	**-**	**-**	**93**	**23**	**-**
Land	93	-	-	93	23	-
Buildings	113	-	-	113	-	-
Depreciation of buildings	(113)	-	-	(113)	-	-
Construction in progress	0	-	-	0	-	-
ASSOCIATES	**3,056,437**	**800,000**	**-**	**3,856,437**	**-**	**3,856,437**
Associates	3,056,437	800,000	-	3,856,437	-	3,856,437
Provisions for associates	0	-	-	-	-	-
LONG-TERM INVESTMENTS & TREASURY SHARES	**75,799**	**(20,005)**	**35,128**	**90,922**	**-**	**-**
Long-term investments	81,947	-	-	81,947	-	-
Provisions for long-term investments	(17,973)	-	11,228	(6,745)	-	-
Treasury shares	35 725	792	-	36,517	-	-
Provisions for treasury shares	(23,900)	(20,797)	23,900	(20,797)	-	-
RECEIVABLES, LOANS, OTHER INVESTMENTS	**1,700,000**	**600,000**	**(600,000)**	**1,700,000**	**-**	**1,700,000**
Loans	1,700,000	600,000	(600,000)	1,700,000	-	1,700,000
Accrued interest	0	-	-	0	-	-
TOTALS	**4,832,743**	**1,379,995**	**(564,872)**	**5,647,866**	**23**	**5,556,437**

Long-term investments & treasury shares

SHARES OF NIPPON STEEL SUMITOMO METAL CORPORATION (NSSMC)

NSSMC shares, quoted on the Tokyo Stock Exchange, were acquired in 2009 for a total of €81.9 million, at an average price of JPY 230.8 per share. NSSMC and Vallourec are partners in VSB and in the development of the VAM® line of premium joints. These partnerships are strategic for Vallourec.

The value of these shares as at 31 December 2016, based on the average share price in December 2016, was €75.2 million (compared with €63.9 million at the end of 2015). An €11.3 million increase was recognized as a reversal of the provision for impairment under financial income (loss) (against €9.5 million at end 2015).

TREASURY SHARES

a) Liquidity contract

Vallourec has a liquidity contract with Rothschild & Cie Banque, which has been in effect since 2 July 2012. The contract has a term of 12 months and is automatically renewable for successive 12-month terms. It complies with the Code of Conduct (Charte de déontologie) issued by the French Association of Financial Markets (Association Française des Marchés Financiers) and approved by the French securities regulator (Autorité des Marchés Financiers) on 21 March 2011.

In 2016, under the liquidity contract, total purchases involved 1,025,000 shares, representing 0.23% of share capital as at 31 December 2016, for a total of €4.1 million and a weighted average price of €4.0448 per share. No shares were sold under the liquidity contract in 2016. In 2016, the liquidity contract generated an unrealized capital loss of €20.8 million.

As at 31 December 2016, the balance on the liquidity account comprised:

- 2,400,000 shares valued at €15.7 million as at 31 December;
- €5,627,237 euros.

b) Other treasury shares

In 2016, Vallourec definitively allocated 256,208 shares under various performance plans.

Receivables, loans and other investments

LOANS

On 31 December 2011, Vallourec arranged a €1.0 billion loan for subsidiary Vallourec Tubes to finance its long-term requirements. The loan had fixed rate interest of 4.6% per annum and matured on 31 December 2015.

On 11 December 2014, this loan was modified, increasing its amount to €1.70 billion, reducing its interest rate to 3.8% and extending its maturity to 31 December 2017.

On 30 December 2016, this loan was modified, increasing its interest rate to 4.4% and extending its maturity to 31 December 2019.

2. Investment securities

Investment securities include:

Mutual and investment funds

In € thousands	31/12/2015	31/12/2016	Measurement as at 31/12/2016	Loss provisioned	Unrealized gain
Mutual and investment funds	7,999	7,999	8,023	-	24
TOTAL	**7,999**	**7,999**	**8,023**	**-**	**24**

Vallourec joins in euro and US dollar cash management centralization with its main European companies and centralized currency hedging transactions in respect of its US dollar sales within Vallourec Tubes.

Cash is invested in risk-free money market funds. Vallourec only enters into financial transactions with first-rate financial institutions.

Treasury shares

In € thousand	31/12/2015	Acquisition Allowance	Disposal Reversal	Impact of preferential subscription right	31/12/2016
Treasury shares	23,917	-	10,346	(1,085)	12,486
Impairment provision	-	-	-		-
TOTAL	**23,917**	**-**	**10,346**	**(1,085)**	**12,486**

Treasury shares recorded in investment securities are allocated to members of staff, executive management or corporate officers of the Group under the performance share allocation plan, and free share allocation plans for employees of the Group.

In this context, Vallourec holds:

- 3,094 treasury shares acquired in 2008 after the definitive allocation of 26,844 shares in 2011, 70,050 shares in 2013 and 12 shares in 2014, under the various performance share plans;
- 55,036 treasury shares acquired in 2011 under the share buyback plan of 7 June 2011, after definitive allocation of 27,534 shares in 2012, 86,377 shares in 2013, 91,929 shares in 2014, 108,600 shares in 2015 and 30,524 shares in 2016 under the various performance share plans;
- 79,716 treasury shares acquired in 2012 under the share buyback plan of 31 May 2012, upon the definitive allocation of 94,600 shares in 2014 and 225,684 shares in 2016 under the various performance share plans;
- 300,000 treasury shares acquired in 2014.

As at 31 December 2016, Vallourec holds 437,846 treasury shares, all allocated to a performance plan.

3. Statement of receivables and payables

RECEIVABLES *In € thousand*	Gross value	of which accrued receivables	of which related parties	Gross value < 1 year	Gross value > 1 year
FINANCIAL ASSET RECEIVABLES & PAYABLES	**1,700,000**	**-**	**1,700,000**	**-**	**1,700,000**
OPERATING RECEIVABLES	**5,294**	**-**	**3,650**	**5,294**	**-**
Advances & deposits paid to suppliers	142	-	-	142	-
Trade & other receivables	4,016	-	3,650	4,016	-
Other operating receivables	1,136	-	-	1,136	-
OTHER RECEIVABLES	**534,764**	**-**	**522,312**	**534,764**	**-**
Receivables related to tax consolidation	0	-	-	0	-
Government – Corporate income tax	12,421	-	-	12,421	-
Intercompany cash advance	522,312	-	522,312	522,312	-
Other receivables	32	-		32	-
TOTALS	**2,240,059**	**-**	**2,225,962**	**540,059**	**1,700,000**

Loans granted during the year: None.

Loans repaid during the year: None.

Receivables represented by commercial paper: None.

Payables *In € thousand*	Gross value		Related parties	< 1 year		> 5 years
BORROWINGS	**1,960,373**	**33,274**	**14,893**	**1,005,373**	**400,000**	**555,000**
Bond issues	1,605,000	-	-	650,000	400,000	555,000
Bank loans and borrowings	33,274	33,274	-	33,274	-	-
Commercial paper	307,206	-	-	307,206	-	-
Other loans and borrowings	0	-	-	-	-	-
Intercompany cash advance	14,893	-	14,893	14,893	-	-
OPERATING LIABILITIES	**14,002**	**-**	**1,218**	**14,002**	**-**	**-**
Trade payables	10,761		1,218	10,761	-	-
Tax & social security liabilities	3,240		-	3,240	-	-
Customer advances & deposits	0	-	-	-	-	-
OTHER LIABILITIES	**60,200**	**-**	**19,788**	**60,200**	**-**	**-**
Other operating liabilities	0	-	-	-	-	-
Other non-operating liabilities	60,200	-	19,788	60,200	-	-
TOTALS	**2,034,575**	**33,274**	**35,899**	**1,079,575**	**400,000**	**555,000**

Financial liabilities

BOND ISSUES

On 7 December 2011, Vallourec issued an initial bond issue for €650 million maturing in February 2017, with a fixed annual coupon of 4.25%.

In August 2012, Vallourec also issued two long-term private bonds totaling €455 million. The amounts and terms of these two private bond issues are €400 million for seven years with an annual coupon of 3.25% for one, and €55 million for 15 years with an annual coupon of 4.125% for the other.

On 30 September 2014, Vallourec issued a €500 million bond, maturing in September 2024, with a fixed annual coupon of 2.25%.

These bond issues were intended to diversify and increase the amount and extend the maturity of the financial resources available to the Group.

These bond issues specifically include a change-of-control clause that would trigger the mandatory prepayment of the bonds at the request of each bondholder in the event of a change of control of the Company (in favor of a person or a group of people acting in concert) leading to a downgrade of Vallourec's financial rating.

In addition, these bonds may be subject to a request for prepayment, should any of the common default scenarios for this type of transaction arise. Early redemption may also be requested in some cases by either the Company or the bondholder, particularly in respect of a change in Vallourec's position or tax status.

BANK LOANS & DEBTS

In February 2014, Vallourec took out a revolving credit facility for the amount of €1.1 billion, maturing in February 2019, plus two one-year extension options. The first one-year extension has been granted in the amount of €1.078 billion. The loan is now due in 2020.

In June 2015, Vallourec agreed a bilateral line of €90 million until February 2019 with two one-year extension options.

In September 2015, Vallourec took out a revolving credit facility for an amount of €400 million, maturing in July 2019, plus a one-year extension option. This replaces four medium-term bilateral lines of €100 million each granted to Vallourec Tubes and maturing in July 2017.

In May 2016, Vallourec took out a revolving credit line for €450 million maturing in February 2020. As at 31 December 2016 this line had not been drawn.

In addition to the financing put in place by Vallourec, Vallourec Tubes has available two medium-term bilateral lines of €100 million each, maturing in July 2017. As at 31 December 2016, neither of these two lines was drawn.

Each of these bank facilities requires Vallourec to maintain its consolidated net debt-to-equity ratio at no more than 75%, calculated as at 31 December each year. A change in control of Vallourec could require the repayment of some or all of the debt, which would be decided separately by each bank. It is also stipulated that the entire debt will be immediately due and payable if the Group defaults on one of its debt obligations (cross default), or in case of a major event with consequences for the Group's business or financial position and its ability to repay its debt.

COMMERCIAL PAPER

In addition to this bank financing, the Vallourec Group aims to diversify its sources of financing on the markets. For example, Vallourec launched a commercial paper program on 12 October 2011 to meet its short-term needs. The program has a €1 billion ceiling.

As at 31 December 2016, Vallourec had outstandings of €307.2 million for maturities of up to one year. This commercial paper program is rated B by Standard & Poor's.

As at 31 December 2016, the Group complied with its covenants and the terms and conditions for obtaining and maintaining all of the above facilities. Together, the above resources were sufficient to cover the Group's cash requirements as at 31 December 2016. For information about the Company's plans for financing after 31 December 2016, refer to Note E-5 on subsequent events.

4. Bond issue costs

In accordance with the method recommended by the French national accounting board (Conseil National de la Comptabilité), bond issue costs are spread in a straight line over the life of the bonds concerned.

In € thousand	31/12/2015	Increase	Decrease	31/12/2016
Bond issue costs	7,031	-	2,232	4,799

5. Equity

Changes in equity were as follows:

In € thousand	Number of shares	Capital	Net income/ (loss) for the period	Additional paid-in capital and reserves	Equity
Position as at 31/12/2014	**130,597,975**	**261,196**	**159,162**	**2,767,960**	**3,188,318**
Allocation of 2014 net income/(loss)	-	-	(159,162)	159,162	0
Capital increase	5,090,457	10,181	-	68,691	78,872
Revaluation reserve	-	-	-	-	0
Dividend paid	-	-	-	(105,784)	(105,784)
Interim dividend	-	-	-	-	0
2015 net income/(loss)	-	-	61,538	-	61,538
Change	5,090,457	10,181	(97,624)	122,069	34,626
Position as at 31/12/2015	**135,688,432**	**271,377**	**61,538**	**2,890,029**	**3,222,944**
Allocation of 2015 net income/(loss)	-	-	(61,538)	61,538	0
Capital increase	315,549,573	631,099	-	345,914	977,013
Revaluation reserve	-	-	-	-	0
Dividend paid	-	-	-	-	0
Interim dividend	-	-	-	-	0
2016 net income/(loss)	-	-	(17,841)	-	(17,841)
Change	315,549,573	631,099	(79,379)	407,452	959,172
POSITION AT 31/12/2016	**451,238,005**	**902,476**	**(17,841)**	**3,297,481**	**4,182,116**

Vallourec's issued capital comprises 451,238,005 ordinary shares with a nominal value of €2 per share fully paid-up as at 31 December 2016, compared with 135,688,432 shares with a par value of €2 each as at 31 December 2015.

On 3 May 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers granted to the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016 in its eighteenth resolution, and the subdelegation by the Management Board to the Chairman of the Management Board dated 6 April 2016, recorded the definitive completion of a capital increase maintaining shareholders' preferential subscription rights by the issuance of 217,101,488 new ordinary shares with a par value of €2 each, at the unitary price of €2.21, including a €0.21 issue premium. The issue of the new shares resulted in a capital increase of a nominal amount of €434,202,976, raising Vallourec's share capital at 3 May 2016 from €271,376,864 to €705,579,840, divided into 352,789,920 shares with a par value of €2 each.

On 3 May 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers granted to the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016 in its twentieth resolution, and the subdelegation by the Management Board to the Chairman of the Management Board dated 6 April 2016, recorded the redemption of the Tranche A and Tranche B convertible bonds (Bonds) held by Bpifrance Participations, divided into 1,294,126 Tranche A bonds with a unitary issue price of €99 and a redemption ratio set at nine new shares with a par value of €2 for one Tranche A bond, and 18,635,430 Tranche B bonds with a unitary issue price of €2.21 and a redemption ratio set at one new share with a par value of €2 for one Tranche B bond. This redemption resulted in the creation of 11,647,134 and 18,635,430 new shares respectively, i.e. a total of 30,282,564 new ordinary shares with a par value of €2 each, raising Vallourec's share capital from €705,579,840 to €766,144,968 as at 3 May 2016 divided into 383,072,484 shares with a par value of €2 each.

On 20 June 2016, the Chairman of the Management Board, acting by virtue of the delegation of authority and powers granted to the Management Board by the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016 in its nineteenth resolution, and the subdelegation by the Management Board to the Chairman of the Management Board dated 6 April 2016, recorded the redemption of the Tranche A and Tranche B convertible bonds (Bonds) held by Nippon Steel & Sumitomo Metal Corporation ("NSSMC"), divided into 2,631,006 Tranche A bonds with a unitary issue price of €99 and a redemption ratio set at nine new shares with a par value of €2 for one Tranche A bond, and 37,886,511 Tranche B bonds with a unitary issue price of €2.21 and a redemption ratio set at one new share with a par value of €2 for one Tranche B bond. This redemption resulted in the creation of 23,679,054 and 37,886,511 new shares respectively, i.e. a total of 61,565,565 new ordinary shares with a par value of €2 each, raising Vallourec's share capital as at 20 June 2016 from €766,144,968 to €889,276,098 divided into 444,638,049 shares with a par value of €2 each.

At the end of the clearing period for subscriptions to the Value 16 international employee share ownership plan (see Chapter 7 below), at its meeting on 14 December 2016, the Management Board, under the terms of the twenty-first, twenty-second and twenty-third resolutions of the Ordinary and Extraordinary Shareholders' Meeting of 6 April 2016, recorded the final completion of three capital increases in the nominal amounts of €7,007,330, €4,921,538 and €1,271,044, or an aggregate nominal amount of €13,199,912, through the respective issue of 3,503,665, 2,460,769 and 635,522 new shares for an aggregate total of 6,599,956 new shares with a par value of €2.00 each at a price per share of €3.75 for the standard plan and €3.99 for the leveraged plan.

These transactions had the cumulative effect of increasing share capital from €889,276,098 to €902,476,010.

6. Employee share ownership

After application of the adjustments provided for in Articles L.228-99 and R.228-91 of the French Commercial Code and pursuant to the rules governing performance share and share option plans. At its meeting on 2 May 2016, the Vallourec Supervisory Board sought to protect the rights of holders of performance shares and share options by ensuring that the capital increase decided on 7 April 2016 did not affect said rights. The information below takes into account the impacts of this decision.

Share subscription plans

CHARACTERISTICS OF THE PLANS

The Vallourec Management Board authorized share subscription plans from 2009 to 2016 for some executive management and corporate officers of the Group.

The characteristics of these plans are as follows (figures for the 2009 plans are restated to reflect the 2:1 stock split on 9 July 2010 and the subsequent doubling of the number of shares):

	2009 Plan	2010 Plan	2011 Plan	2012 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
Allocation date	01/09/2009	01/09/2010	01/09/2011	31/08/2012	02/09/2013	15/04/2014	15/04/2015	18/05/2016
Maturity date	01/09/2013	01/09/2014	01/09/2015	01/04/2017	01/04/2018	15/04/2018	15/04/2019	18/05/2020
Expiration date	01/09/2019	01/09/2020	01/09/2021	30/08/2020	01/09/2021	15/04/2022	15/04/2023	18/05/2024
Exercise price in euros	31.02	42.72	36.44	22.21	27.70	23.13	13.57	3.90
Number of options granted	964,107	853,641	1,140,431	883,602	1,003,746	622,261	683,413	537,895

CHANGE IN NUMBER OF UNEXPIRED OPTIONS

For all of these plans, the change in the number of unexpired options is as follows:

In number of options	2015	2016
Total at beginning of period	3,190,049	2,860,088
Options exercised	-	-
Options lapsed	(143,600)	-
Options canceled [(a)]	(596,711)	(62,852)
Impact of the capital increase(b) on the plans prior to 2016	-	1,667,736
Options distributed	410,350	537,895
TOTAL AT END OF YEAR	**2,860,088**	**5,002,867**
Options available for exercise	960,423	1,318,249

(a) The reported figures correspond to the theoretical number of shares originally allocated with a performance factor of 1 for plans that were vesting, and to the actual number of shares allocated for plans that had matured.

Performance share plans

CHARACTERISTICS OF THE PLANS

The Vallourec Management Board authorized performance share plans from 2011 to 2016 for some employees and corporate officers of the Group.

The characteristics of these plans are as follows (figures for the 2008 and 2009 plans are restated to reflect the 2:1 stock split on 9 July 2010 and the subsequent doubling of the number of shares):

	Allocation date	Vesting period	Holding period	Theoretical number of shares allocated
2011 Plan [a]	30/03/2011	2 years (French residents and members of the Management Board) or 4 years (non-French residents)	2 years (French residents and members of the Management Board) or none (non-French residents)	214,271
Value 11 Plan	18/11/2011	4.6 years	-	10,339
2011 2-4-6 Plan [b]	15/12/2011	2 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	78,318
2012 Plan [c]	30/03/2012	2 years (French residents and members of the Management Board) or 4 years (non-French residents)	2 years (French residents and members of the Management Board) or none (non-French residents)	286,718
2012 2-4-6 Plan [d]	30/03/2012	2 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	130,116
Value 12 Plan	06/12/2012	4.6 years	-	7,032
2013 Plan [e]	29/03/2013	3 years (French residents and members of the Management Board) or 4 years (non-French residents)	2 years (French residents and members of the Management Board) or none (non-French residents)	391,200
2013 2-4-6 Plan [f]	29/03/2013	3 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	191,144
Value 13 Plan	10/12/2013	4.6 years	-	6,445
2014 Plan [g]	15/04/2014	3 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	661,861
2014 2-4-6 Plan [h]	15/04/2014	3 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	208,100
Value 14 Plan	16/12/2014	4.6 years		6,336
2015 Plan[i]	15/04/2015	3 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	388,583
Value 15 Plan	15/12/2015	4.6 years		2,744
2016 Plan [j]	18/05/2016	3 years (French residents) or 4 years (non-French residents)	2 years (French residents) or none (non-French residents)	610,001
Value 16 Plan	14/12/2016	4.6 years		3,344

(a) Definitive allocation of shares in 2013 for French residents and members of the Management Board, and in 2015 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2011 and 2012. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25.

For members of the Management Board, the definitive allocation of shares in 2013 will be based on the following three criteria assessed for fiscal years 2011 and 2012:

- *revenue growth on a like-for-like basis;*
- *the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis in the period; and*
- *the relative performance of the Vallourec share on the regulated NYSE Euronext Paris stock market against a benchmark panel.*

The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(b) Definitive allocation of shares in 2013 for French residents and in 2015 for non-French residents, based on the consolidated EBITDA performance achieved by the Group for the period from 1 January 2012 to 30 September 2013. The number of shares acquired at the end of the vesting period may vary from 0 to 6 per beneficiary.

(c) Definitive allocation of shares in 2014 for French residents and members of the Management Board, and in 2016 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2012 and 2013. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25.

(d) Definitive allocation of shares in 2014 for French residents and in 2016 for non-French residents, based on the consolidated EBITDA performance achieved by the Group for the period from 1 January 2012 to 31 December 2013. The number of shares acquired at the end of the vesting period may vary from 0 to 6 per beneficiary.

For members of the Management Board, the definitive allocation of shares in 2014 will be based on the following three criteria assessed for fiscal years 2012 and 2013:

- *revenue growth on a like-for-like basis;*
- *the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis in the period; and*
- *the relative performance of the Vallourec share on the regulated NYSE Euronext Paris stock market against a benchmark panel.*

The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(e) Definitive allocation of shares in 2016 for French residents and members of the Management Board, and in 2017 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2013, 2014 and 2015. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Management Board, the definitive allocation will be based on the following three criteria assessed for fiscal years 2013, 2014 and 2015:

- *revenue growth on a like-for-like basis;*
- *the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis in the period; and*
- *the relative performance of the Vallourec share on the regulated NYSE Euronext Paris stock market against a benchmark panel.*

The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(f) Definitive allocation of shares in 2016 for French residents and in 2017 for non-French residents, based on the consolidated EBITDA performance achieved by the Group for the period from 1 January 2013 to 31 December 2015. The number of shares acquired at the end of the vesting period may vary from 0 to 6 per beneficiary.

(g) Definitive allocation of shares in 2017 for French residents and members of the Management Board, and in 2018 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2014, 2015 and 2016. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, final allocation shall depend on the following four criteria, assessed in 2014, 2015 and 2016: the rate of return on capital employed (ROCE), compared with the ROCE in the budget, consolidated revenue on a like-for-like basis, as compared with the revenue in the budget, the relative stock market performance of the Vallourec share on the regulated NYSE Euronext market in Paris, as compared with a benchmark panel, and the relative EBITDA performance as compared with the same panel as for the previous criterion. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(h) Definitive allocation of shares in 2017 for French residents and in 2018 for non-French residents, based on the consolidated EBITDA performance achieved by the Group for the period from 1 January 2014 to 31 December 2016. The number of shares acquired at the end of the vesting period may vary from 0 to 6 per beneficiary.

(i) Definitive allocation of shares in 2018 for French residents and members of the Management Board, and in 2019 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2015, 2016 and 2017. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the final award will depend on the following two criteria, assessed for 2015, 2016 and 2017: the rate of return on capital employed on a consolidated basis (ROCE), compared to the ROCE in the strategic plan, and the Total Shareholder Return (TSR) for 2015, 2016 and 2017. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(j) Definitive allocation of shares in 2019 for French residents and members of the Management Board, and in 2020 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated budget achieved by the Group in 2016, 2017 and 2018. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the final award will depend on the following two criteria, assessed for 2016, 2017 and 2018: the rate of return on capital employed on a consolidated basis (ROCE), compared to the ROCE in the strategic plan, and the Total Shareholder Return (TSR) for 2016, 2017 and 2018. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

CHANGE IN NUMBER OF SHARES

For all of these plans, the change in the number of unexpired options is as follows:

In number of shares	2015	2016
Number of shares being vested as at 1 January	1,530,765	1,455,690
Shares delivered	(153,652)	(252,486)
Shares canceled [(a)]	(165,964)	(250,602)
Impact of the capital increase on the plans prior to 2016	-	636,709
Shares allocated	244,541	610,001
NUMBER OF SHARES BEING VESTED AS AT 31 DECEMBER	**1,455,690**	**2,199,312**

(a) The reported figures correspond to the theoretical number of shares originally allocated, with a performance factor of 1 for plans that were vesting, and to the actual number of shares allocated for plans that had matured.

7. Provisions for contingencies and liabilities

The change in provisions for risks, liabilities and expenses is shown below:

	31/12/2015	Allowances	Reversals used	Reversals of provisions no longer needed	31/12/2016
Provisions for foreign exchange losses	0				0
Retirement provisions	443	84			527
Provisions for supplemental pension commitments	1,566	244			1,810
Provisions for performance share expenses	14,691	4,635	(9,556)		9,770
TOTAL	**16,700**	**4,963**	**(9,556)**	**0**	**12,107**
■ Recognized in operating profit	-	4,963	(9,556)	-	-
■ Recognized in financial profit	-	-	-	-	-
■ Recognized in exceptional income	-	-	-	-	-

Disputes are provisioned to the extent of the estimated probable cost at the reporting date of each year, in application of CRC Regulation No. 2000-06 on liabilities.

The balance of the provision for expenses relating to the performance share plans (2012, 2013, 2014, 2015 and 2016) totaled €9.8 million.

Retirement provisions

Total retirement commitments, net of plan assets, totaled €0.7 million as at 31 December 2016.

Actuarial losses and past service costs not recognized totaled €0.01 million. The commitments not recognized in the balance sheet correspond to changes in or the non-crystallization of assumptions, the effect of which is amortized over time using the corridor method.

The main changes in relation to the measurements used in the previous year's financial statements concern the base salary used in the calculation of pension benefits and the change in the discount rate.

Provisions for supplemental retirement commitments

Total supplemental pension commitments, net of plan assets, totaled €3.5 million as at 31 December 2016.

Actuarial losses and past service costs not recognized totaled €1.7 million. The commitments not recognized in the balance sheet correspond to changes in or the non-crystallization of assumptions, the effect of which is amortized over time using the corridor method.

Information on interest rate risk

The Group is exposed to interest rate risk on its variable-rate debt.

Vallourec used swaps to hedge its variable-rate borrowing at a fixed interest rate.

Information on foreign exchange risk

As at 31 December 2016, Vallourec was not exposed to exchange rate risk.

D - Notes to the income statement

1. Operating income

Revenue

Revenues of €5.8 million mainly correspond to the Group's reinvoicing of services to its subsidiary Vallourec Tubes for €2.2 million, and of the costs of employee performance share plans to Group subsidiaries.

Operating expenses

Operating expenses of €29.3 million consist mainly of fees, personnel costs, and the impact of free share allocations.

2. Financial income and expenses concerning affiliated companies

Financial expenses: €47 thousand.

Financial income: €53.1 million.

3. Exceptional income/(loss)

There was an exceptional loss of €12.9 million.

This can be explained primarily by the absence of dividends, a slight increase in financial expenses and interest (+€15.9 million), offset by a change in the provision for impairment of treasury shares for €3.1 million and a change in the provision for impairment of Nippon Steel Sumitomo shares for €11.2 million.

E – Other information

1. Composition of average headcount

The Company employs seven people, including three corporate officers (members of the Management Board).

2. Taxation

Tax consolidation

Since 1 January 1988, the Company has been a member of a tax group constituted under the provisions of Article 223A of the French General Tax Code.

This agreement has been renewed automatically for five-year periods since 1999.

In 2016, the scope of the tax group included: Vallourec, Assurval, Vallourec Fitting, Vallourec Bearing Tubes, Vallourec Université France, Vallourec Umbillicals, Valinox Nucléaire, Vallourec Tubes, Vallourec Drilling Products France, Vallourec Tubes France, Vallourec Oil and Gas France, Vallourec One, Vallourec Services, Val27, Val28 and Val29.

Vallourec Heat Exchanger Tubes, Serimax Holding SA, Serimax SAS and Serimax Russia exited the scope of the tax group as of 1 January 2016 following their total or partial sale by Vallourec Tubes.

The tax consolidation agreement requires subsidiaries of the tax group to record a tax expense equivalent to the amount they would have borne in the absence of tax consolidation.

The tax savings of €37.3 million resulting from the allocation of losses generated by the subsidiaries was recognized in other liabilities and not in net income.

Any income resulting from tax consolidation recorded by Vallourec corresponds mainly to the allocation to consolidated net income of the losses generated by Vallourec itself and tax loss carryforwards used by Vallourec.

In 2016, the exit of Vallourec Heat Exchanger Tubes and of the Serimax companies generated a tax credit recorded in the income statement for €8.7 million.

The Vallourec tax group reported a loss in 2016 and its tax loss carryforward was €901.9 million at the end of 2016.

INCREASE AND DECREASE IN FUTURE TAX LIABILITIES

Nature of temporary differences *In € thousand*	Amount as at 31/12/2016 (basis)
Increase	**-**
Decrease	**8,311**
Provision for retirement commitments	2,337
Provision for employee share ownership arrangements	5,957
Provision for paid leave	19
Provision for Tax on Tourism Vehicles	(2)

At 31 December 2016, the amount of tax loss carryforwards specific to the Company stood at €150.2 million.

Breakdown of income tax between income (loss) from recurring operations and non-recurring income (loss)

In € thousand	Pre-tax income	Tax due	Net income
Recurring	(26,680)	-	(26,680)
Non-recurring	-	-	-
SUB-TOTAL	**(26,680)**	**-**	**(26,680)**
Expense specific to Vallourec (tax credit)	-	106	106
Income relating to tax consolidation	-	8,733	8,733
TOTAL VALLOUREC	**(26,680)**	**8,839**	**(17,841)**

3. Compensation of members of administrative and management bodies

Administrative bodies

Attendance fees paid during the year amounted to €0.6 million.

Management Bodies

This information is not provided as it is not relevant in relation to the assets and liabilities, financial position and net income of Vallourec.

4. Off-statement of financial position commitments

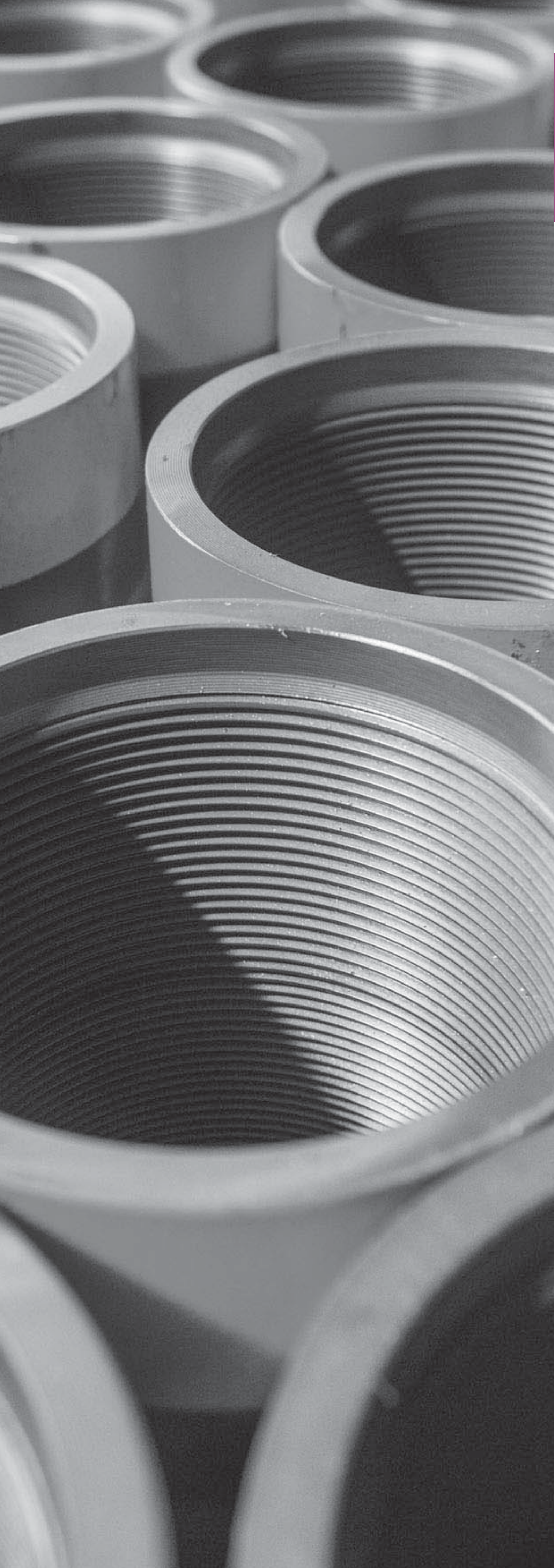
Off-statement of financial position commitments are as follows:

- retirement benefits: €126 thousand (actuarial loss);
- supplemental retirement allowances: €1.7 million (actuarial loss);
- long-term vehicle leases: €30 thousand.

The Company has not issued any form of collateral against its liabilities.

5. Subsequent events

Since 31 December 2016, no subsequent events have occurred that would call into question the truthfulness and reliability of the financial statements.



7

Corporate governance

7.1 Composition and operation of the Management and Supervisory Boards

The Ordinary and Extraordinary Shareholders' Meeting held on 14 June 1994 approved the adoption of a dual management structure with a Supervisory Board and a Management Board.

This structure is based on the separation of the management functions, which are the responsibility of the Management Board, from the supervision of that management, which is the responsibility of the Supervisory Board, the representative body of the shareholders:

- the Management Board, which is a collegial body, is responsible for managing the Group using the powers conferred on it by statutory and regulatory provisions and the Group's bylaws; and
- the Supervisory Board is responsible for ongoing management control; it receives the information needed to perform its role.

7.1.1 Composition of the Management and Supervisory Boards

7.1.1.1 Management Bodies

THE MANAGEMENT BOARD

As at 28 February 2017, the Management Board is comprised of the following three members:

Mr Philippe CROUZET

Chairman of the Management Board

Date of birth: 18 October 1956
Date of first appointment:
1 April 2009
Date appointment most recently renewed:
29 January 2016
Date on which appointment ceases:
15 March 2020
Vallourec shares held: 67,819
Nationality: French

Mr Jean-Pierre MICHEL

Member of the Management Board
Chief Executive Officer

Date of birth: 17 May 1955
Date of first appointment:
1 April 2006
Date appointment most recently renewed:
29 January 2016
Date on which appointment ceases:
31 March 2017
Vallourec shares held: 21,897
Nationality: French

Mr Olivier MALLET

Member of the Management Board

Date of birth: 14 July 1956
Date of first appointment:
30 September 2008
Date appointment most recently renewed:
29 janvier 2016
Date on which appointment ceases:
15 March 2020
Vallourec shares held: 28,836
Nationality: French

In a meeting on 17 January 2017, the Supervisory Board duly noted the resignation of Mr Jean-Pierre Michel from his appointment as member of the Management Board and Chief Executive Officer, with effect from 31 March 2017, and decided not to replace him. Starting on 1 April 2017, the Management Board will consist of two members, Philippe Crouzet, Chairman of the Management Board, and Olivier Mallet, member of the Management Board.

Mr Philippe CROUZET

Chairman of the Management Board

Business address:
Vallourec
27, avenue du Général-Leclerc
92100 Boulogne-Billancourt – France

Expertise and managerial experience:
- Graduate of École Nationale d'Administration
- Counsel (Maître des requêtes) to the Conseil d'État
- Twenty-three years' industrial experience with the Saint-Gobain Group
- Chairman of the Management Board of Vallourec since 1 April 2009

Positions held by Mr Philippe CROUZET

Positions currently held

- Chairman of the Management Board of Vallourec [(a)]* (since 2009)
- Chairman and Director of Vallourec Tubes [(a)] (since 2009)
- Director of Vallourec Tubos do Brasil S.A. [(a)] (Brazil) (since 2009)
- Director of Vallourec Soluçoes Tubulares do Brasil (Brazil) (since 2016)
- Director and Chairman of the Nuclear Commitment Monitoring Committee of Électricité de France* (since 2009) and a member of the Audit Committee (since 2015)
- Director of the Théâtre national de l'Opéra Comique (since 2012) and of the Théâtre de la Ville (Paris) (since 2011)
- Vice-President of Institut de l'entreprise

Positions expired within the last five years

- Director of Vallourec & Sumitomo Tubos do Brasil [(a)] (Brazil) (until October 2016)
- Chairman and member of the Supervisory Board of Vallourec Tubes France [(a)] (until 2012)
- Director of Vallourec Oil and Gas France [(a)] (until 2012)

Mr Philippe Crouzet does not receive any compensation as a corporate officer of Vallourec's direct or indirect subsidiaries.

Mr Jean-Pierre MICHEL

Member of the Management Board – CEO

Business address:
Vallourec
27, avenue du Général-Leclerc
92100 Boulogne-Billancourt – France

Expertise and managerial experience:
- Graduate of the École Polytechnique and Institut Français de Gestion
- More than 35 years with the Group (Plant Management, Management Control and Chairman of various Divisions)
- Member of the Management Board (since 2006) and CEO (since 2009) of Vallourec

Positions held by Mr Jean-Pierre MICHEL

Positions currently held

- Member of the Management Board and CEO of Vallourec [(a)]* (since 2006 and 2009, and until 31 March 2017 respectively)
- CEO and Director of Vallourec Tubes [(a)] (since 2006)
- Director of Vallourec Services [(a)] (since 2006)
- Manager of Vallourec One [(a)] (since 2004)
- Director of Vallourec Tubos do Brasil S.A. [(a)] (Brazil) (since 2008)
- Director of Vallourec Soluçoes Tubulares do Brasil (Brazil) (since 2016)
- Director of Vallourec Industries Inc. [(a)] (United States) (since 2001)
- Director of Vallourec Holdings Inc. [(a)] (United States) (since 2004)
- Director of VAM USA LLC [(a)] (United States) (since 2009)
- Chairman of the Supervisory Board of Vallourec Deutschland GmbH [(a)] (since 2009)
- Member of the Executive Committee of Vallourec Star, LP [(a)] (United States) (since 2002)
- Director of Vallourec USA Corporation [(a)] (United States) (since 2000)
- Director of Vallourec Drilling Products USA, Inc. [(a)] (United States) (since 2005)
- Director of Vallourec Oil & Gas UK Ltd [(a)] (United Kingdom) (since 2000)
- Director of Esso Société Anonyme Française* (since 2014)

Positions expired within the last five years

- Director of Vallourec & Sumitomo Tubos do Brasil [(a)] (Brazil) (until October 2016)
- Director of Vallourec Heat Exchanger Tubes [(a)] (until 2016)
- Director of Vallourec Heat Exchanger Tubes Asia [(a)] (until 2016)
- Member of the Supervisory Board of Vallourec Tubes France [(a)] (until 2012)
- Director of Vallourec Oil and Gas France [(a)] (until 2012)
- Director of Vallourec Bearing Tubes [(a)] (until 2012)
- Director of Vallourec Fittings [(a)] (until 2012)
- Director of Valinox Nucléaire [(a)] (until 2012)
- Director of Vallourec Drilling Products France [(a)] (until 2012)

Mr Jean-Pierre Michel does not receive any compensation as a corporate officer of Vallourec's direct or indirect subsidiaries.

(a) Offices held in relation to the Group.

** Listed company (for terms pending).*

Mr Olivier MALLET

Member of the Management Board

Business address:
Vallourec
27, avenue du Général Leclerc
92100 Boulogne-Billancourt – France

Expertise and managerial experience:
- Graduate of École Nationale d'Administration – General Inspector of Finance
- Technical advisor within several cabinet offices, including that of the Prime Minister (1988-1993)
- CFO and member of the Executive Committee with responsibility for finance at Thomson Multimedia (1995-2001)
- CFO and member of the Executive Committee of Pechiney (2001-2004)
- Deputy CFO (2004-2006) then Head of the Mining, Chemistry and Enrichment sector of the Areva Group (2006-2008)
- Member of the Management Board of Vallourec since 30 September 2008, Chief Financial Officer and General Counsel

Positions held by Mr Olivier MALLET

Positions currently held

- Member of the Management Board of Vallourec [a]* (since 2008)
- Chairman and CEO of Vallourec Services [a] (since 2008)
- CEO and Director of Vallourec Tubes [a] (since 2008)
- Chairman of Vallourec Holdings Inc. [a] (United States) (since 2009)
- Member of the Supervisory Board of Vallourec Deutschland GmbH [a] (Germany) (since 2008)
- Director of Vallourec Tubos do Brasil S.A. [a] (Brazil) (since 2008)
- Director of Vallourec Soluçoes Tubulares do Brasil (Brazil) (since 2016)
- Director of Vallourec Canada Inc. [a] (Canada) (since 2008)
- Director of Vallourec Holdings Inc. [a] (since 2008)
- Director of Vallourec USA Corporation [a] (since 2008)
- Director of Vallourec Tube-Alloy, LLC [a] (since 2008)
- Chairman (since 2009) and Director (since 2008) of Vallourec Industries Inc. [a]
- Director of Vallourec Drilling Products USA, Inc. [a] (United States) (since 2008)
- Member of the Executive Committee of VAM USA LLC [a] (since 2009)
- Member of the Executive Committee of Vallourec Star, LP [a] (United States) (since 2008)

Positions expired within the last five years

- Director of Vallourec & Sumitomo Tubos do Brasil [a] (Brazil) (until October 2016)
- Director of Vallourec Heat Exchanger Tubes [a] (until 2016)
- Member of the Supervisory Board of Vallourec Tubes France [a] (until 2012)
- Director of Vallourec Oil & Gas France [a] (until 2012)
- Director of Vallourec Fittings [a] (until 2012)
- Director of Vallourec Bearing Tubes [a] (until 2012)

Mr Olivier Mallet does not receive any compensation as a corporate officer of Vallourec's direct or indirect subsidiaries.

(a) Offices held in relation to the Group.

* *Listed company (for terms pending).*

OPERATIONAL MANAGEMENT

Vallourec's long-term strategy centers around three guiding principles:

- a **premium positioning:** Vallourec is constantly expanding its offering of premium products, services and solutions to meet the most complex challenges of its customers and maintain its technological progress in increasingly competitive markets;
- a **local presence:** Vallourec is extending its presence worldwide, increasing its contact with growing markets and with its customers;
- **competitiveness:** the Group is always attentive to improving its competitiveness, notably through cost reduction programs.

To implement its strategic guidelines and key decisions, the Management Board relies on the Group Management Committee (GMC), which has been in place since 3 February 2014.

The Group Management Committee examines and drafts proposals to the Management Board regarding all of the actions and changes needed to implement the Group's strategy. It provides daily management for operational and functional activities. It holds meetings once every two weeks, which are chaired by Mr Philippe Crouzet. At the date of filing this Registration Document, it is comprised of the following nine members:

- Mr Philippe Crouzet, Chairman of the Management Board;
- Mr Jean-Pierre Michel, member of the Management Board;
- Mr Olivier Mallet, member of the Management Board;
- Mr Philippe Carlier, Director of the Europe Region, to which the Upstream, Powergen and Industry Divisions belong;
- Mr Nicolas de Coignac, Director of the North America Region, which comprises all operations of the area as well as the Drilling Division;
- Mr François Curie, Director of Group Human Resources;
- Ms Stéphanie Fougou, Director of Group Legal Affairs;
- Mr Didier Hornet, Director of the Eastern Hemisphere Region (including the Middle East, Africa and Asia), and including the OCTG EAMEA and Pipe Project activities; and
- Mr Alexandre Lyra, Director of the South America Region, to which the Brazil Division belongs.

On 18 January 2017, Vallourec announced it would be adapting its structure, in order to allow it to take full part in its Transformation Plan. This new structure will take effect on 3 April 2017.

The goal of this new structure is to strengthen the Group's local presence and proximity to its customers, to optimize overall use of its resources, and stimulate its growth.

It will be organized around:

- Four Regions: North America, South America, Europe/Africa (EA) and the Middle East/Asia (MEA)

  The Regions are in charge of all sales and industrial operations within their geographic scope.

  They are directed by Nicolas de Coignac, Alexandre Lyra, Hubert Paris and Edouard Guinotte, respectively.
- Two central departments:
  - the Development & Innovation Department (D&I) is responsible for defining and implementing the development strategy for product lines. It is also in charge of innovation and R&D. This department will be directed by Didier Hornet, who is currently the Director of the Eastern Hemisphere Region;
  - the Technology & Industry (T&I) Department is responsible for defining the Group's industrial strategy, with the aim of continuing to improve its cost base. It is in charge of technology and will manage the Group's supplies, as well as central planning. Philippe Carlier, who is currently the Director of the Europe Region, will head up this department.

The Group Management Committee will be replaced with an Executive Committee which is comprised of 11 members: Philippe Crouzet, Chairman of the Management Board, Jean-Pierre Michel, Olivier Mallet, CFO, François Curie, Director of Human Resources and Stéphanie Fougou, the Group's Director of Legal Affairs and General Secretary, along with the directors from four regions and two central departments.

Jean-Pierre Michel will retire at the end of 2017, after having helped properly implement the new structure within the Executive Committee. He will leave the Management Board on 31 March 2017, which will then consist of Philippe Crouzet and Olivier Mallet.

7.1.1.2 The Supervisory Board

POLICY ON THE COMPOSITION OF THE SUPERVISORY BOARD

The Board policy relating to its composition relies on the following four fundamental objectives:

- selection of competent members;
- a balanced composition, which creates value;
- regard for the corporate interest;
- a number of members that ensures there is a fluid exchange of information and that each member can express himself or herself.

1. Selection of competent members

Aware that first-rate quality must lie in that of its members, the Board makes every effort to add members that have performed managerial duties with a high level of responsibility and/or who have recognized expertise in financial, strategic, industrial or legal areas. Furthermore, when they assume office and throughout their terms, members have the chance to benefit from training sessions on specific aspects of the Group, its businesses, its sector of activity and its organization, if they so desire.

2. Balanced composition, which creates value

Like any business player, the Supervisory Board is committed to the process of creating value. Consequently, beyond the challenges of social performance, it endeavors to ensure the diversity of its members, which it considers to be a key source of creativity and innovation. Diverse genders and experiences bring to the Board distinct sensitivities that contribute favorably to good governance, which itself leads to competitive advantages. At this time, the Board is comprised of twelve members, who have a variety of experience gained primarily in an international environment, which is a source of enrichment. Furthermore, 41.67% of these members are female and 33% are of foreign nationality (Brazilian, Dutch, Spanish and British). Ms Vivienne Cox, who is British, is the Board Chairman. Since the Board is well aware of how enriching a diverse body can be, it intends to pursue efforts to diversify its membership.

3. Regard for the corporate interest

The Board feels that each member is a guardian of the corporate interest and members must accomplish their duties objectively and independently, in order to gain and maintain the trust of all of the shareholders who appointed them.

Consequently, going beyond the qualification of independent member, the Board intends to propose full members to the Shareholders' Meeting who have strong ethics that lead them to act with ongoing concern for the corporate interest and the interests of all shareholders, and specifically, to avoid conflicts of interest. To that end, each member is required to inform the Board of any situation involving a conflict of interest, even a potential one, and to refrain from taking part in discussions or voting on any issue at Board meetings where there may be a conflict of interest, and to leave the Board meeting if a subject is discussed that places the member in such a situation.

If any member finds himself or herself in a conflict of interest situation, even a potential one, concerning a subject to be debated by the Board, the Board ensures, with the support of the Appointments, Compensation and Governance Committee, that the information concerning this subject is not communicated to the member in question.

The internal regulations of the Supervisory Board and the Appointments, Compensation and Governance Committee contain specific provisions designed to prevent the risk of conflicts of interest. Therefore, a member cannot accept another position or appointment, or make a significant investment in any company or business in competition with Vallourec or operating upstream or downstream of it, without the Board's prior approval. As an exception, this rule does not apply to legal entities that are members of the Board, but if they take new positions or similar appointments, each case will be discussed with the Board in order to eliminate any risk of conflicts of interest. Members of the Board, Non-voting Board members (*Censeurs*) and members of the Management Board must inform the Chairman of the Board before accepting a new appointment in other companies. The Chairman of the Board will give an opinion after consulting with the Appointments, Compensation and Governance Committee.

4. A number of members that ensures there is a fluid exchange of information and that each member can express themselves

Although the law allows a Board to contain up to 18 members, the Board wishes to limit its membership in order to ensure there are satisfying and fluid exchanges of information, and to allow each member to express themselves, thereby encouraging each person's action and involvement. To that end, the Chairman of the Board encourages the participation of the members and sees to it that each member can express an opinion.

In conformity with the law relating to employer-employee dialog and employment dated 17 August 2015, Vallourec will establish employee representation within its Supervisory Board in 2017. The Board will thus be comprised of 13 members, with one employee representative, and one employee shareholder representative.

MEMBERS OF THE SUPERVISORY BOARD AS AT 28 FEBRUARY 2017

As at 28 February 2017, the Supervisory Board is comprised of 12 members.

	Year of birth	Date first appointed	Date appointment most recently renewed	Date of end of term	Other main appointments held
Chairman					
Vivienne Cox	1959	31/05/2010	OSM 28/05/2014	2018 OSM to approve financial statements as at 31/12/2017	Director of Pearson Plc and GlaxoSmithKline Plc*
Vice-Chairman Lead Member					
Pierre Pringuet	1950	23/02/2015	OSM 06/04/2016	2020 OSM to approve financial statements as at 31/12/2019	Vice Chairman of the Board of Directors of Pernod Ricard, Director of Iliad, April and Cap Gemini and Chairman of AFEP
Members					
Maria Pilar Albiac-Murillo	1953	28/05/2015	–	2019 OSM to approve financial statements as at 31/12/2018	Director of Products and Innovation of Market Excellence of Philips
Philippe Altuzarra	1950	28/05/2015	–	2019 OSM to approve financial statements as at 31/12/2018	Director of Altuzarra LLC and Chairman of the Supervisory Board of La Redoute
Cédric de Bailliencourt	1969	28/05/2014	–	2018 OSM to approve financial statements as at 31/12/2017	CFO of the Bolloré Group Permanent Representative of Compagnie du Cambodge on the Supervisory Board of Banque Hottinguer and Director of the Musée national de la Marine
Olivier Bazil	1946	31/05/2012	OSM 06/04/2016	2020 OSM to approve financial statements as at 31/12/2019	Director of Legrand, Michelin and Château Palmer
Bpifrance Participations Represented by Alexandre Ossola	N/A	06/04/2016	–	2020 OSM to approve financial statements as at 31/12/2019	
	1974	08/11/2016	–	2020 OSM to approve financial statements as at 31/12/2019	Director of Operations and Member of the Mid & Large Cap Management Committee of Bpifrance, Head of Fonds d'Avenir Automobile managed by Bpifrance Participations
Laurence Broseta [(a)]	1968	04/06/2016	–	2018 OSM to approve financial statements as at 31/12/2017	International Director and Member of the Executive Committee of Transdev, Director of Thalès, Director of subsidiaries of the Transdev Group
Pascale Chargrasse	1960	13/12/2010	OSM 28/05/2015	2019 OSM to approve financial statements as at 31/12/2018	Business Development Manager, Valinox Nucléaire
José Carlos Grubisich	1957	31/05/2012	OSM 06/04/2016	2020 OSM to approve financial statements as at 31/12/2019	Chairman of Eldorado Brasil Celulose S.A. and Director of Halliburton
Henri Poupart-Lafarge	1969	28/05/2014	–	2018 OSM to approve financial statements as at 31/12/2017	Chairman and CEO of Alstom
Alexandra Schaapveld	1958	31/05/2010	OSM 28/05/2014	2018 OSM to approve financial statements as at 31/12/2017	Member of the Supervisory Board of Bumi Armada Berhad and Société Générale

(a) At its meeting on 17 February 2016, the Supervisory Board appointed Ms Laurence Broseta as a member of the Supervisory Board, replacing Mr Michel de Fabiani, who resigned, effective at the end of the Supervisory Board meeting of 5 April 2016, and for the remaining term of her predecessor, i.e. until the Shareholders' Meeting called in 2018 to approve the financial statements for fiscal year 2017. The Annual Shareholders' Meeting of 6 April 2016 ratified the appointment of Ms Laurence Broseta.

Following the major strategic initiatives announced on 1 February 2016, and in conformity with the terms of the shareholders' agreement entered into with NSSMC on 1 February 2016 (see Section 2.3.4.2 of this Registration Document), a resolution will be presented at the Ordinary and Extraordinary Shareholders' Meeting scheduled for 12 May 2017 to appoint the candidate nominated by NSSMC as member of the Supervisory Board. Said member shall be subject to specific measures to prevent access to sensitive competitive information. The Appointments, Compensation, and Governance Committee will ensure respect of this in accordance with the provisions of the shareholder's pact signed on 1 February 2016 with the NSSMC.

Furthermore, once the law on employer-employee dialog and employment dated 17 August 2015 takes effect (known as the "Rebsamen" law), a resolution will be presented at the Ordinary and Extraordinary Shareholders' Meeting scheduled for 12 May 2017 to amend the Company's bylaws in order to provide for employee representation on the Supervisory Board.

PRESENTATION OF SUPERVISORY BOARD MEMBERS

1 Ms Vivienne COX
Chairman of the Supervisory Board
Chairman of the Strategy Committee

2 Mr Pierre PRINGUET
Vice-Chairman and Lead Member of the Supervisory Board
Chairman of the Appointments, Compensation and Governance Committee

3 Ms Maria Pilar ALBIAC-MURILLO
Member of the Supervisory Board

4 Mr Philippe ALTUZARRA
Member of the Supervisory Board
Member of the Strategy Committee

5 Mr Cédric de BAILLIENCOURT
Member of the Supervisory Board

6 Mr Olivier BAZIL
Member of the Supervisory Board
Member of the Finance and Audit Committee
Member of the Strategy Committee

7 Bpifrance Participations, represented by Mr Alexandre OSSOLA
Member of the Supervisory Board
Member of the Finance and Audit Committee
Member of the Strategy Committee

8 Ms Laurence BROSETA
Member of the Supervisory Board
Member of the Appointments, Compensation and Governance Committee

9 Ms Pascale CHARGRASSE
Member of the Supervisory Board representing the employee shareholders
Member of the Appointments, Compensation and Governance Committee

10 Mr José Carlos GRUBISICH
Member of the Supervisory Board
Member of the Strategy Committee

11 Mr Henri POUPART-LAFARGE
Member of the Supervisory Board
Chairman of the Finance and Audit Committee

12 Ms Alexandra SCHAAPVELD
Member of the Supervisory Board
Member of the Finance and Audit Committee
Member of the Appointments, Compensation and Governance Committee

HONORARY CHAIRMEN

1 Mr Jean-Paul PARAYRE
Honorary Chairman of Vallourec since 31 May 2013

2 Mr Arnaud LEENHARDT
Honorary Chairman of Vallourec since 15 June 2000

Ms Vivienne COX

Chairman of the Supervisory Board
Chairman of the Strategy Committee

Date of birth: 19 May 1959
Nationality: British
Vallourec shares held: 20,880

Business address:
Vallourec
27, avenue du Général-Leclerc
92100 Boulogne-Billancourt – France

Expertise and managerial experience:
- A graduate of Oxford University and INSEAD and holding an Honorary Doctorate from the University of Hull
- 28 years' experience with the BP Group
- CEO of BP Gas, Power and Renewables (2004-2009)
- Commissioner of the Airport Commission of the Department of Transport of the British government (since 2012)

Positions held by Ms Vivienne COX

Positions currently held

- Chairman of the Supervisory Board of Vallourec*
- Director of Pearson Plc*, Chairman of the Governance Committee (since 2017), member of the Reputation and Responsibility Committee
(since 2017), member of the Audit Committee, the Appointments Committee, and the Compensation Committee (since 2012) and Senior Independent Director (since 2013)
- Director of GlaxoSmithKline Plc* (since 2016)
- Lead Independent Director of the Department for International Development of the British government (since 2010)
- Manager B of Stena International SARL (Luxembourg) (since 2014)
- Member of the Consulting Board and Chairman of the Compensation Committee of Montrose Associates

Positions expired within the last five years

- Director and member of the Sustainable Development Committee, the Compensation Committee and the Appointments Committee of BG Group Plc (until 2016)
- Chairman of the Reputation and Responsibility Committee (until 2016) of Pearson Plc*
- Director of The Climate Group (until February 2015)
- Director and member of the Appointments Committee and the Sustainable Development Committee of Rio Tinto Plc (up to 2014)
- Member of the Board of Directors and the Appointment and Compensation Committee of INSEAD (up to 2013)
- Non-Executive Chair and Director of the consulting and investment firm Climate Change Capital Limited (up to 2012)
- Member of the Offshore Advisory Committee of Mainstream Renewable Power (until 2012)

Mr Pierre PRINGUET

Vice-Chairman and Lead Member of the Supervisory Board
Chairman of the Appointments, Compensation and Governance Committee

Date of birth: 31 January 1950
Nationality: French
Vallourec shares held: 7,872

Business address:
Pernod Ricard
12, place des États-Unis
75116 Paris – France

Expertise and managerial experience:
- Graduate of the École Polytechnique and Engineer for the French Mines Inspectorate (Corps des Mines)
- Began career in public service, from 1976 to 1987: In charge of an industry and mining engagement with the prefect of the Lorraine region (1976-1978); Head of financial procedures and social relations with the Managing Director of Industry (1979-1982); Chief Engineer of Mines (1981); Technical Consultant to Michel Rocard, Minister of Land Management and Planning, and later the Minister of Agriculture (1981-1985); Director of Agricultural and Food Industries with the French Ministry of Agriculture (1985-1987)
- Since 1987, in the Pernod Ricard Group: Director of Development of the Pernod Ricard Group (1987-1989); Managing Director of Société pour l'Exportation de Grandes Marques (1989-1996); Chairman & CEO of Pernod Ricard Europe (1997-2000); Deputy CEO of Pernod Ricard (2000-2005); Director of Pernod Ricard (since 2004); COO of Pernod Ricard (2005-2008); Managing Director of Pernod Ricard (2008-2015)

Positions held by Mr Pierre PRINGUET

Positions currently held

- Vice-Chairman of the Supervisory Board of Vallourec*, Lead Member and Chairman of the Appointments, Compensation and Governance Committee
- Vice-Chairman of the Board of Directors of Pernod Ricard* and member of the Strategy Committee and of the Compensation Committee
- Director and member of the Compensation Committee of Iliad*
- Director of April
- Director of Capgemini*, Chairman of the Compensation Committee and member of the Ethics and Governance Committee
- Chairman of the Association Française des Entreprises Privées (AFEP)
- Chairman of the Association of Mining Engineers (Association Amicale des Ingénieurs des Mines – AAIM)
- Chairman of the Scotch Whisky Association

Positions expired within the last five years

- Chairman of AgroParisTech (until 2016)
- CEO of Pernod Ricard (until February 2015)
- Chairman of Comité Sully, an association for the promotion of the French agrifood industry (until January 2015)

* *Listed company (for terms pending).*

Ms Maria Pilar ALBIAC-MURILLO

Member of the Supervisory Board

Date of birth: 21 August 1953
Nationality: Spanish
Vallourec shares held: 3,000

Business address:
Philips Innovation Services
High Tech campus, Building 34-5.065
5656 AE Eindhoven – Netherlands

Expertise and managerial experience:
- Graduate of the University of Zaragoza (Spain), and the holder of an MBA from Central Michigan University (United States)
- A twenty-six year career at General Motors, sixteen of which were spent in the United States. Fifteen years in Operations, Plant Director in Saginaw, Michigan (1991-1993), Plant Director in Logroño, Spain (1993-1996)
- Chairman and CEO of Saginaw Deutschland GmbH (1996-1999)
- Seven years at Delphi Corporation: Site Manager (Delphi Alabama Operations), Plant Manager, Site Director (Delphi Flint East Operations) and Director of Product Line (Delphi Troy Headquarters)
- Vice-President in charge of operations in Mexico for Remy (2006-2007)
- Eight years at the Airbus* Group: Executive Vice-President of Operations and Head of Transformation at Airbus Defence and Space, and A400M Industrialization (2008-2016)

Positions held by Ms Maria Pilar ALBIAC-MURILLO

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Director of Products and Innovation to Market Excellence of Philips

Positions expired within the last five years

- Executive Vice-President of Operations and Head of Transformation at Airbus Defence and Space, and A400M Industrialization (until 2016)
- Director of Banque Populaire Occitane (until August 2016)
- COO and Chairman of Cassidian Spain (until 2013)
- Senior Vice-President in charge of Quality and Lean Corporate at Airbus (until 2012)

Mr Philippe ALTUZARRA

Member of the Supervisory Board
Member of the Strategy Committee

Date of birth: 3 April 1950
Nationality: French
Vallourec shares held: 13,000

Business address:
Vallourec
27, avenue du Général-Leclerc
92100 Boulogne-Billancourt – France

Expertise and managerial experience:
- Graduate of Sciences Po Bordeaux and of the École Nationale d'Administration
- He began his career at the Ministry of Finance in 1973: Technical advisor at the Office of the Secretary of State for Defense (1973-1975), Economic Attaché at the French Embassy in London (1975-1978), Civil Administrator, French Trade Directorate (1981-1986), Economic Advisor at the French Embassy in Tokyo (1986-1989)
- Member of the Executive Committee, Deputy CFO of the Havas Group (1989-1993)
- Twenty-one years at Goldman Sachs (1993-2014)

Positions held by Mr Philippe ALTUZARRA

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Shareholder and Director of Altuzarra LLC
- Chairman of the Supervisory Board of La Redoute
- Member of the Nuclear Commitment Financial Expertise Committee of Electricité de France (EDF)*
- Member of the Consulting Board of EDF Invest

Positions expired within the last five years

- Member of the International Board of Goldman Sachs (London) (until 2014)
- CEO of Goldman Sachs France and Belgium (Paris) (until 2012)

Mr Cédric de BAILLIENCOURT

Member of the Supervisory Board

Date of birth: 10 July 1969
Nationality: French
Vallourec shares held: 7,800

Business address:
Tour Bolloré
31-32, quai de Dion Bouton
92811 Puteaux Cedex – France

Expertise and managerial experience:
- Graduate of the Institut d'Études Politiques de Bordeaux, postgraduate degree in Political and Social Communication
- Twenty-one years with the Bolloré Group as Director of Shareholding (since 1996), CEO (since 2002) and Vice-Chairman of Financière de l'Odet, Vice-Chairman of Bolloré (since 2002), CFO of the Bolloré Group since 2008, Permanent Representative of Compagnie du Cambodge on the Supervisory Board of Hottinguer bank and Director of the Musée national de la Marine

Positions held by Mr Cédric de BAILLIENCOURT

Positions currently held

- Member of the Supervisory Board of Vallourec**
- Vice-Chairman-CEO of Financière de l'Odet [(a)]**
- Vice-Chairman of Bolloré [(a)]**
- Chairman of the Management Board of Compagnie du Cambodge [(a)]**
- Chairman of the Boards of Directors of Compagnie des Tramways de Rouen [(a)]**, Financière Moncey [(a)]**, Société des Chemins de Fer et Tramways du Var et du Gard [(a)]** and Société Industrielle et Financière de l'Artois [(a)]**
- Chairman of Blueboat (formerly Compagnie de Bénodet) [(a)], Compagnie de Treguennec [(a)], Compagnie de Cornouaille [(a)], Compagnie de Guénolé [(a)], Compagnie de Guilvinec [(a)],

* *Listed company (for terms pending).*

Compagnie de Pleuven [(a)], Financière V [(a)], Financière de Beg Meil [(a)], Financière d'Ouessant [(a)], Financière du Perguet [(a)], Financière de Sainte-Marine [(a)], Financière de Pont-Aven [(a)], Imperial Mediterranean [(a)], Compagnie des Glénans [(a)], Compagnie de Pont l'Abbé [(a)], Financière de Quimperlé [(a)], Financière de l'Argoat [(a)] and Companie de Concarneau [(a)]
- Manager of Socarfi [(a)], Compagnie de Malestroit [(a)]
- Director of Bolloré [(a)]**, Bolloré Participations [(a)], Compagnie des Tramways de Rouen [(a)]**, Financière V [(a)], Financière Moncey [(a)]**, Omnium Bolloré [(a)], Société Industrielle et Financière de l'Artois [(a)]**, Financière de l'Odet [(a)]**, Société des Chemins de Fer et Tramways du Var et du Gard [(a)]**
- Director of the Musée national de la Marine, African Investment Company [(a)], Financière du Champ de mars [(a)], La Forestière Équatoriale [(a)]**, BB Group [(a)], Plantations des Terres Rouges [(a)], SFA [(a)], PTR Finances [(a)], Sorebol [(a)], Technifin and Paragefi Helios Iberica Luxembourg [(a)]
- Member of the Supervisory Board of Sofibol [(a)]
- Permanent representative of Bolloré on the Board of Directors of Havas [(a)]** and Socotab [(a)]
- Permanent representative of Compagnie du Cambodge on the Supervisory Board of Banque Hottinguer
- Chairman of Redlands Farm Holding [(a)]
- Chairman of the Board of Directors of Plantations des Terres Rouges [(a)], PTR Finances [(a)] and SFA [(a)]
- Permanent representative of Pargefi Helios Iberica Luxembourg on the Board of Pargefi SA [(a)]
- Permanent representative of Bolloré Participations on the Board of Nord Sumatra Investissements [(a)]
- Permanent representative of Bolloré Participations on the Boards of Socfinasia**, Socfinaf**, Socfinde, Terrasia, Socfin**, Induservices SA

Positions expired within the last five years

- Chairman of Financière de Briec [(a)] (until September 2016)
- Chairman of Financière de Pluguffan [(a)] (until July 2016)
- Chairman of Bluestorage (until 2015)
- Chairman of Financière de Bréhat [(a)] (until 2014)
- Chairman of Omnium Bolloré (until 2013)
- Chairman of Bluely (formerly Financière de Kerdevot) (until 2013)
- Chairman and Director of Sofibol (until 2012)
- Manager of Financière du Loch (until 2012)
- Permanent representative of Bolloré Participations on the Board of Société Bordelaise Africaine [(a)] (until May 2016)
- Permanent representative of Bolloré Participations on the Boards of Immobilière de la Pépinière and Centrages (until 2015)
- Permanent representative of Bolloré Participations on the Board of Agro Products Investments Company (until 2015)
- Permanent representative of SAFA on the Board of SAFA Cameroun (until 2014) [(a)]
- Permanent representative of Bolloré Participations on the Board of Socfinco (until 2014)
- Permanent representative of Financière V on the Board of Société Anonyme Forestière et Agricole (SAFA) [(a)] (until 2014)
- Permanent representative of Bolloré on the Supervisory Board of Vallourec (until 2014)
- Permanent representative of Bolloré on the Board of Blue Solutions (formerly BatScap) (until 2013)
- Permanent representative of Bolloré Participations on the Board of Sogescol (until 2012)
- Director of Champ de Mars Investissements, Financière Nord Sumatra (until 2013)
- Director of Cormoran Participations (until 2013)

Mr Olivier BAZIL

Member of the Supervisory Board
Member of the Finance and Audit Committee
Member of the Strategy Committee

Date of birth: 22 September 1946
Nationality: French
Vallourec shares held: 29,365

Business address:
Vallourec
27, avenue du Général-Leclerc
92100 Boulogne-Billancourt – France

Expertise and managerial experience:
- Graduate of École des Hautes Études Commerciales (HEC) and Harvard Business School
- Assistant to the Secretary General, responsible for financial information and development of the growth strategy for the Legrand Group (1973)
- CFO of Legrand (1979)
- Deputy CEO and Vice-Chairman of the Board of Directors of Legrand (1994)
- COO of Legrand (from 2000 to 2011)

Positions held by Mr Olivier BAZIL

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Director of Legrand*
- Member of the Supervisory Board of Michelin*
- Director of Château Palmer

Positions expired within the last five years

- Director of Firmenich International (until October 2016)

Bpifrance Participations

Member of the Supervisory Board
Member of the Finance and Audit Committee
Member of the Strategy Committee

Vallourec shares held: 66,695,707

Business address:
Bpifrance Participations
6-8 boulevard Haussmann
75009 Paris – France

Bpifrance offers companies continuity of financing at each key step in their development and an offer adapted to regional specificities. As part of the Bpifrance equity investment scheme, Bpifrance Participations invests in Large Enterprises as well as in Middle-Market Companies, in order to support their development in France and internationally. Bpifrance Participations is a minority shareholder involved in governance, as well as a long-term investor capable of adapting to the company's development cycles.

(a) Position held within the Bolloré Group.

** Listed company (for terms pending).*

*** Listed company (for terms pending (including companies registered in the Free Market and listed abroad).*

Positions held by Bpifrance Participations

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Director of Altia Industry
- Director of Biom'up
- Director of Cegedim*
- Director of CGG*
- Director of CHM International
- Director of Compagnie Daher
- Director of Eutelsat Communications*
- Director of Farinia SA
- Member of the Supervisory Board of Financière du Millenium
- Member of the Supervisory Board of FT1 CI
- Director of G2 Mobility
- Director of Gensight Biologics*
- Member of the Supervisory Board of Groupe Grimaud La Corbière
- Director of Groupe Limagrain Holding SA
- Director of Hoziron Parent Holdings SARL
- Director of Isorg
- Director of Mader
- Member of the Supervisory Board of Medipole Partenaires
- Director of Mersen*
- Director of Paprec
- Director of Parrot*
- Director of Pixium Vision*
- Director of Sequana*
- Director of Soitec*
- Director of Technicolor*
- Director of Tinubu Square
- Director Board of Tokheim Luxco
- Director of Txcell*
- Member of the Supervisory Board of Valneva*
- Member of the Supervisory Board of Vergnet SA*
- Director of Vexim*
- Director of Viadeo*
- Member of the Supervisory Board of Voluntis

Positions expired within the last five years

- Director of CHM International
- Member of the Supervisory Board of Inside Secure*
- Director of Medtech*
- Director of Metnext

Mr Alexandre OSSOLA, permanent representative of *Bpifrance Participations*

Date of birth: 26 September 1974
Nationality: French

Business address:
Bpifrance Participations
6-8 boulevard Haussmann
75009 Paris – France

Expertise and managerial experience:

- Eighteen years experience in capital investment and mergers-acquisitions
- Started his career in London at Wasserstein Perella (1998) then at Crédit Suisse First Boston
- CVC Capital Partners (2000-2011); Director at the Paris office
- Head of capital risk operations at CDC Climat (2011-2013)
- Director of nuclear and rail funds (2013) then manager of Fonds d'Avenir Automobile and a member of the Bpifrance Mid & Large Cap Management Committee (from 2015)

Positions held by Mr Alexandre OSSOLA

Positions currently held

- Permanent representative of Bpifrance Participations, Member of the Supervisory Board of Vallourec*
- Director of Operations and member of the Mid & Large Cap Management Committee for Bpifrance manager of Fonds d'Avenir Automobile, managed by Bpifrance Participations
- Member of the Supervisory Board of Mecaplast
- Member of the Board of Directors of Trèves

Positions expired within the last five years

- Member of the Supervisory Board of Climpact (until January 2017)
- Member of the Supervisory Board of HPC (until 2014)
- Member of the Board of Directors of Mecaplast SAM (until April 2016)

Ms Laurence BROSETA

Member of the Supervisory Board
Member of the Appointments, Compensation and Governance Committee

Date of birth: 22 September 1968
Nationality: French
Vallourec shares held: 4,743

Business address:
Transdev
Immeuble Sereinis
32, boulevard Gallieni - CS 50002
92442 Issy-les-Moulineaux Cedex – France

* *Listed company (for terms pending).*

Expertise and managerial experience:

- Graduate of École Polytechnique, Telecom Paris and Auditor at Institut des Hautes Études de l'Entreprise (IHEE)
- Head of Transport Operations for RATP (1994-1999)
- Lead Engineer for Control & Communication at SYSTRA (joint venture between RATP and SNCF) in London (1999-2001)
- Director of the "Point du Jour" Bus Center (2002-2005)
- Chairman of Bombela, a subsidiary of RATP Dev in Johannesburg, South Africa (2005-2007)
- Director of the International Business Unit and Vice Chairman in charge of international strategy for RATP Dev (2008-2012)
- CEO of Fives Stein (2012-2013)
- CEO, France, of Transdev, traveler transport activity (2013-2016)

Positions held by Ms Laurence BROSETA

Positions currently held

- Member of the Supervisory Board of Vallourec*
- International Director of Transdev, traveler transport activity in 10 countries, and a Member of the Executive Committee of Transdev
- Director of subsidiaries of the Transdev Group
- Director of Thalès*

Positions expired within the last five years

- Director and Vice-President of Union des Transports Publics (until 2016)
- Director of Thello (until 2016)

Ms Pascale CHARGRASSE

Member of the Supervisory Board representing the employee shareholders
Member of the Appointments, Compensation and Governance Committee

Date of birth: 10 July 1960
Nationality: French
Vallourec shares held: 8,327

Business address:
Valinox Nucléaire
5, avenue du Maréchal Leclerc
BP 50 – 21501 Montbard – France

Expertise and managerial experience:

- Graduate of the Orsay Technology Institute with a DUT diploma in Computer Science
- Employee of the Vallourec Group since 1985 and currently Business Development Manager at Valinox Nucléaire, a wholly owned subsidiary of Vallourec
- Member of the Supervisory Board of Vallourec Actions Corporate Mutual Fund (FCPE)
- Union representative on the Group's Works Council

Positions held by Ms Pascale Chargrasse

Positions currently held

- Member of the Supervisory Board of Vallourec*

Mr José Carlos Grubisich

Member of the Supervisory Board
Member of the Strategy Committee

Date of birth: 19 February 1957
Nationality: Brazilian
Vallourec shares held: 13,000

Business address:
Eldorado Brasil Celulose S.A.
Avenida Marginal Direita do Tietê, 500 - Vila Jaguara
Bloco 2 - 1° andar
05118 100 - São Paulo – SP – Brazil

Expertise and managerial experience:

- Graduate of the Advanced Management Program of the Fundaçao Dom Cabral and of INSEAD
- CEO of Rhodia for Brazil and Latin America (1996)
- Chairman & CEO of Rhône-Poulenc Group for Brazil (1997)
- Vice-Chairman and member of the Executive Board of Rhodia Group Worldwide and Chairman of Rhodia Fine Organics Worldwide (1999)
- Chairman & CEO of Brazilian company Braskem S.A. (petrochemicals) (2002)

Positions held by Mr José Carlos GRUBISICH

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Chairman of Eldorado Brasil Celulose S.A. (since 2012)
- Director of Halliburton* (since 2013)

Positions expired within the last five years

- Non-voting Board member of the Supervisory Board of Vallourec (until 2012)
- Chairman & CEO of Brazilian company ETH Bioenergia S.A. (bioenergy) (until 2012)
- Board member of Braskem S.A. (until 2012)

Mr Henri POUPART-LAFARGE

Member of the Supervisory Board
Chairman of the Finance and Audit Committee

Date of birth: 10 April 1969
Nationality: French
Vallourec shares held: 9,292

Business address:
Alstom
48, rue Albert Dhalenne
93482 Saint-Ouen Cedex – France

Expertise and managerial experience:

- Graduate of the École Polytechnique (1988), the École Nationale des Ponts et Chaussées and the Massachussetts Institute of Technology
- Deputy in the Treasury Department of the Ministry of Economy and Finance, and later a Technical Adviser in the office of the Minister of Economy and Finance (1994-1997)
- Since 1998, in the Alstom Group*: Head of Investor Relations (1998-1999), Head of Management Control (1999-2000), Senior Vice-President in charge of Finance for the Transmission and Distribution sector (2000-2004), Group CFO (2004-2010), President of the Alstom Grid sector (2010-2011), Group Executive Vice-Chairman and Chairman of the Transportation sector (2011-2016) and Chairman and Chief Executive Officer of Alstom (since February 2016).

* *Listed company (for terms pending).*

Positions held by Mr Henri POUPART-LAFARGE

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Chairman and CEO (since February 2016), Director of Alstom* (since 2015)
- Director of Transmashholding (TMH)

Positions expired within the last five years

- None

Ms Alexandra SCHAAPVELD

Member of the Supervisory Board
Member of the Finance and Audit Committee
Member of the Appointments, Compensation and Governance Committee

Date of birth: 5 September 1958
Nationality: Dutch
Vallourec shares held: 12,272

Business address:
Jacob Obrechtstraat 67
1067 KJ Amsterdam – Netherlands
Expertise and managerial experience:

- Graduate in Politics, Philosophy and Economics from Oxford University and holder of a Master's Degree in Development Economics from Erasmus University
- 25 years' experience with the ABN AMRO Group
- Head of Sector expertise for the ABN AMRO Group (2001-2004)
- Head of Investment Banking for the ABN AMRO Group (2004-2007)
- Head of Europe for Royal Bank of Scotland (2007-2008)

Positions held by Ms Alexandra SCHAAPVELD

Positions currently held

- Member of the Supervisory Board of Vallourec*
- Director of Société Générale*
- Member of the Supervisory Board of FMO
- Member of the Supervisory Board of Bumi Armada Berhad* (Malaysia)

Positions expired within the last five years

- Member of the Supervisory Board of Holland Casino (until 1 June 2016)
- Member of the Supervisory Board of the University of Amsterdam and University Medical Center (until 2012)

HONORARY CHAIRMEN

Mr Jean-Paul PARAYRE

Honorary Chairman of Vallourec since 31 May 2013

Expertise and managerial experience:

- Graduate of École Polytechnique
- Chairman of the Management Board of PSA Peugeot-Citroën (1977-1984)
- COO then Chairman of the Management Board of Dumez (1984-1990)
- Vice-President and CEO of Lyonnaise des Eaux Dumez (1990-1992)
- Vice-President and CEO of Bolloré (1994-1999)
- Chairman and CEO of Saga (1996-1999)
- Chairman of the Supervisory Board of Vallourec (2000-2013)

The 30 May 2013 Shareholders' Meeting marked the end of Mr Jean-Paul Parayre's last term of office. A member of Vallourec's Supervisory Board since 1989, he went on to succeed Mr Arnaud Leenhardt as Chairman in 2000. Under his guidance, the Board oversaw the seamless integration of Mannesmann do Brasil into the Group, and then assisted in preparing a strategy to develop internationally, focusing on energy markets. Implementation began in 2002 with the acquisition in the United States of North Star, and then of Atlas Bradford® thereby building strong positions in the US. As early as 2001, the Board began reviewing the Group's capital structure, a legacy of the 1997 merger of the Vallourec and Mannesmannröhren-Werke hot-rolled and OCTG tube activities. This led, in 2005, to the acquisition of the German partner's non-controlling shares in Vallourec & Mannesmann. This enabled Vallourec to determine its own strategy, at a time when a number of growth opportunities were presenting themselves. The Supervisory Board has been unwavering in its support of an organic growth strategy with a modernized European foundation, which has made Vallourec a technological global leader capable of serving its customers in rapidly growing oil and gas markets, namely by creating industrial plants in China, Brazil and the United States, the latest being the startup of the integrated plant in the State of Minas Gerais at the end of 2011, and a new tube mill in Ohio at the end of 2012.

Positions held by Mr Jean-Paul PARAYRE

Positions currently held

- Director of Snef (formerly Société Financière du Planier)

Positions expired within the last five years

- Member of the Supervisory Board of Peugeot SA (until 2014)
- Member of the Supervisory Board of Vallourec (until 2013)
- Permanent representative of Vallourec on the Board of Directors of Vallourec Tubes (until 2013)
- Director of Bolloré (until 2013)
- Chairman of the Supervisory Board of Stena Maritime [(a)] (until 2013)
- Manager B of Stena International SARL (Luxembourg) [(a)] (until 2013)

* *Listed company (for terms pending).*
(a) *Position held within the Stena Group.*

Mr Arnaud LEENHARDT

Honorary Chairman of Vallourec since 15 June 2000

Expertise and managerial experience:

- Graduate of École Polytechnique
- 43 years with the Vallourec Group, mainly in Plant and General Management
- Chairman and CEO of Vallourec (1981-1994)
- Chairman of the Supervisory Board of Vallourec (1994-2000)
- Non-voting Board member (censeur) of the Supervisory Board of Vallourec (2006-2010)

Having spent his entire career in the Vallourec Group, of which he was Chairman from 1981 to 2000, Mr Arnaud Leenhardt has initiated numerous formative decisions that have had a major influence on the Group's development and the success of its products.

Positions held by Mr Arnaud LEENHARDT

Positions currently held

- Director of Fénie Brossette* (Morocco)
- Honorary Chairman of UIMM
- Honorary Chairman of Vallourec*

OFFICES OF MEMBERS OF THE SUPERVISORY BOARD WHICH ENDED IN 2016

Mr Jean-François CIRELLI

Date of birth: 9 July 1958
Nationality: French

Business address:
BlackRock France
Le Centorial – 16-18, rue du Quatre Septembre
75002 Paris – France

Expertise and managerial experience:

- Graduate of École Nationale d'Administration, law degree
- Various positions within the French Ministry for Economy and Finance's Treasury Department (1985-1995)
- Technical Advisor, then Economic Advisor to the French Presidency (1995-2002)
- Deputy Director of the Prime Minister's office (2002-2004)
- Chairman & CEO of Gaz de France (2004-2008)
- Vice-Chairman, COO of GDF SUEZ until November 2014

Positions held by Mr Jean-François Cirelli

Positions currently held

- Chairman of BlackRock France, Belgium and Luxembourg*
- Senior Advisor of Advent International
- Senior Advisor of McKinsey & Company Inc., France *

Positions expired within the last five years

- Member of the Vallourec Supervisory Board (until 2016)
- Vice-Chairman, COO of GDF SUEZ [(a)]
- Chairman of the Board of Directors of GDF SUEZ Trading [(a)]
- Director of GDF SUEZ Energy Services [(a)]
- Director of Suez Environnement Company [(a)]
- Vice-Chairman of the Board of Directors of Electrabel (Belgium) [(a)]
- Director of International Power (UK) [(a)]
- Director of GDF Suez Energy Management Trading (Belgium) [(a)]
- Director of Suez-Tractebel (Belgium) [(a)]

Mr Michel de FABIANI [(1)]

Date of birth: 17 June 1945
Nationality: French

Business address:
Chambre de Commerce Franco-britannique
10, rue de la Bourse
75001 Paris – France

Expertise and managerial experience:

- Graduate of the École des Hautes Études Commerciales (HEC)
- CFO of BP Europe (1991-1994)
- Commercial Director of BP Europe (1994-1997)
- CEO of BP Mobil Europe joint venture (1997-2001)
- Regional President of BP Europe (1997-2004)
- Chairman & CEO of BP France (1995-2004)

Positions held by Mr Michel de FABIANI

Positions currently held

- Director of BP France
- Director of Valeo*
- Member of the Supervisory Board of Valco
- Vice-Chairman of the Franco-British Chamber of Commerce
- Director of EBtrans (Luxembourg)
- Chairman of Hertford British Hospital Corporation (United Kingdom)

Positions expired within the last five years

- Member of the Supervisory Board of Vallourec* (until 2016)

** Listed company (for terms pending).*

(a) Office held within the GDF SUEZ Group – expired in November 2014.

(1) At its 17 February 2016 session, Vallourec's Supervisory Board co-opted Ms Laurence Broseta as a member of the Supervisory Board, replacing Mr Michel de Fabiani, who resigned, with effect from the end of the Supervisory Committee meeting of 5 April 2016.

7.1.2 Operation of the Management and Supervisory Boards

7.1.2.1 Operation of the Management Board

The Management Board has, with regard to third parties, the broadest powers to act under all circumstances in the name of the Company, within the limit of the corporate purpose, and subject to the powers expressly provided by law to the Supervisory Board and Shareholders' Meetings, and those which require the prior authorization of the Supervisory Board, in application of the bylaws and, where applicable, internal regulations.

In conformity with the provisions in the bylaws (Article 9 thereof), the Management Board is comprised of a minimum of two and a maximum of five members who are appointed and, as the case may be, reappointed by the Supervisory Board. As at 28 February 2017, the Management Board had three members serving four-year terms. As at 1 April 2017, the Management Board will consist of two members, with four-year terms (see paragraph 7.1.1.1 above).

The members of the Management Board may be dismissed by the Supervisory Board or the Shareholders' Meeting.

The Management Board has adopted internal regulations which consist of an internal document intended to organize its functioning and relations with the Supervisory Board. It is not valid against third parties.

The Management Board is in charge of the Company's management and of running its activities. It must, in compliance with the law, bylaws and internal regulations, obtain the prior authorization of the Supervisory Board in certain cases (see paragraph 7.1.2.2 below). It meets once a week.

7.1.2.2 Operation of the Supervisory Board

The Supervisory Board is the Company's control body, management and administration being performed by the Management Board. The Supervisory Board ensures that the strategy applied by the Management Board is suited to the guidelines it has approved.

To that end, the role of the Supervisory Board is twofold:

- to provide ongoing control of the Company's management through the Management Board, by performing the checks and controls it deems appropriate;
- to provide periodic control of the Company's management: once per quarter for the activities report which the Management Board presents to it, and within three months of the close of each fiscal year, at the time of the Management Board's presentation of the annual financial statements, consolidated financial statements and management report intended for the Shareholders' Meeting, as well as during the presentation of the interim financial statements.

In addition to the legal obligations of prior authorizations (sureties, securities and guarantees, the Supervisory Board gives its authorization prior to the Management Board carrying out the following actions:

- completing any capital increases in cash or by capitalization of reserves authorized by a Shareholders' Meeting;
- completing any other issue of transferable securities that could later give access to the capital, authorized by a Shareholders' Meeting;
- proceeding with a buyback by the Company of its own shares;
- granting to executive management and/or Group employees options to subscribe for or purchase the Company's shares, granting shares free of charge or any other benefits of a similar nature under the terms of authorizations granted by the Shareholders' Meeting; and
- establishing any projected merger or partial transfer of assets, entering into or refusing any industrial or commercial agreement with other companies that could affect the Company's future and, more generally, completing any major transaction (such as external operations for the acquisition or disposal of significant investments in organic growth or internal restructuring operations) (i) that could materially alter the business scope or financial structure of the Group or the type of risks it incurs or (ii) which falls outside of the Group's declared strategy.

Where applicable, the prior authorization of the Supervisory Board is required for both Vallourec and the companies it controls under the terms of Article L. 233-16 of the French Commercial Code *(Code de commerce)* (consolidation scope).

The Supervisory Board determines the composition of the Management Board, appoints its members and may remove them from office. It may likewise propose to the Shareholders' Meeting that their duties be terminated. Once a year, the Supervisory Board evaluates the performance of the Management Board and leads a discussion as to its future.

The Supervisory Board sets the compensation of members of the Management Board as well as the number of share subscription or share purchase options and/or performance shares they are allocated, or any other benefit of a similar nature.

It determines the terms and conditions for receiving attendance fees, and their distribution among the Board members. It likewise determines the compensation of the Chairman and, where applicable, the Vice-Chairman, and the resources allocated to them for performing their duties. In 2016, the Supervisory Board met eight times.

The Chairman of the Supervisory Board sets the agenda for each Supervisory Board meeting, upon consulting with the Chairman of the Management Board.

Once per quarter, the Management Board presents a report to the Supervisory Board which describes as completely as possible the progress of the Group's affairs, as well as any useful information about its financial position, cash flow, commitments and liquidity.

The Management Board consults the Supervisory Board about the dividend to be proposed to the Shareholders' Meeting. At the end of the year, it submits the budget, forecast capital expenditure program and financing plan for the following year together with the strategy plan.

At its meetings, the Supervisory Board can ask the Management Board to supplement its information on particular matters with a presentation at the next meeting.

The report on the activities of the Supervisory Board during fiscal year 2016 is presented in the Board Chairman's Report which appears in Appendix 1 to this Chapter.

In the performance of its duties, the Supervisory Board is regularly informed, by the Management Board, through its Chairman, of any significant event concerning the Group's performance. It ensures that the latter keeps it informed of all matters that it deems useful and necessary in the exercise of its supervisory role. In order to ensure the process operates correctly, the Chairman of the Supervisory Board, at the initiative of any member of the Board, gathers this information.

The specific information required by each of the Committees of the Supervisory Board for the performance of its duties is gathered by the Chairman of each Committee in collaboration with the Management Board.

In addition to the above provisions, information is provided to the Supervisory Board on an ongoing basis through a frequent, regular dialogue between the Chairman of the Supervisory Board and the Chairman of the Management Board.

As an exception to the above, if any member of the Supervisory Board finds himself or herself in a conflict of interest situation, even a potential one, concerning a subject to be debated by the Board, the Chairman of the Supervisory Board ensures, with the support of the Appointments, Compensation and Governance Committee, that information concerning this subject is not communicated to the member in question, without prejudice to the latter's obligations, as described below.

The Supervisory Board is composed of at least three and no more than 12 members. Its members are appointed by the Ordinary Shareholders' Meeting, which has the sole authority to reappoint them and, as the case may be, to dismiss them. Their term of office is four years. As at 28 February 2017, it is comprised of 12 members, all appointed by the Shareholders' Meeting. Once the law on employer-employee dialog and employment dated 17 August 2015 takes effect (known as the "Rebsamen" law), a resolution will be presented at the Ordinary and Extraordinary Shareholders' Meeting scheduled for 12 May 2017 to amend the Company's bylaws in order to provide for employee representation on the Supervisory Board. The Supervisory Board will now have 13 members, 12 of whom have been appointed by the Shareholders' Meeting.

Taking the schedule for expiry of the current offices into account, the terms of office of members of the Supervisory Board are renewed on a staggered basis to ensure that the Supervisory Board benefits from a seamless flow of renewals and new appointments.

At its meeting on 17 April 2003, the Vallourec Supervisory Board drew up internal regulations (updated on 1 April 2015 and on 21 February 2017) designed to formalize its operating and organizational rules and working methods. These regulations are strictly internal and are not intended to and do not replace the Company bylaws or the laws and regulations governing commercial companies. They may be amended or added to at any time as a result of a decision made by the Supervisory Board. They have been regularly revised to ensure that their terms are consistent with the new statutory and regulatory provisions.

The Supervisory Board elects a Chairman and Vice-Chairman from among its members, for a maximum term corresponding to their term of office as a Supervisory Board member. The Chairman and Vice-Chairman may be reelected or removed, at any time, by the Supervisory Board. They are in particular responsible for convening the Board and directing its deliberations, it being specified that the powers of the Vice-Chairman are exercised if the Chairman is absent or at the Chairman's request, and under the same conditions. The Vice-Chairman alerts the Chairman to observations regarding compliance with the ethics obligations established by the Board's internal regulations.

The Supervisory Board may appoint from among its members (including the Vice-Chairman), a Lead Member for a term not to exceed that of his position as a member of the Supervisory Board. The person may be reappointed, and his/her duties as a Lead Member may be revoked at any time by the Supervisory Board. The Lead Member acts in a precautionary manner to raise awareness about conflicts of interest among the members of the Supervisory Board, and draws said Board's attention to any conflict of interest situation that has been identified, even a potential one. The member likewise is responsible for ensuring compliance with the internal regulations, and for making sure that the members of the Supervisory Board are able to perform their task under optimum conditions, and are provided with a high level of upstream information at the Supervisory Board meetings. The Lead Member assists the Chairman of the Supervisory Board, at the latter's request, in responding to shareholders' requests, and makes himself or herself available to meet with them and note their comments and suggestions, when requested and with the consent of the Supervisory Board Chairman. The member makes an annual report to the Supervisory Board on the performance of his/her assignment, in a formal assessment of the operation of the Supervisory Board.

Under the terms of its ethics obligations, each member of the Supervisory Board is required:

- before accepting office, to acknowledge the general and specific obligations for which he/she is responsible, and in particular the legal or regulatory texts, the recommendations of the AFEP-MEDEF Code and any supplements the Board may have added, along with the Board's internal operating rules;
- to participate, unless specifically prevented, in Board meetings and, where applicable, the meetings of the Committees to which he/she belongs, as well as in the Shareholders' Meetings;
- to request information. To that end, he/she must request, within the appropriate time frames, the information required for him/her to actively participate in the subjects on the Board's agenda and, if applicable, the agenda of the Committee(s) to which he/she belongs;
- to comply with the legal and regulatory obligations arising from his/her position and, in particular, to comply with the law and the recommendations of the AFEP-MEDEF Code relating to the plurality of offices;
- to behave as a representative of all the shareholders and act in the Company's interest at all times;
- to inform the Supervisory Board of any conflict of interest situation, even a potential one, and to refrain from voting on any issue examined by the Board that would result in a conflict of interest;
- to personally be a shareholder of the Company throughout the entire term of their office, under the conditions set by the bylaws and internal regulations of the Board, for a minimum of 500 Vallourec shares [(1)];
- with regard to the confidential information obtained in the course of his/her duties, to consider himself/herself as a member in possession of insider knowledge and, as such, in particular, to respect the provisions laid down by the Board concerning the periods during which members in possession of insider knowledge may not buy, sell or take positions in the Company's shares or in any other financial instrument linked to the Vallourec share (options, warrants, etc.), i.e. the thirty (30) calendar days preceding each of the four releases of results (annual, semiannual, first quarter and third quarter) as well as the day of publication and the following day, without prejudice to the current statutory and regulatory provisions on "insider trading";
- to consider himself/herself bound by true professional privilege with regard to all non-public information, regardless of the material (written or verbal) that is collected within the context of his/her duties, during a meeting of the Board or of a Committee (in particular the files of the Board and Committees, discussions,

(1) Starting on the day of their appointment, members of the Supervisory Board must hold at least 50 Vallourec shares. The 450 additional shares must be acquired by 31 December of the year following the year they take office, in order to allow them to use their attendance fees to acquire them. These provisions do not apply to the member representing employee shareholders.

debates and deliberations of the Board and Committees), or between two meetings (ongoing information), and to take all useful measures to preserve confidentiality, in particular by refraining from communicating this information to a third party when it has not been made public;

- to disclose, under the conditions established by statutory and regulatory provisions, to the French securities regulator (*Autorité des Marchés Financiers*) and the Company, the transactions carried out with the financial instruments issued by the Company;
- to comply with the "Code of best practice on securities transactions in Vallourec shares and on the prevention of insider trading"; and
- to comply with the ethical rules of Article 19 of the AFEP-MEDEF Corporate Governance Code of November 2016.

Once a year, an item on the Supervisory Board's agenda is dedicated to the formal assessment of the operation of the Supervisory Board, for which the findings for fiscal year 2016 are presented in the Report of the Chairman of the Supervisory Board (see Appendix 1 to this Chapter 7 below).

When first appointed, the members of the Supervisory Board receive a guide containing all the documents concerning the Group's governance (the bylaws, the internal regulations, the AFEP-MEDEF Corporate Governance Code, the Code of Best Practices, etc.) and the Group's activities. At the request of members, visits are arranged to plants in France and abroad.

The members also have the opportunity, if they so wish, to learn about specific aspects concerning the Group, its businesses, sector of activity and organization. At the request of members, the Group may also organize internal and external training sessions specific to their role as a member of the Supervisory Board. Internal training is provided by the Group's Legal Director based on the Group's corporate and stock exchange documentation and any particular questions raised by the member before the training meeting. It is supplemented by external training provided by an independent organization specializing in training for company directors.

The members of the Supervisory Board are able to meet with the primary senior executives of the Group, including without members of the Management Board being present. In the latter case, said members must have been informed first. In order to ensure the process operates correctly, requests by any member for a meeting with the primary senior executives of the Group are made to the Chairman of the Supervisory Board.

7.1.2.3 Meetings of the Supervisory Board in fiscal year 2016

In 2016, the Supervisory Board met eight times. Members had 100% attendance (see the Report of the Chairman of the Supervisory Board, Appendix 1 to this Chapter 7). The average length of its meetings was approximately three hours and thirty minutes. The meeting of 13 December 2016 was exclusively dedicated to examining strategy.

7.1.2.4 Independent members and members associated with the Company

The annual review of the independence of members of the Supervisory Board was conducted by the Supervisory Board on 21 February 2017, at the recommendation of the Appointments, Compensation and Governance Committee. The Supervisory Board considered all of the criteria of the AFEP-MEDEF Code, which was revised in November 2016, to evaluate the independence of its members, namely:

- not being an employee or executive corporate officer of the Company, nor an employee, executive corporate officer or Director of a company consolidated with it, and not having been in such a position for the preceding five years;
- not being an executive corporate officer in a company in which the Company directly or indirectly holds a directorship or in which an employee, appointed as such, or an executive corporate officer of the Company (currently or who was in such a position less than five years ago) holds a directorship;
- not being a customer, supplier, investment banker, lending banker (or being directly or indirectly linked to these people):
  - of the Company or its Group, or
  - for which the Company or its Group represents a significant portion of activity;
- not having a close family connection with a corporate officer;
- not having been Statutory Auditors of the Company during the last five years;
- not being a member of the Company's Board for more than 12 years, noting that independent director status is lost after twelve years;
- a non-executive corporate officer cannot be considered independent if they receive variable compensation in cash, shares, or any other compensation related to the company's or the Group's performance;
- the members representing major shareholders of the Company or of the parent company can be considered independent from the moment these shareholders do not have control over the Company. However, beyond a threshold of 10% of capital or of voting rights, the Board, on the report of the Appointments, Compensation and Governance Committee, systematically questions qualification as an independent member, taking into account the composition of the Company's capital and the existence of potential conflicts of interest.

The Supervisory Board noted that Bpifrance Participations, which held 14.78% of the Company's capital and 15.81% of its theoretical voting rights as at 31 December 2016, is not an independent member of the Supervisory Board.

The Supervisory Board has debated whether or not to assess the relationship maintained by Board members with Vallourec or its Group, along with the potential conflicts of interest this could generate, as being significant. Within this framework it has conducted a more specific in-depth examination of the following members, upon which it issued the findings below:

- Pascale Chargrasse, who represents employee shareholders on Vallourec's Supervisory Board, has been an employee of the Group since 1985 and should thus be considered a non-independent member in application of the criteria of the AFEP-MEDEF Code. The Supervisory Board nevertheless noted that the AFEP-MEDEF Code excluded employee shareholders from the analysis of independent members, and thus did not recognize Pascale Chargrasse when determining the proportion of independent members;
- Alexandra Schaapveld is Director of Société Générale, a banking institution of the Vallourec Group. The Supervisory Board noted that this business relationship predates the appointment of Alexandra Schaapveld as Director of Société Générale and as a member of Vallourec's Supervisory Board; as a non-executive and

independent Director of Société Générale, Alexandra Schaapveld does not participate in any way in the organization of the business relationship between Vallourec and Société Générale, nor does she personally benefit from it, and the bank overdrafts of Société Générale for the Vallourec Group in 2016 were insignificant both in their amount (less than 0.1% of the Group's gross debt) and from the perspective of the other outside financing of the Vallourec Group. These elements, both in terms of quality and quantity, allowed the Supervisory Board to confirm Alexandra Schaapveld's independence;

- Vivienne Cox is Chairman of the Supervisory Board. The balance of dual corporate governance in which the Supervisory Board has a role, and which is essentially based on controlling the action of the Management Board, and governed by a principle of non-interference in management, in principle avoids all risk of a conflict of interest, unless one of the other criteria for evaluating independence applies. In its recommendation of 11 December 2014, the French securities regulator (*Autorité des Marchés Financiers*), nevertheless wanted to transpose to Chairmen of Supervisory Boards the requirements for Chairmen of Boards of Directors in terms of independence and, to that end, asked that the independence of a Chairman of a Supervisory Board be justified in detail. In this context, the Supervisory Board confirmed Vivienne Cox's independence for the following reasons:
  - Vivienne Cox joined Vallourec's Supervisory Board in 2010, after having spent her entire career outside of the Group,
  - Vivienne Cox was never an employee of Vallourec, nor an executive corporate officer of the Group,
  - the companies in which Vivienne Cox holds a position as a corporate officer have no business relationships with the Vallourec Group, and
  - Vivienne Cox collects fixed compensation, excluding any variable compensation in cash, shares, or any other compensation related to the company's or the group's performance, which could impact the objectivity of her judgment.

The business relationships maintained between (i) the companies (excluding the Group) in which the other members of the Supervisory Board hold offices, on the one hand, and (ii) the Group, on the other, were reviewed but deemed insignificant both in quantitative terms with regard to their amount, which was less than 0.50% of the Group's revenue, and in qualitative terms assesses with particular regard to the continuity, importance, and the organization of the relationship.

Based on these findings, it appears, as at 31 December 2016, that all Board members, with the exception of Bpifrance Participations, must be considered to have no interest vis-à-vis the Company and that consequently, the proportion of independent members of the Supervisory Board stands at 91.67%.

In compliance with the recommendations of the French securities regulator (*Autorité des Marchés Financiers*), the table below presents the position of each of the members of the Supervisory Board, as at 31 December 2016, with regard to the criteria of independence examined by the Supervisory Board and its Appointments, Compensation and Governance Committee:

	Not having been an employee or executive corporate officer during the five preceding years	Not having cross-directorships	Not having significant business relationships	Not having a close family connection with a corporate officer	Not having been Statutory Auditor of the Company during the last five years	Not having been a member of the Supervisory Board for more than 12 years	Not representing a shareholder with more than 10% of share capital	Qualification used by the Board
Vivienne Cox	Y	Y	Y	Y	Y	Y	Y	Independent
Pierre Pringuet	Y	Y	Y	Y	Y	Y	Y	Independent
Maria Pilar Albiac-Murillo	Y	Y	Y	Y	Y	Y	Y	Independent
Philippe Altuzarra	Y	Y	Y	Y	Y	Y	Y	Independent
Cédric de Bailliencourt	Y	Y	Y	Y	Y	Y	Y	Independent
Olivier Bazil	Y	Y	Y	Y	Y	Y	Y	Independent
Bpifrance Participations, represented by Alexandre Ossola	Y	Y	Y	Y	Y	Y	N	Not Independent
Laurence Broseta	Y	Y	Y	Y	Y	Y	Y	Independent
Pascale Chargrasse	N	Y	Y	Y	Y	Y	Y	Not Independent
José-Carlos Grubisich	Y	Y	Y	Y	Y	Y	Y	Independent
Henri Poupart-Lafarge	Y	Y	Y	Y	Y	Y	Y	Independent
Alexandra Schaapveld	Y	Y	Y	Y	Y	Y	Y	Independent

Y: means that the independence criterion has been met.

N: means that the independence criterion has not been met.

7.1.2.5 Diversity within the Supervisory Board: the proportion of international and female members

According to a recommendation resulting from a performance assessment of the operations of the Supervisory Board conducted in 2009, the composition of the Supervisory Board has changed significantly since 2010, to achieve more balanced gender representation and a broader international range of backgrounds.

As at 31 December 2016, the composition of the Supervisory Board was as follows:

- five women (Vivienne Cox, Maria Pilar Albiac-Murillo, Laurence Broseta, Pascale Chargrasse and Alexandra Schaapveld) and seven men, i.e. a proportion of women above 41%;
- four people of foreign nationality, Vivienne Cox (British), Maria Pilar Albiac-Murillo (Spanish) and Alexandra Schaapveld (Dutch), as well as José Carlos Grubisich (Brazilian), i.e. a proportion of foreign national members of 33%.

The appointment of the candidate presented by NSSMC will be proposed at the Shareholders' Meeting on 12 May 2017 in conformity with the shareholders' agreement of 1 February 2016 (see Section 2.3.4.2 of this Registration Document), as a member of the Supervisory Board.

In the self-assessment conducted in 2016, it was recommended that efforts continue to be made to diversify the profiles and skills of the Supervisory Board members (see the Report of the Chairman of the Supervisory Board below, Appendix 1 to Chapter 7).

7.1.2.6 Committees set up within the Supervisory Board

The Supervisory Board is assisted by three specialized Committees:

- the Finance and Audit Committee;
- the Appointments, Compensation and Governance Committee; and
- the Strategy Committee.

The Supervisory Board appoints the members of each of the Committees, establishes their powers and determines their compensation. The role of these Committees is to provide advice and to prepare the necessary information for the Board's deliberations. They issue proposals, make recommendations and provide advice in their areas of expertise. For each meeting, a preparatory set of papers is sent out several days in advance. At the meeting, each presentation is made, where applicable, in the presence of one or more members of the Management Board, by the specialist executive manager for the issue concerned and followed by discussion. A report of the meetings is prepared for the members of the Supervisory Board.

To fulfill their role, the Committees may conduct, or arrange to have conducted, any analysis, using external experts if required. They may invite any external persons of their choice to their meetings.

The term of office of the members of each of the Committees is the same as their term of office as members of the Supervisory Board, unless the composition of the Committee is changed earlier. Subject to this condition, the term of office of a Committee member may be renewed at the same time as the term of office of a member of the Supervisory Board.

A Committee's composition may be changed at any time by decision of the Supervisory Board.

FINANCE AND AUDIT COMMITTEE

Composition

The Finance and Audit Committee is comprised of a minimum of three members and a maximum of five members, who are chosen from among the members of the Supervisory Board and have specific expertise in finance, accounting or statutory auditing. As at 28 February 2017, it consisted of four members: Mr Henri Poupart-Lafarge (Chairman), Mr Olivier Bazil, Bpifrance Participations, represented by Mr Alexandre Ossola and Ms Alexandra Schaapveld, all independent with the exception of Bpifrance Participations, or a 75% proportion of independent members within the Finance and Audit Committee. The Chairman of the Board and the Lead Member are also invited to the Finance and Audit Committee meetings.

All the members have particular knowledge of finance or accounting, or statutory auditing, and have the necessary expertise, experience and qualifications to successfully perform their tasks within the Finance and Audit Committee. The Chairman, Mr Henri Poupart-Lafarge, spent over nine years in the Alstom Group, notably in finance and management control (for a description of the expertise and experience of members of the Finance and Audit Committee: see above, Section 7.1.1.2 "Presentation of the Supervisory Board members"). When they are first appointed, the members are sent detailed information on the Group's specific accounting, financial and operating processes.

Powers

The role of the Finance and Audit Committee is to prepare the necessary information for the Supervisory Board's deliberations, which concern tracking issues in relation to the preparation and control of accounting and financial data, in compliance with Article L.823-19 of the French Commercial Code *(Code de commerce)*. To this end, it issues opinions, proposals and recommendations in its area of expertise. It acts under the authority of the Supervisory Board, for which it must not be substituted, and regularly informs it of its tasks, the results of the task of certifying the financial statements, how this task contributed to the integrity of the financial information, along with the role it played in this process. It provides immediate notice of any difficulty encountered while performing its tasks.

Within this context, the Finance and Audit Committee tracks:

- the process of preparation of financial information.

  As needed, it makes recommendations to guarantee the integrity of the process of preparing the financial information.

  In this respect, the Committee is presented with:

  - the retrospective and forward-looking financial data each quarter,
  - risk exposure and significant contingent liabilities and commitments of the Group, and
  - at its request, accounting matters that may have a significant impact on the preparation of the financial statements.

Draft external financial communications are presented to the Committee for its opinion;

- the effectiveness of the internal control and risk management systems, as well as of the internal audit system, as concerns the procedures relating to the preparation and processing of the accounting and financial information, without compromising its independence.

  In this respect, each year the Committee is presented with:

  - the internal audit plan,
  - the assignment reports and main findings of the audits,
  - a summary of the actions taken in the area of risk management, and
  - a summary of the Statutory Auditors' performance of their duties, in particular the statutory audit of the company and consolidated financial statements.

  To that end, the Statutory Auditors present the results of their audit at each half-year, emphasizing, where applicable, the audit adjustments and significant weaknesses in internal control that were identified during the work, and the accounting options used.

  The Committee gives the Supervisory Board its opinion as to the relevance and consistency of the accounting methods used to prepare the statutory and consolidated financial statements;

- compliance with the conditions for independence of the Statutory Auditors and the rules relating to the cap on their audit fees for services other than certification of the financial statements.

  In this regard, the Committee manages the procedure for selecting the Statutory Auditors, submits a recommendation to the Supervisory Board on the Statutory Auditors proposed for appointment by the Shareholders' Meeting, receives the Statutory Auditors' statement of independence and receives an annual summary of all the services provided to the Vallourec Group by the Statutory Auditors and their networks.

  The Committee is in charge of approving the Statutory Auditors' provision of services other than the certification of financial statements, which are not prohibited services, upon analyzing the risks to the Statutory Auditors' independence and the safeguards applied by the latter to mitigate these risks.

In addition to the above duties, the Supervisory Board or its Chairman may decide to refer any issue requiring the Board's prior approval to the Finance and Audit Committee.

Also, the Supervisory Board or its Chairman may request it to examine a specific matter in order to determine the financial implications.

More generally, the Finance and Audit Committee reviews the various elements of the Group's financial strategy.

Operation

The Finance and Audit Committee meets at least four times a year to review the interim and annual financial statements before they are presented to the Supervisory Board. Subject to this condition, it defines the frequency of its meetings by agreement with the Chairman of the Supervisory Board. In 2016, the Finance and Audit Committee met seven times, with an effective attendance rate of 100%. Its usual representative is the member of the Management Board in charge of Finance and, where applicable, employees designated by said member. It likewise meets with the people in charge of finance and accounting, cash and cash equivalents, internal audits, risk management and internal control, as well as with the Statutory Auditors, including, if the Committee so desires, without the members of the Management Board being present. In the latter case, said members must have been informed first. On 7 November 2016, the Finance and Audit Committee met with the Statutory Auditors; the members of the Management Board were not present.

The Finance and Audit Committee may also invite the Chairman of the Management Board to participate in its work, and, in exercising its powers, may contact the primary senior executives, after informing the Chairman of the Management Board, and reporting to the Supervisory Board accordingly.

A complete file containing all supporting documents relating to the subjects recorded in the agenda is sent to each of the Committee members several days prior to the meeting date. For meetings which relate to the presentation of the financial results, this file also includes the corresponding financial statements. The Board meetings devoted to reviewing the annual, semiannual and quarterly results are generally held within a sufficient period of time before the meetings of the Supervisory Board ruling on that subject.

Each year, the Committee evaluates its activities and reports on them to the Supervisory Board.

The Committee may request outside technical studies on issues falling within its competence, after having so informed the Chairman of the Supervisory Board or the Board itself, and is responsible for reporting on them to the Board. In the event that outside consulting services are used, the Committee must ensure that the advice in question is independent, objective and competent.

The Finance and Audit Committee has internal regulations aimed at specifying the role, composition and operating rules of the Committee. These regulations are strictly internal and are not intended to and do not replace the Company bylaws or the laws and regulations governing commercial companies. After the amendment of the statutory auditing of the financial statements took effect in 2016, the internal regulations of the Finance and Audit Committee were updated by the Supervisory Board on 8 November 2016.

Activities of the Finance and Audit Committee in 2016

In 2016, the Committee also examined and formed opinions on the following issues:

- the Group's financial communication projects;
- the quarterly cash and cash equivalents position and the medium and long-term financing plan;
- the Group's strategic initiatives, which were announced 1 February 2016, including the capital increase maintaining the preferential subscription right and the issue of mandatory convertible bonds reserved to NSSMC and Bpifrance Participations;
- the dividend policy and the proposal to not pay a dividend for fiscal year 2015;
- review of the 2016 assumptions;
- changes in accounting principles and the accounting policies used for preparing the year-end 2016 financial statements, including a review of the Group's impairment testing methods;
- the accounting treatment of the contribution by Vallourec Tubos do Brasil of almost all of its assets to Vallourec Soluções Tubulares do Brasil and the takeover of Tianda;
- the budget for 2017;
- the internal and external audit plans and their results;
- change in working capital requirements;
- the organization of risk management and internal control within the Group;
- the Report of the Chairman of the Supervisory Board on internal control and risk management;
- the risk matrix and contingent liabilities and commitments;
- the Value 16 employee share ownership offer;
- the Group's ethics and compliance policy;
- sensitivity to the foreign exchange risk and the policy for hedging transactions;
- the Group's tax practices;
- implementation of the amendment of the statutory auditing of the Group's financial statements; and
- the progress of the Shared Services Regional Centers (Centres régionaux de Services Partagés (CSP)).

The Statutory Auditors attended all meetings of the Finance and Audit Committee for fiscal year 2016, with the exception of those held on 28 January 2016. They presented a report on the work completed as part of their mandate, emphasizing key points from the legal audit results and the accounting options used.

APPOINTMENTS, COMPENSATION AND GOVERNANCE COMMITTEE

Composition

The Appointments, Compensation and Governance Committee is comprised of a minimum of three members and a maximum of five members. As at 28 February 2017, it consisted of four members: Mr Pierre Pringuet (Chairman), and Mses Laurence Broseta, Pascale Chargrasse (employee shareholder representative) and Alexandra Schaapveld. They are all indépendant [1]. Mr Pierre Pringuet succeeded Mr Michel de Fabiani as Chairman of the Appointments, Compensation and Governance Committee on 5 April 2016.

The Chairman of the Management Board is associated with the work concerning appointments and governance, except in cases that concern his personal situation.

Powers

The role of the Appointments, Compensation and Governance Committee is to prepare information for the Supervisory Boards' deliberations, which concern tracking issues relating to the appointment and compensation of corporate officers, and to the governance of the Group. To this end, it issues opinions, proposals and recommendations in its area of expertise. It acts under the authority of the Supervisory Board, to which it reports, and for which it must not be substituted, and informs it of any difficulty encountered while performing its tasks.

The duties of the Appointments, Compensation and Governance Committee are as follows:

Appointments

- Preparing the procedure used to select members of the Supervisory Board and Management Board and determining the criteria to be used.
- Drawing up proposals for appointments and re-appointment.
- Regularly reviewing the composition of the Management Board and establishing a succession plan for members of the Management Board, in order to be able to propose succession solutions to the Board, in particular in the event of an unexpected vacancy.
- Regularly reviewing the composition of the Board and its Committees and making recommendations on changes to its composition when this appears appropriate.

The Committee's proposals for the offices of members of the Board are guided by the interests of the Company and all of its shareholders. They particularly take into account the desired balance of the Board's composition, as concerns the composition and evolution of the Company's shareholders, as well as the diversity of its areas of expertise, gender, and nationalities. The Committee ensures that its proposals to the Board reflect the necessary independence and objectivity.

The Committee completes its research on potential candidates before taking any action with them.

(1) In compliance with the recommendations of the AFEP-MEDEF Code, Ms Pascale Chargrasse, who represents employee shareholders, was not counted.

Compensation

- Proposals concerning the amounts and allocation of attendance fees paid to Board members, as well as the compensation of members of the Committees.
- Proposals concerning the compensation of the Chairman of the Board.
- Compensation of members of the Management Board: the Committee is responsible for recommending to the Board the structure and level of the compensation paid to each member of the Management Board (fixed portion, variable portion and benefits in kind).
- Performance shares and share subscription or share purchase options for members of the Management Board.
- Policy for allocating performance shares and share purchase or subscription options to managers and executives and/or staff of the Group.

As regards members of the Group Management Committee *(or Executive Committee starting on 3 April 2017),* the Committee is informed of their appointments, and of the compensation policy and succession plan concerning them.

Governance

- Reviewing the operation of the management bodies, particularly as regards changes in French regulations concerning the governance of listed companies and in light of the recommendations of the AFEP-MEDEF Corporate Governance Code and, where applicable, making proposals to the Board on updating the Company's corporate governance rules.
- Preparing the annual assessment of the Board and recommendations resulting from such assessment.
- Reviewing and following up on any situation involving a conflict of interest between a Board member and the Company, which could lead the Board to request an express commitment from the member in such a situation.
- Reviewing requests from Supervisory Board members concerning the assumption of new offices or duties outside the Company.
- Reviewing the independence of Board members with regard to specific criteria which have been made public.

Operation

The Appointments, Compensation and Governance Committee meets at least twice a year. Subject to this condition, it defines the frequency of its meetings by agreement with the Chairman of the Supervisory Board. The Committee met six times in 2016 with an effective attendance rate of 100%.

Each year, the Committee proceeds to evaluate its own activities and report on them to the Supervisory Board.

The Committee may likewise, in exercising its powers, contact the primary senior executives, after having informed the Chairman of the Management Board, and is responsible for reporting to the Supervisory Board accordingly.

The Committee may request outside technical studies on issues falling within its competence. In the event that outside consulting services are used, the Committee ensures that the advice in question is independent, objective and competent.

The Appointments, Compensation and Governance Committee has internal regulations aimed at specifying the role, composition and operating rules of the Committee. These regulations are strictly internal and are not intended to and do not replace the Company bylaws or the laws and regulations governing commercial companies.

Activities of the Appointments, Compensation and Governance Committee in 2016

In 2016, the Committee also examined and formed opinions on the following issues:

- Management Board member compensation for 2015, 2016 and 2017, as well as the report on 2015 compensation in view of implementing the “Say on Pay” mechanism;
- the overall budgets and the number of performance shares and share subscription options allocated to employees and each member of the Management Board, and the requirement for such members to retain a portion of the shares resulting from the exercise of options and of the performance shares allocated;
- the supplementary retirement plan benefiting senior executives and members of the Management Board;
- the Management Board succession plan, in particular in case of an unforeseeable vacancy;
- Vallourec's policy on enabling Group personnel to share in the Group's net profits (the Value 16 international employee share ownership plan, the performance share and share subscription option plans for managers (including members of the Group Management Committee));
- the policy on compensation of the main senior executives who are not corporate officers;
- the Group's Human Resources strategy;
- policy on the composition of the Supervisory Board;
- annual evaluation of the Supervisory Board and Committees;
- compliance of Group governance with the recommendations of the AFEP-MEDEF Code;
- composition of the Supervisory Board and its Committees, in particular the appointment of a Lead Member;
- the independence of the Board members;
- regulatory changes affecting governance; and
- the annual report of the French securities regulator (*Autorité des Marchés Financiers*) regarding business governance and executive management compensation, and the annual report of the Higher Committee on Corporate Governance.

STRATEGY COMMITTEE

Composition

The Strategy Committee is comprised of a minimum of three members and a maximum of five members. As at 28 February 2017, it consisted of five members: Ms Vivienne Cox (Chairman) and Messrs Philippe Altuzarra, Olivier Bazil, José Carlos Grubisich and Bpifrance Participations, represented by Mr Alexandre Ossola, all independent with the exception of Bpifrance Participations, i.e. a proportion of independent members within the Strategy Committee of 80%.

Powers

The Strategy Committee is responsible for preparing the Supervisory Board's deliberations with regard to the Group's strategic directions and long-term future. To this end, it issues opinions, proposals and recommendations in its areas of expertise. It acts under the authority of the Supervisory Board, to which it reports, and for which it must not be substituted, and informs it of any difficulty encountered while performing its tasks.

In the course of its duties, the Strategy Committee reviews:

- each year, the Group strategy plan presented by the Management Board and any changes as well as the assumptions on which it is based;
- any projected merger or partial transfer of assets, any industrial or commercial agreement with other companies that could affect the Company's future and, more generally, any major transaction (such as external acquisition or disposal operations, significant capital expenditure in organic growth or internal restructuring operations) that could materially alter the business scope or financial structure of the Group or the type of risks it incurs. Within this context, the Committee reviews:

(i) capital expenditure transactions when they exceed €50 million,

(ii) acquisition or disposal transactions when they exceed €50 million, and

(iii) following their implementation, the conditions for implementing and achieving objectives for the transactions that have been authorized by the Supervisory Board.

The Committee may carry out any other duties, regular or occasional, assigned to it by the Supervisory Board in its area of competence. It may suggest that the Supervisory Board refer to it on any particular point which it considers to be necessary or relevant.

Operation

The Committee met three times in 2016 with an effective attendance rate of 100%.

Its usual representative is the member of the Management Board that is in charge of Operations, along with, where applicable, the employees designated by said member.

Each year, the Committee proceeds to analyze its own activities and report on them to the Board.

The Committee may invite the Chairman of the Management Board to participate in its work, and, in exercising its powers, may contact the primary senior executives, after informing the Chairman of the Management Board, and accordingly is responsible for reporting to the Supervisory Board.

The Committee may request outside technical studies on issues falling within its competence, after having so informed the Chairman of the Supervisory Board or the Board itself, and is responsible for reporting on them to the Board. In the event that outside consulting services are used, the Committee must ensure that the advice in question is independent, objective and competent.

The Strategy Committee has internal regulations aimed at specifying the role, composition and operating rules of the Committee. These regulations are strictly internal and are not intended to and do not replace the Company bylaws or the laws and regulations governing commercial companies.

7.1.3 Declarations concerning the members of the Management and Supervisory Boards

To the Company's knowledge:

- no member of the Management Board or Supervisory Board has been convicted of fraud during the past five years;
- no member of the Management Board or Supervisory Board has been involved, during the past five years, with a bankruptcy, receivership or liquidation as a member of an administrative, management or supervisory body;
- no member of the Management Board or Supervisory Board has been charged, during the past five years, with an offense or been the subject of disciplinary action on the part of the statutory or regulatory authorities (including designated professional bodies);
- no member of the Management Board or Supervisory Board has been prevented, during the past five years, by a court from acting as a member of an administrative, management or supervisory body of an issuer, or from being involved in managing or running the business of an issuer; and
- no member of the Management Board or Supervisory Board has a current or potential conflict of interest between his duties to Vallourec and his private interests and/or other duties.

7.1.4 Loans and guarantees

No loans or guarantees have been granted by the Company or by a Group company to any member of the Management Board or Supervisory Board.

7.1.5 Service agreements providing for the granting of benefits

To the Company's knowledge, there is no service agreement between any member of the Management Board or Supervisory Board and the Company providing for the granting of benefits.

7.1.6 Management of conflicts of interest

To prevent any risk of a conflict of interest between a member of the Supervisory Board and the Management Board or any of the Group's companies, the Appointments, Compensation and Governance Committee constantly monitors the independence of members with regard to the AFEP-MEDEF Corporate Governance Code criteria; the Supervisory Board includes this as an item on its agenda at least once a year.

Each member is required to inform the Board of any situation of a conflict of interest, even a potential one, and to refrain from taking part in discussions or voting on any issue at Board meetings when he/she may be in a conflict of interest situation, and to leave the Board meeting if a subject exposing the member to such a situation is discussed.

The Lead Member acts in a precautionary manner to raise awareness about conflicts of interest among the members of the Supervisory Board, and draws said Board's attention to any conflict of interest situation that has been identified, even a potential one.

When one of the members has a conflict of interest, whether actual or potential, regarding a subject matter to be debated by the Board, the Board ensures, by relying on the Appointments, Compensation and Governance Committee, that the information regarding this subject matter is not communicated to that member. Since 2012, a member has not been able to accept another position or appointment, or make a significant investment in any company or business in competition with Vallourec or that operates upstream or downstream of Vallourec, without the Board's prior consent. As an exception, this rule does not apply to legal entities that are members of the Board, but if they take new positions or similar appointments, each case will be discussed with the Board in order to eliminate any risk of conflicts of interest. Members of the Board, Non-voting Board members (Censeurs) and members of the Management Board must inform the Chairman of the Board before accepting a new appointment in other companies. The Chairman of the Board will give an opinion after consulting with the Appointments, Compensation and Governance Committee.

The information presented in this section is taken from the Internal Regulations of the Supervisory Board, which are available on the Company's website (http://www.vallourec.com).

7.1.7 Declaration on Corporate Governance

The Supervisory Board decided in 2008 to adopt the AFEP-MEDEF Corporate Governance Code, as amended for application to limited-liability companies managed by a Supervisory Board and a Management Board. Vallourec complies with all the recommendations prescribed in the Code under the conditions set out in the summary table in Appendix 3 of Chapter 7.

In view of the above, Vallourec believes that it complies with the Corporate Governance Regulations currently in force in France.

7.2 Compensation and benefits of all kinds

Details are provided below of the compensation and benefits awarded to Vallourec's corporate officers by the Company and companies controlled by the Company within the meaning of Article L.233-16 of the French Commercial Code (*Code de commerce*), in accordance with the presentation defined by the AFEP-MEDEF Corporate Governance Code, and the most recent recommendations of the French securities regulator (*Autorité des Marchés Financiers*). They should be read in light of the Supervisory Board's report on the compensation policy for corporate officers, which includes a description of the compensation policy for the members of the Management Board (see below, Appendix 2.1 to this Chapter 7).

7.2.1 Compensation and benefits awarded to corporate officers

7.2.1.1 Compensation of members of the Management Board

The following tables show the compensation paid to members of the Management Board as it was comprised as at 31 December 2016.

A) SUMMARY OF COMPENSATION AND OPTIONS AND PERFORMANCE SHARES ALLOCATED TO EACH MEMBER OF THE MANAGEMENT BOARD (ACCORDING TO THE FORMAT OF TABLE 1 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

The following table summarizes the compensation due and the valuation of the share subscription options and performance shares allocated for fiscal years 2015 and 2016.

In €	Fiscal year 2015	Fiscal year 2016
Philippe Crouzet, Chairman of the Management Board		
Compensation due for the fiscal year (see Part b) of Section 7.2.1.1 herein)	802,404 [(c)]	1,481,643
Valuation of multi-year variable compensation allocated	-	-
Valuation of options allocated during the year (Part c) of Section 7.2.1.1 herein) [(a)]	0 [(d)]	15,976
Valuation of performance shares allocated during the year (Part e) of Section 7.2.1.1 herein) [(b)]	0 [(d)]	60,378
TOTAL	**802,404**	**1,557,997**
Jean-Pierre Michel, Chief Operating Officer		
Compensation due for the fiscal year (Part b) of Section 7.2.1.1 herein)	687,251	740,870
Valuation of multi-year variable compensation allocated	-	-
Valuation of options allocated during the year (Part c) of Section 7.2.1.1 herein) [(a)]	45,900	7,504
Valuation of performance shares allocated during the year (Part e) of *Section* 7.2.1.1 herein) [(b)]	137,505	28,413
TOTAL	**870,656**	**776,787**
Olivier Mallet, Chief Financial Officer		
Compensation due for the fiscal year (Part b) of Section 7.2.1.1 below)	670,507	691,974
Valuation of multi-year variable compensation allocated	-	-
Valuation of options allocated during the year (See part c) of Section 7.2.1.1 below) [(a)]	45,900	7,504
Valuation of performance shares allocated during the year (see part e) of Section 7.2.1.1 below) [(b)]	137,505	28,413
TOTAL	**853,912**	**727,891**

(a) All share subscription options allocated to members of the Management Board in 2016 are contingent upon performance conditions. Their valuation, which is shown in the table, is theoretical and results from the application of the binomial model used for the consolidated financial statements. The actual valuation is zero if the share price is equal to or less than €3.90.

(b) All the performance shares allocated to members of the Management Board in 2015 and 2016 were subject to performance conditions. The valuation of the performance shares shown in the table is theoretical and results from the application of the binomial model used for the consolidated financial statements.

(c) The Supervisory Board meeting on 17 February 2016 duly noted Philippe Crouzet's waiver of his variable portion for 2015, i.e. an amount of €661,778, after the approval of the financial statements for 2015.

(d) The Supervisory Board meeting on 17 February 2016 duly noted Philippe Crouzet's waiver of the share subscription and performance share options that had been allotted to him during fiscal year 2015 after the approval of the financial statements for said year. Consequently, the valuation of the share subscription options (which would have otherwise been €97,740) and performance share options (which would have otherwise been €292,199) allocated in 2015 is nil in this table.

B) SUMMARY OF COMPENSATION TO EACH MEMBER OF THE MANAGEMENT BOARD (ACCORDING TO THE FORMAT OF TABLE 2 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

	Fiscal year 2015		Fiscal year 2016	
In €	Amounts due for the fiscal year	Amounts paid for the fiscal year	Amounts due for the fiscal year	Amounts paid for the fiscal year
Philippe Crouzet, Chairman of the Management Board				
Fixed compensation	798,000	798,000	798,000	798,000
Annual variable compensation	0 [(b)]	613,346	679,257	0 [(b)]
Multi-annual variable compensation	-	-	-	-
Extraordinary compensation	-	-	-	-
Attendance fees	-	-	-	-
Benefits in kind [(a)]	4,404	4,404	4,386	4,386
TOTAL	**802,404**	**1,415,750**	**1,481,643**	**802,386**
Jean-Pierre Michel, Chief Operating Officer				
Fixed compensation	450,000	450,000	450,000	450,000
Annual variable compensation	232,239	236,763	285,615	232,239
Multi-annual variable compensation	-	-	-	-
Extraordinary compensation	-	-	-	-
Attendance fees	-	-	-	-
Benefits in kind [(a)]	5,012	5,012	5,255	5,255
TOTAL	**687,251**	**691,775**	**740,870**	**687,494**
Olivier Mallet, Chief Financial Officer				
Fixed compensation	420,000	420,000	420,000	420,000
Annual variable compensation	245,107	267,704	266,574	245,107
Multi-annual variable compensation	-	-	-	-
Extraordinary compensation	-	-	-	-
Attendance fees	-	-	-	-
Benefits in kind [(a)]	5,400	5,400	5,400	5,400
TOTAL	**670,507**	**693,104**	**691,974**	**670,507**

(a) The benefit in kind measured corresponds to the use of a company car.

(b) The Supervisory Board meeting on 17 February 2016 duly noted the waiver by Mr. Philippe Crouzet of his portion of variable compensation for 2015, i.e. an amount of €661,778, after the approval of the financial statements for the 2015 fiscal year.

The principles and rules for determining the variable monetary compensation of members of the Management Board as well as a breakdown of the benefits in kind are presented for fiscal year 2016 in the Supervisory Board report on 2016 Management Board compensation (see Appendix 2.2 to this Chapter 7) and, for fiscal year 2015, in the Supervisory Board report on 2015 Management Board compensation (Appendix 2 to Chapter 7 of the 2015 Registration Document).

C) SHARE PURCHASE OR SUBSCRIPTION OPTIONS ALLOCATED DURING FISCAL YEAR 2016 TO EACH MEMBER OF THE MANAGEMENT BOARD BY VALLOUREC AND EACH GROUP COMPANY (ACCORDING TO THE FORMAT OF TABLE 4 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

Name of executive corporate officer	Plan number and date	Type of options	Valuation of options according to the method used for the consolidated financial statements	Number of options allocated during the fiscal year [(a)]	Exercise price	Exercise period
Philippe Crouzet	2016 Plan 18/05/2016	Share subscription options	€15,976	30,145 *i.e. 0.007% of the share capital* [(b)]	€3.90	From 18/05/2020 to 18/05/2024 (inclusive)
Jean-Pierre Michel	2016 Plan 18/05/2016	Share subscription options	€7,504	14,156 *i.e. 0.003% of the share capital* [(b)]	€3.90	From 18/05/2020 to 18/05/2024 (inclusive)
Olivier Mallet	2016 Plan 18/05/2016	Share subscription options	€7,504	14,156 *i.e. 0.003% of the share capital* [(b)]	€3.90	From 18/05/2020 to 18/05/2024 (inclusive)
TOTAL			**€30,984**	**58,457 *i.e. 0.013% of the share capital*** [(b)]		

(a) The number corresponds to the factor 1, which is equivalent to performance target. A higher performance coefficient cannot be applied.

(b) Based on share capital as at 31 December 2016.

The share subscription options allocated to members of the Management Board in 2016 are subject to performance conditions assessed over four years and measured based on the following two quantitative criteria:

- the consolidated EBITDA on a like-for-like basis for 2016, 2017, 2018 and 2019, compared with the planned performance in the medium-term plan for 2016, 2017, 2018 and 2019 (50% weighting);
- the EBITDA margin for 2016, 2017, 2018 and 2019, compared to a group of comparable companies (50% weighting); The group used was as follows: NSSMC; Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal, Salzgitter AG.

The number of options definitively allocated to members of the Management Board after the performance assessment period is calculated by applying a coefficient which measures performance for each of the criteria to the number of options initially allocated. This coefficient will vary from 0 to 1.33. The number of options allocated will be nil below a level of performance, which corresponds to the minimum threshold; it will be 1 if the performance target was attained. Achievement of the budgetary objectives of the first two criteria corresponds to the coefficient 1, i.e. maximum performance.

At the end of the performance appraisal period, Vallourec will communicate the minimum and maximum thresholds to be achieved and the linear progression applied between them.

D) SHARE SUBSCRIPTION OR SHARE PURCHASE OPTIONS EXERCISED DURING 2016 BY EACH MEMBER OF THE MANAGEMENT BOARD

No members of the Management Board exercised share subscription or purchase options in 2016 under the share subscription option or purchase plans created in previous years.

E) PERFORMANCE SHARES ALLOCATED DURING FISCAL YEAR 2016 TO EACH MEMBER OF THE MANAGEMENT BOARD BY VALLOUREC AND EACH GROUP COMPANY (ACCORDING TO THE FORMAT OF TABLE 6 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

Name of executive corporate officer	Plan number and date	Number of shares allocated during the fiscal year [(a)]	Valuation of shares according to the method used for the consolidated financial statements	Vesting date	Availability date	Performance conditions
Philippe Crouzet	2016 Plan 18/05/2016	22,036 *i.e. 0.005% of the share capital* [(b)]	€60,378	18/05/2019	18/05/2021	Yes
Jean-Pierre Michel	2016 Plan 18/05/2016	10,370 *i.e. 0.002% of the share capital* [(b)]	€28,413	18/05/2019	18/05/2021	Yes
Olivier Mallet	2016 Plan 18/05/2016	10,370 *i.e. 0.002% of the share capital* [(b)]	€28,413	18/05/2019	15/04/2021	Yes
TOTAL		**42,776 *i.e. 0.009% of the share capital*** [(b)]	**€117,204**			

(a) The number corresponds to the factor 1, which is equivalent to the performance target. It may be increased by applying a performance factor of 1.33 if the performance target is exceeded.

(b) Based on share capital as at 31 December 2016.

The performance shares allocated to members of the Management Board in 2016 are subject to performance conditions assessed over three years and measured based on the following two quantitative criteria:

- the estimated rate of return on capital employed on a consolidated basis (ROCE) for 2016, 2017 and 2018, compared with the planned performance in the medium-term plan for 2016, 2017 and 2018 (50% weighting);
- the Total Shareholder Return (TSR) for 2016, 2017 and 2018 (50% weighting); the group used was as follows: NSSMC; Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal and Salzgitter AG.

The number of performance shares definitively allocated to members of the Management Board following the performance appraisal period will be calculated by applying a coefficient which measures the performance for each of the criteria to the number of performance shares initially allocated. This coefficient will vary from 0 to 1.33. The number of performance shares allocated will be nil below performance corresponding to the minimum threshold; it shall be 1.33 in the event of outperformance of the objective. At the end of the performance appraisal period, Vallourec will communicate the minimum and maximum thresholds to be achieved and the linear progression applied between them.

F) PERFORMANCE SHARES THAT BECAME AVAILABLE DURING FISCAL YEAR 2016 FOR EACH MEMBER OF THE MANAGEMENT BOARD (ACCORDING TO THE FORMAT OF TABLE 7 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

Name of executive corporate officer	Plan number and date	Number of shares that became available during the fiscal year	Number of shares subject to vesting conditions [(a)]
Philippe Crouzet	2012 Plan 30/03/2012	1,463	365
Jean-Pierre Michel	2012 Plan 30/03/2012	719	179
Olivier Mallet	2012 Plan 30/03/2012	585	146
TOTAL	**-**	**2,767**	**690**

(a) Members of the Management Board are required to retain one quarter of the performance shares allocated to them under the terms of a plan until the expiry of their terms of office.

Performance shares vested during fiscal year 2016 for each member of the Management Board

Name of executive corporate officer	Plan number and date	Number of shares allocated on 29/03/2013 [(a)]	Number of shares vested on 29/03/2016	Percentage of shares vested on 29/03/2016
Philippe Crouzet	2013 Plan 29/03/2013	9,023	1,814	20.1
Jean-Pierre Michel	2013 Plan 29/03/2013	4,436	892	20.1
Olivier Mallet	2013 Plan 29/03/2013	3,609	726	20.1
TOTAL	**-**	**17,068**	**3,432**	**20.1**

(a) The number corresponds to the factor 1, which is equivalent to the performance target. It may be increased by applying a performance factor of 1.33 if the performance target is exceeded.

G) HISTORY OF SHARE SUBSCRIPTION OR SHARE PURCHASE OPTIONS ALLOCATED (ACCORDING TO THE FORMAT OF TABLE 8 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

The history of the share subscription or share purchase options allocated appears in Section 7.3.1.1 of this Chapter.

H) HISTORY OF PERFORMANCE SHARE ALLOCATIONS (ACCORDING TO THE FORMAT OF TABLE 9 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

The history of the performance shares allocated appears in Section 7.3.1.2 of this Chapter.

I) SHARE SUBSCRIPTION OR PURCHASE OPTIONS ALLOCATED TO THE TOP TEN EMPLOYEES WHO ARE NOT CORPORATE OFFICERS AND OPTIONS EXERCISED BY THEM (ACCORDING TO THE FORMAT OF TABLE 9 RECOMMENDED BY THE AFEP-MEDEF CODE AND THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

	Total number of options granted/shares subscribed or purchased	Weighted average exercise price *(in €)*	Share subscription or share purchase option plans
Options allocated during the year to the ten Group employees to whom the largest number of options was allocated	49,134	3.90	18 May 2016 share subscription options plan
Options exercised during the year by the ten Group employees who purchased or subscribed for the largest number of options	-	-	-

The definitive allocation of subscription options issued under the plan put in place on 18 May 2016 is subject to conditions of performance and continuous service.

For allocations to employees (other than members of the Group Management Committee), performance is assessed for the 2016, 2017, 2018 and 2019 fiscal years, and is dependent on achieving a target ratio of the Group's real EBITDA to consolidated budget.

For allocations to members of the Group Management Committee, performance is assessed over four years and measured based on the following two quantitative criteria:

- consolidated EBITDA for 2016, 2017, 2018 and 2019; and
- the EBITDA margin for 2016, 2017, 2018 and 2019, compared to a group of comparable companies (50% weighting); The group used was as follows: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal and Salzgitter AG.

J) SUMMARY OF DEPARTURE MECHANISMS AND STATUS OF MEMBERS OF THE MANAGEMENT BOARD (ACCORDING TO THE FORMAT OF TABLE 10 RECOMMENDED BY THE AFEP-MEDEF CODE AND TABLE 11 RECOMMENDED BY THE FRENCH SECURITIES REGULATOR (*AUTORITÉ DES MARCHÉS FINANCIERS*))

	Employment contract		Supplemental retirement plan (e)		Payments or benefits due or likely to become due in respect of termination of office or change of position (f)		Compensation for a non-compete clause (g)	
	Yes	No	Yes	No	Yes	No	Yes	No
Philippe Crouzet Chairman of the Management Board *Date of first appointment: 1 April 2009* (a) *Date of appointment as Chairman of the Management Board: 1 April 2009* (a) *Date renewed: 15 March 2016* (a) *Date on which appointment ceases: 15 March 2020* (a)		X	X		X		X	
Jean-Pierre Michel Member of the Management Board *Date of first appointment: 7 March 2006* (b) *Date renewed: 15 March 2016* (b) *Date on which appointment ceases: 31 March 2017* (b)	X (d)		X			X		X
Olivier Mallet Member of the Management Board *Date of first appointment: 30 September 2008* (c) *Date renewed: 15 March 2016* (c) *Date on which appointment ceases: 15 March 2020* (c)	X (d)		X		X			X

(a) *At its meeting on 25 February 2009, the Supervisory Board appointed Mr. Philippe Crouzet as Chairman of the Management Board as from 1 April 2009, thereby succeeding Mr. Pierre Verluca for the remainder of Mr. Verluca's term of office, i.e. until 15 March 2012. On 22 February 2012, the Supervisory Board renewed his appointment as Chairman of the Management Board, effective from 15 March 2012 until 15 March 2016. On 29 January 2016, the Supervisory Board renewed Mr. Philippe Crouzet's appointment as Chairman of the Management Board, effective from 15 March 2016 until 15 March 2020.*

(b) *At its meeting on 7 March 2006, the Supervisory Board appointed Mr. Jean-Pierre Michel as a member of the Management Board as from 1 April 2006. At its meeting on 3 June 2008, it renewed his appointment as a member of the Management Board with effect from 4 June 2008, at the close of the Ordinary and Extraordinary Shareholders' Meeting of 4 June 2008, until 15 March 2012, and at its meeting on 25 February 2009, appointed him as Chief Operating Officer with immediate effect. On 22 February 2012, the Supervisory Board renewed his appointment as member of the Management Board and Chief Operating Officer, with effect from 15 March 2012 until 15 March 2016. On 29 January 2016, the Supervisory Board renewed his appointment as member of the Management Board and Chief Operating Officer, with effect from 15 March 2016 until 15 March 2020. The Supervisory Board of 17 January 2017 noted the resignation of Mr. Jean-Pierre Michel from his duties as member of the Management Board and Chief Executive Officer with effect from 31 March 2017, and decided not to seek a replacement. From 1 April 2017, the Management Board will comprise two members, Philippe Crouzet, Chairman of the Board, and Olivier Mallet, member of the Board.*

(c) *On 29 September 2008, the Supervisory Board appointed Mr. Olivier Mallet as member of the Management Board, with effect from 30 September 2008 until 15 March 2012. On 22 February 2012, the Supervisory Board renewed his appointment as member of the Management Board, effective from 15 March 2012 until 15 March 2016. On 29 January 2016, the Supervisory Board renewed his appointment as member of the Management Board, effective from 15 March 2016 until 15 March 2020.*

(d) *The employment contract is suspended throughout the Management Board member's term on the Management Board.*

(e) *For a description of the supplemental retirement plan, see 7.2.2.2. below.*

(f) *For a description of the payments or benefits that are due or that may be due as a result of a termination or change of office, see the 2016 Supervisory Board report on compensation of the members of the Management Board, which appears in Appendix 2.2 to this Chapter 7.*

(g) *For a description of the compensation for a non-compete clause; see the 2016 Supervisory Board report on compensation of the members of the Management Board, which appears in Appendix 2.2 to this Chapter 7.*

7.2.1.2 Attendance fees and other compensation received by the members of the Supervisory Board and Committees in 2016

PARTICIPATION AT THE MEETINGS OF THE SUPERVISORY BOARD

The total amount for attendance fees that the Supervisory Board divided among its members in 2016 is recorded under the annual budget for attendance fees of €650,000 authorized by the Ordinary Shareholders' Meeting of 28 May 2014 (thirteenth resolution).

The amount of attendance fees of €33,000 per year and per member, in effect since 2010, will remain unchanged. However, in order to take into account the new recommendation of the AFEP-MEDEF Code, in its November 2015 revision, which requires that the portion of the attendance fees that is based on attendance exceed the fixed portion, the Supervisory Board, at its meeting on 7 November 2013, following the recommendation of the Appointments, Compensation and Governance Committee, decided as of 1 January 2014, to set the fixed portion at €12,000 (i.e. 1/3 of the attendance fees) and the variable portion based on attendance at €21,000 (i.e. 2/3 of the attendance fees).

The structure of the Board Chairman's compensation was simplified: all components of her annual compensation that applied through the end of 2013 (attendance fees and fixed compensation) were aggregated, resulting in an annual fixed compensation of €320,000. This approach, which had the effect that potential variations linked to attendance were no longer taken into account, is justified by the degree of involvement in the Group's affairs of the Board Chairman as she performs duties and procedures which far surpass merely attending Board and Committee meetings.

Within the context of a review of its internal operation, the Supervisory Board of 7 November 2013 also decided to extend the role of its Vice-Chairman. This person is thus now in charge of convening the Supervisory Board and directing its discussions if the Chairman is absent, as well as upon the Chairman's request. He is also responsible for informing the Chairman of observations regarding compliance with the ethical obligations of the Board members. Following the proposal of the Appointments, Compensation and Governance Committee, the Supervisory Board Meeting of 15 December 2015 decided to allocate to the Lead Member, who also performs the duties of Vice-Chairman, an additional fixed annual amount of attendance fees of €40,000 for his duties as Lead Member, and his participation in this role at the Committee meetings.

The Chairman of the Supervisory Board, along with the other members, is not allocated any options, performance shares or termination payments of any kind.

PARTICIPATION IN COMMITTEE MEETINGS

In 2016, the members of the Committees received, as part of the aforementioned €650,000 annual budget, additional attendance fees based on their actual attendance at meetings of these Committees, at the rate of €2,500 per meeting. The Chairman additionally collected an annual fixed portion of €12,500 pertaining to the Finance and Audit Committee, and €6,250 pertaining to the Appointments, Compensation and Governance Committee.

Attendance fees and other compensation received by the members and non-voting member of the Supervisory Board (according to the format of table 3 recommended by the AFEP-MEDEF Code and the French securities regulator (*Autorité des Marchés Financiers*))

Members of the Supervisory Board and non-voting members *In €*		Amounts due and paid in 2015	Amounts due and paid in 2016
Ms.	Vivienne Cox (Chairman of the Board as at the Shareholders' Meeting of 30 May 2013)	320,000	320,000
Ms.	Maria Pilar Albiac-Murillo	15,400	33,000
Mr.	Philippe Altuzarra	20,000	40,500
Mr.	Cédric de Bailliencourt	30,900	33,000
Mr.	Olivier Bazil	66,300	68,417
Mr.	Patrick Boissier	30,708	
Ms.	Laurence Broseta (member since 06/04/2016) (1)		22,125
Ms.	Pascale Chargrasse	50,500 (a)	48,000 (b)
Mr.	Jean-François Cirelli	33,800	10,875
Mr.	Michel de Fabiani	56,750	17,438
Mr.	José Carlos Grubisich	31,700	40,500
Mr.	François Henrot	13,400	
Ms.	Anne-Marie Idrac	25,500	
Mr.	Edward Krubasik (2)	4,100	
Mr.	Pierre Pringuet (member since 24/02/2015 and Vice-Chairman of the Board since 28/05/2015)	50,133	87,688
Mr.	Henri Poupart-Lafarge	53,000	52,583
Ms.	Alexandra Schaapveld	60,500	65,500
	Société Bpifrance, represented by Mr. Alexandre Ossola (member since 06/04/2016)		32,125
TOTAL		**862,691**	**871,751**

(a) *This amount is in addition to the fixed and variable compensation received in 2015 by Ms. Pascale Chargrasse under her employment contract with the Group.*

(b) *This amount is in addition to the fixed and variable compensation received in 2016 by Ms. Pascale Chargrasse under her employment contract with the Group.*

(1) *At its meeting on 17 February 2016, the Vallourec Supervisory Board decided to appoint Ms. Laurence Broseta as a member of the Supervisory Board to replace Mr. Michel de Fabiani who resigned.*

(2) *At its 23 February 2015 meeting, the Supervisory Board coopted Mr. Pierre Pringuet as a member of the Supervisory Board, replacing Mr. Edward G. Krubasik, who resigned.*

7.2.2 Compensation and retirement commitments of the Group's main executives

7.2.2.1 Compensation of the Group's main senior executives

The total amount of all direct and indirect compensation paid in 2016 by the Group's French and foreign companies in respect of the Group's main senior executives (i.e. the members of the Group Management Committee as composed in 2016, excluding the members of the Management Board) amounted to €3,329,000. Variable compensation represented 33% of this total.

The share subscription options and performance shares awarded during the fiscal year to the Group's main senior executives are valued according to the method used for the consolidated financial statements, at €95,000.

7.2.2.2 Retirement commitments

At the recommendation of the Appointments, Compensation and Governance Committee, the Supervisory Board Meeting of 17 February 2016 authorized the establishment of a new supplemental retirement plan, to replace the supplemental mandatory Group retirement plan with defined benefits, which it authorized closing to new benefits. In accordance with Articles L. 225-86 et seq. and Article L. 225-90-1 of the French Commercial Code (*Code de commerce*), this new plan was approved by the Shareholders' Meeting of 6 April 2016.

As a result, the retirement commitments and other life annuities for corporate officers comprise, in addition to the ARRCO and AGIRC mandatory supplementary plans, a defined benefit scheme (closed), a mandatory group defined contribution scheme, and an individual defined contribution scheme for which the main characteristics are provided below.

- Main characteristics of the defined benefit retirement scheme:
  - This scheme related to Article L.137-11 of the French Social Security Code and was approved by the Shareholders' Meetings of 1 June 2006 and 4 June 2009.
  - The scheme was closed to new beneficiaries and all new rights on 31 December 2015.
  - The scheme includes 31 executive managers or corporate officers, it being stated that the rights to the defined benefits retirement are random. The seniority condition was 3 years at the closing of the scheme on 31 December 2015.
  - The annuity may not exceed 20% of the average basic compensation for the last three years and is limited to four times the annual social security ceiling. The reference compensation is the average compensation for the last three years (excluding the variable portion) as at 31 December 2015.
  - The regime is financed by contributions paid to an insurance body and is subject to a company contribution as stated in Article L. 137-11 of the French Social Security Code at the rate of 24%. Financing of the scheme by Vallourec cannot be made on an individual basis.
  - The estimated amount of the annual annuity that will be paid to Management Board members for this scheme during settlement of French Social Security pension rights, calculated as at 31 December 2016, is indicated below for each member of the Management Board:

Members of the Management Board	Estimated amount of the annual annuity as at 31 December 2016
Philippe Crouzet	€106,019
Jean-Pierre Michel	€86,805
Olivier Mallet	€52,948

- Main characteristics of the defined contribution mandatory group retirement scheme:
  - This scheme related to Article L. 242-1 of the French Social Security Code and relating to Article 83 of the French General Tax Code and was approved by the Shareholders' Meeting of 6 April 2016.
  - This scheme is mandatory for all Vallourec Tubes and Vallourec employees and corporate officers who meet the eligibility requirements, i.e. whose gross annual compensation exceeds four times the annual social security ceiling. There is no seniority requirement. The scheme includes around fifty managers or corporate officers.
  - Vallourec's commitment is limited to payment to the insurance body of a contribution of 12% of the fixed and variable compensation that falls between five and eight times the Social Security ceiling (Tranche C). In 2016, the contribution paid for each of the Management Board members was: €12,357.12. It is partially subject to social security costs.
  - Vallourec's financial commitment is strictly limited in terms of amount and time since it can close the scheme at any time.
  - The estimated amount of the annuity that will be paid to Management Board members for this scheme during settlement of French Social Security pension rights, calculated as at 31 December 2016, is indicated below for each member of the Management Board:

Members of the Management Board	Estimated amount of the annual annuity as at 31 December 2016*
Philippe Crouzet	€618
Jean-Pierre Michel	€618
Olivier Mallet	€618

* *On the basis of retirement at 62 years of age and with a post-retirement life expectancy of 20 years.*

- The main characteristics of the optional individual retirement scheme are the following:
  - This scheme related to Article 82 of the French General Tax Code and was approved by the Shareholders' Meeting of 6 April 2016.
  - The scheme is individual and discretionary. In addition, the beneficiaries must have a three-year seniority within the Group and a gross annual compensation that exceeds eight times the annual Social Security ceiling. The scheme includes around ten managers or corporate officers.
  - Vallourec's commitment is limited to payment of an annual amount for retirement comprising 50% contributions made to an insurance body and 50% cash, taking into account the tax characteristics of the scheme, imposing taxation at entry.
  - In the spirit of the Macron law, the payment made under this scheme for Management Board members is subject to a performance condition: the maximum contribution is due for a year in the case of an annual bonus being awarded, calculated at 50% of the target of the bonus and no contribution is paid for an annual bonus calculated at zero. The contribution varies linearly between 0%-50%.
  - Vallourec's financial commitment is strictly limited in terms of amount and time since it can close the scheme at any time.
  - According to the applicable performance criteria and after deduction of contributions, employee contributions and income tax thereon, the estimated amount of the annuity that will be paid to Management Board members for this scheme during settlement of French Social Security pension rights, calculated as at 31 December 2016, is indicated below for each member of the Management Board:

Members of the Management Board	Estimated amount of the annual annuity as at 31 December 2016*
Philippe Crouzet	€6,375
Jean-Pierre Michel	€200
Olivier Mallet	€3,675

* *On the basis of retirement at 62 years of age and with a post-retirement life expectancy of 20 years.*

7.3 Executive management interests and employee profit sharing

At its meeting of 13 May 2009, the Supervisory Board approved a policy for strengthening employees' involvement in the Group's results as presented by the Management Board.

In 2016, this policy was determined during the Supervisory Board meetings of 17 February (Value 16 employee share ownership plan and the performance share and share subscription option plans for managers). The Supervisory Board also determined, at its meeting on 17 February 2016, the principles of compensation of members of the Management Board in the form of share subscription options and performance shares.

This information was made public in accordance with the AFEP-MEDEF Corporate Governance Code through the information provided on the Company's website on 22 February 2016 and 18 March 2016 (www.vallourec.com).

Vallourec aims to supplement the compensation paid to its employees with various plans designed to involve them in sharing in the Group's performance over the long-term and build a significant level of employee share ownership, in line with Vallourec's development goals. The policy will gradually be extended to all categories of Group staff worldwide, subject to and in accordance with local legislation and regulations and budgetary constraints (for example, those relating to the relationship between the number of staff in a country and the cost of implementing the policy).

In 2016 the Group renewed:

- for the ninth consecutive year (see Section 7.3.3 "Employee share ownership" below), an employee share ownership plan, called Value 16, for the benefit of employees and those with similar rights at most Group companies in Germany, Brazil, Canada, China, United Arab Emirates, the United States, France, Malaysia, Mexico, the United Kingdom and Singapore.

Vallourec's second aim is to achieve closer convergence between the interests of Vallourec's management and those of its shareholders over the long term through the annual allocation of options and/or performance shares subject to the achievement of performance targets over several fiscal years.

These allocations have been gradually extended to a growing number of Group managers, according to a scope and volume which have been defined based on a Hay chart established at the global level. They are contingent upon:

- continuing employment within the Company; and
- the fulfillment of objective and predefined performance requirements.

Beneficiaries are encouraged, through these allocations, to make greater efforts to improve net profit and help the Group achieve its targets.

7.3.1 Options and performance shares

The Supervisory Board sets the maximum number of share subscription or share purchase options and performance shares, and their grant conditions to the members of the Management Board.

The Supervisory Board also approves the maximum number of beneficiaries and the maximum number of share subscription or share purchase options and performance shares that the Management Board proposes to allocate to Group employees under the terms of a plan.

The Management Board is responsible for determining the conditions for implementing any grants of share subscription or share purchase options and performance shares, including the identification of beneficiaries of such plans and, in the case of share subscription or share purchase options, the reference price. It is also responsible for ensuring the proper implementation of each plan and reports to the Supervisory Board, in the context of its control function.

The number of performance shares and options mentioned in Sections 7.3.1.1 and 7.3.1.2 below correspond to a coefficient of 1, equivalent to the performance target. Some figures have been adjusted, where necessary, to take account of the 2:1 stock split on 9 July 2010 and the capital increase with maintenance of the Shareholders' preferential subscription rights on 3 May 2016.

Members of the Management Board are required to retain until the end of their terms of office (i) one quarter of the performance shares allocated to them under the terms of a plan and (ii) the equivalent in Vallourec shares of one quarter of the gross capital gain realized on the date of sale of the shares resulting from the options exercised. They formally agree not to hedge their risks on either options or shares resulting from the exercise of options, or on performance shares.

Furthermore, with regard to the confidential information obtained in the course of their duties, the members of the Management Board are required to comply with the provisions established by the Supervisory Board concerning the periods during which members in possession of insider knowledge may not buy, sell or take positions in the Company's shares or in any other financial instrument linked to Vallourec shares (options, warrants, etc.), i.e. the thirty (30) calendar days preceding the publications of the annual and semi-annual results and fifteen (15) calendar days preceding the publications of the first quarter and third quarter results as well as the day of publication and the following day, without prejudice to the current statutory and regulatory provisions on "insider trading".

7.3.1.1 Share subscription and/or purchase options

	2009 Plan	2010 Plan	2011 Plan
Date of Shareholders' Meeting	4 June 2009	4 June 2009	4 June 2009
Date of grant by the Management Board	1 September 2009	1 September 2010	1 September 2011
Number of beneficiaries when plan implemented	303	349	743
Total number of shares that can be subscribed, including those that can be subscribed by:	582,605	367,334	368,310
■ Philippe Crouzet	49,349 i.e. 0.01% of the share capital (b)	27,149 i.e. 0.006% of the share capital (b)	21,992 i.e. 0.005% of the share capital (b)
■ Jean-Pierre Michel	22,431 i.e. 0.005% of the share capital (b)	12,340 i.e. 0.003% of the share capital (b)	9,997 i.e. 0.002% of the share capital (b)
■ Olivier Mallet	17,945 i.e. 0.004% of the share capital (b)	9,873 i.e. 0.002% of the share capital (b)	7,997 i.e. 0.002% of the share capital (b)
Percentage of the share capital that may potentially be allocated to members of the Management Board (a) (b)	0.02%	0.01%	0.009%
Total number of options allocated to the ten Group employees who are not corporate officers and to whom the largest number of options was allocated	53,848	42,706	29,072
Total potential dilution of the plan at grant date (b)	0.13%	0.08%	0.08%
Date from which options may be exercised	1 September 2013	1 September 2014	1 September 2015
Expiration date of exercise period	1 September 2019	1 September 2020	1 September 2021
Exercise price (c)	€31.01	€42.72	€36.44
Performance conditions	Yes (e)	Yes (f)	Yes (g)
Exercise procedures	NA	NA	NA
Number of shares subscribed	None (plan ended)	None (plan ended)	None (plan ended)
Total number of options canceled or expired since the grant date	93,315	118,811	220,430
Options remaining as at 31 December 2016	582,605	367,334	368,310
Total potential dilution of plan as at 31 December 2016 (b)	0.13%	0.08%	0.08%

(a) Based on the composition of the Management Board as at 31 December 2016.

(b) Based on the 451,238,005 shares comprising the share capital as at 31 December 2016.

(c) Average price of the Vallourec share over the 20 trading days preceding the allocation date, without discount. Changes were made to the exercise prices to take account of the adjustments linked to the capital increase in May 2016.

(d) Performance condition: Target ratio of the Group's consolidated EBITDA to consolidated revenue for the 2008 and 2009 fiscal years.

(e) Performance condition: Target ratio of the Group's consolidated EBITDA to consolidated revenue for the 2009, 2010 and 2011 fiscal years.

(f) Performance condition: Target ratio of the Group's consolidated EBITDA to consolidated revenue for the 2010, 2011, 2012 and 2013 fiscal years.

(g) Performance condition: Target ratio of the Group's consolidated EBITDA to consolidated revenue for the 2011, 2012, 2013 and 2014 fiscal years.

(h) The definitive allocation of the subscription options issued under the plan put in place on 31 August 2012 is entirely subject to conditions of performance and continuous service. For allocations to employees (other than members of the Operational Committee), performance is assessed over fiscal years 2013, 2014, 2015 and 2016 and is dependent on achieving a target ratio of the Group's EBITDA to consolidated revenue. As concerns allocations to members of the Operational Committee, performance is assessed for the 2013, 2014, 2015 and 2016 fiscal years, and measured based on the following four quantitative criteria: the estimated rate of return on capital employed on a consolidated basis, the growth of consolidated sales and revenue on a like-for-like basis, as well as the relative stock market performance of Vallourec shares, and the relative performance of consolidated EBITDA measured against a group of comparable companies comprising Tenaris and TMK.

(i) The definitive allocation of the subscription options issued under the plan put in place on 2 September 2013 is entirely subject to conditions of performance and continuous service. For allocations to employees (other than members of the Operational Committee), performance is assessed over fiscal years 2014, 2015, 2016 and 2017 and is dependent on achieving a target ratio of the Group's EBITDA to consolidated revenue. As concerns allocations to members of the Operational Committee, performance is assessed for the 2014, 2015, 2016 and 2017 fiscal years, and measured based on the following four quantitative criteria: the estimated rate of return on capital employed on a consolidated basis, the growth of consolidated sales and revenue on a like-for-like basis, as well as the relative stock market performance of Vallourec shares, and the relative performance of consolidated EBITDA measured against a group of comparable companies, comprising Tenaris and TMK.

After applying the adjustment terms provided for in Articles L.228-99 and R.228-91 of the French Commercial Code and in conformity with the regulations of the share subscription options and performance share plans, Vallourec's Supervisory Board, at its meeting on 2 May 2016, wished to preserve the rights of holders of performance shares and share subscription options, by ensuring that the capital increase determined on 7 April 2016 would be neutral for them. The figures opposite have been updated.

The value of the option plans is included in Notes 19 and 21 to the consolidated financial statements, which are found in Section 6.1 of this Registration Document.

2012 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
31 May 2012	31 May 2012	31 May 2012	28 May 2014	28 May 2014
31 August 2012	2 September 2013	15 April 2014	15 April 2015	18 May 2016
387	406	399	486	445
883,602	1,003,746	622,261	683,413	537,895
0	54,981 i.e. 0.012% of the share capital (b)	30,152 i.e. 0.007% of the share capital (b)	- (k)	30,145 (n) i.e. 0.007% of the share capital (b)
0	24,991 i.e. 0.006% of the share capital (b)	14,159 i.e. 0.003% of the share capital (b)	14,159 (l) i.e. 0.003% of the share capital (b)	14,159 (l) i.e. 0.003% of the share capital (b)
0	19,993 i.e. 0.004% of the share capital (b)	14,159 i.e. 0.003% of the share capital (b)	14,159 (l) i.e. 0.003% of the share capital (b)	14,159 (l) i.e. 0.003% of the share capital (b)
0%	0.02%	0.01%	0.01%	0.013%
89,631	77,577	74,470	53,812	49,134
0.20%	0.22%	0.14%	0.15%	0.12%
1 April 2017	3 March 2018	15 April 2018	15 April 2019	18 May 2020
31 August 2020	1 September 2021	15 April 2022	15 April 2023	18 May 2024
€22.21	€27.70	€23.13	€13.57	€3.90
Yes (h)	Yes (i)	Yes (j)	Yes (m)	Yes (o)
-	-	-	-	-
-	-	-		
		0	46,299	
883,602	1,003,746	622,261	637,114	537,895
0.20%	0.22%	0.14%	0.14%	0.11%

(j) The definitive allocation of the subscription options issued under the plan put in place on 15 April 2014 is entirely subject to conditions of performance and continuous service. For allocations to employees (other than members of the Group Management Committee), performance is assessed over fiscal years 2014, 2015, 2016 and 2017 and is dependent on achieving a target ratio of the Group's EBITDA to consolidated revenue. As concerns allocations to members of the Group Management Committee, performance is assessed for the 2014, 2015, 2016 and 2017 fiscal years, and measured based on the following four quantitative criteria: the estimated rate of return on capital employed on a consolidated basis, the growth of consolidated sales and revenue on a like-for-like basis, as well as the relative stock market performance of Vallourec shares, and the performance of consolidated EBITDA measured against a group of comparable companies comprising Tenaris and TMK.

(k) The Supervisory Board meeting on 17 February 2016 duly noted the waiver by Mr. Philippe Crouzet of the share subscription options allocated during the 2015 fiscal year after the approval of the financial statements for the 2015 fiscal year. Consequently, the valuation of the share subscription options allocated in 2015 (which would have otherwise been €97,740) is nil in this table.

(l) As from the 2015 plans, the maximum coefficient was 1.33, i.e. a maximum of 18,831 options.

(m) As concerns grants to employees (excluding members of the Group Management Committee), performance is assessed for the 2015, 2016, 2017 and 2018 fiscal years, and is dependent on achieving a target ratio of the Group's EBITDA to consolidated sales. As concerns grants to members of the Group Management Committee, performance is assessed over four years and measured based on the following two quantitative criteria: the consolidated EBITDA for 2015, 2016, 2017 and 2018, and the growth in the EBITDA margin between 2015 and 2018 (based on a comparison between the growth of Vallourec's gross margin and the average growth in gross margin of a group of comparable companies. This group comprises the following: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal and Salzgitter AG).

(n) i.e. a maximum of 40,092 options on the basis of the maximum coefficient of 1.33.

(o) As concerns grants to employees (excluding members of the Group Management Committee), performance is assessed for the 2016, 2017, 2018 and 2019 fiscal years, and is dependent on achieving a target ratio of the Group's EBITDA to the budget. As concerns grants to members of the Group Management Committee, performance is assessed over four years and measured based on the following two quantitative criteria: the consolidated EBITDA for 2016, 2017, 2018 and 2019, and the growth in the EBITDA margin between 2016 and 2019 (based on a comparison between the growth of Vallourec's gross margin and the average growth in gross margin of a group of comparable companies. This group comprises the following: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal and Salzgitter AG).

7.3.1.2 Performance share and free share allocation plans

PERFORMANCE SHARE PLANS

	2010 Plan	2011 Plan
Date of Shareholders' Meeting	4 June 2008	4 June 2008
Grant date by the Management Board	15 March 2010 and 31 July 2010	30 March 2011
Number of beneficiaries when plan implemented	850	1,157
Total number of shares that can be acquired, including those able to be acquired by [(a)]:	194,820 [(d)]	214,271 [(f)]
■ Philippe Crouzet	9,000 i.e. 0.002% of the share capital	9,023 i.e. 0.002% of the share capital
■ Jean-Pierre Michel	4,400 i.e. 0.001% of the share capital	4,436 i.e. 0.001% of the share capital
■ Olivier Mallet	3,600 i.e. 0.001% of the share capital	3,609 i.e. 0.001% of the share capital
Percentage of the share capital that may potentially be allocated to members of the Management Board [(b)] [(c)]	0.004%	0.004%
Total number of performance shares allocated to the ten employees who are not corporate officers and to whom the largest number of shares was allocated	11,380	7,995
Total potential dilution of the plan at grant date [(b)]	None	None
Performance conditions	Yes [(e)]	Yes [(g)]
Vesting period end-date	15 March and 31 July 2012 or 2014	30 March 2013 or 2015
Holding period end-date	15 March and 31 July 2014	30 March 2015
Total number of performance shares canceled or expired since the grant date	NA	NA
Performance shares remaining as at 31 December 2016	None (plans expiring on 15 March 2014 and 31 July 2014)	None (plan expiring on 30 March 2015)
Total potential dilution of plan as at 31 December 2016 [(b)]	None	None

(a) Based on the factor 1.

(b) Based on the composition of the Management Board as at 31 December 2016.

(c) Based on the 451,238,005 shares comprising the share capital as at 31 December 2016.

(d) i.e. 259,111 shares based on the maximum factor of 1.

(e) Performance condition: Target ratio of the Group's consolidated EBITDA to consolidated revenue for the 2010 and 2011 fiscal years.

(f) i.e. 269,204 shares based on the maximum factor of 1.25 or 1.33, as applicable.

(g) Performance conditions: For allocations to employees, performance is assessed over fiscal years 2011 and 2012 and is dependent on achieving a target ratio of the Group's EBITDA to consolidated revenue. For allocations to members of the Management Board, performance is assessed over corporate fiscal years 2011 and 2012, and measured based on the following three quantitative criteria: the growth rate of revenue on a like-for-like basis, the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis in the period, and the stock market performance of Vallourec shares on the regulated market of Euronext Paris measured against a reference group of comparable companies comprising Tenaris, TMK and SMI.

(h) i.e. 357,712 shares based on the maximum factor of 1.25 or 1.33, as applicable.

(i) i.e. 12,000 shares based on the maximum factor of 1.33.

(j) i.e. 5,900 shares based on the maximum factor of 1.33.

(k) i.e. 4,800 shares based on the maximum factor of 1.33.

(l) i.e. 10,505 shares based on the maximum factor of 1.33.

(m) Performance conditions: For allocations to employees, performance is assessed over fiscal years 2012 and 2013 and is dependent on achieving a target ratio of the Group's EBITDA to consolidated revenue. For allocations to members of the Management Board and the Operational Committee, performance is assessed over corporate fiscal years 2012 and 2013, and measured based on the following three quantitative criteria: the growth rate of revenue on a like-for-like basis, the ratio of consolidated EBITDA to consolidated revenue on a like-for-like basis in the period, and the relative stock market performance of Vallourec shares on the Euronext Paris regulated market as measured against a reference group of comparable companies comprising Tenaris and TMK.

(n) i.e. 496,262 shares based on the maximum factor of 1.25 or 1.33, as applicable.

(o) i.e. 20,954 shares based on the maximum factor of 1.33.`

(p) Performance conditions: For allocations to employees, performance is assessed over fiscal years 2013, 2014 and 2015 and is dependent on achieving a target ratio of the Group's consolidated EBITDA to consolidated revenue. As concerns allocations to members of the Management Board and the Operational Committee, performance is assessed for the 2013, 2014 and 2015 fiscal years, and measured based on the following four quantitative criteria: the expected rate of return on capital employed on a consolidated basis, the growth of consolidated sales on a like-for-like basis, as well as the relative stock market performance of Vallourec shares, and the relative performance of consolidated EBITDA measured against a group of comparable companies comprising Tenaris and TMK.

After applying the adjustment terms provided for in Articles L.228-99 and R.228-91 of the French Commercial Code and in conformity with the regulations of the share subscription options and performance share plans, Vallourec's Supervisory Board, at its meeting on 2 May 2016, wished to preserve the rights of holders of performance shares and share subscription options, by ensuring that the capital increase determined on 7 April 2016 would be neutral for them. The figures opposite have been updated.

2012 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
7 June 2011	31 May 2012	31 May 2012	28 May 2014	28 May 2014
30 March 2012	29 March 2013	15 April 2014	15 April 2015	28 May 2016
1,591	1,647	1,758	497	537
286 718 [h]	391,200 [h]	661,861 [q]	388,593 [w]	610 001 [b']
9,023 [i] i.e. 0.002% of the share capital	9,023 [i] i.e. 0.002% of the share capital	24,484 [r] i.e. 0.005% of the share capital	- [x]	22,036 [c'] i.e. 0.005% of the share capital
4,436 [j] i.e. 0.001% of the share capital	4,436 [j] i.e. 0.001% of the share capital	11,522 [s] i.e. 0.003% of the share capital	10,370 [y] i.e. 0.002% of the share capital	10,370 [y] i.e. 0.002% of the share capital
3,609 [k] i.e. 0.001% of the share capital	3,609 [k] i.e. 0.001% of the share capital	11,522 [t] i.e. 0.003% of the share capital	10,370 [y] i.e. 0.002% of the share capital	10,370 [y] i.e. 0.002% of the share capital
0.004%	0.004%	0.01%	0.004%	0.009%
7,898 [l]	15,755 [o]	46,424 [u]	33,888 [z]	43,599 [d']
None	None	None	None	None
Yes [m]	Yes [p]	Yes [v]	Yes [a']	Yes [e']
30 March 2014 or 2016	29 March 2016 or 2017	14 April 2017 or 2018	15 April 2018 or 2019	18 May 2019 or 2020
30 March 2016	29 March 2018	14 April 2018 or 2019	15 April 2019 or 2020	18 May 2020 or 2021
NA	134,328	0	21,605	-
None (plan expiring on 30 March 2016)	256,872	661,861	366,978	610,001
None	None	None	None	None

(q) i.e. 836,231 shares based on the maximum factor of 1.25 or 1.33, as applicable.

(r) i.e. 32,563 shares based on the maximum factor of 1.33.

(s) i.e. 15,324 shares based on the maximum factor of 1.33.

(t) i.e. 15,324 shares based on the maximum factor of 1.33.

(u) i.e. 61,744 shares based on the maximum factor of 1.33.

(v) Performance conditions: For allocations to employees, performance is assessed over fiscal years 2014, 2015 and 2016 and is dependent on achieving a target ratio of the Group's consolidated EBITDA to consolidated revenue. For allocations to members of the Management Board and the Operational Committee, performance is assessed for the 2014, 2015 and 2016 corporate fiscal years, and measured based on the following four quantitative criteria: the expected rate of return on capital employed on a consolidated basis, the growth of consolidated sales and revenue on a like-for-like basis, and according to the exchange rate when the Budget was prepared, as well as the stock market performance of Vallourec shares, and the relative performance of consolidated EBITDA measured against a group of comparable companies comprising Tenaris and TMK.

(w) i.e. 491,429 shares based on the maximum factor of 1.25 or 1.33, as applicable.

(x) The Supervisory Board meeting on 17 February 2016 duly noted the waiver by Mr. Philippe Crouzet of the performance shares allocated during the 2015 fiscal year after the approval of the financial statements for said year. Consequently, the valuation of the performance shares allocated in 2015 (which would have otherwise been €292,199) is nil in this table.

(y) i.e. 13,792 shares based on the maximum factor of 1.33.

(z) i.e. 45,071 shares based on the maximum factor of 1.33.

(a') Definitive allocation of shares in 2018 for French residents and members of the Management Board, and in 2019 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2015, 2016 and 2017. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the final award will depend on the following two criteria, assessed for 2015, 2016 and 2017: the rate of return on capital employed on a consolidated basis (ROCE), compared to the ROCE in the budget, and the Total Shareholder Return (TSR) for 2015, 2016 and 2017. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

(b') i.e. 768,090 shares based on the maximum factor of 1.25 or 1.33, as applicable.

(c') i.e. 29,307 shares based on the maximum factor of 1.33.

(d') i.e. 57,986 shares based on the maximum factor of 1.33.

(e') Definitive allocation of shares in 2019 for French residents and members of the Management Board, and in 2020 for non-French residents. For all beneficiaries (excluding Management Board members), it will be based on the ratio of consolidated EBITDA to consolidated revenue achieved by the Group in 2016, 2017 and 2018. The actual number is determined by applying a performance factor, calculated for the three years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.25. For members of the Executive Committee, the final award will depend on the following two criteria, assessed for 2016, 2017 and 2018: the rate of return on capital employed on a consolidated basis (ROCE), compared to the ROCE in the budget, and the Total Shareholder Return (TSR) for 2016, 2017 and 2018. The actual number is determined by applying a performance factor, calculated for the two years concerned, to the theoretical number of shares allocated. This factor may range from 0 to 1.33. The number of shares allocated, as shown in the above table, corresponds to the application of a performance factor of 1.

INTERNATIONAL PERFORMANCE SHARE PLANS FOR EMPLOYEES (1)

	2-4-6 plan (2012)	2-4-6 plan (2013)	2-4-6 plan (2014)
Date of Shareholders' Meeting	7 June 2011	31 May 2012	31 May 2012
Grant date by the Management Board	30 March 2012	29 March 2013	15 April 2014
Number of beneficiaries when plan implemented	21,686	21,744	21,677
Maximum total number of performance shares	130,116	191,144	208,100
of which maximum total number of performance shares allocated to members of the Management Board (as composed when plan implemented)	0	0	0
Number of executive corporate officers concerned	0	0	0
Maximum total number of performance shares allocated to the ten employees who are not corporate officers and to whom the largest number of shares was allocated	60	100	100
Potential dilution	None	None	None
Performance condition	*Ratio of consolidated EBITDA to consolidated revenue (2012 and 2013)*	*Ratio of consolidated EBITDA to consolidated revenue (2013, 2014 and 2015)*	*Ratio of consolidated EBITDA to consolidated revenue (2014, 2015 and 2016)*
Vesting period	2 or 4 years	3 or 4 years	3 or 4 years
Holding period	0 or 2 year(s)	0 or 2 year(s)	0 or 2 year(s)
Total number of performance shares canceled or expired since the grant date	NA	74,964	41,730
Performance shares as at 31 December 2016	None (plan ended 30/03/2016)	116,180	166,370

(1) For a description of these plans, see Section 7.3.3 "Employee share ownership" below.

FREE SHARE ALLOCATION PLANS

Free share allocation plans (without performance conditions) have been implemented only under the terms of the "Value" employee share ownership offers (see Section 7.3.3 "Employee share ownership" below) since 2008, and for the sole benefit of employees and those with similar rights who are non-French residents for tax purposes of certain Group companies, instead of the employer matching contribution granted to other employees and those with similar rights of the Vallourec Group's French companies.

	Value 11 Plan	Value 12 Plan	Value 13 Plan	Value 14 Plan	Value 15 Plan	Value 16 Plan
Date of Shareholders' Meeting	07/06/2011	31/05/2012	30/05/2013	28/05/2014	28/05/2015	06/04/2016
Grant date by the Management Board	18/11/2011	06/12/2012	10/12/2013	16/12/2014	15/12/2015	14/12/2016
Number of beneficiaries when plan implemented	841	737	732	768	348	255
Total number of free shares	10,339	7,032	6,445	6,336	2,744	3,344
of which total number of shares allocated free of charge to members of the Management Board (when plan implemented)	0	0	0	0	0	0
Number of executive management members concerned	0	0	0	0	0	0
Total number of shares allocated free of charge to the ten employees who are not corporate officers and to whom the largest number of shares was allocated	80	100	100	100	100	100
Potential dilution	None	None	None	None	None	None
Performance conditions	None	None	None	None	None	None
Vesting period	4.6 years	4.6 years	4.6 years	4.6 years	4.6 years	4.6 years
Holding period	0	0	0	0	0	0
Number of shares allocated free of charge, canceled since their allocation	NA	2,008	1,695	1,148	0	0
Performance shares as at 31 December 2016	Plan ended	5,024	4,750	5,188	2,744	3,344

The valuation of performance share and free share allocation plans appears in Notes 19 and 21 to the consolidated financial statements in Section 6.1 of this Registration Document.

7.3.2 Profit sharing, incentive and savings schemes

Shareholding

The amounts paid in respect of special reserves for shareholding during the last five fiscal years are as follows:

In € million	2012	2013	2014	2015	2016
	2.40	2.56	0	1.46	0.61

Profit sharing

Most Group companies have put in place profit sharing plans that involve the employees in the Company's performance, based on the current income/revenue ratio.

The amounts paid in respect of these plans during the last five fiscal years are as follows:

In € million	2012	2013	2014	2015	2016
	10.23	6.58	18.9	19.97	18.11

Company savings plan

The Group formed a Company savings plan (plan d'épargne d'entreprise – PEE) in France in 1989, to help employees build up capital over the medium and long term. Since 2005, these arrangements have been supplemented by the implementation, by agreement, of a collective retirement savings plan (plan d'épargne retraite collectif – PERCO).

Employees' voluntary payments are topped up by the Company in accordance with a scale updated each year in relation to the Group's net profit.

The amounts paid by way of employer matching contribution over the last five fiscal years were as follows:

	2012		2013		2014		2015		2016	
In € million	PEE	PERCO	PEE	PERCO	PEE	PERCO	PEE	PERCO	PEE	PERCO
	3.6 (a)	0.7 (a)	4.1 (b)	0.6 (b)	4.5 (c)	0.8 (c)	3.7 (d)	0.9 (d)	3.6 (e)	0.6 (e)

(a) Including €2,077,757.23 for the Value 12 operation.

(b) Including €1,923,536.19 for the Value 13 operation.

(c) Including €1,560,675.87 for the Value 14 operation.

(d) Including €728,133.70 for the Value 15 operation.

(e) Including €244,632.55 for the Value 16 operation.

7.3.3 Employee share ownership

7.3.3.1 International employee share ownership plans

Every year since 2008, the Group has offered an international employee share ownership plan in its main countries of operation, called "Value", followed by the last two figures of the year of its roll-out (for a description of the plans from 2008 to 2013, see Section 6.3.3 "Employee share ownership" in the 2011 Registration Document and Section 7.3.3 "Employee share ownership" in the 2012, 2013, 2014 and 2015 Registration Documents).

In 2016, the Value 16 plan was offered in eleven countries (Brazil, Canada, China, France, Germany, Mexico, the United Arab Emirates, the United Kingdom, United States, India, Malaysia and Singapore) and resulted in a capital increase on 14 December 2016, for a gross total of €26.3 million through the issue of 6,599,956 new shares at a subscription price per share of €3.75 for the standard plan and €3.99 for the leveraged plan, in accordance with the authorizations granted to the Management Board by the Shareholders' Meeting of 6 April 2016 in its twenty-first, twenty-second and twenty-third resolutions. Nearly 10,000 employees in the eleven countries concerned, i.e. 54% of eligible employees, chose to subscribe to the Group's share offering.

In place of the employer matching contribution granted to employees and those with similar rights of the Group's French companies and those companies with registered offices in Brazil, Germany, India, Mexico, the United Arab Emirates and the United Kingdom participating in the Value 16 plan, the Management Board at the same time implemented, under the terms of the Value 16 offering, a free share allocation plan for new or existing shares, involving a maximum of 3,344 shares, i.e. 0.0007% of share capital on that date, for the benefit of employees who are non-French residents for tax purposes of Vallourec Group companies with registered offices located in Canada, the United States (excluding employees of VAM USA LLC), Malaysia and Singapore, who took part in a +SAR share offering under the Value 16 plan.

The nine international employee share ownership plans offered since 2008 have proved highly successful given their average subscription rate of 64.3% and raised employee share ownership from 0.16% at 31 December 2007, to 3.5% at 31 December 2016.

Through their significant subscription Vallourec believes its employees have demonstrated their loyalty to the Group, as well as their confidence in Vallourec's strategy and future. Against this backdrop, the Supervisory Board welcomed Ms. Pascale Chargrasse as a member of the Supervisory Board representing employee shareholders on 13 December 2010. Ms. Pascale Chargrasse's office was renewed for a four-year term by the Shareholders' Meeting on 28 May 2015.

These plans have enabled the Group to achieve the three objectives it had set for each of these operations:

- to involve as many employees as possible in the Group's performance;
- to strengthen "Group spirit", the cornerstone of its culture; and
- to develop a long-term relationship with employees that will help Vallourec to maintain a stable shareholder base.

Details of the terms and conditions of the Value 08, Value 09, Value 10, Value 11, Value 12, Value 13, Value 14, Value 15 and Value 16 plans are provided in Note 19 to the consolidated financial statements in Section 6.1 of this Registration Document.

7.3.3.2 International performance share allocation plans for employees

Between 2009 and 2014, the Group provided an annual international performance share allocation plan each year for all employees (excluding members of the Management Board) in the majority of Group entities.

Called the 1-2-3 Plan at its launch in 2009, then the 2-4-6 Plan starting in 2010 and through 2014, to take account of the two-for-one Vallourec stock split in July 2010, these plans enabled each of the employees within the allocation scope to receive zero, two, four or six Vallourec shares depending on the Group's performance (for a summary of the international performance share allocation plans rolled out from 2010 through 2014, see Section 7.3.1.2 "Performance share and free share allocation plans" above).

APPENDICES

Appendix 1 – The Report of the Chairman of the Supervisory Board concerning the composition of the Board and the application of the principle of balanced representation of men and women on it, the conditions for preparing and organizing its work and the risk management and internal control procedures implemented by Vallourec

In accordance with the provisions of Article L.225-68 of the French Commercial Code (*Code de commerce*), the Chairman of the Supervisory Board of Vallourec (hereinafter referred to as "Vallourec" or the "Company") presents this report to the shareholders, detailing:

- the composition of the Supervisory Board and the application of the principle of equal representation of men and women within it, as well as the conditions for preparing and organizing its work (A);
- the procedures governing shareholder participation in the Company's Shareholders' Meetings (B);
- information required by Article L.225-100-3 of the French Commercial Code relative to elements that are likely to have an impact in the event of a takeover bid (C);
- the internal control and risk management procedures implemented by the Company (D);
- financial risks related to climate change and measures taken by the company to limit them by implementing a low-carbon strategy in all aspects of its business (E);
- the principles and rules laid down by the Supervisory Board for determining the total compensation and benefits allocated to corporate officers (F); and
- the Corporate Governance Code with which the Company complies (G).

Vallourec has based this report on the French securities regulator's (*Autorité des Marchés Financiers* – "AMF") reference framework, dated 22 July 2010, supplemented by its application guidelines and the final report of the Audit Committee on 22 July 2010, issued by a working group formed by the AMF.

This report has been prepared by the Group's Legal Department, under the supervision of the Management Board, after consulting with the Finance Department, the Cash Management Department, the Internal Audit Department, the Communications Department, the Investor Relations and Financial Communications Department, the Capital Expenditure and Major Projects Department, the Safety and Quality Department, the Sustainable Development Department, the Technology, Research and Development, and Innovation Department, the Purchasing Department, the Information Systems Department, the Risks and Internal Control Department and the Human Resources Department.

It was presented to the Finance and Audit Committee on 20 February 2017 and approved by the Supervisory Board on 21 February 2017.

A – Board: composition, international representation, balanced representation of and women, and conditions for preparing and organizing work

The composition of the Supervisory Board and of its Committees, and particularly their international representation and gender diversity, along with their respective internal regulations, are detailed in Chapter 7 of this 2016 Registration Document dealing with corporate governance, which is an integral part of this report.

In 2016, the Board met eight times. The average length of its meetings was approximately four hours. The meeting on the morning of 13 December 2016 was exclusively dedicated to examining the strategic plan.

In order to best ensure that Board members are able to attend meetings, the schedule of meetings for the year is prepared approximately one year in advance.

The actual attendance rate of members at Supervisory Board meetings, calculated as a ratio of the number of members present to the total number of members, was 100% for all of the meetings held in 2016. The details for each meeting are presented in the following table:

Dates of Supervisory Board meetings (fiscal year 2016)	Attendance rate
29 January	12/12 (100%)
17 February	12/12 (100%)
5 April	12/12 (100%)
2 May	12/12 (100%)
27 July	12/12 (100%)
8 November	12/12 (100%)
13 December (morning)	12/12 (100%)
13 December (afternoon)	12/12 (100%)

The individual attendance rate for Supervisory Board meetings, calculated as a ratio of the number of meetings that each of the members actually attended to the total number of Supervisory Board meetings, was 100% throughout 2016 for each member, as shown below:

Members of the Supervisory Board in 2016	Attendance rate [a]
Vivienne Cox	8/8 (100%)
Pierre Pringuet	8/8 (100%)
Maria Pilar Albiac-Murillo	8/8 (100%)
Philippe Altuzarra	8/8 (100%)
Cédric de Bailliencourt	8/8 (100%)
Olivier Bazil	8/8 (100%)
Bpifrance Participations, represented by Bernard Finet and Alexandre Ossola [a]	5/5 (100%)
Laurence Broseta [a]	5/5 (100%)
Pascale Chargrasse	8/8 (100%)
Jean-François Cirelli [a]	3/3 (100%)
Michel de Fabiani [a]	3/3 (100%)
José Carlos Grubisich	8/8 (100%)
Henri Poupart-Lafarge	8/8 (100%)
Alexandra Schaapveld	8/8 (100%)

(a) Prorata temporis up to the expiration of the office or as of the appointment, as applicable.

The members of the Management Board were present at all of the meetings. The Supervisory Board nevertheless makes sure that a portion of its meetings are held without the Management Board being present, in particular for items on the agenda that directly concern them.

Each meeting is confirmed on average one week in advance by sending a notice of meeting, which is enclosed with the agenda, the draft minutes from the previous meeting on which the Supervisory Board members are asked to share any comments, including before the meeting, as well as a file containing, except in certain cases, all of the supporting documents relating to the subjects recorded in the Supervisory Board's agenda. For meetings at which the quarterly results are reviewed, these papers also contain the Management Board's quarterly report to the Supervisory Board on the Company's performance. Where necessary, the Supervisory Board relies on preliminary work carried out by the Committees.

Meetings are chaired by the Supervisory Board Chairman, who ensures, in particular, that each member expresses his/her opinion on important matters. Any conflicts of interest are handled in conformity with the principles indicated in paragraph 7.1.6 of this Registration Document.

The Company's Statutory Auditors attended those Supervisory Board meetings at which the annual and interim financial statements were reviewed.

Since 2008, the Supervisory Board has completed a formalized evaluation of its operations. For 2016, this evaluation was managed by the Board Secretary, under the supervision of the Appointments, Compensation and Governance Committee, based on a questionnaire containing seven governance topics.

The summary of the Supervisory Board members' responses, which was communicated to the Board members and discussed during the 21 February 2017 meeting, indicates high satisfaction of the members about the Supervisory Board's operation, in terms of the composition of the Board, the fluidity of discussions within the Board and with the Management Board, and the consideration of major issues concerning the Company. The Board was also satisfied with the consideration for areas of improvement identified during the previous self-evaluation. For the future, the following areas of improvement were recommended in particular:

- pursuing diversification of profiles and expertise within the Supervisory Board; and
- increasing opportunities for the members of the Executive Committee to present on regional and topical issues to the Supervisory Board.

Regarding business operations, in 2016, the Supervisory Board spent most of its time reviewing the annual, semi-annual and quarterly financial statements, and the Group's operations, safety improvements at industrial sites, the Group's structure, updates on strategic projects, in particular the Transformation Plan, competition, market developments, financing policy, the conduct of major projects, the strategic plan, the 2017 budget, the Group's audit and internal control policy, and the projects and negotiations underway.

Regarding the Governance plan, the Supervisory Board examined the following subjects in particular:

- compensation of the three members of the Management Board for 2015 and 2016, as well as the report on compensation for the purpose of implementing the "Say on Pay" mechanism;
- Vallourec's policy on enabling the personnel to share in the Group's net profits (the Value 16 international employee share ownership plan, the performance share and share subscription options for managers (including members of the Group Management Committee));
- the overall budgets and the number of performance shares and share subscription options allocated to employees and each member of the Management Board, and the requirement for such members to retain a portion of the shares resulting from the exercise of options and of the performance shares allocated;
- the Management Board succession plan, particularly in case of an unforeseeable vacancy;
- the Group's Human Resources strategy, including the corporate policy on professional and wage equality;
- policy on the composition of the Supervisory Board;
- annual evaluation of the Supervisory Board and Committees;
- compliance of Group governance with the recommendations of the AFEP-MEDEF Code;
- the composition of the Supervisory Board and its Committees; and
- the independence of the Board members.

B – Shareholders' participation in the Company's Shareholders' Meetings

Every shareholder is entitled to participate in the Company's Shareholders' Meetings in accordance with applicable statutory and regulatory provisions and regardless of the number of shares held. Article 12 of the bylaws concerning Shareholders' Meetings does not provide any specific conditions for attending and participating, although a double voting right is allocated to all registered shares held by the same owner for at least four years.

Since Vallourec places great importance on listening to its shareholders, it endeavors, whenever it can, to improve shareholder participation at its Shareholders' Meetings by making shareholders aware of the meetings in advance, by publishing information over and above that required by law in specialist publications and by sending a letter to all shareholders.

The attendance register at the Ordinary and Extraordinary Shareholders' Meeting on 6 April 2016 shows that 4,374 shareholders were present, represented or voted by post, owning a combined total of 63,249,465 shares with voting rights out of 133,789,855, i.e. 47.27% of shares with voting rights, and 73,998,808 voting rights out of 145,124,288, i.e. 50.99% of voting rights.

C – Information referred to in Article L.225-100-3 of the French Commercial Code

In accordance with Article L.225-100-3 of the French Commercial Code (*Code de commerce*), factors that are likely to have an impact in the event of a takeover bid are set forth below.

1. Structure of share capital and direct or indirect shareholdings declared in accordance with Articles L.233-7 and L.233-12 of the French Commercial Code

A table showing the structure of Vallourec's share capital and direct or indirect shareholdings in the capital declared in accordance with Articles L.233-7 and L.233-12 of the French Commercial Code (*Code de commerce*) is presented in Section 2.3 of this Registration Document.

2. Statutory restrictions on the exercise of voting rights

Article 8 paragraph 5 of the Company's bylaws lays down an obligation of disclosure on any person who comes to hold or to cease to hold a number of bearer shares of the Company equal to or greater than three (3), four (4), six (6), seven (7), eight (8), nine (9) or twelve and a half (12.5) percent of the total number of shares comprising share capital (see Section 2.1.9 of this Registration Document).

In the event of failure to comply with this obligation of disclosure, and at the request of one or more shareholders holding at least 5% of the Company's shares, the voting rights attached to the shares exceeding the fraction that should have been declared cannot be exercised or delegated by the shareholder who failed to meet the obligation, for all Shareholders' Meetings held for a period of two years following the date of the proper disclosure notification.

3. Holders of any security containing special rights of control

Article 12, paragraph 4 of the bylaws provides for fully paid-up shares that have been duly registered in the name of the same shareholder for four (4) years to have double the voting rights conferred on other shares. Apart from this condition, there are no other securities that have special rights of control.

4. Control mechanisms within an employee share ownership system

In accordance with Article L.214-40 of the French Monetary and Financial Code (Code monétaire et financier), the Supervisory Boards of the Vallourec Actions, Value France Germany UK and Value Brazil Mexico UAE company mutual funds (FCPEs) decide whether to contribute Company securities to a public offering to purchase or exchange these shares.

5. Agreements between shareholders of which the Company is aware that could lead to restrictions on the transfer of shares and the exercise of voting rights

Subject to the agreement entered into between Vallourec and Nippon Steel & Sumitomo Metal Corporation (NSSMC) (previously Sumitomo Metal Industries) [(1)] on 26 February 2009, the Shareholders' agreement not constituting a concerted action entered into with NSSMC on 1 February 2016, and the Shareholders' agreement not constituting a concerted action entered into with Bpifrance Participations on 1 February 2016 (see Sections 2.3.3 and 2.3.4 of this Registration Document), there is to the Company's knowledge no agreement between shareholders that could lead to restrictions on the transfer of shares and exercising of voting rights of the Company.

6. Rules applicable to the appointment and replacement of the members of the Company's Management Board

No provision in the bylaws, or agreement concluded between the Company and a third party, contains an obligation or particular rule regarding the appointment and/or the replacement of members of the Management Board of the Company that is likely to have an impact in the event of a takeover bid.

7. Powers of the Management Board in the event of a takeover bid

Since 2009, the Shareholders' Meetings called to decide on conferring authority on the Management Board to purchase shares of the Company have expressly ruled out the possibility of share buybacks during takeover bids for the Company. The Shareholders' Meeting of 12 May 2017 will be asked to renew this prohibition on buying back shares during a takeover period for shares of the Company.

The Shareholders' Meeting of 6 April 2016 maintained the Management Board's ability, during a takeover period on the Company's shares, to use the draft resolutions for the purpose of deciding, on the one hand, to issue shares of the Company, maintaining Shareholders' preferential subscription rights to subscribe to Company shares, and, on the other hand, to issue bonds redeemable for shares, eliminating Shareholders' preferential subscription rights in favor of Bpifrance Participations and Nippon Steel & Sumitomo Metal Corporation (NSSMC) [(1)], as with capital increases reserved for employees.

The Shareholders' Meeting of 12 May 2017 will be asked to suspend the Management Board's ability to use the resolutions to increase the Company's share capital (with the exception of capital increases reserved for employees or allocations of medium/long-term incentive instruments (performance shares and options)) during a takeover period on shares of the Company, except with the prior authorization of the Shareholders' Meeting.

The Management Board is not authorized by the Shareholders' Meeting to issue share subscription warrants during a takeover period on shares of the Company, as stipulated in Article L.233-32 II of the French Commercial Code (*Code de commerce*). No draft resolution in this regard is due to be put to the Shareholders' Meeting on 12 May 2017.

(1) On 1 October 2012, Sumitomo Metal Industries merged with Nippon Steel. The newly-merged organization was named Nippon Steel & Sumitomo Metal Corporation (NSSMC).

8. Agreements made by the Company that would be amended or terminated in the event of a change in control of the Company

Some agreements made by the Company contain a change of control clause. The most significant ones, which could have an impact in the event of a takeover bid include: certain industrial agreements with Nippon Steel & Sumitomo Metal Corporation (NSSMC) and Sumitomo Corporation (see Section 3.4.2 and 5.1.13.1 of this Registration Document); the Shareholders' agreement not constituting a concerted action entered into with NSSMC on 1 February 2016, and the Shareholders' agreement not constituting a concerted action entered into with Bpifrance Participations on 1 February 2016 (see Sections 2.3.3 and 2.3.4 of this Registration Document); the multi-currency revolving credit line of €1.1 billion expiring in February 2019, entered into on 12 February 2014; the revolving credit line of €400 million expiring in July 2019, entered into on 21 September 2015; the revolving credit line of €450 million expiring in February 2020, entered into on 2 May 2016; and the bond issues of August 2012 and September 2014 (see Section 2.2.6 "Non-equity instruments" of this Registration Document).

9. Agreements providing for payments to members of the Management Board or employees, if they resign or are dismissed for no real or serious cause, or if their employment is terminated due to a takeover bid

The mechanisms linked to the termination of corporate offices and/or, where applicable, the employment contracts of Mr. Philippe Crouzet, Chairman of the Management Board, and Mr. Jean-Pierre Michel and Mr. Olivier Mallet, members of the Management Board, are described in the Supervisory Board's Report on the compensation policy for corporate officers and in the Supervisory Board's Report on the 2016 compensation of the members of the Management Board, which appears in Appendix 2 to Chapter 7 of this Registration Document, which is an integral part of this report.

D – Risk management procedures and internal control

1. Risk management

1.1 OBJECTIVES AND GENERAL PRINCIPLES OF RISK MANAGEMENT

Risk management provides management leverage for the Group, and primarily contributes to:

- securing the Group's decision-making processes and other procedures in order to promote the achievement of its objectives;
- creating and preserving the Group's value, assets and reputation;.

Furthermore, risk management aims to:

- promote consistency between the Group's actions and values; and
- mobilize the Group's employees around a common vision in terms of primary risks, and raise their awareness of the risks inherent to their business.

Vallourec adopts a detailed cross-company approach in its "Group Risk Management Policy". The Risk Management Department provides methodological support for promoting and implementing this policy. This favors the development of internal control by anticipating risks and reviewing the "best practices" for controls.

Risks are managed by the industrial and sales units and by the functional departments.

The Risk Committees set up within each Division, Region and the Management Board evaluate the risks and determine the controls and action plans aimed at limiting the impact and/or the probabilities of these risks occurring.

The main risks facing the Group are described in Chapter 5 of this Registration Document.

1.2 RISK MANAGEMENT MEASURES

Identifying risks consists of determining the main risks the Group faces with its operational and functional departments. The Risk Management Department analyzes these risks and maps them, an exercise which in particular aims to determine how to reduce, transfer, eliminate or accept them. Priorities are determined not only as a function of probability of occurrence and/or consequences of risks, but also of the progress of control improvements through "best practices".

Risk maps are in place for each of the Divisions, Regions, and for the Management Board. Each map incorporates main risks, along with their likely scenarios, internal and external experiences with such risks, controls in place and "best practices".

Risk management is provided by the Divisions, Regions, and by the Management Board during the periodic committee meetings in which the head of risk management participates, in order to provide ideas and guarantee that actions are consistent at Group level. Each Committee meeting is attended by the relevant entity manager and their main assistants. Functional managers affected by specific risks may also be invited, in particular managers from the Departments of Technology, Research and Development and Innovation, and Information Systems. Each Committee meeting handles the following matters:

- validation and monitoring of action plans, presented by the owner of each priority risk;
- validation of the key risk indicators, which ensures the relevance of new controls after closure of the action plan, and the on-going application of said controls; and
- updating of the self-assessment of priority risks.

The Group works collaboratively with its insurers to supplement this work of identifying industrial risks and to roll out continuity plans.

Additional information, especially on management measures for the main operating risks, is provided in Chapter 5, Section 5.2 “Management and risk tracking mechanism” of this Registration Document, which is an integral part of this report.

2. Connection between risk management and internal control

Internal control and internal audit rely on the results of the risk analysis, in order to improve the Group’s internal control mechanisms and define its internal audit plan, respectively.

3. Internal control

3.1 OBJECTIVES AND GENERAL PRINCIPLES OF INTERNAL CONTROL

The Group’s internal control system was developed and implemented with significant involvement from the Group’s staff. It aims to provide reasonable assurance that the following four objectives can be achieved:

- compliance with laws and regulations in force;
- proper application of the instructions issued and compliance with the policies laid down by the Management Board;
- proper operation of internal processes (in particular those relating to the safeguarding of assets); and
- accuracy of financial information.

The internal control process is constantly evolving in order to adapt to changes in the economic and regulatory environment and the Group’s structure and strategy. Independently of these developments, the key control activities for internal control processes and risk management are regularly reviewed.

In order to ensure the consistency of daily actions led worldwide on behalf of the Group, Vallourec has put in place a set of key internal control procedures. These constitute the basis for the internal rules which apply to all its employees and to its units.

At the heart of Vallourec’s internal control system, these procedures provide a framework for the actions of each employee. They relate, in particular, to ethics, compliance with laws and regulations, the delegation of authority, the confidentiality of information, the prevention of insider trading, the procedure for relations with the media and financial communication.

The organization of ethics and compliance now falls under the Group’s Legal Department. The position of Ethics and Compliance Officer is held by the Group’s Legal Director, who helps implement the Code of Ethics and determines, with the Ethics Committee, which she leads, the internal compliance policies. The Ethics and Compliance Officer reports to the Chairman of the Management Board.

The Ethics Committee is comprised of representatives from the functional departments (Legal, Purchasing, Human Resources, Share Ownership, etc.) and the operating divisions. It must hold meetings at least once per quarter in order to determine, at the initiative of the Ethics and Compliance Officer, the ethics and compliance guidelines and ensure they are effectively rolled out.

The Ethics and Compliance Officer relies on a network of 11 local ethics correspondents who are organized by geographic regions, as well as on the legal managers from the operating divisions or regions. These local ethics correspondents are tasked with disseminating the values and principles of the Group’s Code of Ethics in entities worldwide, and making sure that its internal procedures are properly applied. In 2015, management of the network of local ethics correspondents was strengthened: they participated in bi-monthly information meetings which were organized by the Ethics and Compliance Officer, at which internal procedures were presented, along with the current regulatory issues regarding the fight against corruption, or with regard to competition rules. In the United States, a telephone line was provided to employees who wished to anonymously provide information on non-compliance with ethics and compliance rules.

An ethics and compliance newsletter is disseminated monthly to the main senior executives of the Group, to Ethics Committee members, to local ethics correspondents and to the legal managers of regions or divisions.

In 2015, three new policies were adopted and rolled out within the Group: the policy relating to the use of sales representatives, the policy on gifts and invitations, and a policy relating to sponsorship and sponsoring, local partners, lobbying and political involvement. These procedures formalize the principles and guidelines that were already contained in the Global Legal Compliance Program, which has been rolled out globally since 2011.

Non-compliance with anti-corruption laws and regulations, or with competition rules, exposes the Group’s employees to disciplinary sanctions and termination.

3.1.1 Ethics

The Group’s ethical standards are formalized in its Code of Ethics.

The Code of Ethics is a set of core values that includes integrity and transparency, excellence and professionalism, performance and responsiveness, respect for others and mutual commitment.

It provides a framework for conducting the day-to-day activities of each employee through behavioral guidelines based on these values. These guidelines reflect the way that Vallourec seeks to manage its relationships with all of its partners and stakeholders, including its employees, customers, shareholders and suppliers, and constitute the Group’s reference in implementing its sustainable development and corporate social responsibility plans.

In 2016, an amended version of the Code of Ethics was adopted and rolled out within the Group to reinforce Vallourec’s commitments in the fight against corruption and respect for the rules of competition, while maintaining the values and principles of action with regard to its employees, partners, customers, suppliers and stakeholders. The amended version includes the guidelines already contained in the Global Legal Compliance Program and the procedures published in 2015.

Vallourec’s Code of Ethics applies to all Group consolidated companies. Each employee is personally responsible for implementing its values and principles and for complying with the rules it sets out.

The Group's various reporting lines ensure that it is communicated to all Group employees. For this purpose, it has been translated into six languages. It has also been published on the Company's intranet and website to affirm the Group's values with regard to third parties.

In order to allow the Group's new employees to review the Code of Ethics during their first few months at the Company, a specific e-learning program aimed at employees that have joined the Group since January 2012 was launched in April 2014. The goal of this program was to allow employees to better adopt the Group's ethical values and principles for issues relating to their daily professional practices.

The Code of Ethics is a founding document which contains certain guidelines and recommendations for the Group's employees to apply.

To support the application of the Code of Ethics by all employees, especially managers and executives, the Ethics and Compliance Officer has been assigned the following duties:

- assisting Group companies in communicating the Code of Ethics;
- coordinating actions to educate new employees on the Code of Ethics;
- helping to define the procedures for implementing the Code of Ethics;
- ascertaining any difficulties in interpreting or applying the Code of Ethics that are raised by staff; to that end, the Officer receives any information relating to breaches of the principles of responsibility; and
- preparing an annual report for the Chairman of the Management Board on the Code of Ethics' implementation.

3.1.2 Compliance with laws and regulations

Consistent with the principles set out in the Code of Ethics and the commitments of the Global Compact of the United Nations which the Group signed on to in 2010, Vallourec seeks to address specific risks relating to competition, the fight against corruption and respect for the environment within the framework of a Global Compliance program.

Developed and coordinated by the Group's Legal Department, this program aims to educate the Group's managers, mainly through internal training, on the applicable laws and regulations in these areas. It is designed to respond effectively to the risks they may face in their activities through detailed, informative and practical recommendations that can be understood by all.

Training activities continued worldwide in 2016, particularly in the Group's subsidiaries located in Germany, North America and Dubai. An e-learning program has also been rolled out since 2014, in an effort to raise awareness among all technical and supervisory staff, and managers of the Group, about the laws and regulations on competition, the fight against corruption and environmental protection.

The principles enumerated under the Global Compliance Program were formalized in 2015 in the internal procedures relating to sales agents, gifts and invitations, sponsorship and sponsoring, local partners, lobbying and political life.

3.1.3 Delegation of authority

The level of authority given to each manager within the Group must remain compatible with the maintenance of an overall level of control, the Group's strategy and the application of rules common to all Group entities.

To meet these requirements, the aim of the delegated authority procedure at Group level is to clearly define the prerequisite approval levels for the main commitments entered into by any Group entity. Delegations of authority may not contravene applicable statutory and regulatory provisions.

This procedure was fully reviewed in 2015.

3.1.4 Confidentiality of information

Against a backdrop of intense competition, the Group needed to make all employees aware of their obligations as regards confidentiality. Vallourec therefore drew up a Confidentiality Charter with the aim of enabling it to carry out its business under the best possible conditions in the face of competition and of protecting people working for Vallourec by informing them of the confidentiality obligations with which they must comply.

3.1.5 Prevention of insider trading

Vallourec has a Code of Good Conduct on the prevention of insider trading that may occur in connection with transactions in its shares.

This Code concerns not only Vallourec's corporate officers, but all of the Group's employees and partners.

Its objective is to ensure compliance with precautions in order to (i) protect staff at all levels by making them aware of stock exchange regulations and applicable penalties, so as to enable them to avoid being the subject of legal proceedings, (ii) protect Vallourec and the Group, in particular from the risks of damage to its image and reputation and a decline in the value of its shares, and (iii) retain the confidence of investors and maintain equality of treatment between shareholders.

The Group's Legal Director performs an ethics function, and is mainly in charge of overseeing compliance with the provisions of the Code of Good Conduct, although each employee involved is ultimately responsible for compliance with the applicable regulations. In particular, the Legal Director updates the insider lists required by current regulations and keeps them available for the French securities regulator (*Autorité des Marchés Financiers* – AMF). Insiders are required to refrain from trading Vallourec securities during closed periods and all persons possessing privileged information are required to refrain from trading securities even outside of closed periods.

3.1.6 Procedure for media relations

Vallourec defined procedures for relations with the media, as well as a set of best practices to be followed on social networking sites, which aim to safeguard the development of the Group's image and the promotion of its activities, while ensuring its messages are consistent and its reputation is protected.

All information for the media, whether provided or requested, and when it concerns, in particular, a press release, conference, interview or telephone call, is subject to an internal validation process.

Likewise, all activity on social networking sites must be conducted in accordance with the best practices that have been formally adopted by the Communications Department and posted on Vallourec's Intranet.

3.1.7 Financial communications

Vallourec has drawn up a financial communications procedure, which aims to ensure that the Group's system of providing financial information to the public complies with applicable statutory and regulatory provisions.

Annual and interim financial reports and quarterly financial information are the subject of an internal approval process prior to their release and filing with the AMF.

3.2 INTERNAL CONTROL MECHANISM

The Management Board sets the internal control policy and ensures it is implemented by the executive management of each Group entity.

To ensure the consistency of the Group's procedures worldwide, the Management Board relies on the functional departments to draw up procedures, give instructions and ensure compliance with them.

The Group launched a plan to strengthen its internal control mechanism over three years (2013-2015) in an effort to better structure and coordinate existing procedures.

In 2014, the Group focused specifically on preparing, disseminating and monitoring a self-assessment mechanism on internal control. This tool relies on a new set of internal control guidelines, which were developed by Vallourec using objectives which go beyond the reliability of financial information. These are based on an analysis of the risks inherent in key processes and on identifying their key control points. In preparing them, Vallourec relied on the COSO (Committee of Sponsoring Organizations of the Treadway Commission) recommendations in its 2013 edition, and on the provisions of the Reference Framework of the French securities regulator (*Autorité des Marchés Financiers*) in its 2010 edition. Specific controls were included to prevent fraud.

In 2016 the Group provided all of its managers and decision-makers with training on internal control. The objective is to strengthen the internal control culture of each of the managers/decision-makers. This enables them to closely adapt the internal control mechanism of their entity based on the guidelines and priorities given by the corporate Internal Control Department.

A new self-assessment session based on an improved questionnaire may be launched in 2017.

Moreover, the Internal Audit Department participates in these processes always with the objective of evaluating the quality of self-assessment of the level of internal control approved by each company manager through the evaluation of a predefined number of "key" checkpoints.

The existing internal control mechanisms are described in relation to the relevant key functions of the Vallourec Group below.

3.2.1 Internal control procedures regarding financial and accounting information

3.2.1.1 Financial and accounting reporting

Preparation of financial and accounting information is centralized based on the subsidiaries' financial statements, adjusted to comply with Group standards. The information is collected via reporting and consolidation software at all the consolidated subsidiaries.

The subsidiaries report monthly in the following month. Accounting consolidation is comprehensive and completed quarterly, within the same period of one month. The reporting of off-balance sheet contingent liabilities and commitments is an integral part of the quarterly consolidation process.

3.2.1.2 External financial information

Vallourec publishes quarterly information as at 31 March and 30 September each year, including, in particular, the consolidated statement of financial position and income statement. The preparation of the quarterly, interim and annual consolidations is the responsibility of the Management Board. The Statutory Auditors conduct an audit of the annual financial statements and a limited review of the interim financial statements. They generally do not audit the quarterly financial information.

3.2.1.3 Cash Management and Financing

The Cash Management and Financing Department is in charge of the Group's financing strategy and manages banking liquidity and access to market financing.

The Cash Management and Financing Department ensures that cash flow is optimized and controlled through:

- forecasts prepared by companies in the Group;
- centralizing euro, British pound, Chinese Yuan and US dollar cash flow at the main European companies;
- centralized cash management in Chinese yuan for the main Chinese companies at Vallourec Beijing Co. Ltd;
- centralized cash management in US dollars for some US companies at the level of Vallourec Holding, Inc.; and
- monthly cash management reports in Brazilian real at the Brazilian companies.

Long-term (more than one year) financing and investment are managed by the Cash Management and Financing Department. Financing and investments of less than one year are delegated to subsidiaries according to a specific Group procedure: quality of the banks involved, risk-free investment, and monitoring of the financial guarantees given.

It is also responsible for foreign exchange and interest rate risk management.

To this end, currency hedging operations for sales in the US dollar, British pound, Chinese yuan, Norwegian krone and Canadian dollar are centralized for the Group's main companies.

Currency and currency hedging operations are governed by rules established by the Group's Cash Management and Financing Department and, more generally, all the cash management operations specific to each company are conducted within the framework of a general cash and risk management policy.

The Cash Management and Financing Department ensures debts, investments and foreign exchange transactions of subsidiaries are tracked. As part of this tracking, it prepares a monthly report which is sent to the Management Board.

3.2.1.4 Procedures and instructions for financial and accounting reporting

With the objective of producing high-quality financial and accounting information, Vallourec has established procedures and instructions tailored to its French and foreign subsidiaries. These procedures are classified by topic and deal mainly with accounting, cash and cash equivalents, and reporting issues, and with the IFRS framework.

Details of the procedures are available on an intranet site that can be consulted by all of the Group's finance staff.

To ensure consistency between financial and accounting data on the one hand, and management tools and rules on the other, the Group has drawn up a set of procedures in a Management Manual, summarizing the definitions, principles and rules for management control and for the production of financial information. This document is disseminated among employees who are in charge of preparing and controlling management and financial information. Its purpose is to contribute to the quality and consistency of this information.

3.2.2 Other key internal control mechanisms

3.2.2.1 Industrial capital expenditure

The Management Board reviews the Group's capital expenditure position presented by the Capital Expenditure and Major Projects Department several times per year. It examines budgets, capital expenditure authorizations, and actual and forecast expenses.

According to the procedure, "Management of CAPEX projects", projects with an expected cost of over €1 million follow a specific qualification and authorization process through three stages of "Front End Loading".

The Qualification Committee includes the Group's experts, examines the fundamental aspects of the projects at each of the three stages (market assumptions, technical choices, budget, planning and risks) and meets once a month under the aegis of the Capital Expenditure and Major Projects Department. The Authorization Committee brings together either the Director of Capital Expenditure and Major Projects and the Director of Management Control for projects over €1 million, or the members of the Management Board for projects of more than €3 million or €5 million (1). During these committee meetings, the projects are compared in terms of alignment with strategy, profitability and risks, all within the framework of the Group's budget.

The Capital Expenditure and Major Projects Department participates as a member of the steering committees for major industrial projects in progress, in order to implement "best practices" of governance and management. The goal is to reliably complete these projects in line with expected costs, quality and time frames.

The Capital Expenditure and Major Projects Department carries out a monthly check on compliance with annual objectives and, in conjunction with the Divisions concerned, ensures that corrective measures are taken if any discrepancy is noted.

A posteriori controls are carried out on expenses, expected objectives and the profitability of capital expenditure projects at the initiative of the Capital Expenditure and Major Projects Department, and with the support of the Management Control Department. Such controls are performed on all projects that were authorized in earlier years and involve production.

Furthermore, in order to extract useful lessons from the Group's project management experiences, the Strategy Committee examines the conditions under which capital expenditure projects were implemented, upon their completion.

3.2.2.2 Management system

Vallourec has management systems (Vallourec Management Systems – VMS), which are implemented at all Group companies. VMS has been structured around seven main components:

- the Human Resources management system including, in particular, the Talent 360 system, on which the management of performance, annual interviews and professional interviews depend;
- the CAPTEN+ Safe program, which coordinates all actions to continuously improve work safety;
- programs related to Sustainable Development, following the commitments of the Group's Sustainable Development Charter;
- management systems contributing to Industrial Excellence, which specifically comprise the Quality Management and Lean Management systems. Lean Management aims to improve performance in terms of productivity, level of stock and time to complete orders;
- systems that include activities related to excellence in sales, including Marketing, Key Account Management, and the implementation of Valued Offers;
- research and development systems, through the innovative project management system; and
- the major projects management system described in the Group's Qualification and Authorization Management Handbook, which coordinates the activities and deliverables required for managing industrial investments.

In addition to the control of processes and continuous improvement, VMS is responsible for ensuring that initiatives are consistent with the aims of the Group's strategic plan.

The functional departments assist the Group's entities in rolling out VMS, sharing and capitalizing on "best practices", and developing managers' expertise.

3.2.2.3 Quality – safety

Quality

The Group's Quality Department is in charge of defining the applicable standards in the Group as a whole, in terms of the quality performance levels to be achieved and the specific tools and methods to be implemented in order to continuously improve the quality of products and control over the manufacturing process. It handles promotion of these standards, assists with their implementation, sets up the necessary training programs and oversees the sharing of best practices. Through the visits it carries out at all Group sites, in addition to the audits carried out by external certification bodies, it ensures these practices are well understood and properly applied to all processes which contribute to customer satisfaction.

The Vallourec Quality approach takes into account the requirements of the most stringent standards, in particular those relating to standardization, problem resolution, the control of variations in quality and risk prevention.

(1) Limit of €5 million for the UPSTREAM, OCTG NA, OCTG EAMEA, VSB divisions; limit of €3 million for the Drilling Products, Industry, Powergen and Pipe Project Divisions.

Within the context of VMS (see above paragraph 3.2.2.2) the Quality Department establishes the systems, methods and tools applicable in the Group, in compliance with the quality management requirements (ISO 9001 or ISO/TS 16,949, API, ASME, etc.).

Safety

Driven by a determination to act on all safety levers, in 2016 Vallourec continued its three-year program on safety improvement.

Known as "CAPTEN+ Safe", this program falls within the framework of VMS, and is consistent with the following three basic principles: the commitment of management as a whole, the involvement of all employees and the establishment of appropriate follow-up indicators (see Section 4.2.2.1 "Safety" of this 2016 Registration Document).

Sharing the Management Board's concern regarding safety, the Supervisory Board starts each of its meetings with a progress review of safety performance.

Within the context of VMS (see above paragraph 3.2.2.2), the Safety Department establishes the systems, methods and tools applicable in the Group, in compliance with the safety management requirements (OHSAS 18001).

3.2.2.4 Sustainable development

Sustainable Development is managed within Vallourec by the Sustainable Development Department, which is related to the Group's Legal Director, General Secretary and member of the Group Management Committee.

In 2014, the Sustainable Development Department presented the Group Management Committee with a five-year strategic plan. Its main provisions, approved by the Supervisory Board during its meeting of 30 July 2014, were incorporated into the Company's strategic guidelines. This plan was again presented to the Group Management Committee on 4 July 2016 to report on its progress and propose new actions. The conditions for implementation of the Health and Environmental policies were communicated to the Supervisory Board in May 2016.

Its main role is to mobilize the Regions and functions to make progress in sustainable development and social responsibility.

Whenever necessary the Sustainable Development Department submits the decisions to be implemented by the Divisions and functional departments to the Group Management Committee.

The Sustainable Development Department is in charge of communicating the information required pursuant to the Law of 12 July 2010, the "Grenelle 2" Law and its implementing regulations, the purpose of which is to emphasize the Company's commitment to corporate social, environmental, societal and ethical issues, as well as the progress achieved. This information has been included in Chapter 4 of this Registration Document.

The Sustainable Development Department is directly responsible for environmental actions. It coordinates and leads the initiatives of those responsible for HSE in the Regions and business units. They are tasked with the particular duty of ensuring compliance with applicable laws and regulations on operations, and with improving environmental performance pursuant to Vallourec's Sustainable Development Charter and the Group's Environmental Policy, which in particular concerns water, waste, hazardous products, emissions and noise. Annual or bi-annual audits, depending on the importance of the sites, are conducted locally. An environmental performance report is published every quarter for the managers concerned. In 2016 the Group installed new a software application specifically for the management of environmental data and safety. This application now simplifies the collection and verification of data and offers new features to the sites that help them with their own local reporting.

The goal of ISO 14001 certification for all production sites is close to being achieved and the Jeceaba site in Brazil is expected to be certified in 2017. An environmental compliance plan will also be developed for the newly-acquired Tianda.

The Sustainable Development Department is also leading the energy performance improvement program, which has an objective of reducing specific consumption by 20% by 2020, based on 2008 production guidelines. This objective is maintained in the context of the Group's new industrial footprint. To this end, it adjusts practices and ensures that the operational entities invest in new energy-efficient equipment. These actions were also aimed at reducing greenhouse gas emissions.

Since 2013, numerous sites, including Barreiro, Saint-Saulve, Vallourec Deutschland, and Vallourec Oil & Gas UK Ltd, and Vallourec Changzhou Co. Ltd in China have obtained ISO 50001 certification for energy management. The Youngstown and Jeceaba sites should also be certified in the short term.

3.2.2.5 Research and Development

The RDMI Department, which comprises the R&D, Marketing and Innovation Departments, established procedures at Group level concerning the management of research and development projects for new products industrial processes and services, portfolio management of Division projects, and the Group's idea generation process ("Front End Innovation"). The processes are applied in a consistent manner by the entities concerned, particularly as regards intellectual property.

Selected projects benefit from training actions and specific assistance engagements carried out by experienced professionals. The Divisions' project portfolios are monitored according to various criteria, in particular for potential challenges and risks.

3.2.2.6 Purchasing

In 2016, the Purchasing Department pursued and consolidated its internal control continuous improvement process. This process occurs at the stage of the initial purchase (product evaluation, selection of suppliers and contracts) through processing (receipt of the necessary quantities at the price agreed to and under the determined delivery and payment conditions).

At the start of the process, the Purchasing Department centralizes the analysis of all purchases in order to have good visibility on the most strategic goods and services among the Group's purchases. It has set up a new and specific information system to ensure that visibility. On this basis, purchase strategies are determined in cooperation with internal customers and validated by management. Taking commercial practices into account, it focuses on precisely formalizing the contracts and orders to avoid later disputes.

In an effort to make competitive, high quality, and responsible purchases, suppliers are selected based analytical matrices. These simultaneously consider the financial health of the suppliers, their level of social and environmental responsibility and, of course. the criteria of quality, lead times and overall cost.

At the end of the purchase process, and in addition to the control of supplier invoices, a quality control process is likewise conducted for the products or services that require it. Purchase orders, receiving controls and supplier payments are rigorously carried out by different entities.

A process is in place to systematically assess supplier risk. Monthly reviews are carried out to ensure that all actions are being taken to minimize and then eliminate these risks.

In order to prevent any conflicts of interest and any unethical relations between the Purchasing Department and suppliers, every major purchase has to be approved by the internal client and the Purchasing Department, which issues a decision based on a comparative analysis of offers and suppliers.

The emphasis on formalizing procedures and training the buyers, mainly by e-learning, has also allowed the entire Purchasing Department to gain further knowledge on risk management and internal control.

3.2.2.7 Information systems

The multi-year audit plan for the information system security of the Group was renewed for the 2014-2018 period, and its scope was expanded to new regions, such as the Middle East.

In 2014, the Information Systems Department strengthened its capacity to detect attempts at intrusion by putting in place network observation mechanisms for all regions. In 2015, the mechanisms were extended in France to improve coverage of sites.

A plan concerning industrial safety, primarily that of the lower IT levels of the plants, which are close to production workshops, progressed in France.

The roll-out of a hard drive encryption solution for laptops continued.

A strengthened analysis system for messaging was established in addition to the classic measures.

The commissioning of the SAP application at Vallourec Star, LP and its roll-out at Vallourec Oil and Gas France was successfully completed.

A plan to harmonize financial reporting, and the adoption of a standard accounting plan for all of the Group's units, was executed and a software program to track and manage suppliers for Purchases was set up and centralized.

Actions to educate employees on protecting information and support for major projects related to risk management and internal control included:

- performance and follow-up of the action plan for an internal control campaign for all regions of the Group;
- development of a Group IT Charter with the aim of strengthening users' best practices;
- pooling of CNIL (French data privacy agency) practices with the Legal Department;
- a training program on protecting information; and
- updating of the guidelines for IT security rules and procedures, which are published under the Group guidelines available on the intranet.

3.2.2.8 Human Resources

The Human Resources Department relies on an internal control process for all of its functioning: the performance of its duties, training and skills management, the working environment, compliance with the Vallourec Group's internal regulations and the prevailing statutory and regulatory provisions, compensation management and the protection of privacy and information regarding the Company and its employees.

Within the context of talent management, the Human Resources Department identifies key positions in the Group, analyzes the risks of misconduct, and then consequently prepares development and succession plans. Furthermore, Human Resources (HR) management ensures that there is an available group of people who have the necessary expertise and abilities to perform the duties with which they have been entrusted.

Various control activities relating to the Human Resources process are monitored in cooperation with the Group HR Director.

HR managers participated in training and workshops provided in 2016 in their reporting entity and within their function, taking responsibility, whenever necessary, for the improvement action plans that resulted from these sessions.

3.2.2.9 Commercial relationships

With the aim of specifying and formalizing certain practices regarding contractual relations with its customers, Vallourec has developed a procedure for managing customer risk (limits regarding credit and delegation of authority, and credit insurance) and drawn up general sales terms to be applied by all Group entities, in order to make practices consistent throughout the Group and reduce risk exposure.

Divisions' procedures for reviewing contracts and candidates for invitations to tender were reviewed in 2012, in order to roll out a new tool to evaluate and summarize the legal risk associated with sales. The rolling out of this new tool improves the effective analysis of the legal conditions that apply to sales contracts signed by the Group's subsidiaries with their customers, and allows discrepancies in relation to the Group's standards to be precisely managed and related statistics to be recovered. The general conditions and standard documents are regularly updated in order to monitor changes in the market and regulations.

Furthermore, the Legal Department and the Risk Management Department are working together closely. They are providing monitoring in order to identify "best practices" for managing the contractual legal risk, with a view towards ongoing improvement.

3.2.2.10 Insurance policies

The main industrial risks are covered by two types of Group insurance:

- a general insurance policy (direct material damage to Group property, not subject to specific exclusions, as well as any resulting costs and consequential losses); and
- a third-party liability insurance policy (liability arising as a result of injury or loss caused to third parties during operations or after delivery or service).

4. Scope of risk management and internal control

Risk management and internal control are rolled out in all companies in which Vallourec directly or indirectly holds the majority of share capital. Companies whose shares are listed or under joint control have an appropriate system and internal control structure, consistent with current local legislation.

Newly acquired entities are incorporated into the internal control system in the year following their acquisition.

5. Entities and persons involved in risk management and internal control

5.1 THE MANAGEMENT BOARD

The Management Board, acting directly or by delegation, is responsible for the quality of the internal control systems and risk management. It designs and implements the internal control and risk management systems which have been tailored to the Group, its activity and organization, and in particular defines relevant roles and responsibilities within the Group.

It conducts on-going oversight of internal control and risk management systems with the dual objective of preserving their integrity and improving them – in particular by adapting them to structural changes and the business environment. It initiates any corrective action necessary to correct issues that are identified and stays within the scope of the accepted risks. It ensures that these actions are properly conducted.

The Management Board makes sure that the appropriate information is communicated within the desired period of time to the Supervisory Board and Audit Committee.

5.2 THE SUPERVISORY BOARD

The Supervisory Board is informed of the basic characteristics of the internal control and risk management mechanisms retained and implemented by the Management Board to manage risks: the organization, roles and duties of the main players, the process, risk reporting structure and operational follow-up of the control mechanism. It acquires an overall understanding of the procedures relating to the preparation and processing of the accounting and financial information.

The Supervisory Board sees to it that the major risks identified, which have been incurred by the Group, are addressed by its strategies and objectives, and that these major risks are taken into account in the Group's management.

In particular, the Supervisory Board verifies with the Management Board that the mechanism for managing the internal control and risk management systems is sufficient to ensure the reliability of the Group's financial information and provides a true and fair view of its results and financial position.

5.3 THE FINANCE AND AUDIT COMMITTEE

In conformity with Article L.823-19 of the French Commercial Code (*Code de commerce*), the Finance and Audit Committee is responsible for the following:

- monitoring the process of preparation of financial information;
- monitoring the effectiveness of the internal control and risk management systems as well as the internal audit system, regarding the procedures for the preparation and processing of accounting and financial information, without prejudice to its independence;
- issuing a recommendation to the Supervisory Board on the Statutory Auditors proposed for appointment by the Shareholders' Meeting;
- monitoring the Statutory Auditors in the completion of their assignment, particularly the statutory audit of the parent company and consolidated financial statements;
- ensuring compliance with the requirements for the independence of Statutory Auditors and taking the necessary steps to comply with the rules on capping audit fees for services other than certification of the financial statements; and
- approving the provision by the Statutory Auditors of services other than certifying the financial statements, where such services are not prohibited.

The Finance and Audit Committee ensures that the internal control and risk management systems are effectively monitored, based on the information that is communicated to it by the Management Board, or which it requests. It ensures there are internal control and risk management systems, and that they are used, and makes sure that the weaknesses identified are addressed by corrective actions. Conversely, it does not take part in implementing said systems.

In order to carry out its role of monitoring the effectiveness of the internal control and risk management systems - and internal audit, regarding the procedures for the preparation and processing of accounting and financial information - the Finance and Audit Committee takes formal note of the results of the internal audit and external audit work conducted on these subjects, in order to ensure that if any problems are detected, appropriate action plans are put in place and thoroughly implemented.

5.4 HEAD OF RISK MANAGEMENT AND INTERNAL CONTROL

The head of risk management and internal control ensures that the overall risk management process, as defined by the Management Board, is rolled out and implemented. To that end, it puts in place a structured, permanent and adaptable mechanism which aims to identify, analyze and address the main risks. It carries out the risk management system and provides methodological support to the Company's operational and functional departments. In 2014, Vallourec adopted a new "Internal Control" function which is shared with the Risk Management function. This allowed it to go from development to a sustainable structure in 2015, with the aim of strengthening the internal control culture within the Group. In 2016, training provided to all Group executives strengthened the internal control culture at Vallourec.

5.5 INTERNAL AUDIT DEPARTMENT

The Group's Internal Audit Department is an independent and objective entity, which reports to a member of the Management Board. Its purpose is to handle all topics, without restriction.

The Internal Audit Department, whose duties, powers and responsibilities are formally specified in an Internal Audit Charter, helps the Group achieve its objectives by evaluating, using a systematic and methodical approach, the proper implementation of internal control and risk management mechanisms. It identifies the weaknesses of these mechanisms, issues proposals for corrective actions, and makes sure, until they are resolved, that the audit points noted are addressed with proper follow-up.

The Internal Audit Department may also participate in specific engagements, such as operations relating to business acquisitions or disposals, project assistance, or investigation.

In order to draft its annual audit plan, the Internal Audit Department takes into particular consideration the Group's risk mapping, as well as the requests of the Management Board and the heads of Divisions and functional departments. The purpose of the annual audit plan that is prepared using these methods is to audit all of the Group's entities in which it directly or indirectly holds a majority interest, over a 3 or 4-year period.

At the end of each audit, the Internal Audit Department issues a report which leads to recommendations, which are systematically followed up on. It simultaneously reports on its work and findings, as well as on the degree of progress of action plans, by presenting summaries to the Finance and Audit Committee on a semiannual basis.

The Internal Audit Department implements an on-going improvement procedure with the aim of improving the internal audit process.

5.6 EMPLOYEES

Each employee concerned, and in particular the heads of Divisions, Regions and functional departments, has the necessary information to operate and oversee internal control and risk management systems, with regard to the responsibilities and objectives he/she has been assigned.

Vallourec's core values also include an ethical component in terms of conduct, the requirements of which are relayed by the Group's Code of Ethics, which applies to all levels of the Company (See paragraph 3.1.1. above).

6. Role of the Statutory Auditors

The Statutory Auditors formally examine the internal control and risk management mechanisms, relying on internal audit work to obtain a greater understanding and to formulate, completely independently, an opinion as to their effectiveness.

They certify the financial statements and, within this context, can identify during the fiscal year significant risks and major weaknesses in internal control which could have a significant impact on accounting and financial information.

They present their observations on this Report of the Chairman, and on the internal control procedures which relate to the preparation and treatment of the financial and accounting information, and attest to the preparation of other information required by law.

7. Limits of risk management and internal control

In contributing to the effectiveness of its operations, the efficient use of its resources and the control of risk, the Group's internal control and risk management system plays a key role in the management and supervision of the Group's various activities. However, like any system of control, it cannot guarantee that the Group's objectives will be achieved or that all risks, in particular, of error or fraud, will be totally eliminated or contained.

The Group's international profile requires complex processes at entities with different levels of maturity in terms of internal control, evolving in a variety of legal environments, and running different information systems. In this context, Vallourec faces risks related to internal control, that could lead to inaccurate and/or inappropriate transactions or operations being carried out. Vallourec could also be the victim of fraud (theft, embezzlement, etc.). However, Vallourec has developed a structured and formalized process to review its internal control on an on-going basis, as the developments of this report attest. This approach is based on a set of rules and procedures circulated to all subsidiaries. Reviews and regular audits are conducted to make sure they adhere to them. These rules and procedures are regularly updated to ensure they are in line with changes in Vallourec's processes. Vallourec's fundamental values also incorporate an ethical behavior component, the requirements of which are set out in the Group's Code of Ethics, effective since 2009 and widely circulated to all staff. It applies to all Company levels.

E – Financial risks related to climate change and measures taken by the company to limit them by implementing a low-carbon strategy in all aspects of its business

a) Risks to facilities

Physical risks directly related to climate change, namely the risks of flooding, heat waves, prolonged droughts, periods of frost, disruption of water resources, storms and hurricanes, could have the effect of damaging the Group's facilities or degrading the conditions under which the sites are operated. In addition, the unique ecosystem of Group-operated forests could change or weaken over the long term.

In 2014, the Group conducted a study of the risks related to the consequences of climate change, distinguishing eight regions with distinct climate characteristics. For each of these risks, a probability of occurrence was estimated, and the extent of the consequences was evaluated.

The industrial managers at each of the Group's regions have been sensitized to this issue. Each industrial site is in charge of further examining, at a local level, the risks that have thus been identified, and of constructing an adjusted adaptation plan. This kind of strategy, which starts from a general approach before focusing on the situations deemed to be most critical, will be updated in 2018 to take into account the Group's new industrial footprint, the evolution of relevant risks and the precision of their assessment.

b) Risks to the upstream and downstream supply chain

The supply chain is also likely to be impacted by exceptional weather events that could interrupt our supplies and disrupt the Group's activities (limitation of river or rail traffic, reduction of the supply of energy, etc.).

In this context, the Supplier Quality and Performance Department has in the last three years put in place many tools and processes aimed at better managing its suppliers. Across the globe, it is carrying out several hundreds of audits and risk analyses. These audits, particularly those that focus on CSR commitments, will enable the Group to assess how climate risk is taken into account by its main suppliers and subcontractors.

c) Risks of costs induced by emission control systems

The Group's European steel and tube mills fall within the scope of the European Parliament Directive which established a trading system for greenhouse gas emissions. To date, the free emissions quotas allocated have been greater than the amount of the Group's emissions, so that it has not incurred any direct charges. However, the mechanism currently being discussed, which will apply from 2020, is expected to be more stringent and contribute to the establishment of a higher price level for carbon than today, which will impact the Group directly, but also indirectly through its steel and electricity suppliers. The measures taken consist, first, in working with professional organizations, to promote the interests of companies in the current discussion; second, in pursuing the reduction of the Group's emissions as part of the energy savings plan; and third, in applying a virtual carbon price to the Group's major investments to ensure that the profitability of these investments will not be materially impacted after the new mechanism enters into force.

F – Principles and rules for determining the compensation of corporate officers

The principles and criteria for determining, distributing and allocating the fixed, variable and exceptional elements of the total compensation and benefits attributable to members of the Management Board and members of the Supervisory Board for their service are shown in Chapter 7 of this 2016 Registration Document (Appendix 2.1 of said Chapter 7), the Supervisory Board report on the 2016 compensation of members of the Management Board (Appendix 2.2 to Chapter 7) and the press release dated 22 February 2017, which is available on Vallourec's website (www.vallourec.com), which form an integral part of this report.

G – Corporate governance

The Supervisory Board decided in 2008 to adopt the AFEP-MEDEF Corporate Governance Code, as amended for application to limited-liability companies managed by a Supervisory Board and a Management Board. The conditions in which the Company applies these recommendations are detailed in the summary table in Appendix 3 to Chapter 7 of this 2016 Registration Document, which is an integral part of this report.

The AFEP-MEDEF Corporate Governance Code is available on the MEDEF's website (www.medef.com).

Appendix 2.1 – The Supervisory Board's report on the compensation policy for corporate officers

This report was drafted in application of Article L.225-82-2 of the French Commercial Code, in view of the vote of shareholders at the Shareholders' Meeting on 12 May 2017, on the principles and criteria for the determination, distribution, and allocation of the fixed, variable, and special components of the total compensation and benefits attributable to the Chairman and to members of the Management Board and to the Chairman and members of the Supervisory Board for fiscal year 2017 for their service.

The compensation and benefits policy for the Chairman and members of the Management Board and the Chairman and members of the Supervisory Board is determined by the Supervisory Board, at the proposal of its Appointments, Compensation and Governance Committee (the "CNRG"), to have such compensation seen as fair and balanced by both shareholders and employees.

Vallourec operates worldwide on the seamless tube production market, a sector that requires specific expertise developed by only a limited number of talented people. Having people who have high potential and the capacity to face ambitious challenges is essential for ensuring the Group's profitability and for generating value. The compensation and benefits policy aims to attain this objective by allowing the Group to attract and retain the most talented people, whose contributions help create more value for shareholders.

1. Governance regarding the compensation and benefits policy for the Chairman and members of the Management Board and the Chairman and members of the Supervisory Board

The compensation and benefits policy for the Chairman and members of the Management Board and Chairman and members of the Supervisory Board is reviewed each year. It is determined by the Supervisory Board, at the proposal of the CNRG. The definition of this policy takes into account the work accomplished, the net profits obtained and the responsibility assumed, and relies on analyses of the market context, which are in particular based on compensation and benefits surveys conducted by outside consultants.

1.1 THE COMPOSITION AND ROLE OF THE APPOINTMENTS, COMPENSATION AND GOVERNANCE COMMITTEE IN TERMS OF THE COMPENSATION AND BENEFITS FOR THE CHAIRMAN AND MEMBERS OF THE MANAGEMENT BOARD AND CHAIRMAN AND MEMBERS OF THE SUPERVISORY BOARD

As at 31 December 2016, the CNRG consisted of four members, three of whom are independent and one of whom represents employee shareholders. The Committee has no executive corporate officers from the Vallourec Group, and is chaired by an independent member. Its members are:

- Mr. Pierre Pringuet, Chairman, independent member, Vice-Chairman of the Supervisory Board and Lead Member;
- Ms. Laurence Broseta, independent member;
- Ms. Pascale Chargrasse, representative of employee shareholders; and
- Ms. Alexandra Schaapveld, independent member.

In terms of compensation and benefits for the Chairman and the members of the Management Board, the CNRG:

- prepares the annual evaluation of the Chairman and the members of the Management Board;
- proposes to the Supervisory Board the principles of the compensation and benefits policy for the Chairman and members of Management Board, and in particular the criteria for determining its structure and the level of this compensation (fixed and variable annual, medium- and long-term portions), including benefits in kind, and insurance or pension benefits;
- proposes to the Board the number of performance shares and share subscription or purchase options allocated to the Chairman and to each member of duties for the Chairman and the members of the Management Board;
- drafts proposals for the Board regarding the mechanisms that are linked to the termination of Management Board's chairman and members duties.

In terms of the compensation and benefits for members of the Supervisory Board, the CNRG:

- proposes to the Supervisory Board the principles and criteria of compensation and benefits policy for members of the Supervisory Board, including the breakdown between the fixed portion and the portion based on attendance fees, and the structure of the compensation of the Chairman and Vice-Chairman of the Supervisory Board.

In order to ensure consistency between the compensation and benefits paid to the Chairman and members of the Management Board and those prevailing within the Group, the CNRG examines the policy for allocating performance shares and share purchase or subscription options to managers and executives and/or employees of the Group, and is informed of the compensation policy for members of the *Executive Committee* and, more generally, of the compensation policy for the Group.

The 2016 Registration Document contains a description of the CNRG's activity over the course of the last fiscal year.

In order to prepare its work on compensation, the CNRG may request outside studies, and in particular compensation surveys, so that it can assess market conditions. It selects and manages the consultants concerned, in order to ensure they are competent, and monitors their independence and objectivity. The fees for these consultants are paid out of the Supervisory Board's budget, which is reviewed annually by the Board. The CNRG itself determines the composition of the reference panels.

The CNRG likewise meets with the heads of the functional departments, in particular the Human Resources Department and the Legal Department, with which it organizes inter-departmental meetings to ensure that its work is consistent with the Group's social and governance policies.

In preparing its work, the CNRG invites experts in governance and engineering in the area of managerial compensation and benefits to share their know-how and experience at dedicated work meetings, which are also attended by the functional department heads.

Ahead of the actual meetings of the CNRG, the Chairman of the CNRG has discussions with the requested consultants and other members of the CNRG, and holds several work meetings with internal staff supervisors in order to ensure that all of the issues examined by the CNRG are documented in an exhaustive and pertinent manner.

The CNRG also enlists the expertise of the Finance and Audit Committee to determine and assess the pertinence of the quantitative financial criteria for variable monetary compensation and medium- and long-term incentive instruments allocated to the Chairman and to members of the Management Board.

The CNRG reports verbally on its work during the Supervisory Board's meetings. A written report of each meeting of the Committee is established by the secretary of the Committee, under the authority of the Chairman of the Committee, and is sent to Committee members. It is included in the Board meeting files after the meeting during which the report is drafted.

1.2 THE ROLE OF THE SUPERVISORY BOARD IN TERMS OF THE COMPENSATION AND BENEFITS FOR THE CHAIRMAN AND MEMBERS OF THE MANAGEMENT BOARD AND THE CHAIRMAN AND MEMBERS OF THE SUPERVISORY BOARD

- **Compensation and benefits for the Chairman and members of the Management Board**

The Supervisory Board, upon the CNRG's recommendations, establishes all components of the short and long-term compensation and benefits for the Chairman and members of the Management Board (fixed portion, variable portion, equity instruments – performance shares and stock options), as well as benefits in kind, and insurance or pension benefits, along with specific departure schemes.

When a report of the CNRG's work on Management Board Chairman and members compensation and benefits is presented, the Supervisory Board deliberates on the compensation of the Chairman and members of the Management Board when said members are not present.

All potential or acquired elements of compensation and benefits for the Chairman and members of the Management Board are made public after the Board meeting at which they were decided, by adding them to Vallourec's website.

- **Compensation and benefits for the Chairman and members of the Supervisory Board**

The Supervisory Board, upon the CNRG's recommendations, establishes all components of the compensation and benefits for members of the Supervisory Board. It distributes the attendance fees between its members based on the annual budget authorized by the Ordinary Shareholders' Meeting, and determines the compensation awarded to the Chairman and Vice-Chairman of the Supervisory Board.

When a report of the CNRG's work on the compensation awarded to the Chairman and Vice-Chairman of the Supervisory Board is presented, the Supervisory Board deliberates when said officers are not present.

2. Supervisory Board policy on the compensation and benefits for the Chairman and members of the Management Board

2.1 GENERAL PRINCIPLES OF THE BOARD POLICY ON THE COMPENSATION AND BENEFITS FOR THE CHAIRMAN AND MEMBERS OF THE MANAGEMENT BOARD

The Supervisory Board conducts an overall assessment of the elements of compensation and benefits for the Chairman and members of the Management Board and its decisions are governed by the following principles:

- **recognition of short, medium and long-term performance:** the compensation and benefits structure for the Chairman and members of the Management Board contains a variable monetary portion which is based on performance for the fiscal year ended (short-term performance) and equity instruments which reflect performance over a three-year term regarding performance shares, and a four-year term, regarding stock options (long-term performance); the performance criteria used correspond to the company's financial and operational objectives;
- **a balance between fixed, short-term variable and medium and long-term variable compensation and benefits:** the CNRG ensures a balance between the three components of the compensation and benefits (fixed portion, annual variable portion and medium- and long-term incentive equity instruments);
- **competitiveness:** the Supervisory Board ensures that compensation is tailored to the market in which Vallourec operates. To that end, the CNRG analyzes the data of a panel of listed companies which are comparable with regard to revenue, staff, international establishment and market capitalization. Within this context, the desired target compensation and benefits for the Chairman and members of the Management Board would be close to the sample median;
- **consistent compensation and benefits among all members of the Management Board:** the compensation and benefits of the Chairman and members of the Management Board is set according to their responsibilities within the Group, complying with a ratio of reasonable proportion, in order to encourage the collegial commitment of the Management Board as a whole towards the Group;
- **consistency with the prevailing structure of employee compensation and benefits within the Group:** a significant portion of the Group's managers and executives benefit from a compensation and benefits structure which, like that of the Chairman and members of the Management Board, contains a fixed portion and a variable portion, along with long-term incentive equity instruments.

2.2 STATUS OF THE CHAIRMAN AND MEMBERS OF THE MANAGEMENT BOARD

The Chairman of the Management Board does not have an employment contract.

Members of the Management Board may hold employment contracts for which performance has been suspended during their term of office on the Management Board.

2.3 COMPONENTS OF THE COMPENSATION AND BENEFITS OF THE CHAIRMAN AND MEMBERS OF THE MANAGEMENT BOARD

2.3.1 Weight of the components of the compensation and benefits of the Chairman and members of the Management Board

The primary components of the compensation and benefits of the Chairman and members of the Management Board, along with their purposes, are defined as follows:

Component		Purposes
Fixed portion		Role and responsibility
Variable portion		Linked to short-term performance by the achievement of annual objectives
Medium- and long-term incentive equity instruments	Performance shares	Linked to medium-term performance and alignment with Shareholders' interests
	Stock options	Linked to long-term performance and alignment with Shareholders' interests

The Supervisory Board ensures balance of the compensation and benefits between the three components (fixed portion, annual variable portion and long-term incentive equity instruments). The weighting for each of these components is one-third, provided that the amount of the variable portion is integrated in the target and the medium- and long-term incentive equity instruments are valued at their carrying amount for a target achievement.

2.3.2 Fixed portion of the Chairman and members of the Management Board

The fixed portion is reviewed every year based on the responsibility assumed by the Chairman and each member of the Management Board and on Vallourec's business sector, which is cyclical by nature.

To that end, the CNRG relies on compensation surveys conducted by outside consultants. It sets up the panel and makes adjustments as necessary according to revenues, market capitalization and sector of business of the companies on the panel, in order to ensure complete comparability and thus a high correlation between the fixed portion and the Group's size.

In addition, since the variable portion is based on the fixed portion, the Supervisory Board devotes particular attention to ensuring that the fixed portion is reasonable in application of the principles described in point 2.1 above.

The Supervisory Board also ensures that changes in the fixed portion for the Chairman and members of the Management Board appear moderate as compared to the overall wage increases of French employees over the same period.

By way of example for fiscal year 2017, the fixed portion for Mr. Philippe Crouzet, Chairman of the Management Board, amounted to €798,000 and has remained unchanged since 2014, the fixed portion for Mr. Jean-Pierre Michel, member of the Management Board, amounted to €450,0000 and has remained unchanged since 2012, and the fixed portion for Mr. Olivier Mallet amounted to €420,000 and has remained unchanged since 2014.

2.3.3 Variable portion of the Chairman and members of the Management Board

The variable portion aims to associate the Chairman and the members of the Management Board with the short-term performance of the Group. Its structure is reviewed and determined every year by the Supervisory Board, upon recommendations from the CNRG.

Determined on an annual basis, it corresponds to a percentage of the fixed portion and contains minimum thresholds, below which no payment is made; target levels when the objectives set by the Supervisory Board are met, and maximum levels when target objectives have been exceeded.

With regard to the 2017 fiscal year, the variable portion of the Chairman of the Management Board may vary from 0 to 100% of his target fixed portion and reach 135% of this same fixed portion in the event that maximum objectives were attained. For the members of the Management Board, the variable portions may vary from 0 to 75% of their target fixed portions and attain 100% in the event that maximum objectives were achieved.

The variable portions are subordinate to achievement of several precise and previously established objectives of a quantifiable or qualitative nature, for which the minimum, target and maximum thresholds are set by the Supervisory Board, upon recommendation from the CNRG. The quantifiable criteria are predominant.

The objectives taken into account to determine the variable portion are set each year based on the key operating and financial indicators of the Group, which are in line with the nature of its activities, strategy, values, and the challenges it faces.

For 2017, to take these challenges into account, the Supervisory Board decided to structure the variable portions of the Chairman and members of the Management Board around three key priorities for the Group:

Objectives of the 2017 variable portion	Chairman of the Management Board (target variable portion: 100% of fixed portion)	Members of the Management Board (excluding the Chairman) (target variable portion: 75% of fixed portion)
1. Financial performance Competitiveness plan, EBITDA, PRI	Weighting: 60%	Weighting: 45%
2. Operational performance Roll-out of the new organization and adaptation	Weighting: 25%	Weighting: 18.75%
3. CSR Safety, Environment	Weighting: 15%	Weighting: 11.25%

Pursuant to Article L.225-82-2 of the French Commercial Code, the payment of the elements of variable compensation to the Chairman and to the members of the Management Board is subject to approval by the Ordinary Shareholders' Meeting of the elements of compensation of the individual concerned under the terms provided for in Article L.225-100 of the French Commercial Code.

2.3.4 Long-term incentive equity instruments of the Chairman and members of the Management Board

2.3.4.1 Performance shares and options

In an industrial group for which capital expenditure projects might have a distant time frame for achieving profitability, medium- and long-term incentive equity instruments seem particularly appropriate. Consequently, the Group has used a dynamic policy for many years for employees to share the Company's results, by establishing performance share and stock subscription or purchase options allocation plans. The Supervisory Board believes that the combination of these two tools, which align the interests of beneficiaries with those of the shareholders, is important insofar as the performance shares are connected to medium-term performance, while options are linked to long-term performance.

Subject to the adoption of the twenty-sixth and twenty-seventh resolutions by the Ordinary and Extraordinary Shareholders' Meeting of 12 May 2017, the Supervisory Board authorized the renewal:

- for the eleventh consecutive year, of a performance share allocation plan, subject to continuous service and performance conditions, for the benefit of the Chairman and members of the Management Board, members of the Executive Committee and managers;
- for the eleventh consecutive year, of a stock subscription or purchase options allocation plan, subject to continuous service and performance conditions, for the benefit of members of the Management Board and the Executive Committee.

For the Chairman and the members of the Management Board, as well as for members of the Executive Committee, the distribution between the two instruments is approximately three fourths performance shares and one quarter share purchase or subscription options. For managers, the Board, at the recommendation of the CNRG and in conformity with market practices, decided not to allot options starting in 2017, but to instead increase the number of performance shares. Overall, the portion to be allotted to members of the Management Board may not exceed 15% of the total performance shares and 50% of the total share purchase or subscription options.

To determine the number of performance shares and stock options allocated to the Chairman and members of the Management Board, the CNRG measures the fair value of these instruments and then sets an allocation volume that ensures a balance of the compensation and benefits between the three elements (fixed, variable and long-term incentive instruments). In recent years, adverse changes in the fair value of these instruments, however, has not made it possible to ensure this balance. On the recommendation of the CNRG, the Board decided that for the allocation of performance shares and stock options to the Management Board it would gradually return to a value that represents approximately one-third of the total of the three components of compensation and benefits (fixed, variable and long-term incentive instruments). As such, the Board, based on the CNRG's proposal, decided that for 2017 the volume of performance shares and stock options allocated to the Management Board would represent a target of 22% of the total of those three components of compensation and benefits.

Performance shares

Subject to the adoption of the twenty-seventh resolution by the Ordinary and Extraordinary Shareholders' Meeting of 12 May 2017, performance shares allocated to the Chairman and members of the Management Board in 2017 will be subject to performance conditions assessed over three years and measured on the basis of the following two quantitative criteria in line with the objectives of the Transformation Plan aimed at improving the Group's competitiveness:

- an internal absolute criterion: reduction of costs in 2017, 2018 and 2019 compared to the planned performance in the Group's medium-term plan for the same period (weighting 50%);
- an external relative criterion: growth of the EBITDA margin between 2017 and 2019 compared to a panel of comparable companies comprised as follows: Hunting Plc, United States Steel Corp, Nippon Steel & Sumitomo Metal Corp., Tubacex SA, Tenaris SA, Voestalpine AG, Seah Steel Corp, Tubos Reunidos SA, TimkenSteel Corp, Salzgitter AG, ArcelorMittal SA, TMK and NOV (weighting 50%);

The number of performance shares definitively allocated to the Chairman and members of the Management Board following the performance appraisal period shall be calculated by applying a coefficient which measures the performance for each of the criteria to the number of performance shares initially allocated.

This allocation coefficient will vary from 0 to 2 under the following conditions:

- Absolute internal criterion based on cost reduction (C1): coefficient 1 would correspond to achieving the medium-term plan objectives during the performance vesting period (the "C1 Planned Performance"). It would be 0 if the performance achieved was 2 or more points less than the C1 Planned Performance, and 2 if the performance achieved was 2 or more points greater than the C1 Planned Performance. A linear progression will be applied between limits.
- External relative criterion based on the growth of the EBITDA margin (C2): coefficient 1 would correspond to growth of the EBITDA margin that is equal to the median growth of the gross margin of the panel (the Panel Performance"). It would be 0 if the performance achieved was 2 or more points less than the Performance Panel, and 2 if the performance achieved was 2 or more points greater than the Performance Panel. A linear progression will be applied between limits.

Stock subscription or purchase options plans

Subject to the adoption of the twenty-sixth resolution by the Ordinary and Extraordinary Shareholders' Meeting of 12 May 2017, stock subscription or purchase options allocated to the Chairman and members of the Management Board members in 2017 will be subject to performance conditions assessed over four years and measured on the basis of two quantitative criteria as follows:

- an internal absolute criterion: aggregate net cash flow for the Group in 2017, 2018, 2019 and 2020 compared to the planned performance in the Group's medium-term plan for the same period (weighting 50%);
- an external relative criterion: Total Shareholder Return (TSR) for 2017, 2018, 2019 and 2020 compared to a panel of comparable companies comprised as follows: Hunting Plc, United States Steel Corp, Nippon Steel & Sumitomo Metal Corp., Tubacex SA, Tenaris SA, Voestalpine AG, Seah Steel Corp, Tubos Reunidos SA, TimkenSteel Corp, Salzgitter AG, ArcelorMittal SA, TMK and NOV (weighting 50%).

The number of options that was definitively granted to the Chairman and members of the Management Board following the vesting period shall be calculated by applying a coefficient which measures the performance for each of the criteria to the number of options initially granted. This coefficient will vary from 0 to 2 under the following conditions:

- Absolute internal criterion based on the aggregate free cash flow of the Group (C1): coefficient 1 would correspond to achieving the medium-term plan objectives during the performance vesting period (the "C1 Planned Performance"). It would be zero if the performance achieved was less than 70% of the C1 Planned Performance, and 2 if the performance achieved was greater or equal to 120% of the C1 Planned Performance. A linear progression will be applied between limits.
- External relative criterion based on the Total Shareholder Return(TSR) (C2): coefficient 1 would correspond to performance between the 5th and 6th decile of the panel of comparable companies. It would be zero if the performance achieved was less than the 4th decile of the panel; it would be 0.8 if the performance achieved was ranked in the 5th decile of the panel and 2 if the performance achieved was greater than the 8th decile of the panel. A linear progression will be applied between limits.

The confidential nature of the first absolute criteria on performance shares and stock subscription or purchase options does not allow their target content to be disclosed. However, at the end of the performance assessment period, Vallourec will communicate the minimum, target and maximum thresholds to be achieved and the linear progression applied between them.

Within the set of performance objectives for performance shares and stock options, the relative criteria represent 50%.

The Supervisory Board considers that the performance criteria that apply to stock subscription or purchase options and performance shares allocated to the Chairman and members of the Management Board are correlated to the medium and long-term evolution of the Group's overall performance and results.

The Chairman and members of the Management Board are required to retain until the end of their terms of office (i) one quarter of the performance shares allocated to them under the terms of a plan and (ii) the equivalent in Vallourec shares of one quarter of the gross capital gain realized on the date of sale of the shares resulting from the options exercised. They moreover agree not to use hedging instruments in connection with the exercise of options, selling shares resulting from the exercise of options, or selling performance shares.

As recommended by the AFEP-MEDEF Code revised in November 2016, the Supervisory Board may, when allocating stock subscription or purchase options and performance shares, provide for a stipulation authorizing it to determine whether or not to maintain all or part of the long-term compensation plans that are not yet vested, options not yet exercised, or performance shares not yet vested at the time of the beneficiary's departure.

2.3.5 Benefits in kind of the Management Board

In terms of benefits in kind, the Chairman and members of the Management Board benefit, as do the majority of the Group's senior executives, from a company car.

2.3.6 Attendance fees of the Chairman and members of the Management Board

Management Board members do not collect any compensation or attendance fees for the corporate offices they hold in direct or indirect subsidiaries of the Vallourec Group.

2.3.7 Supplementary pension scheme of the Chairman and members of the Management Board

In accordance with market practices and to retain the Group's senior executives, the Chairman and members of the Management Board are offered a comprehensive supplementary retirement plan to enable them to save for retirement, while preserving the economic interests of the company via defined performance conditions.

This new system was set up in 2016 to replace the defined-benefit supplementary pension scheme previously in effect. This new scheme will ensure each of its beneficiaries, individually, a net annuity level equal to that of the previous plan, while allowing the Company to achieve savings of around 22%.

This plan, subject to the regulated agreements procedure of Articles L.225-86 et seq and Article L.225-90-1 of the French Commercial Code, was approved by the Shareholders' Meeting of 6 April 2016 (sixth, eighth and ninth resolutions).

The new supplementary pension scheme introduced in 2016 includes the following three components:

- Closing of the defined benefit scheme

  The Chairman and members of the Management Board benefit, along with 31 other senior executive meeting the eligibility requirements, from the defined benefit scheme under the terms and conditions set by the closing regulation, under which no new potential rights will be created with respect to the closed scheme and beneficiaries may only benefit from "crystallized" vested rights upon liquidation of their social security pension.

- Mandatory group defined contribution scheme

  The Chairman and members of the Management Board benefit from a new, collective and mandatory defined-contribution pension scheme open to all employees who meet the eligibility requirements (1). The contribution to this scheme is set at 12% of the compensation exceeding between 5 and 8 times the social security ceiling. The scheme can only be liquidated upon liquidation of the social security pension.

The company's financial obligation is strictly limited in terms of amount and time since it can close the scheme at any time.

- Individual scheme subject to performance criteria

  The Chairman and members of the Management Board, along with other senior executives meeting the eligibility requirements (2), benefit from a new, individual defined-contribution pension scheme to which the company contributes and for which, in the spirit of the Macron Law, the Supervisory Board decided to establish performance criteria.

(1) Eligible employees are Vallourec employees and, subject to the completion of legal procedures, Vallourec Tubes employees, whose annual compensation exceeds four times the social security ceiling (in 2016: 4 x €38,616), i.e., potentially 50 executive officers of the Group, including the three Management Board members.

(2) Those eligible are Vallourec and Vallourec Tubes employees who have at least three years' seniority in the Group and whose compensation exceeds eight times the social security ceiling, i.e. potentially eight executive officers of the Group, including the three Management Board members.

With respect to these performance conditions, the Board has decided to determine the effective contribution rate based on the annual bonus rate: the maximum contribution will be payable for the year in the case of an annual bonus calculated at 50% of the target; no contribution will be paid if the calculated annual bonus equals zero; the contribution will vary on a straight-line basis between limits ranging from 0 to 50%.

In order to finance the contribution, the company's share is equal to a percentage of the gross compensation less employee contributions and the income tax generated by this contribution. The scheme can only be liquidated upon liquidation of the social security pension.

The company may terminate this scheme at any time in such a way that it does not represent a deferred obligation.

These schemes exist to improve the replacement revenue of beneficiaries and grant no specific advantage to the Chairman and members of the Management Board compared with eligible executive officers employed by the Group.

The determination of the overall compensation of the Chairman and members of the Management Board took into account the benefits under this supplementary pension scheme.

The Group's supplementary pension scheme has a replacement rate which remains clearly below market practice, regardless of the reference panel used.

2.3.8 Mechanisms linked to termination of the duties of the Chairman and members of the Management Board

The principles of mechanisms linked to the termination of duties of the Chairman and members of the Management Board have remained the same since 2013. These mechanisms were approved by the Shareholders' Meeting of 6 April 2016 (fourth and seventh resolutions). These are mentioned in the context of this report for informational purposes.

2.3.8.1 Mechanism linked to the termination of the duties of Chairman of the Management Board

- Monetary termination benefit for the Chairman of the Management Board

In accordance with AMF recommendations and the AFEP-MEDEF Code before it was revised in November 2016, the monetary termination benefit for the Chairman of the Management Board will only be due in the event of dismissal. No compensation will be due if it is possible for the Chairman of the Management Board to invoke his retirement rights within a short period of time.

The monetary termination benefit amount is limited to twice the average gross fixed and variable annual compensation payable in respect of the two fiscal years preceding the date of departure (hereinafter the "Maximum Benefit"). The aggregate compensation due under the no competition clause and the termination benefit - if one is due - may not under any circumstances exceed the Maximum Benefit.

The benefit shall be calculated using the fixed monetary compensation payable in respect of the financial period preceding the departure date, plus the target variable monetary compensation determined for the same period (the "Reference Compensation") and may not under any circumstances exceed the Maximum Benefit.

Its amount will depend on the achievement of performance conditions set out in paragraph 2.3.8.3. below.

- Non-compete obligation applicable to the Chairman of the Management Board

Considering his steel industry expertise, the Supervisory Board has sought to enable the Group to safeguard its know-how and activities by imposing a conditional non-compete obligation on the Chairman of the Management Board should he leave the Group.

At its entire discretion, the Supervisory Board may decide to prohibit the Chairman of the Management Board, at the time of his departure, and for a period of 18 months following the termination of his duties as Chairman of the Vallourec Management Board, for whatever reason, from working in whatever manner with a company or a group of companies in the steel industry, with no territoriality restrictions.

Should this obligation be implemented by the Board, it would result in a payment to the Chairman of the Management Board of non-compete compensation equal to 12 months of gross fixed and variable monetary compensation, which is calculated based on the average of the gross fixed and variable annual monetary compensation that has been paid during the two fiscal years preceding the date of departure.

This sum would be paid in equal monthly advances during the entire period in which the non-compete clause is applicable.

The accumulation of the compensation paid under the non-compete clause and a termination benefit, should such benefit be paid, may not under any circumstances exceed twice the average gross fixed and variable annual monetary remuneration payable in respect of the two financial periods preceding the Chairman of the Management Board's departure date.

This mechanism was approved by the Shareholders' Meeting of 30 May 2013, in its twenty-fourth resolution.

2.3.8.2 Mechanisms linked to termination of the duties of members of the Management Board

The Supervisory Board takes into account all the benefits which may be claimed by each Management Board member in the event of dismissal, in order to decide whether or not to grant a monetary termination benefit in the event of dismissal. To this end the Board examines:

(i) the contractual severance pay, where applicable, provided for in the employment contract and likely to be due in the event of termination of said contract;

(ii) seniority in the Vallourec Group and the amount of severance pay to which the Management Board member concerned would be entitled under the applicable collective bargaining agreement in the event of termination of the employment contract for any reason other than serious misconduct.

In the case of an absence of contractual severance pay and limited seniority resulting in low severance pay, the Management Board member concerned may be eligible for a monetary termination benefit in the event of dismissal.

The termination benefit amount is limited to twice the average gross fixed and variable annual compensation payable in respect of the two fiscal years preceding the date of departure (hereinafter the "Maximum Benefit") and will not be payable should the Management Board member have the opportunity to claim his or her retirement rights in the near future.

The benefit shall be calculated using the fixed monetary compensation payable in respect of the financial period preceding the departure date, plus the target variable monetary compensation determined for the same period (the "Reference Compensation") and may not under any circumstances exceed the Maximum Benefit.

The aggregate compensation due under the Collective Bargaining Agreement and the termination benefit – if one is due – may not under any circumstances exceed the Maximum Benefit.

Its amount will depend on the achievement of performance conditions set out in paragraph 2.3.8.3. below.

2.3.8.3 Performance criteria for the monetary termination benefit for the Chairman and the members of the Management Board

The amount of the termination benefit will depend on the achievement of three performance criteria assessed in the last three financial periods preceding the departure date (the "Reference Period").

The achievement of each performance criterion shall be combined with a rating range from a floor of 0 points to a ceiling of 30 points.

- The first "C1" performance criterion shall be assessed on the EBITDA rate, expressed as a percentage of revenues for each fiscal year within the Reference Period. C1 shall vary on a straight-line basis between 30 points for a maximum determined by the Supervisory Board, upon the approval of the Appointments, Compensation and Governance Committee, with reference to the EBITDA rates achieved in the last three fiscal years closed, and at least equal to the average of these rates; and 0 points for a minimum at most equal to the maximum less 6 EBITDA points.
- The second performance criterion "C2" shall be assessed by comparing the EBITDA for each of the fiscal years in the Reference Period with the EBITDA forecast in the budget for those fiscal years, as established by the Management Board and approved by the Supervisory Board. C2 shall vary on a straight-line basis between 0 for an EBITDA that is 25% lower than the budgeted EBITDA, and 30 points for an EBITDA that is 12.5% higher than the budgeted EBITDA. The budgetary objective is set each year by the Supervisory Board, further to the opinion of the Appointments, Compensation and Governance Committee, upon review of the budget presented by the Management Board, and examined in advance by the Finance and Audit Committee.
- The third "C3" performance condition shall be based on the percentage of the variable portion of the compensation payable in respect of each fiscal year of the Reference Period compared to the target variable portion of the fiscal year in question. C3 shall vary on a straight-line basis between 0 and 30 points (and limited to 30 points) according to the percentage of the variable portion paid compared to the target variable portion. The maximum of 30 points is reached for a computed variable portion equal to 100% of the target and the minimum of 0 points for a computed variable portion equal to 0% of the target.

In the event that the total of C1, C2 and C3 (hereinafter the "PC") is on average less than 40 during the Reference Period, no payment shall be due. For an average PC that is equal to 40 or 50, the payment shall be equal to 15 or 18 months' salary respectively (1/12th of the Reference Compensation), up to the Maximum Payment. The payment shall reach its maximum, i.e. 24 months, up to the Maximum Payment, for an average PC that is equal or greater than 80 on average. It shall vary on a straight-line basis between each of the 40, 50 and 80 thresholds.

If the PC for the last fiscal year of the Reference Period is equal to 0, no payment shall be due.

Vallourec communicates annually on the CP achievement rate for the previous year.

2.3.9 Special compensation of the Chairman and members of the Management Board

As recommended in the AFEP-MEDEF Code revised in November 2016, the Supervisory Board may, on the recommendation of the CNRG, award special compensation to the Chairman and/or the members of the Management Board if very specific circumstances so justify (for example, due to their importance to the Group, the involvement they require and the difficulties they present). Its decision must be substantiated.

Pursuant to Article L.225-82-2 of the French Commercial Code, the payment of the elements of special compensation to the Chairman and to the members of the Management Board is subject to approval by the Ordinary Shareholders' Meeting of the elements of compensation of the individual concerned under the terms provided for in Article L.225-100 of the French Commercial Code.

2.3.10 Signing bonus of the Chairman and members of the Management Board

As recommended in the AFEP-MEDEF Code revised in November 2016, the Supervisory Board may, on the recommendation of the CNRG, award a new Chairman or member of the Management Board coming from an outside company a signing bonus in order to offset the loss of benefits previously enjoyed by the executive. Such compensation must be explained and made public at the time it is decided.

3. The policy of the Supervisory Board in terms of the compensation and benefits for the Chairman and members of the Supervisory Board

3.1 GENERAL PRINCIPLES OF THE BOARD POLICY ON THE COMPENSATION AND BENEFITS FOR THE CHAIRMAN AND MEMBERS OF THE SUPERVISORY BOARD

Members of the Supervisory Board

Members of the Supervisory Board only receive attendance fees for the performance of their duties.

These fees are distributed by the Supervisory Board among its members, on the proposal of the CNRG, from the annual budget for attendance fees authorized by the Ordinary Shareholders' Meeting. The amount of this budget must be adapted to the level of responsibilities undertaken by the members of the Board and the amount of time they must spend on their duties.

Members of the Supervisory Board receive a portion of their attendance fees as a fixed amount and another portion based on their attendance at Board meetings and meetings of committees of which they are members.

Chairman, Vice-Chairman, and Lead Member of the Supervisory Board

Only the Chairman of the Supervisory Board receives a fixed annual receives a fixed annual compensation. This is justified by the degree of involvement in the Group's affairs of the Board Chairman as she performs duties and procedures which far surpass merely attending Board and Committee meetings.

The Lead Member, who is also the Vice-Chairman, receives an additional fixed annual amount of attendance fees for his or her duties as lead member and participation in Group Committees in this capacity.

The Chairman of the Supervisory Board, along with the other members, is not allocated any options, performance shares or termination payments of any kind.

Members of the Supervisory Board are required to personally be a shareholder of the Company throughout the entire term of their office, under the conditions set by the bylaws and internal regulations of the Board, for a minimum of 500 Vallourec shares [(1)].

3.2 COMPONENTS OF COMPENSATION OF THE CHAIRMAN AND BENEFITS FOR MEMBERS OF THE SUPERVISORY BOARD

Participation at the meetings of the Supervisory Board

The total amount for attendance fees that the Supervisory Board is authorized to divide among its members in 2017 is recorded under the annual budget for attendance fees of €650,000 authorized by the Ordinary Shareholders' Meeting of 28 May 2014 (thirteenth resolution).

As recommended by the AFEP-MEDEF Code revised in November 2016, which requires that the fraction of attendance fees based on actual attendance be predominant in relation to the fixed portion, the fixed portion amounts to one-third of attendance fees and the variable portion based on actual attendance represents two-thirds.

The Lead Member, who is also the Vice-Chairman, receives, from the overall annual budget of €650,000, an additional fixed annual amount of attendance fees for his or her duties as lead member and participation in Group Committees in this capacity.

Participation in Committee meetings

The members and Chairman of each of the Committees receive, as part of the aforementioned €650,000 annual budget, additional attendance fees based on their actual attendance at meetings of these Committees.

Compensation of the Chairman

The Chairman of the Board receives a fixed annual compensation that has not changed since it was set in 2014.

The Supervisory Board

Appendix 2.2 – Supervisory Board's report on the 2016 compensation of members of the Management Board

This report was drafted in application of paragraph 26 of the AFEP-MEDEF Corporate Governance Code, which was revised in November 2016 (the "AFEP-MEDEF Code") in view of the vote of the shareholders at the Shareholders' Meeting on 12 May 2017, regarding the compensation due or allocated with regard to the fiscal year ended 31 December 2016 to Mr. Philippe Crouzet, Chairman of the Management Board, and Messrs. Jean-Pierre Michel and Olivier Mallet, members of the Management Board.

The compensation and benefits of members of the Management Board are determined by the Supervisory Board, at the proposal of its Appointments, Compensation and Governance Committee (the "CNRG"), to have such compensation seen as fair and balanced by both shareholders and employees.

1. Governance regarding the compensation and benefits policy for members of the Management Board

The compensation of members of the Management Board is reviewed each year in accordance with the policy on compensation and benefits applicable to members of the Management Board. This policy, and its governance, are presented in the report drafted in application of Article L.225-82-2 of the French Commercial Code, in view of the vote of shareholders at the Shareholders' Meeting on 12 May 2017, on the principles and criteria for the determination, distribution, and allocation of the fixed, variable, and special components of the total compensation and benefits attributable to members of the Management Board and members of the Supervisory Board for their service.

2. Compensation of members of the Management Board

2.1 GENERAL PRINCIPLES

The compensation of members of the Management Board set out below corresponds to all elements paid, allocated, or applicable in 2016 or for fiscal year 2016.

2.2 STATUS OF MEMBERS OF THE MANAGEMENT BOARD

The Management Board has three members:

- Mr. Philippe Crouzet, Chairman of the Management Board, who does not have an employment contract;
- Mr. Jean-Pierre Michel and Mr. Olivier Mallet, who hold employment contracts for which performance was suspended during their term of their duties as members of the Management Board.

The three members respectively hold 67,819, 21,897 and 28,836 Vallourec shares.

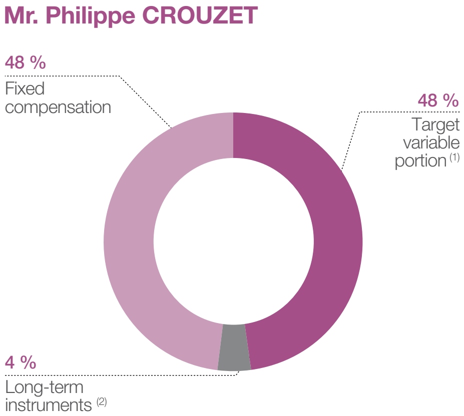
(1) Starting on the day of their appointment, members of the Supervisory Board must hold at least 50 Vallourec shares. The 450 additional shares must be acquired by 31 December of the year following the year they take office, in order to allow them to use their attendance fees to acquire them. These provisions do not apply to the member representing employee shareholders.

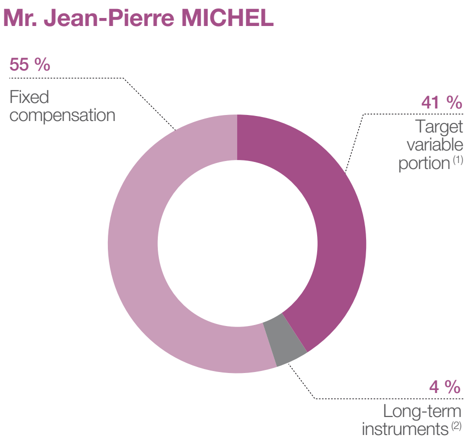
2.3 COMPONENTS OF MANAGEMENT BOARD MEMBERS' COMPENSATION AND BENEFITS

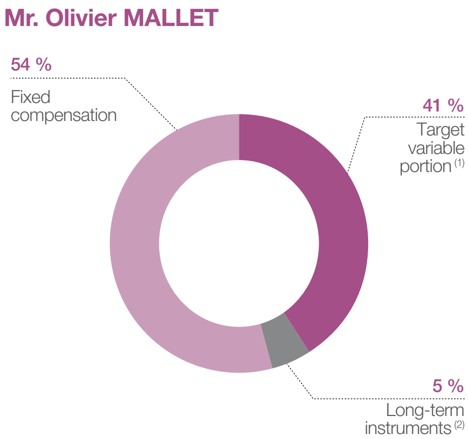
2.3.1 Respective weight of the components of Management Board members' compensation

In accordance with the compensation policy, the weighting for each of the three elements of compensation and benefits (fixed portion, annual variable portion, and long-term instruments) is one-third. The high volatility of the stock market and the specific capital transaction carried out in the first half of 2016 led the Supervisory Board to decide, by derogation of this policy, to not increase the number of long-term instruments allocated in 2016, despite their low IFRS value on the allocation date.

Consequently, the respective weight of each of these elements was as follows:







(1) *The amount of the variable portion is integrated with the target.*

(2) *Performance shares and stock options allocated during 2016 according to the accounting valuation under IFRS, for May 2016.*

2.3.2 Fixed portion

In accordance with the compensation policy, the Supervisory Board, having noted at the beginning of 2016 that:

- the responsibilities of the Management Board had not changed; and
- the review of compensation surveys did not reveal significant distortions with respect to the median compensation of corporate officers of the14 companies in the comparison panel;

decided not to change the fixed portion of the three Management Board members in 2016.

Therefore:

- **the fixed portion for Mr. Philippe Crouzet**, which was brought to €798,000 in 2014, remains unchanged;
- **the fixed portion for Mr. Jean-Pierre Michel**, which was brought to €450,000 in 2012, remains unchanged; and
- **the fixed portion for Mr. Olivier Mallet**, which was brought to €420,000 in 2014, remains unchanged.

With regard to the general salary increases of French employees between 2009 and 2016, the changes in the fixed portions for members of the Management Board over the same period seem moderate, as the table below attests.

Change in the fixed compensation of French employees of the group and members of the Management Board for the period 2009-2016 for the full year

Members of the Management Board	2009	2010	2011	2012	2013	2014	2015	2016	Total change
Philippe Crouzet	€760,000	€760,000	€760,000	€760,000	€760,000	€798,000	€798,000	€798,000 i.e. 0%	+ 5% over the period
Jean-Pierre Michel	€430,000	€430,000	€430,000	€450,000	€450,000	€450,000	€450,000	€450,000 i.e. 0%	+ 4.65% over the period
Olivier Mallet	€375,000	€375,000	€375,000	€400,000	€400,000	€420,000	€420,000	€420,000 i.e. 0%	+ 12% over the period
Total salary increase budget for the Group's employees (2009 to 2016 budgets)									+ 15.5% over the period

2.3.3 Variable portion

The variable portion of compensation corresponds to a percentage of the fixed portion and provides for minimum thresholds, below which no payment is made, target levels when the objectives set by the Supervisory Board are met, and maximum levels when target objectives have been exceeded.

For fiscal year 2016, the variable portion of the Management Board members remained unchanged both in their structure and in their minimum and maximum levels. Accordingly, in 2016 Mr. Philippe Crouzet's variable portion could vary from 0 to 100% of his target fixed portion and reach 135% of this same fixed portion in the event that maximum objectives were attained. For Messrs. Jean-Pierre Michel and Olivier Mallet, the 2016 variable portions could vary from 0 to 75% of their target fixed portions and attain 100% in the event that maximum objectives were achieved. In summary, the elements of monetary compensation of the members of the Management Board were as follows:

	Philippe Crouzet, Chairman of the Management Board	Jean-Pierre Michel, Member of the Management Board	Olivier Mallet, Member of the Management Board
Fixed portion *In euros*	798,000	450,000	420,000
Target variable portion *As a % of fixed portion*	100%	75%	75%
Maximum variable portion *As a % of fixed portion*	135%	100%	100%

The 2016 variable portions were subordinate to achievement of several precise and previously established objectives of a quantifiable or qualitative nature, for which the minimum, target and maximum thresholds were set by the Supervisory Board, after an in-depth examination by the Appointments, Compensation and Governance Committee.

To better understand the performance of the Management Board, it is important to recall the climate that Vallourec has faced for several years, with:

- a lasting transformation of its market environment, which is marked by an excess world capacity of seamless tubes production;
- a very severe downturn in the oil cycle, marked by a drastic and continuous drop in the price per barrel. This drop has resulted in a massive postponement of oil company investments, and in a confirmed desire to significantly change their business model;
- growing pressure by oil companies on supplier prices, which is gradually extending to premium products.

Against this backdrop, the Supervisory Board decided to structure the objectives of the Management Board around three fundamental priorities in order to reestablish the company's economic equilibrium in the short term. In 2016, for the first time, the three Management Board members were given the same objectives:

- three objectives linked to the Transformation Plan:
  - EBITDA,
  - Saving Plan (Valens): This multi-year plan has already generated high cost reductions in 2015. Given its importance for the Group's structural reinforcement, the objective related to the plan was renewed in 2016,
  - overall industrial reorganization of the Group, including the following areas: (i) completion of the merger [1] of the Group's main Brazilian entities and the creation of the new entity: Vallourec Soluções Tubulares do Brasil; (ii) takeover of Tianda Oil Pipe; and (iii) streamlining of the Group's European operations;
- two objectives linked to the financing plan:
  - successful capital increase of €1 billion,
  - improved net debt of the Group in line with the guidance given to the market;
- two objectives related to safety:
  - TRIR injury rate per million hours worked,
  - LTIR injury rate per million hours worked.

Safety remains at the heart of the Group's concerns.

In 2016, quantifiable objectives (financial and safety) represented 80% of the target variable portion of Mr. Philippe Crouzet, Mr. Jean-Pierre Michel and Mr. Olivier Mallet:

- the portion of financial performance objectives was raised to 70% of the target variable portion (against 60% in 2014 and 2015).
- the portion of social performance objectives stayed at 10% of the target variable portion, as in 2014 and 2015.

(1) By transferring the tubular activities of Vallourec Tubos do Brasil (VBR) to Vallourec & Sumitomo Tubos do Brasil (VSB).

In this context, the variable portions of each Management Board member for the 2016 fiscal year were set as follows:

	Members of the Management Board		
2016 variable portion	**Philippe Crouzet**	**Jean-Pierre Michel**	**Olivier Mallet**
Structure and level of the variable portion (expressed as a percentage of the fixed portion)	Variable portion: 100% if the objectives set by the Board are achieved (target), and 135% maximum for exceptional performance.	Variable portion: 75% if the objectives set by the Board are achieved (target), and 100% maximum for exceptional performance.	Variable portion: 75% if the objectives set by the Board are achieved (target), and 100% maximum for exceptional performance.
Transformation Plan	Weight in target variable portion: 45%	Weight in target variable portion: 33.75%	Weight in target variable portion: 33.75%
EBITDA	This criterion varied from 0 to 20% if the target was attained and could be established as 27% as a maximum.	This criterion varied from 0 to 15% if the target was attained and could be established as 20% as a maximum.	This criterion varied from 0 to 15% if the target was attained and could be established as 20% as a maximum.
The rate of achievement for this indicator is	0%	0%	0%
Competitiveness/cost reduction plan	This criterion varied from 0 to 5% if the target was attained and could be established as 6.75% as a maximum.	This criterion varied from 0 to 3.75% if the target was attained and could be established as 5% as a maximum.	This criterion varied from 0 to 3.75% if the target was attained and could be established as 5% as a maximum.
The rate of achievement for this indicator is	6.75%	5%	5%
Implementation of projects (qualitative criterion)	This criterion varied from 0 to 20% if the target was attained and could be established as 27% as a maximum.	This criterion varied from 0 to 15% if the target was attained and could be established as 20% as a maximum.	This criterion varied from 0 to 15% if the target was attained and could be established as 20% as a maximum.
The rate of achievement for this indicator is	20%	15%	15%
Total calculated in euros of Transformation Plan objectives	€213,465	€90,000	€84,000
Financing plan	Weight in target variable portion: 45%	Weight in target variable portion: 33.75%	Weight in target variable portion: 33.75%
Capital increase	This criterion varied from 0 to 25% if the target was attained and could be established as 33.75% as a maximum.	This criterion varied from 0 to 18.75% if the target was attained and could be established as 25% as a maximum.	This criterion varied from 0 to 18.75% if the target was attained and could be established as 25% as a maximum.
The rate of achievement for this indicator is	25%	18.75%	18.75%
Net debt	This criterion varied from 0 to 20% if the target was attained and could be established as 27% as a maximum.	This criterion varied from 0 to 15% if the target was attained and could be established as 20% as a maximum.	This criterion varied from 0 to 15% if the target was attained and could be established as 20% as a maximum.
The rate of achievement for this indicator is	27%	20%	20%
Total calculated in euros of financing plan objectives	€414,960	€174,375	€162,750
Safety	Weight in target variable portion: 10%	Weight in target variable portion: 7.5%	Weight in target variable portion: 7.5%
Safety (TRIR)/(LTIR) [(a)]	These criteria varied from 0 to 10% from the target, and could be established as 13.5% as a maximum.	These criteria varied from 0 to 7.5% from the target, and could be established as 10% as a maximum.	These criteria varied from 0 to 7.5% from the target, and could be established as 10% as a maximum.
The rate of achievement for this indicator is	6.37%	4.72%	4.72%
Total calculated in euros of safety objectives	€50,832	€21,240	€19,824
Percentage of the variable portion in relation to the target variable portion	85%	85%	85%
Variable portion as a percentage of the fixed portion of compensation	85.1%	63.5%	63.5%
Variable portion calculated in euros	€679,257	€285,615	€266,574
Variable portion that was effectively paid	€679,257	€285,615	€266,574

(a) The safety objective is measured based on the results of the Lost Time Injury Rate (LTIR) and Total Recordable Injury Rate (TRIR), which measure, respectively, the number of accidents, with work stoppage, per million hours worked, and the injury rate per million hours worked.

The variable portion of the Management Board members' compensation should reflect the Board's performance on the challenges of the Group's transformation and financing.

In this respect, most of the objectives were met or exceeded.

- The success of the Transformation Plan has helped to reposition the Group to take full advantage of the recovery of the oil industry when the time comes.

  The Supervisory Board underlines the performance achieved again this year on cost reduction, which totaled €150 million in 2016, in line with the company's commitments.

  In addition, the ambitious measures of the Transformation Plan which aims to rationalize the Group's industrial footprint and improve its competitiveness, were fully implemented by the Management Board. These included: the creation of Vallourec Soluções Tubulares do Brasil in partnership with NSSMC, which holds 15%; the acquisition of Tianda Oil Pipe, the highly competitive production unit in China, in which Vallourec now holds a 99.03% stake; and the comprehensive reorganization in Europe through a 50% reduction in capacity to focus activities on value-added products and solutions. Social measures undertaken in France were accompanied by various reindustrialization actions in order to minimize the number of layoffs and better preserve the industrial future of the regions in question.

  EBITDA was impacted by a market in continuous decline, both in terms of volume and price. This deterioration was contained, however, thanks to the various actions taken by the Management Board.

- Regarding the financing plan, the Supervisory Board welcomed the success of the €1 billion capital increase, led by the Management Board despite very difficult market conditions. With a subscription rate of around 160% for the portion with preferential subscription rights maintained, the success of this transaction reflects the confidence that the Group's investors and strategic partners have in Vallourec's prospects. The success of this recapitalization and the extension of its bank lines have calmed investors' fears about the Group's financial position and its ability to overcome the crisis.

  More generally, the Management Board's overall actions in 2016 enabled a significant reduction in the Group's net debt - beyond the guidance given to the market when the capital increase was announced on 1 February 2016. The Management Board thus exceeded its targeted performance on this criterion.

  The share price rose 26% in 2016, and by 73% between the launch of the capital increase and the end of the fiscal year. Vallourec's share posted the third-best performance on the SBF 120 over 12 months.

- Personal safety is at the heart of the Group's concerns. The Supervisory Board therefore welcomes the excellent safety results, particularly the absence of a fatal accident for the second year in a row, although it would like to see improved performances on lost-time accidents.

2.3.4 Long-term incentive equity instruments

2.3.4.1 Performance shares and options granted in 2016

In 2016, the Supervisory Board thus authorized the renewal of:

- for the tenth consecutive year, a plan to grant, subject to continuous service and performance conditions, a target number of 800,000 performance shares, to benefit 530 managers and executives and the three members of the Management Board, in the context of the twentieth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014;
- for the tenth consecutive year, a plan to grant, subject to continuous service and performance conditions, a target number of 420,000 share subscription options, to benefit 425 managers and executives and the three members of the Management Board, in the context of the nineteenth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014.

Overall, representing 0.18% of share capital as at 31 December 2016, the portion granted to members of the Management Board was set at 5.34% of the total allocations, and 0.01% of share capital.

For 2016, the Supervisory Board did not want to offset adverse changes in the fair value of the instruments granted by increasing the number of performance shares and options granted. Therefore, by derogation of its compensation policy, the value of the performance shares and stock options allocated to the Management Board in 2016 represented less than one-third of the total of the three components of compensation and benefits (fixed, variable and long-term incentive instruments).

The **performance shares** granted to members of the Management Board in 2016 are subject to performance conditions assessed over three years and measured based on the following two quantifiable criteria:

- one internal criterion: the estimated rate of return on capital employed on a consolidated basis (ROCE) for fiscal years 2016, 2017 and 2018, compared with the planned performance in the medium-term plan for fiscal years 2016, 2017 and 2018. This criterion has a weighting of 50%;
- one external criterion: total shareholder return (TSR) in 2016, 2017 and 2018. This criterion has a weighting of 50%;

The panel used was as follows: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal, and Salzgitter AG.

In 2016, the Supervisory Board awarded 22,036 performance shares to Mr. Philippe Crouzet (after applying the usual adjustments following the capital increase with preferential subscription rights maintained). This number is unchanged from the number of shares granted in 2015 (after the same adjustments).

In 2016, the Supervisory Board awarded 10,370 performance shares each to Mr. Jean-Pierre Michel and Mr. Olivier Mallet (after applying the usual adjustments following the capital increase with preferential subscription rights maintained). This number is unchanged from the number of shares granted in 2015 (after the same adjustments).

The **stock subscription options** allocated to members of the Management Board in 2016 are subject to performance conditions assessed over four years and measured based on the following two quantifiable criteria:

- one internal criterion: consolidated EBITDA on a like-for-like basis for 2016, 2017, 2018 and 2019, compared with the planned performance in the medium-term plan for 2016, 2017, 2018 and 2019. This criterion has a weighting of 50%;
- one external criterion: the EBITDA margin for 2016, 2017 2018 and 2019 compared to a panel of comparable companies. This criterion has a weighting of 50%;

The panel used was as follows: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, U.S. Steel, Thyssen Krupp, Arcelor Mittal, and Salzgitter AG.

In 2016, the Supervisory Board awarded 30,145 performance shares to Mr. Philippe Crouzet (after applying the usual adjustments following the capital increase with preferential subscription rights maintained).

In 2016, the Supervisory Board awarded 14,159 performance shares each to Mr. Jean-Pierre Michel and Mr. Olivier Mallet (after applying the usual adjustments following the capital increase with preferential subscription rights maintained).

The confidentiality of information relating to both internal criteria prevents the disclosure of the targets and the minimum and maximum thresholds. But these values, between which a linear progression will have been applied, will be communicated following the performance assessment period.

Within the set of performance objectives for performance shares and options, the external criteria represent 50%.

2.3.4.2 Performance shares vested in 2016

The performance assessment period for the performance share allocation plan, which began on 29 March 2013, ended on 29 March 2016. The shares allocated under this plan, under the nineteenth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 31 May 2012, were subject to the following performance conditions:

- The expected rate of return on capital employed (ROCE) for fiscal years 2013, 2014 and 2015 compared with the expected rate of return on capital employed recorded in the budget for 2013, 2014 and 2015. If the ROCE was less than 75% of the budget, the factor was 0; if the ROCE was 100% of the budget, the factor was 1. This criterion has a weighting of 40%. The result for this criterion was 0;
- Revenue for the period 2013-2015 compared with the revenue budgeted in fiscal years 2013, 2014 and 2015. If revenue was below 85% of the budget then the factor was 0 and if it equaled the budget, the factor was 1. This criterion has a weighting of 30%. The result for this criterion was 0.67;
- The relative performance of the Vallourec share between fiscal year 2013 and fiscal year 2015, compared to a reference panel. If the performance was below 10% of the panel's the factor was 0 and if it was equal to the panel's, the factor was 1. This criterion has a weighting of 15%. The result for this criterion was 0;
- the relative performance of Vallourec's EBITDA between fiscal year 2013 and fiscal year 2015, compared to a reference panel. If the performance was below 20% of the panel's the factor was 0 and if it was equal to the panel's, the factor was 1. This criterion has a weighting of 15%. The result for this criterion was 0.

After applying these strict conditions, the number of shares that were vested by each of the members of the Management Board was established as follows:

2013 performance share plan **Members of the Management Board**	**Philippe Crouzet**	**Jean-Pierre Michel**	**Olivier Mallet**	**Total**
Number of performance shares allocated on 29 March 2013	9,023	4,436	3,609	17,068
Number of performance shares vested on 29 March 2016 after performance conditions applied	1,814	892	726	3,432
Percentage of shares vested on 29 March 2016 compared to the number of shares allocated on 29 March 2013	20.1	20.1	20.1	20.1

The Supervisory Board considers that the performance criteria applicable to the performance shares allocated to members of the Management Board are correlated to the medium and long term evolution of the Group's overall performance and results.

Members of the Management Board are required to retain until the end of their terms of office (i) one quarter of the performance shares allocated to them under the terms of a plan and (ii) the equivalent in Vallourec shares of one quarter of the gross capital gain realized on the date of sale of the shares resulting from the options exercised. They moreover agree not to use hedging instruments in connection with the exercise of options, selling shares resulting from the exercise of options, or selling performance shares.

2.3.4.3 Subscription options definitively acquired in 2016

No options were definitively acquired by the Management Board in 2016 because they were not allocated stock options in 2012.

2.3.4.4 History of past acquisitions of the Management Board

Performance shares

Allocation date	2009	2010	2011	2012	2013*	2014
Vesting date	2011	2012	2013	2014	2016	2017
Number of shares allotted to the Management Board	17,000	17,000	17,068	17,068	17,068	17,068
Number and % of shares definitively acquired, compared to the number of shares allotted	**18,321 (i.e. 107%)**	**15,640 (i.e. 92%)**	**3,208 (i.e. 18.8%)**	**2,787 (i.e. 16.2%)**	**3,432 (i.e. 20.1%)**	**Not Available**

** As of 2013, performance share plans are 3+2 (3 years of vesting + 2 years of holding) instead of 2+2.*

Share subscription option

Allocation years	2009	2010	2011	2012	2013	2014
Maximum number of options allotted to the Management Board	80,000	60,000	60,000	0	60,000	60,000
Number and % of options compared to the maximum number of options allotted	**53,600 (i.e. 67%)**	**29,598 (i.e. 49.3%)**	**24,000 (i.e. 40%)**	**0**	**Not Available**	**Not Available**
Exercise price	€51.67	€71.17	€60.71	€37	€46.15	€38.53

2.3.5 Benefits in kind

In 2016, the Management Board members had use of a company car. The value of this benefit in kind was unchanged compared to 2015.

2.3.6 Attendance fees

Management Board members did not collect any compensation or attendance fees in 2016 for the corporate offices they hold in direct or indirect subsidiaries of the Vallourec Group.

2.3.7 Supplementary retirement plan

The pension scheme for corporate officers comprises a defined-benefit plan (closed), a collective defined-contribution plan, and an individual defined-contribution plan.

- Closed defined-benefit scheme

Given that the scheme was closed to all new rights as of 31 December 2015 and the compensation used as a basis for calculating the rights was fixed to the reference compensation at 31 December 2015, the potential rights opened individually for each of the three members of the Management Board as at 31 December 2016 are identical to the rights as at 31 December 2015 and are as follows:

Members of the Management Board	Reference compensation as at 31 December 2015	Annual potential rights for 2016 (a)	Total annual potential rights as at 31 December 2016 (b)	Limit on potential rights	Length of service conditions
Philippe Crouzet	€798,000	0%	13.50%	20%	36 months
Jean-Pierre Michel	€450,000	0%	19.29%	20%	36 months
Olivier Mallet	€420,000	0%	12.81%	20%	36 months

(a) As a percentage of the reference compensation (basic pay excluding variable portion).

(b) Limited to 20% of the average basic compensation for the last three years, excluding the variable portion and limited to 4 annual Social Security caps.

The Group's supplementary pension scheme has a replacement rate which remains clearly below market practice, regardless of the reference panel used.

- Mandatory group defined-contribution scheme

In 2016, the contribution paid for each member of the Management Board was: €12,357.12.

- Individual, defined-contribution scheme subject to performance criteria

The Supervisory Board validated the achievement of the applicable performance condition for contribution to be paid to the Management Board's individual pension scheme for 2016. The maximum contribution is due because of the achievement of at least 50% of the annual bonus for 2016.

Members of the Management Board	Contributions due for 2016
Philippe Crouzet	€255,000
Jean-Pierre Michel	€8,000
Olivier Mallet	€147,000

2.3.8 Mechanisms linked to termination of the duties of members of the Management Board

In 2016, the mechanisms linked to the termination of duties of the three members of the Management Board remained the same as in 2015.

2.3.8.1 Mechanism linked to the termination of the duties of Mr. Philippe Crouzet, Chairman of the Management Board

Under the mechanism approved by the Shareholders' Meeting of 6 April 2016, Mr. Philippe Crouzet's termination package for 2016 included a termination benefit and non-compete compensation.

- No termination benefit was paid in 2016.
- No non-compete compensation was paid in 2016.

2.3.8.2 Mechanisms linked to the termination of duties of Mr. Jean-Pierre Michel and Mr. Olivier Mallet, members of the Management Board

In 2016, under their employment contracts, Mr. Jean-Pierre Michel and Mr. Olivier Mallet were eligible for severance pay of €847,000 and €85,000, respectively.

Under the mechanism approved by the Shareholders' Meeting of 6 April 2016, Mr. Olivier Mallet was eligible 2016 for a termination benefit. No termination benefit was paid in 2016.

2.3.8.3 Performance criteria for the termination benefit for the Chairman and the members of the Management Board

- Termination package of Mr. Philippe Crouzet

Under the mechanism approved by the Shareholders' Meeting of 6 April 2016, after application of the performance conditions assessed for the three preceding fiscal years, the performance factor (PF) calculated for fiscal years 2014, 2015 and 2016 would be 62, 25 and 26, respectively.

- Termination package of Mr. Olivier Mallet

Under the mechanism approved by the Shareholders' Meeting of 6 April 2016, after application of the performance conditions assessed for the three preceding fiscal years, the performance factor (PF) calculated for fiscal years 2014, 2015 and 2016 would be 65, 23 and 25, respectively.

2.3.9 Special compensation

No special compensation was paid to Mr. Philippe Crouzet (Chairman of the Management Board) or to Messrs. Jean-Pierre Michel and Olivier Mallet (members of the Management Board).

2.3.10 Signing bonus

No signing bonus was paid to Mr. Philippe Crouzet (Chairman of the Management Board) or to Messrs. Jean-Pierre Michel and Olivier Mallet (members of the Management Board).

2.3.11 Deferred variable compensation

No deferred variable compensation was paid to Mr. Philippe Crouzet (Chairman of the Management Board) or to Messrs. Jean-Pierre Michel and Olivier Mallet (members of the Management Board).

3. Compensation due or allocated for the fiscal year ended 31 December 2016 to each of the three Management Board members

3.1 COMPENSATION DUE OR ALLOCATED FOR THE FISCAL YEAR ENDED 31 DECEMBER 2016 TO MR. PHILIPPE CROUZET

Components of the compensation due or allocated for the fiscal year ended 31 December 2016	Value submitted for an advisory vote	Presentation
Fixed compensation	€798,000	Unchanged since 2014
Annual variable compensation	€679,257	See paragraph 2.3.3 of this report for a description of the annual variable compensation.
Deferred variable compensation	N/A	There is no deferred variable compensation.
Extraordinary compensation	N/A	There is no extraordinary compensation.
Long-term incentive equity instruments	€15,976	30,145 options granted for target performance, or 0.007% of the share capital as at 31 December 2016. This allocation was authorized by the Supervisory Board meeting of 17 February 2016, within the context of the nineteenth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014. See paragraph 2.3.4 of this report for a description of the conditions for these options.
	€60,378	22,036 performance shares granted for target performance, or 0.005% of the share capital as at 31 December 2016. This allocation was authorized by the Supervisory Board on 17 February 2016, under the twentieth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014. See Section 2.3.4 of this report for a description of the terms of these performance shares.
Attendance fees	N/A	Mr. Philippe Crouzet does not receive attendance fees for corporate offices held within the Vallourec Group.
Valuation of all benefits in kind	€4,386 [(a)]	Car

(a) Carrying amount of €9,991.

Components of compensation due or awarded during the fiscal year ended that are or were voted on by the Shareholders' Meeting under the related party agreements and commitments procedure	Value submitted for vote	Presentation
Termination payment	€0	See paragraph 2.3.8.1 of this report for a description of the termination payment scheme.
Non-compete compensation	€0	See paragraph 2.3.8.1 of this report for a description of the non-compete compensation scheme.
Supplementary retirement plan	€267,357.12	See paragraph 2.3.7 of this report for a description of the supplementary retirement plan.

3.2 COMPENSATION DUE OR ALLOCATED FOR THE FISCAL YEAR ENDED 31 DECEMBER 2016 TO MR JEAN-PIERRE MICHEL

Components of the compensation due or allocated for the fiscal year ended 31 December 2016	Value submitted for an advisory vote	Presentation
Fixed compensation	€450,000	Unchanged since 2012
Annual variable compensation	€285,615	See paragraph 2.3.3 of this report for a description of the annual variable compensation.
Deferred variable compensation	N/A	There is no deferred variable compensation.
Extraordinary compensation	N/A	There is no extraordinary compensation.
Long-term incentive equity instruments	Options = €7,504 (accounting valuation for target achievement)	14,159 options granted for target performance, or 0.003% of the share capital as at 31 December 2016. This allocation was authorized by the Supervisory Board meeting of 17 February 2016, within the context of the nineteenth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014. See paragraph 2.3.4 of this report for a description of the conditions for these options.
	Shares = €28,413 (accounting valuation for target achievement)	10,370 performance shares granted for target achievement, or 0.002% of share capital as at 31 December 2016. This allocation was authorized by the Supervisory Board on 17 February 2016, under the twentieth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014. See Section 2.3.4 of this report for a description of the terms of these performance shares.
Attendance fees	N/A	Mr. Jean-Pierre Michel does not receive attendance fees for corporate offices held within the Vallourec Group.
Valuation of all benefits in kind	€5,225 (a)	Car

(a) Carrying amount of €15,241.

Components of compensation due or awarded during the fiscal year ended that are or were voted on by the Shareholders' Meeting under the related party agreements and commitments procedure	Value submitted for vote	Presentation
Termination payment	N/A	There is no termination payment. See paragraph 2.3.8.2. of this report for a description of the mechanism that is linked to Mr. Jean-Pierre Michel's termination of service.
Non-compete compensation	N/A	There is no non-compete compensation.
Supplementary retirement plan	€20,357.12	See paragraph 2.3.7 of this report for a description of the supplementary retirement plan.

3.3 COMPENSATION DUE OR ALLOCATED FOR THE FISCAL YEAR ENDED 31 DECEMBER 2016 TO MR OLIVIER MALLET

Components of the compensation due or allocated for the fiscal year ended 31 December 2016	Value submitted for an advisory vote	Presentation
Fixed compensation	€420,000	Unchanged since 2014
Annual variable compensation	€266,574	See paragraph 2.3.3 of this report for a description of the annual variable compensation.
Deferred variable compensation	NA	There is no deferred variable compensation.
Extraordinary compensation	NA	There is no extraordinary compensation.
Long-term incentive equity instruments	Options = €7,504 (accounting valuation for target achievement)	14,159 options granted for target performance, or 0.003% of the share capital as at 31 December 2016. This grant was authorized by the Supervisory Board meeting of 17 February 2016, within the context of the nineteenth resolution which was approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014. See paragraph 2.3.4 of this report for a description of the conditions for these options.
	Shares = €28,413 (accounting valuation for target achievement)	10,370 performance shares granted for target achievement, or 0.002% of share capital as at 31 December 2016. This allocation was authorized by the Supervisory Board on 17 February 2016, as part of the 20th resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of 28 May 2014. See Section 2.3.4 of this report for a description of the terms of these performance shares.
Attendance fees	NA	Mr. Olivier Mallet does not receive attendance fees for corporate offices held within the Vallourec Group.
Valuation of all benefits in kind	€5,400 (a)	Car

(a) Carrying amount of €13,814.

Components of compensation due or awarded during the fiscal year ended that are or were voted on by the Shareholders' Meeting under the related party agreements and commitments procedure	Value submitted for vote	Presentation
Termination payment	€0	See paragraph 2.3.8.2 of this report for a description of the termination payment scheme.
Non-compete compensation	N/A	There is no non-compete compensation.
Supplementary retirement plan	€159,357.12	See paragraph 2.3.7 of this report for a description of the supplementary retirement plan.

The Supervisory Board

Appendix 3 – Compliance with the recommendations of the AFEP-MEDEF Code

The following table summarizes the recommendations of the AFEP-MEDEF Code that Vallourec has chosen not to apply and the circumstantial explanations for this.

Recommendations of the AFEP-MEDEF Code (November 2016)	Application by Vallourec
Paragraph 10.3 of the AFEP-MEDEF Code recommends, "to hold a meeting each year without the executive corporate officers in attendance."	The Supervisory Board has chosen to set aside a time for discussions without the executive corporate members in attendance at the end of each of its meetings, instead of a full meeting each year.
Paragraph 22 of the AFEP-MEDEF Code recommends that the Board "shall determine a minimum number of shares that executive corporate officers must hold in registered form until the end of their terms. This Decision shall be reviewed at least each time their office is renewed. (...) As long as that number has not been reached, the executive corporate officers shall devote a portion of their exercised options or vested shares to that end, as determined by the Board."	Given the significant number of Vallourec shares already held by Management Board members, and the binding obligations to hold shares received from both the exercise of options and the vesting of performance shares, Vallourec believes that it is not desirable to compel the members of the Management Board to purchase additional shares with their own funds and to build a securities portfolio almost exclusively composed of Vallourec shares.
Paragraph 24.6.2 of the AFEP-MEDEF Code recommends that the supplementary defined-benefit pension schemes of corporate officers satisfy the condition that, "the beneficiary be a corporate officer or employee of the company at the time of claiming their retirement rights under the rules in force," as well as other rules not applicable to schemes closed to new beneficiaries which can no longer be changed.	The supplementary defined-benefit pension scheme of the members of the Management Board has been closed to new beneficiaries and future rights since the end of 2015 and cannot be changed. The beneficiaries may only benefit from "crystallized" vested rights upon liquidation of their social security pension.
Paragraph 20.1. of the AFEP-MEDEF Code recommends that the method for compensating Board Members "[take into] account, according to the terms that [the Board] defines, the actual participation of the [members] on the Board and in the Committees, and that it thus [contain] a preponderant variable portion."	Since 1 January 2014, the structure of the Supervisory Board Chairman's compensation no longer contains a variable portion taking any variations linked to attendance into account. All of the elements of her compensation which applied up to year-end 2013 (attendance fees and fixed annual compensation) were aggregated, resulting in just one single fixed annual compensation. The Supervisory Board considers that this method of compensation is reasonable and consistent to the extent that the Supervisory Board Chairman performs duties and procedures which go well beyond merely attending the Supervisory Board and Committee meetings. It should nevertheless be emphasized, for all practical purposes, that in 2016 the Supervisory Board Chairman was present at all meetings of the Supervisory Board, the Strategy Committee, as well as at several of the Finance and Audit Committee meetings (even though, as at 28 May 2014, she was no longer a member of this Committee).

Appendix 4 – Summary of individual declarations relating to transactions in Vallourec's shares by persons referred to in Article L.621-18-2 of the French Monetary and Financial Code during the fiscal year 2016

Person making the declaration	Financial instruments	Nature of the transaction	Date of the transaction	Unit price *(In euros)*	Amount of transaction *(In euros)*
Vivienne Cox Chairman of the Supervisory Board	Shares	Acquisition	22/02/2016	4.1871	25,122.6
	Shares	Subscription	19/04/2016	2.21	28,934.08
Pierre Pringuet Vice-Chairman and Lead Member of the Supervisory Board	Shares	Acquisition	22/02/2016	4.196	8,392
	Shares	Subscription	13/04/2016	2.21	10,767.12
Maria Pilar Albiac-Murillo Member of the Supervisory Board	Shares	Acquisition	22/02/2016	4.148	10,370
Philippe Altuzarra Member of the Supervisory Board	Shares	Acquisition	23/02/2016	4.0229	10,057.32
	Shares	Acquisition	26/02/2016	4.5555	6,833.28
	Shares	Subscription	20/04/2016	2.21	17,680
Cédric de Bailliencourt Member of Supervisory Board	Shares	Acquisition	24/02/2016	4.0083	10,020.75
	Shares	Subscription	12/04/2016	2.21	10,608
Michel de Fabiani Member of the Supervisory Board	Shares	Acquisition	25/02/2016	4.18	10,450
Olivier Bazil Member of Supervisory Board	Shares	Acquisition	24/02/2016	4.013 4.001 4.018	20,065 10,002.5 10,045
	Shares	Subscription	02/05/2016	2.21	39,939.12
Bpifrance Participations Member of Supervisory Board	Shares	Subscription	03/05/2016	2.21 2.21 11	49,521,874.48 (a) 41,184,300.3 (a) 128,118,474 (a)
Laurence Broseta Member of Supervisory Board	Shares	Acquisition	14/04/2016	3.7656	2,000
	Shares	Subscription	19/04/2016	2.21	2,000
Pascale Chargrasse Member of the Supervisory Board	Shares	Acquisition	24/02/2016	4	12,000
	Shares	Subscription	13/04/2016	2.21	10,608
Philippe Crouzet Chairman of the Management Board	Shares	Subscription	18/04/2016	2.21	156,503.36 (b)
François Curie Director of Human Resources	Shares	Acquisition	22/02/2016	4.2	46,390.52
	Shares	Subscription	18/04/2016	2.21	56,805.84
José Carlos Grubisich Member of the Supervisory Board	Shares	Acquisition	25/02/2016	4.2293	4,222.93
	Shares	Acquisition	08/03/2016	7.13	14,260
	Shares	Subscription	21/04/2016	2.21	17,680
Olivier Mallet Member of the Management Board	Shares	Subscription	18/04/2016	2.21	36,650.64
	Shares	Subscription	18/04/2016	2.21	2,563.6
Jean-Pierre Michel Member of the Management Board and CEO	Shares	Subscription	14/04/2016	2.21	29,773.12
Henri Poupart-Lafarge Member of the Supervisory Board	Shares	Acquisition	24/02/2016	4.078	9,787.44
	Shares	Subscription	28/04/2016	2.21	15,232
Alexandra Schaapveld Member of the Supervisory Board	Shares	Acquisition	22/02/2016	4.1933	16,773.38
	Shares	Subscription	14/04/2016	2.21	16,689.92

(a) The three transactions are related to the conversion of 1,294,126 Tranche A bonds, 18,635,430 Tranche B bonds, and to the exercise of 14,005,055 Preferential Subscription Rights.

(b) Exercise of all preferential subscription rights (40,816) and 30,000 additional subscription rights on a proportionate basis.

8

Additional information

8.1 Statutory Auditors' reports for fiscal year 2016

8.1.1 Statutory auditors' report on the financial statements

Year ended December 31, 2016

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 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 financial statements taken as a whole and not to provide separate assurance on individual account captions or on information taken outside of the financial statements.

This report also includes information relating to the specific verification of information given in the management report and in the documents addressed to shareholders.

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 accordance with our appointment as statutory auditors by your Shareholders' Meeting, we hereby report to you for the year ended December 31, 2016, on:

- the audit of the accompanying financial statements of VALLOUREC;
- the justification of our assessments;
- the specific verifications and information required by law.

These financial statements have been approved by the Management Board. 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; those 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 involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the 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 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 financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2016 and of the results of its operations for the year then ended in accordance with French accounting principles.

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 matter:

Your Company records impairments on financial investments as described in Note B to the financial statements.

Our work involved assessing the information and assumptions on which these estimates were based, reviewing the calculations made by the Company, comparing the accounting estimates of earlier periods with the corresponding actual figures and examining the procedures applied by Management for approving these estimates.

These assessments were made as part of our audit of the 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 procedures and disclosures

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French law.

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Management Board and in the documents addressed to Shareholders with respect to the financial position and the financial statements.

Concerning the information given in accordance with the requirements of article L. 225-102-1 of the French Commercial Code ("*Code de commerce*") relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency 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 this work, we attest the accuracy and fair presentation of this information.

In accordance with French law, we have verified that the information concerning the controlling interests and the identity of the Shareholders and holders of the voting rights has been properly disclosed in the management report.

Neuilly-sur-Seine and Paris La Défense, March 10, 2017

The Statutory Auditors,

Deloitte & Associés
Christophe Patrier

KPMG Audit
Department of KPMG SA
Catherine Porta

8.1.2 Statutory auditors' report on the consolidated financial statements

Year ended December 31, 2016

This is a free translation into English of the statutory auditors' report on the consolidated financial statements issued in the French language 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 consolidated financial statements and includes explanatory paragraphs discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were made 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 captions or on information taken outside of the consolidated financial statements.

This report also includes information relating to the specific verification of information given in the management report.

This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders,

In accordance with our appointment as statutory auditors by your Shareholders' Meeting, we hereby report to you for the year ended December 31, 2016, on:

- the audit of the accompanying consolidated financial statements of VALLOUREC;
- the justification of our assessments;
- the specific verification required by law.

These consolidated financial statements have been approved by the Management Board. 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 December 31, 2016 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 draw to your attention the following matters:

Note A-2.2 to the consolidated financial statements mentions the significant estimates and assumptions made by Management that affect certain amounts in the consolidated financial statements and accompanying notes. This note specifies that these assumptions are, by nature, subject to uncertainties and that actual results could differ from these estimates, especially in the current economic situation. In the context of our audit of the consolidated financial statements for the year ended December 31, 2016, we considered that these significant assumptions and estimates concern goodwill, intangible assets and tangible assets (notes A-2.7 to A-2.9), provisions (note A-2.12) and retirement benefits and similar obligations (note A-2.13):

- concerning goodwill, intangible assets and tangible assets, we have examined the data and key assumptions used for the determination of recoverable amounts, assessed the sensitivity of the measurements to these assumptions as well as the procedure for approving these estimates by management. We also reviewed the calculation performed by the group and verified that the note C-2.3 to the consolidated financial statements provide appropriate disclosure;
- concerning the provisions, we have assessed the bases and assumptions on which such estimates were made, reviewed the calculations made by the Company, examined Management's procedures for approving these estimates, and reviewed the appropriateness of the information disclosed in note C-17 to the consolidated financial statements;
- concerning retirement benefits and similar obligations, which have been measured by independent actuaries, our procedures consisted in examining the information used, assessing the assumptions adopted and reviewing the appropriateness of the information disclosed in note C-19 to the consolidated financial statements.

These assessments were performed as part of our audit approach for the consolidated financial statements taken as a whole, and therefore contributed to the expression of our unqualified opinion 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.

Paris La Défense and Neuilly-sur-Seine, March 10, 2017

The Statutory Auditors,

Deloitte & Associés
Chritophe Patrier

KPMG Audit
Department of KPMG SA
Catherine Porta

8.1.3 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 Supervisory Board

Year ended 31 December 2016

This is a free translation into English of the statutory auditors' report issued in French prepared in accordance with Article L.225-235 of French Commercial Code ("Code de commerce") on the report prepared by the Chairman of the Supervisory Board on the internal control and risk management procedures relating to the preparation and processing of accounting and financial information issued in French and is provided solely for the convenience of English speaking users.

This report should be read in conjunction and construed in accordance with French law and the relevant professional standards applicable in France.

To the Shareholders,

In our capacity as statutory auditors of VALLOUREC and in accordance with Article L.225-235 of French Commercial Code ("*Code de commerce*"), we hereby report on the report prepared by the Chairman of your company in accordance with Article L.225-68 of French Commercial Code ("*Code de commerce*") for the year ended December 31, 2016.

It is the Chairman's responsibility to prepare, and submit to the Supervisory Board for approval, a report on the internal control and risk management procedures implemented by the company and containing the other disclosures required by Article L.225-68 of French Commercial Code ("*Code de commerce*"), particularly in terms of corporate governance.

It is our responsibility:

- to report to you on 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, and
- to attest that this report contains the other disclosures required by Article L. 225-68 of French Commercial Code ("*Code de commerce*"), it being specified that we are not responsible for verifying the fairness of these disclosures.

We conducted our work in accordance with professional standards applicable in France.

Information on the 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 consisted 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 the existing documentation;
- obtaining an understanding of the work involved in the preparation of this information and the existing documentation;
- determining if any significant 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 engagement are properly disclosed in the Chairman's report.

On the basis of our work, we have nothing to report on the information in respect of the company's internal control and risk management procedures relating to the preparation and processing of accounting and financial information contained in the report prepared by the Chairman of the Supervisory Board in accordance with Article L.225-68 of French Commercial Code ("*Code de commerce*").

Other disclosures

We hereby attest that the Chairman's report includes the other disclosures required by Article L. 225-68 of French Commercial Code ("*Code de commerce*").

Paris La Défense and Neuilly-sur-Seine, March 10, 2017

The Statutory Auditors,

Deloitte & Associés
Christophe Patrier

KPMG Audit
Department of KPMG SA
Catherine Porta

8.1.4 Statutory auditors' report on regulated agreements and commitments

Annual General Meeting held to approve the financial statements for the year ended December 31, 2016

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, 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 and that the report does not apply to those related party transactions described in IAS 24 or other equivalent accounting standards.

To the Shareholders,

In our capacity as Statutory Auditors of your Company, we hereby present to you our report on the 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 and commitments brought to our attention or which we may have discovered during the course of our audit, and the reasons justifying that these commitments and agreements are in the company's interest, without expressing an opinion on their usefulness and appropriateness or identifying such other agreements and commitments, if any. It is your responsibility, pursuant to article R.225-58 of the French Commercial Code (Code de Commerce), to assess the interest involved in respect of the conclusion of these agreements and commitments for the purpose of approving them.

Our role is also to provide you with the information stipulated in article R.225-58 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 authorised during the past year

Pursuant to article L. 225-88 of the French Commercial Code, we have been advised of the following agreements and commitments that were previously authorised by the Board of Directors.

Guarantee and investment contract specifically entered with Société Générale for a capital increase, maintaining the preferential subscription right

Person concerned: Ms. Alexandra Schaapveld, member of Vallourec's Supervisory Board and Director of Société Générale.

The capital increase with retention of shareholders' preferential subscription rights carried out in 2016 was the subject of an underwriting and placement agreement entered into on April 7, 2016 between the Company and Banco Santander, S.A., BNP Paribas, Crédit Agricole Corporate and Investment Bank, Goldman Sachs International, J. P. Morgan Securities PLC, Natixis and Société Générale as Global Coordinators, Joint Lead Managers and Bookrunners (the "Global Coordinators and Joint Lead Managers and Bookrunners") and Nomura international plc, as Joint Lead Manager and Bookrunner (the "Joint Bookrunner"), together with the Global Coordinators and Joint Lead Managers and Bookrunners (the "Underwriters") covering all of the shares offered excluding those to be subscribed by NSSMC and Bpifrance Participations in accordance with the subscription commitments of Bpifrance Participations and NSSMC (the "Underwriting Agreement"). This agreement does not constitute a performance guarantee within the meaning of article L. 225-145 of the French Commercial Code.

Pursuant to the terms of the Underwriting Agreement, the Underwriters have undertaken individually, without joint liability, for a maximum number of shares offered (except for the new shares of the Company which are covered by the subscription commitments of Bpifrance and NSSMC), to ensure the acquisition and payment, subscription and payment in full of such shares, or failing which, the acquisition and payment, subscription and payment in full by themselves, of the shares remaining unsubscribed by exercising the shareholders' preferential subscription rights at the end of the subscription period.

The Underwriting Agreement provides for the remuneration of the Underwriters by, in particular:

- a commission (*praecipium fee*) of 0.33% of the gross amount of the capital increase, equally divided between Goldman Sachs, Société Générale, BNP Paribas, Crédit Agricole CIB and Natixis;
- a commission (management fee) of 0.17% of the gross amount of the capital increase, equally divided between the Global Coordinators and Joint Lead Managers and Bookrunners pro rata to their underwriting commitments;
- a commission (underwriting fee) of 2.50% of the difference between the gross amount of the capital increase and the amounts resulting from the Subscription Commitments of Bpifrance and NSSMC, divided between the Underwriters, pro rata to their underwriting commitments.

In addition, the Company may decide to pay a discretionary fee of a maximum of 0.50% of the gross amount of the capital increase to the Global Coordinators and the Joint Lead Managers and Bookrunners, pro rata to their underwriting commitments. These commissions were paid on the settlement-delivery date, by deducting from the proceeds of the transaction, the total amount of commissions owed to Société Générale which amounted to €2,537,373.62.

The conclusion of the Underwriting Agreement was previously authorised by the Supervisory Board at its meeting of April 5, 2016, which considered that the conclusion of the Underwriting Agreement should enable the Company to implement the proposed capital increase with retention of shareholders' preferential subscription rights, which constitutes the main financing component of the strategic initiatives announced by the Company on February 1, 2016; after having discussed the expected benefits of this transaction for the Company (particularly in terms of strengthening equity and its balance sheet structure), the Supervisory Board noted that the conclusion of the Underwriting Agreement was in the corporate interest of the Company.

AGREEMENTS AND COMMITMENTS PREVIOUSLY APPROVED BY THE ANNUAL GENERAL MEETING

Agreements and commitments approved during previous years with continuing effect during the year

We hereby inform you that we have not been advised of any agreements and commitments, previously approved by the Annual General Meeting, which did not have continuing effect during the year.

Agreements and commitments authorised during the past year

- **which were performed during the year**

Furthermore, we have been advised of the performance, during the year, of the following agreements and commitments, already approved by the Shareholders' Meeting of April 6, 2016, as described in the Statutory Auditors' special report of March 15, 2016.

New additional pension scheme for Mr. Philippe Crouzet (Chairman of the Management Board) and Messrs. Jean-Pierre Michel and Olivier Mallet (members of the Management Board)

On February 17, 2016, the Supervisory Board examined the terms and conditions governing the termination of duties of Messrs. Philippe Crouzet, Jean-Pierre Michel and Olivier Mallet, members of the Vallourec Management Board, following the renewal of their mandates.

Upon recommendation of the Appointments, Remuneration and Governance Committee, the Supervisory Board authorised the closing of the additional defined benefit pension scheme in force and the set-up of a new scheme that would introduce retirement savings while preserving your Company's economic interests via the definition of performance conditions.

The Supervisory Board has thus authorised the Management Board to institute a general additional pension scheme comprising the following two components and, for Messrs. Philippe Crouzet, Jean-Pierre Michel and Olivier Mallet.

a) Mandatory group defined contribution scheme

The Supervisory Board authorised the members of the Management Board to benefit from a new mandatory group defined contribution scheme which would benefit all employees satisfying the eligibility conditions.

The contribution to this scheme would be set at 12% of the remuneration exceeding between 5 and 8 times the social security ceiling. The scheme can only be liquidated upon liquidation of the social security pension.

The amounts of contributions paid by the Company in respect of 2016 amounted to €12,357.12 for Mr. Philippe Crouzet, €12,357.12 for Mr. Jean-Pierre Michel and €12,357.12 for Mr. Olivier Mallet.

Your Company's financial obligation is strictly limited in terms of amount and time since it can close the scheme at any time.

b) Individual scheme subject to performance criteria

The Supervisory Board authorised the members of the Management Board, satisfying the eligibility conditions, to benefit from, a new individual defined contribution pension scheme to which the Company would make a contribution and for which, in keeping with the spirit of the Macron law, the Supervisory Board decided to set performance conditions.

With respect to these performance conditions, the Board has decided to determine the effective contribution rate based on the annual bonus rate: the maximum contribution would be payable for the year in the case of an annual bonus calculated at 50% of the target; no contribution would be paid if the calculated annual bonus equalled zero; the contribution would vary on a straight-line basis between limits ranging from 0 to 50%.

In order to finance the contribution, your Company's share would be equal to a percentage of the gross remuneration less employee contributions and the income tax generated by this contribution. The scheme can only be liquidated upon liquidation of the social security pension.

Your Company may terminate this scheme at any time in such a way that it does not represent a deferred obligation.

The amounts of contributions paid by the Company in respect of 2016 amounted to €255,000 for Mr. Philippe Crouzet, €8,000 for Mr. Jean-Pierre Michel and €147,000 for Mr. Olivier Mallet.

■ which were not performed during the year

We have been advised of the continuation of the following agreements, already approved by the Shareholders' Meeting of April 6, 2016 and described in the Statutory Auditors' special report of March 15, 2016, and which were not performed during the year.

Crystallisation of the defined contribution pension scheme benefiting Messrs. Philippe Crouzet, Jean-Pierre Michel and Olivier Mallet

The Supervisory Board of September 14, 2005 authorised the implementation of a supplementary pension for senior executives, noting that members of the Management Board were likely to benefit from these pension benefits; this scheme was included in an amendment authorized by the Supervisory Board on May 7, 2008.

The Supervisory Board of February 17, 2016 authorised the members of the Management Board to benefit from, as is the case for 35 other senior executives satisfying the eligibility conditions, the defined contribution pension scheme under the conditions set forth in a lock-in regulation, pursuant to which no potential new benefits may be created under the closed scheme and the beneficiaries may only benefit from past "crystallised" benefits if they obtain the liquidation of the Social Security pension.

Commitments made in favour of Messrs. Philippe Crouzet and Olivier Mallet

As previously indicated, after having examined the measures related to the termination of duties of Messrs. Philippe Crouzet and Olivier Mallet, the Supervisory Board at its meeting of February 17, 2016, decided to extend the principles of (i) monetary termination benefit for the end of a term of office and the non-compete obligation applicable to Mr. Philippe Crouzet, and (ii) the monetary termination benefit for the end of the term of office to Mr. Olivier Mallet.

a) Monetary termination benefit for the end of term of office of Mr. Philippe Crouzet

In accordance with the recommendations of the AMF and the AFEP-MEDEF code, the monetary termination benefit shall only be payable in the event of a departure following a change in control or strategy. In addition, no benefit shall be payable should Mr. Philippe Crouzet have the opportunity to claim his retirement rights in the near future.

The termination benefit amount shall be limited to twice the average gross fixed and variable annual monetary remuneration payable in respect of the two financial periods preceding the date of departure (hereinafter the "Maximum Benefit").

The benefit shall be calculated using the fixed monetary remuneration payable in respect of the financial period preceding the departure date, plus the target variable monetary remuneration determined for the same period (the "Reference Remuneration") and may not under any circumstances exceed the Maximum Benefit.

Its amount shall depend on the achievement of three performance criteria assessed in the last three financial periods preceding the departure date (the "Reference Period"). The achievement of each performance criterion shall be combined with a rating range from a floor of 0 points to a ceiling of 30 points.

- The first "C1" performance criterion shall be assessed on the EBITDA rate, expressed as a percentage of revenues for each financial period within the Reference Period. C1 shall vary on a straight-line basis between 30 points for a maximum determined by the Supervisory Board, upon the approval of the Appointments, Compensation and Governance Committee, with reference to the EBITDA rates achieved in the last three financial periods closed, and at least equal to the average of these rates; and 0 points for a minimum at most equal to the maximum less 6 EBITDA points.
- The second "C2" performance criterion shall be assessed by comparing EBITDA for each financial period within the Reference Period and the EBITDA set forth in the budget for the same financial periods, prepared by the Management Board and approved by the Supervisory Board. C2 shall vary on a straight-line basis between 0 should the EBITDA reported be less than 25% of the budgeted EBITDA, and 30 points should the EBITDA reported exceed 12.5% of budgeted EBITDA. Budget targets are set each year by the Supervisory Board, pursuant to the opinion of the Appointments, Compensation & Governance Committee, after examining the budget presented by the Management Board and examined previously by the Finance and Audit Committee.
- The third "C3" performance condition shall be based on the percentage of the variable portion of the monetary remuneration payable in respect of each financial period of the Reference Period compared to the target variable portion of the period in question. C3 shall vary on a straight-line basis between 0 and 30 points (and limited to 30 points) according to the percentage of the variable portion paid compared to the target variable portion.

In the event that the total of C1, C2 and C3 (hereinafter the "PC") is on average less than 40 during the Reference Period, no payment shall be due. For an average PC that is equal to 40 or 50, the payment shall be equal to 15 or 18 months' salary respectively (1/12th of the Reference Compensation), up to the Maximum Payment. The payment shall reach its maximum, i.e. 24 months, up to the Maximum Payment, for an average PC that is equal or greater than 80 on average. It shall vary on a straight-line basis between each of the 40, 50 and 80 thresholds.

If the PC for the last financial period of the Reference Period is equal to 0, no payment shall be due.

Each year the Company will provide retrospectively the PC achievement rates for each financial period within the Reference Period. With respect to financial periods 2014, 2015 and 2016, the PCs for Mr. Philippe Crouzet, would be set at 62, 25 and 26, respectively.

b) Non-compete obligation applicable to Mr. Philippe Crouzet

Considering the steel industry expertise that Mr. Philippe Crouzet has acquired since assuming his duties on April 2, 2009, the Supervisory Board has sought to enable the Group to safeguard its know-how and activities by imposing a conditional non-compete obligation on Mr. Philippe Crouzet should he leave the Group.

At its entire discretion, the Supervisory Board may decide to prohibit Mr. Philippe Crouzet, at the time of his departure, and for a period of 18 months following the termination of his duties as Chairman of the Vallourec Management Board, for whatever reason, from working in whatever manner with a company or a group of companies in the steel industry, with no territoriality restrictions.

This obligation, if implemented by the Board, would give rise to the payment to Mr. Philippe Crouzet of non-compete compensation equal to 12 months of gross fixed and variable monetary remuneration, calculated using the average annual gross fixed and variable remuneration paid in the two financial periods preceding the departure date.

This sum would be paid in equal monthly advances during the entire period in which the non-compete clause is applicable.

The accumulation of the compensation paid under the non-compete clause and a termination benefit, should such benefit be paid, may not under any circumstances exceed twice the average gross fixed and variable annual monetary remuneration payable in respect of the two financial periods preceding Mr. Philippe Crouzet's departure date.

c) Monetary termination benefit for the end of term of office of Mr. Olivier Mallet

The Supervisory Board decided to grant Mr. Olivier Mallet a monetary termination benefit should he be removed from office as member of the Vallourec Management Board, provided that he waives any specific compensation payable in the event of a termination of his employment contract with Vallourec Tubes, which has been suspended during his term of office as a Management Board member.

The termination benefit amount shall be limited to twice the average gross fixed and variable annual monetary remuneration payable in respect of the two financial periods preceding the date of departure (hereinafter the "Maximum Benefit") and shall not be payable should Mr. Olivier Mallet have the opportunity to claim his retirement rights in the near future.

The benefit shall be calculated using the fixed monetary remuneration payable in respect of the financial period preceding the departure date, plus the target variable monetary remuneration determined for the same period (the "Reference Remuneration") and may not under any circumstances exceed the Maximum Benefit.

The accumulation of a benefit payable under the National Collective Bargaining Agreement for Executives in the steel industry, and the monetary termination benefit, should such benefit be paid, may not under any circumstances exceed the Maximum Benefit

This benefit is subject to the same performance conditions as those previously described for the monetary termination benefit of Mr. Philippe Crouzet, it being specified that, as with the latter, the PC achievement rate for each financial period of the Reference Period shall be communicated retrospectively for each year by your Company. For the 2014, 2015 and 2016 financial periods, the PC for Mr. Olivier Mallet would be set at 65, 23 and 25 respectively.

Neuilly-sur-Seine and Paris La Défense, 10 March, 2017

The Statutory Auditors,

Deloitte & Associés	**KPMG Audit**
Christophe Patrier	Department of KPMG SA
	Catherine Porta

8.2 Subsidiaries and directly-held equity interests of Vallourec as at 31 December 2016

In € thousand Companies	Capital	Other equity before allocation of income (loss)	Percentage of capital held *(%)*	Accounting value of the securities held		Loans and advances granted by the Company and not yet repaid	Total securities and guarantees given by the Company	Sales excluding taxes for the last fiscal year	Income (loss) for the last fiscal year	Dividends received by the Company during the year
				gross	net					
A) Subsidiaries and equity interests with a carrying amount in excess of 1% of Vallourec's capital (i.e. €2,612 million)										
I. Subsidiaries (at least 50%-owned)										
French company										
Vallourec Tubes 27, avenue du Gal-Leclerc 92100 Boulogne-Billancourt – France	1,503,948	1,975,114	100%	3,856,429	3,856,429	2,222,312	–	49,048	(459,294)	-
B) Subsidiaries and equity interests with a carrying amount of less than 1% of Vallourec's capital (i.e. €2,612 million)										
I. Subsidiaries (at least 50%-owned)										
a) French companies										
Assurval 27, avenue du Gal-Leclerc 92100 Boulogne-Billancourt – France	10	407	99%	8	8	–	–	574	134	461
II. Equity interests (10%- to 50%-owned)										
a) French companies										
b) Foreign companies										
C) Long-term investments										
a) French companies										
b) Foreign companies										
Nippon Steel Sumitomo Metal Corporation (NSSMC)	–	–	0.37%	81,947	75,202	–	–	–	–	–

8.3 Financial results for the last five years

In euros	2012	2013	2014	2015	2016
CAPITAL					
Share capital	**249,892,712**	**256,319,200**	**261,195,950**	**271,376,864**	**902,476,010**
Number of ordinary shares in issue	124,946,356	128,159,600	130,597,975	135,688,432	451,238,005
Number of preference dividend shares (without voting rights) in issue	–	–	–	–	-
Maximum number of new shares to be issued:					
■ by converting bonds	–	–	–	–	-
■ by exercise of subscription rights	2,655,087	3,183,279	3,277,041	2,860,088	4,661,657
■ by bond redemption	–	–	–	–	-
Revenue, excluding taxes	10,507,997	10,477,780	7,113,746	3,768,771	5,758,082
Income (loss) before tax, employee profit-sharing, depreciation and amortization, and provisions	305,645,524	238,748,107	158,212,497	86,095,267	(43,370,419)
Income tax	(4,666,973)	(10,840,983)	(7,021,640)	(1,031,743)	(8,838,867)
Employee profit-sharing for the year	–	–	–	–	-
Income (loss) after tax, employee profit-sharing, depreciation and amortization, and provisions	294,316,536	263,323,882	159,162,352	61,538,102	(17,841,399)
Distributed earnings	**86,212,986**	**103,809,276**	**105,784,360**	**–**	**–**
EARNINGS PER SHARE					
Income after taxes and employee profit-sharing but before amortization and provisions	2.48	1.95	1.27	0.64	(0.08)
Income (loss) after tax, employee profit-sharing, depreciation and amortization, and provisions	2.36	2.05	1.22	0.45	(0.04)
Dividend allotted to each existing share	**0.69**	**0.81**	**0.81**	**–**	**–**
WORKFORCE					
Average number of employees during the fiscal year	7	7	7	7	7
Amount of payroll costs for the year	2,013,521	2,994,504	3,194,083	2,917,511	2,378,067
Payroll-related costs (social security, employee benefits, etc.)	1,150,021	2,718,063	1,905,112	1,251,897	1,969,216

8.4 Concordance tables and information incorporated by reference

8.4.1 Concordance table comparing the Registration Document and Appendix I to EC Regulation No. 809/2004 of 29 April 2004

Appendix I to the European Regulation			Registration Document Chapters/Sections	Pages
1.	**Persons responsible**			
	1.1	Names of persons responsible	1.1	6
	1.2	Declaration of persons responsible	1.2	6
2.	**Statutory Auditors**			
	2.1	Name and address of the Statutory Auditors	1.3	7
	2.2	Information on the resignation of Statutory Auditors	N/A	NA
3.	**Selected financial information**			
	3.1	Historical financial information	Profile/3.5/3.7/3.8/ 6.1/6.2	2/56/69/ 70/148/224
	3.2	Interim financial information	N/A	NA
4.	**Risk factors**		5	129
5.	**Information about the issuer**			
	5.1	History and development of the Issuer	3.1	30
	5.1.1	Legal and commercial name	2.1.1	10
	5.1.2	Place of registration and registration number of the issuer	2.1.2	10
	5.1.3	Date of incorporation and length of life of the issuer	2.1.3	10
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8.4.2 Concordance table between Vallourec's Registration Document and the annual financial report

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8.4.3 Concordance table between the Registration Document and the Management Board report

This Registration Document includes all elements from the Board's management report as required by law and the regulations. The table below identifies the sections and pages of this Registration Document constituting the management report.

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8.4.4 Information Included by Reference

In accordance with Article 28 of European Commission (EC) Regulation No. 809/2004 of 29 April 2004, this Registration Document incorporates the following information by reference:

- the parent company and consolidated financial statements for the year ended 31 December 2015, the Statutory Auditors' reports thereon, and the management report, presented respectively in Section 6.2 (pages 216-228), Section 6.1 (pages 140-215), Sections 9.1.1 to 9.1.4 (pages 306-312) and Section 9.4.3 (page 319) of the 2015 Registration Document filed with the French securities regulator (*Autorité des Marchés Financiers*) on 17 March 2016 under No. D.16-0141; and
- the parent company and consolidated financial statements for the year ended 31 December 2014, the Statutory Auditors' reports thereon, and the management report, presented respectively in Section 6.2 (pages 199-210), Section 6.1 (pages 126-198), Sections 9.1.1 to 9.1.4 (pages 286-292) and Section 9.4.3 (page 299) of the 2014 Registration Document filed with the French securities regulator (*Autorité des Marchés Financiers*) on 10 April 2015 under No. D.15-0315.

8.5 Other periodic information required under the General Regulations of the French securities regulator (*Autorité des Marchés Financiers*)

The Registration Document includes some of the periodic information required under the terms of the AMF's General Regulations. The following table provides details of the pages of this Registration Document on which this information appears.

	Registration Document	
	Section	**Pages**
Report of the Chairman of the Supervisory Board on the Board's composition and application of the principle of balanced representation of women and men on it, the conditions for preparing and organizing the Board's work, and the risk management and internal control procedures implemented by Vallourec (Article 222-9 of the General Regulations of the French securities regulator – Autorité des Marchés Financiers)	7 (Appendix 1)	281
Statutory Auditors' report on the Report of the Chairman of the Supervisory Board (Article 222-9 of the General Regulations of the French securities regulator (Autorité des Marchés Financiers)	8.1.3	320
Statutory Auditors' fees (Article 222-8 of the AMF's General Regulations)	6.1 (Note 27)	217
Description of the share buyback program (Article 241-2 of the AMF's General Regulations)	2.2.4	15

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A French limited liability company (société anonyme)
with Management and Supervisory Boards and issued capital of €902,476,010