2021 EDITION

2021 EDITION

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vallourec

SMART TUBULAR SOLUTIONS

UNIVERSAL REGISTRATION DOCUMENT

Including the Annual Financial Report

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UNIVERSAL REGISTRATION DOCUMENT

INCLUDING THE ANNUAL FINANCIAL REPORT

2021

The Universal Registration Document was filed on 19 April 2022 with the French securities regulator *(Autorité des Marchés Financiers*) as the competent regulator under Regulation (EU) 2017/1129, without prior approval in accordance with Article 9 therein. The Universal Registration Document may be used for the purposes of a public offer of financial securities or the admission of financial securities to trading on a regulated market if it is supplemented by a securities note and, where applicable, a summary and any amendments made to the Universal Registration Document. The resulting package is approved by the French securities regulator in accordance with Regulation (EU) 2017/1129.

This is a copy of the official version of the 2021 Universal Registration Document, including the annual financial report 2021, which has been prepared under the ESEF format (European Single Electronic Format) and filed with the AMF, available on the Company's website and on the AMF's website.

This is a translation into English of the (universal) registration document of the Company issued in French and it is available on the website of the Issuer.

Copies of this Universal Registration Document are available free of charge from Vallourec, at 12, rue de la Verrerie, 92190, Boulogne-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 Universal 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 and the corresponding sections of this Universal Registration Document is included on page 361.

Vallourec,
our customers' innovative and agile partner of choice for smart and sustainable tubular solutions

THE GROUP

€3.4bn
in revenue

approx. 17,000
employees

More than **40**
production units

Present in more than **20**
countries

RESEARCH & DEVELOPMENT

€38m
spent on R&D

390
technicians and engineers

5
research and test centers

A world leader serving 3 markets

OIL & GAS, PETROCHEMICALS

Tubes, connections and premium services for the exploration and operation of oil and gas fields, including the most complex facilities

INDUSTRY AND OTHER

Lightweight and resistant tubes for a wide range of applications

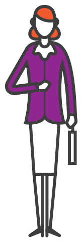
POWER GENERATION

A wide range of tubes for the construction of conventional and nuclear power plants

200
VAM licensees worldwide

A player involved in and committed to social and environmental responsibility

SOCIAL & SOCIETAL



24%
female executives

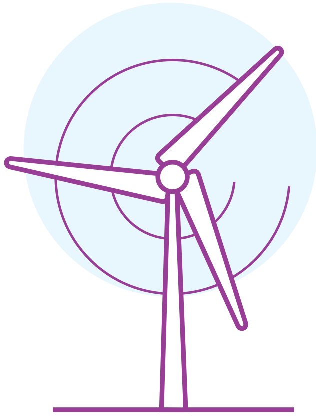
77%
of employees satisfied*

€4.8m
allocated to actions benefiting local communities

HEALTH & SAFETY

47%
reduction in accidents with (LTIR) and without (TRIR) stoppages between 2015 and 2021

71%
of hazardous substances (CMRs**) eradicated



ENERGY

44%
of energy consumed from renewable sources

43%
of production from ISO 50001 certified sites

ENVIRONMENT

14%
of our water requirements supplied by rainwater

RESOURCES EMPLOYED

78%
of consumed resources from renewable sources

97.6%
of waste recovered

49%
of steel used from recycled scrap

PURCHASING

65%
of spending with suppliers under CSR performance assessment

* Source: 2021 Social Barometer.

** Carcinogenic Mutagenic Reprotoxic substances.

Positioning aligned with our customers' ambitions

VAM® connections, with their innovative design, provide solutions to all the challenges of Oil & Gas markets. Below is a summary of our premium solutions.

VAM® 21

VAM® 21 is today's standard connection for oil companies, with over one million joints installed worldwide. Available in a wide range of sizes and grades, VAM® 21 offers exceptional sealing and extreme compressive strength in both onshore and offshore environments, for conventional and other wells.

VAM® SPRINT-SF and VAM® SPRINT-FJ

The VAM® SPRINT-SF (semi-integral) and VAM® SPRINT-FJ (integral) connections are part of our semi-premium product line for the shale gas market. High tension rating and ultra-high torque capacities for the former and maximum residual space for the latter make these connections ideal for casing strings in non-conventional wells.

VAM® BOLT-II

With its high torque capacity and sealing performance, VAM® BOLT-II, the latest generation of VAM® Flush connections, provides a tailored solution for deep water challenges. It is available in a wide range of diameters and features a dual thread for reduced fitting time on platforms.

VAM® SLIJ-3

VAM® SLIJ-3 is suitable for the most critical applications: high pressures and extreme temperatures. Developed and tested to the most stringent industry standards, this connection boasts exceptional performances for deep offshore wells. VAM® SLIJ-3 offers a wide performance envelope, high tension and compression strength, and high torque capacity.

A growing number of innovative services and solutions with a wide range of customer benefits

SERVICES

Services, both physical and digital, provide strong impetus for Group innovation and transformation. Services are a powerful differentiating factor in our traditional businesses, and a highly effective lever for proposing new applications in renewable energy.

CONNECTED EQUIPMENT

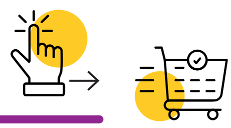
Our Intelligent Drift and Intelligent Pipes solutions use integrated sensors to automatically acquire precise dimensional characteristics on casing geometry and to record and transmit real-time information on well behavior and environment.

NEW TECHNOLOGIES

Two Additive Manufacturing technologies feature in Vallourec's value chain transformation program: thermal spraying and wire-arc additive manufacturing (WAAM). These technologies have reached maturity, as with the waterbrushing unit made by Vallourec for TotalEnergies (1.2 m in diameter for 220 kg), and the two lifting plugs for Weatherford (50 cm in diameter for 175 kg each). In the same field, Vallourec recently deployed its new digital application, Vallourec® Additive Manufacturing.

Behub-e

In late 2021, Vallourec launched Behub-e, an online marketplace open to sellers and buyers in the Energy and Industry markets. Suppliers can use this global platform to sell their surplus production and product ranges to industry buyers. It offers the triple advantage of reducing procurement costs, contributing to the circular economy, and reducing the carbon footprint of products.



Vallourec's contribution to a low-carbon future

Under its renewable energies commitment, for the past two years Vallourec has been exploring the five promising segments of geothermal energy, CCUS, hydrogen, offshore wind power and solar energy.

The Group benefits from recognized expertise in tubes and related services and in materials management, backed by quality R&D and global presence.

- Vallourec has a background of active involvement in geothermal energy and CCUS, with recognized experience in areas such as corrosion, high-temperature environments, pressurized steam and metallurgy, plus safe transport and storage for hazardous fluids.
- The Group has a dedicated organization for successfully managing energy transition projects, with a specifically appointed representative in the US.

GEOTHERMAL

- Our solutions for geothermal wells can withstand high-temperature, high-pressure environments and corrosion. Our products boast proven performance, seen in the success of our VAM®21 connections and the THERMOCASE® VIT solution, to be used by GreenFire Energy at The Geysers field in California.
- Vallourec is a corporate member of the International Geothermal Association (IGA).

CARBON CAPTURE, STORAGE AND UTILIZATION

- Vallourec's durable, corrosion-resistant, seamless tubular solutions ensure safe transportation and storage for CO_2.
- The Group also offers solutions for monitoring the integrity of CCUS injection wells.
- VAM® connections have been tested under all types of operating conditions and have proved sustained integrity and sealing capability in harsh working environments (100% CO_2 gas, T° of -80°C and -35°C temperature cycling).
- Several contracts have already been signed for projects in Qatar and the North Sea.

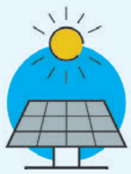
HYDROGEN

- Vallourec provides tubular solutions for hydrogen projects (transportation, distribution and storage) that require a high level of water-tightness and corrosion resistance.
- Our experts have developed a new protocol for testing VAM® connections in hydrogen storage applications, using a gas mixture of 5% hydrogen and 95% nitrogen.
- ENGIE subsidiary Storengy has selected our complete range of tubular solutions and services for its HyPSTER project.
- Vallourec participates in the HyStorIES project and is one of the key members of the H_2Pipe JIP launched by DNV.

OFFSHORE WIND

- Vallourec supplies secondary steel structures for wind turbine foundations, as well as tubular structures for jackets and for wind turbine installation vessels and cranes. The Group supplied hot-rolled seamless tubes for the Hywind Tampen project, one of the world's largest wind farms.

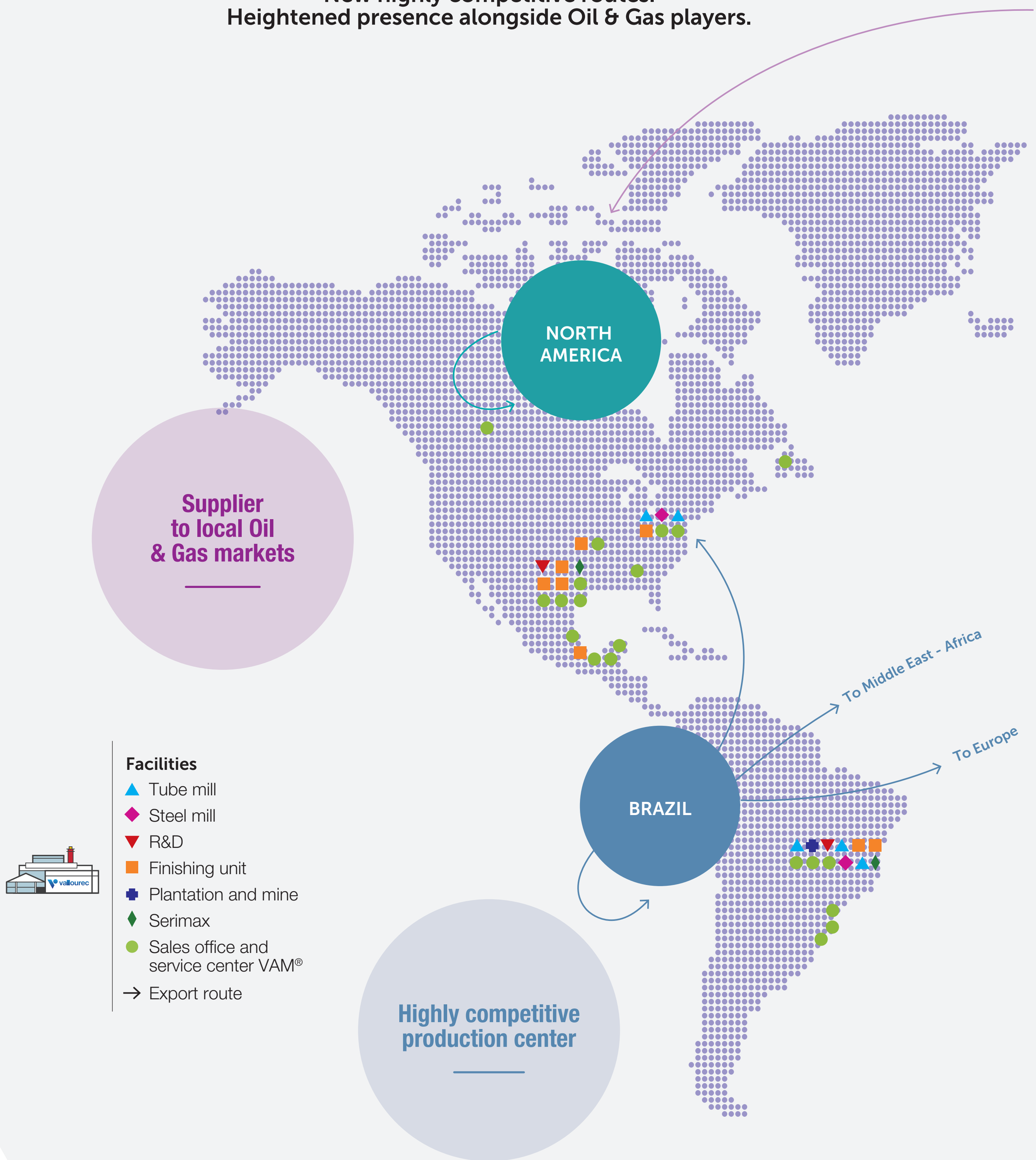
SOLAR



- Thanks to its high-quality tubes, Vallourec supplies sound structures capable of supporting solar panels, in particular for large-scale structures such as parking lot shade structures and agricultural and industrial hangars.

Vallourec:
a more agile, flexible, state-of-the-art industrial footprint

New highly competitive routes.
Heightened presence alongside Oil & Gas players.




Highly competitive production center
To North America
EUROPE
CHINA
MIDDLE EAST AFRICA
SOUTH EAST ASIA

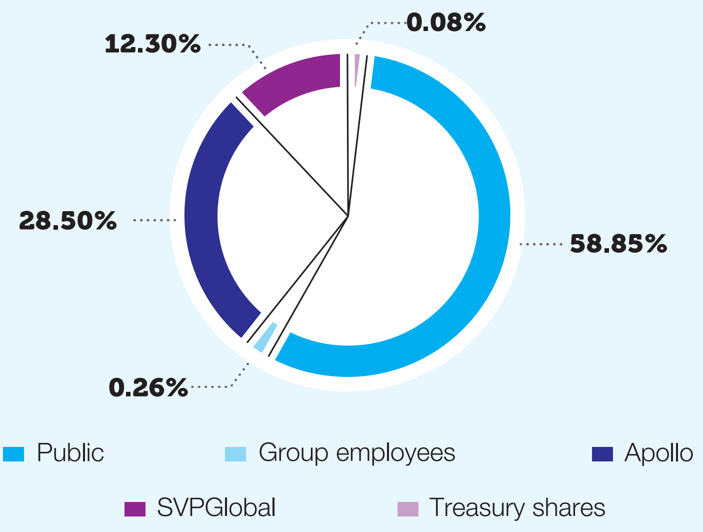
Key financial and business performance indicators

Consolidated data	Unit	2020	2021	Change
Sales volume	kt	1,599	1,640	2.6%
Revenue	€m	3,242	3,442	6.1%
Industrial margin	€m	608	837	37.7%
Industrial margin (as a % of revenue)		*18.8%*	*24.3%*	*+5.5 pts*
EBITDA	€m	258	492	+€234m
EBITDA margin (as a % of revenue)		*8.0%*	*14.3%*	*+6.3 pts*
Operating income (loss)	€m	(1,002)	374	+€1,376m
Net income, Group share	€m	(1,206)	40	+€1,246m
Earnings per share	€	(105.4)	0.3	N/A
Capital expenditure	€m	(138)	(138)	N/A
Free cash flow*	€m	(111)	(284)	-€173m
Net debt	€m	2,214	958	-€1,256m
Equity	€m	134	1,808	+€1,674m
Net financial leverage		8.6x	1.9x	N/A

* *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.*

Ownership structure as at December 31, 2021

Shareholders	Number of shares	% of share capital	Number of theoretical voting rights	% of theoretical voting rights	% of exercisable voting rights at Shareholders' Meetings
Free float	134,734,650	58.85%	134,734,650	58.85%	58.90%
Group employees	603,561	0.26%	603,561	0.26%	0.26%
Apollo	65,243,206	28.50%	65,243,206	28.50%	28.52%
SVPGlobal	28,159,346	12.30%	28,159,346	12.30%	12.31%
Treasury shares	187,665	0.08%	187,665	0.08%	-
TOTAL	**228,928,428**	**100.00%**	**228,928,428**	**100.00%**	**100.00%**



chapter 1

PERSONS RESPONSIBLE FOR THE UNIVERSAL REGISTRATION DOCUMENT AND THE AUDIT OF THE FINANCIAL STATEMENTS

1 PERSONS RESPONSIBLE FOR THE UNIVERSAL REGISTRATION DOCUMENT AND THE AUDIT OF THE FINANCIAL STATEMENTS

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1.1 Person responsible for the Universal Registration Document

Philippe Guillemot

Chairman and Chief Executive Officer of Vallourec (hereinafter “Vallourec”, “the Company”, or “the Group”)

1.2 Statement by the person responsible for the Universal Registration Document

I certify that the information contained in this Universal 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 cross-reference table on page 362 of this Universal Registration Document (section 8.3.3), presents a true and fair view of the business trends, results and financial position of the Company and all consolidated companies, and that it describes the main risks and uncertainties to which they are exposed.

Meudon, April 14, 2022

Chairman and Chief Executive Officer

Philippe Guillemot

1.3 Persons responsible for the audit of the financial statements

1.3.1 Statutory Auditors

KPMG SA

Represented by:

Alexandra Saastamoinen

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

Date of first appointment: June 1, 2006
Date reappointed: May 25, 2018

The Ordinary and Extraordinary Shareholders' Meeting of May 25, 2018 reappointed KPMG SA as Statutory Auditor for a term of six (6) fiscal years expiring at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the fiscal year ending December 31, 2023.

Deloitte & Associés

Represented by:

Véronique Laurent

Tour Majunga – 6, place de la Pyramide
92908 Paris-La Défense Cedex – France

Date of first appointment: June 1, 2006
Date reappointed: May 25, 2018

The Ordinary and Extraordinary Shareholders' Meeting of May 25, 2018 reappointed Deloitte & Associés as Statutory Auditor for a term of six (6) fiscal years expiring at the close of the Ordinary Shareholders' Meeting called to approve the financial statements for the fiscal year ending December 31, 2023.

1.4 Person responsible for the Group's legal affairs

Claire Langelier

Group General Counsel

Vallourec

12 rue de la Verrerie
92190 Meudon – France

E-mail: claire.langelier@vallourec.com

Valllourec website: www.vallourec.com

1.5 Person responsible for financial communications

Jérôme Friboulet

Investor Relations Director

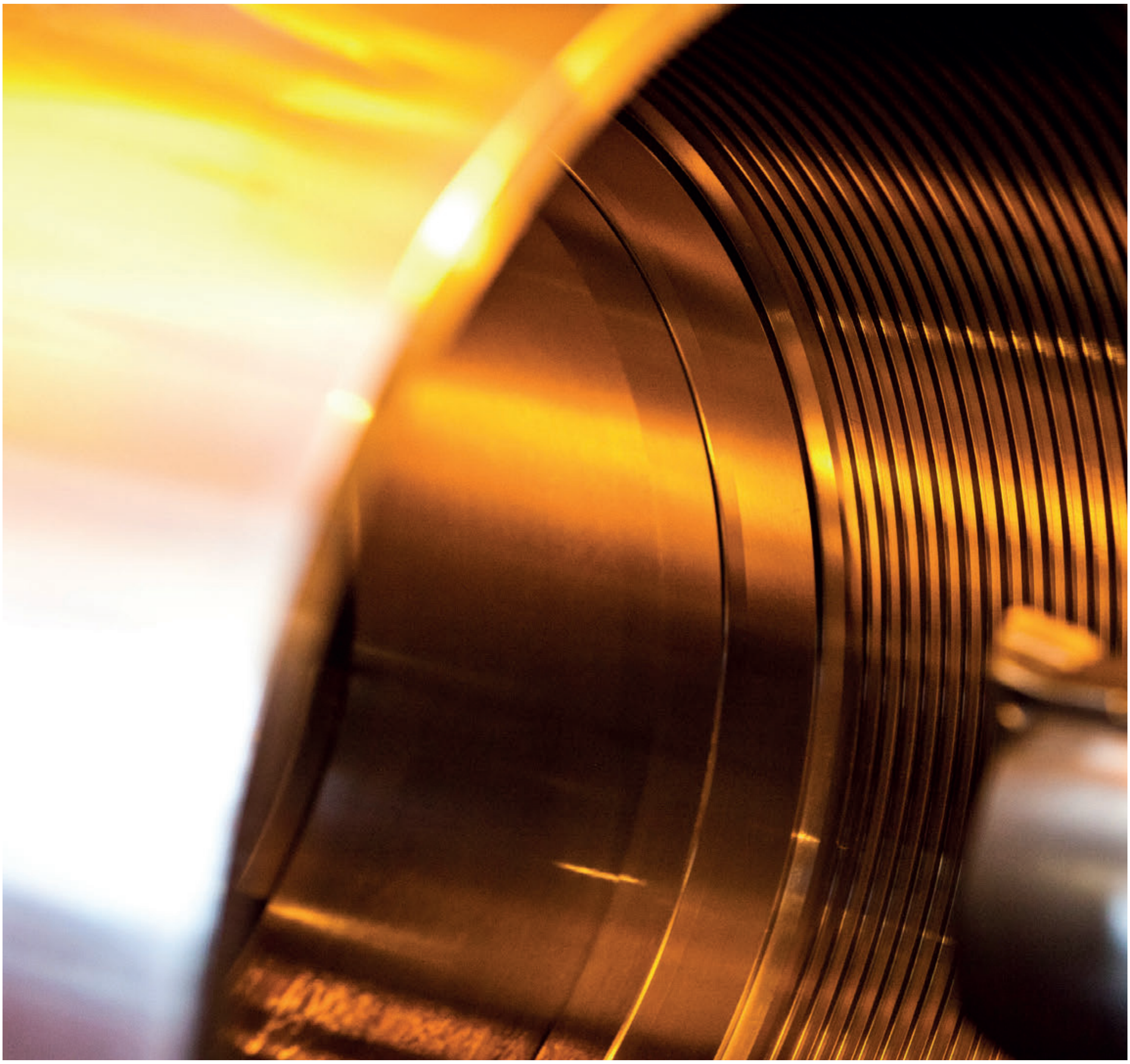
Vallourec

12 rue de la Verrerie
92190 Meudon – France

E-mail: jerome.friboulet@vallourec.com

Vallourec website: www.vallourec.com

chapter 2
GENERAL INFORMATION ON VALLOUREC AND ITS CAPITAL



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2.1 General information on Vallourec

2.1.1 Company name and registered office

Vallourec
12, rue de la Verrerie
92190 Meudon – France
Tel: : +33 (0)1 49 09 35 00
Website: www.vallourec.com

2.1.2 Legal form – Legislation – Trade and Companies Register

Vallourec is a French joint-stock corporation *société anonyme* with a Board of Directors. 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. Vallourec's Legal Entity Identifier (LEI) is 969500P2Q1B47H4MCJ34.

2.1.3 Date of incorporation and term

Vallourec was formed in 1899.

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

2.1.4 Object (Article 3 of the Articles of Association)

The Company has the following object in all countries, either on its own behalf or on behalf of third parties, or in direct or indirect joint ventures with third parties:

- all industrial and commercial operations relating to all methods of preparing and manufacturing metals and all materials that may replace them in all their uses, by all known processes and any that may subsequently be discovered;
- and, generally, all commercial, industrial and financial transactions, in real or personal property, directly or indirectly related to the above-mentioned company object.

2.1.5 Consultation of legal documents

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

2.1.6 Financial year

The financial year is twelve (12) months, starting on January 1 and ending on December 31.

2.1.7 Distribution of profits (Article 20 of the Articles of Association)

The distributable profit, as defined by law, shall be available to General Meetings of the shareholders.

Unless there is an exception due to statutory provisions, General Meetings of the shareholders shall decide on the appropriation of this profit at their discretion.

General Meetings of the shareholders may also decide to grant each shareholder, for all or some of the dividends to be distributed, a choice between payment of the dividend in cash or in shares, in accordance with statutory and regulatory provisions in force.

2.1.8 General Meetings of the Shareholders (Article 16 of the Articles of Association)

General Meetings of shareholders shall be convened under the conditions laid down by law.

The Shareholders' Meeting is open to all shareholders, regardless of the number of shares they hold.

By decision of the Board of Directors, shareholders may vote by all means of telecommunication and data transmission, including the internet, as provided by the regulations applicable at the time of use. If applicable, this decision shall be communicated in the Notice of Meeting (*Avis de réunion*) published in the *Bulletin des Annonces Légales Obligatoires* (French legal gazette).

Each member of a General Meeting shall have as many votes as ordinary shares he or she owns or represents, in the absence of legal provisions to the contrary.

As an exception to the provisions of Article L.22-10-46 of the French Commercial Code, no double voting rights are attached to the Company's shares.

General Meetings shall be chaired by the Chairman of the Board of Directors or, in his or her absence, by the Vice-Chairman or, failing this, by the oldest member of the Board of Directors.

In principle, the agenda shall be drawn up by the person who issues the convening notice.

The duties of scrutineers shall be performed by the two members of the General Meeting who are present and who accept these duties who have the largest number of votes.

The officers of the meeting shall appoint the secretary, who may but need not be a shareholder. A presence sheet is established under the conditions provided for by the law.

Deliberations shall be recorded in minutes drawn up in a special register, on numbered and initialled pages held at the registered office, or on loose sheets which shall be numbered and initialled without any discontinuity.

These minutes shall be signed by the officers of the meeting. Copies or excerpts therefrom shall be validly certified by the Chairman of the Board of Directors, the Vice-Chairman, the Chief Executive Officer if he or she is also a director, or by the secretary of the General Meeting.

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

Article 8 of the Articles of Association establishes an additional disclosure obligation in the case of thresholds crossed other than those provided for in applicable legal provisions. Consequently:

"In addition to the thresholds provided for by the applicable legal and regulatory provisions, any individual or legal entity, acting alone or in concert, that comes to hold, directly or indirectly, a fraction equal to or greater than three (3), four (4), six (6), seven (7), eight (8), nine (9) and twelve and a half (12.5) percent of the Company's share capital or voting rights, must inform the Company of the total number of shares and voting rights that it owns as well as the securities giving access to the capital and voting rights potentially attached thereto by means of a registered letter with acknowledgment of receipt, sent to the registered office (place of general management) no later than the close of the fourth trading day following the day on which the threshold is crossed.

The information referred to in the previous paragraph is also given within the same deadlines and under the same conditions, when the shareholding falls below the thresholds mentioned in that paragraph.

In determining the thresholds referred to in the preceding paragraphs, account is also taken of shares or voting rights held indirectly and shares or voting rights assimilated to shares or voting rights owned as defined by the provisions of Articles L.233-7 et seq. *of the French Commercial Code.*

In the event of failure to comply with the provisions set out above, the penalties provided for by law in the event of failure to comply with the requirement to declare the crossing of legal thresholds will apply to the statutory thresholds only at the request, recorded in the minutes of the General Meeting, of one or more shareholders holding at least five percent (5%) of the Company's capital or voting rights.

The Company reserves the right to inform the public and shareholders either of the information notified to it or of any failure by the person concerned to comply with the aforementioned obligation."

In addition, 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 the quantities held, in accordance with applicable regulations.

2.2 General information on share capital

2.2.1 Conditions set out in the Articles of Association for changes in share capital or rights in the Company

The share capital may be increased or reduced pursuant to a decision of an Extraordinary General Meeting of the shareholders under the conditions laid down by law.

The General Meeting may delegate to the Board of Directors the powers necessary for the purpose of increasing or reducing the capital.

Whenever it may be necessary to hold several shares in order to exercise a right, especially in the case of a reduction of capital, for any reason and in any manner whatsoever, the shareholders shall be personally responsible for grouping, and, if applicable, buying or selling the number of shares or rights required.

2.2.2 Share capital

As at the start of the 2021 fiscal year on January 1, 2021, the subscribed, fully paid-up share capital amounted to €228,993.88, divided into 11,449,694 shares with a par value of €0.02 each.

On June 30, 2021, the Company finalized its financial restructuring further to the successful completion of the following final steps in the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021:

- a capital increase with pre-emptive subscription rights for a gross aggregate amount (including issue premiums) of €299,724,207.62, through the issue of 52,954,807 new shares subscribed and paid up in cash by Company shareholders;
- a capital increase without shareholders' pre-emptive subscription rights reserved for certain creditors, for a gross amount (including issue premiums) of €1,330,998,569.43, through the issue of 164,523,927 new shares subscribed by the aforementioned creditors by way of set-off against a portion of their claims.

Following these corporate actions, as at December 31, 2021, Vallourec's share capital amounted to €4,578,568.56, divided into 228,928,428 shares with a par value of €0.02 each.

2.2.3 Authorized capital not issued

2.2.3.1 Financial authorizations to issue shares and marketable securities giving access to the Company's capital as at December 31, 2021

Authorizations to issue shares and marketable securities giving access to the Company's capital as at December 31, 2021 were as follows:

	Maximum caps on capital increases *(in euros or as a percentage of the share capital)*	Maximum nominal amounts of debt securities *(in €)*	Date of Shareholders' Meeting	Term of authorization	Expiration date
CAPITAL INCREASES WITH PRE-EMPTIVE SUBSCRIPTION RIGHTS (PSR)					
Capital increases with PSR (16th resolution of the Shareholders' Meeting of April 20, 2021)	€1.06 million [(a)]	N/A	April 20, 2021	12 months	April 20, 2022
CAPITAL INCREASES WITHOUT PRE-EMPTIVE SUBSCRIPTION RIGHTS (PSR)					
Capital increase without pre-emptive subscription rights for creditors under renewable credit agreements entered into by the Company and under bonds issued by the Company (in each case, other than BNP Paribas, Natixis, Banque Fédérative du Crédit Mutuel and CIC), when these are categories of persons meeting specified characteristics (17th resolution of the April 20, 2021 Shareholders' Meeting)	€3.29 million [(a)(b)]	N/A	April 20, 2021	12 months	April 20, 2022
Issue of share subscription warrants without pre-emptive subscription rights to BNP Paribas, Natixis, Banque Fédérative du Crédit Mutuel and CIC (18th resolution of the April 20, 2021 Shareholders' Meeting)	€0.61 million [(a)(b)]	N/A	April 20, 2021	12 months	April 20, 2022
EMPLOYEE SHARE OWNERSHIP PLAN					
Capital increase reserved for members of a Company savings plan as part of an employee share ownership plan (19th resolution of the April 20, 2021 Shareholders' Meeting)	2% of share capital [(a)(b)]	N/A	April 20, 2021	26 months	June 20, 2023
STOCK OPTIONS AND PERFORMANCE SHARES					
Stock options allocated to Vallourec Group employees and corporate officers (26th resolution of the April 6, 2020 Shareholders' Meeting)	3% of share capital [(a)(b)(c)(d)]	N/A	April 6, 2020	38 months	June 6, 2023
Performance shares allocated to Vallourec Group employees and corporate officers (27th resolution of the April 6, 2020 Shareholders' Meeting)	3% of share capital [(a)(b)(c)(d)]	N/A	April 6, 2020	38 months	June 6, 2023
Ordinary and preferred shares allocated to Vallourec Group employees and corporate officers (10th resolution of the Shareholders' Meeting of September 7, 2021)	5% of share capital [(a)(b)(e)]	N/A	September 7, 2021	38 months	November 7, 2024

(a) *This amount is included in the aggregate ceiling of €1,831,000 provided for under (i) of the twelfth resolution of the Shareholders' Meeting of September 7, 2021.*

(b) *This amount includes (1) in the aggregate ceiling of €1,831,000 provided for under (i) of the twelfth resolution of the Shareholders' Meeting of September 7, 2021 and (2) in the aggregate ceiling of €457,800 provided for in (ii) of the twelfth resolution of the Shareholders' Meeting of September 7, 2021.*

(c) *As at December 31, 2021, the cumulative amount used under this delegation represented 0.25% of the share capital (see section 7.3.1.2 of this Universal Registration Document).*

(d) *This 3% ceiling is for all stock options made in application of the twenty-sixth and twenty-seventh resolutions adopted by the Shareholders' Meeting of April 6, 2020.*

(e) *As at December 31, 2021, the cumulative amount used under this delegation represented 2.29% of the share capital (see section 7.3.1.2 of this Universal Registration Document).*

2.2.3.2 Use of financial authorizations to issue shares and marketable securities giving access to the Company's capital as at December 31, 2021

PERFORMANCE SHARES (twenty-seventh resolution of the Shareholders' Meeting of April 6, 2020)

Under the twenty-sixth resolution relating to performance shares, which was adopted by the Ordinary and Extraordinary Shareholders' Meeting of April 6, 2020, on October 13, 2021, the Board of Directors decided to allocate, subject to continuous service and performance conditions, a target number of 289,396 performance shares, or 0.13% of the share capital as at December 31, 2021, to 439 managers.

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

STOCK OPTIONS (twenty-sixth resolution of the Shareholders' Meeting of April 6, 2020)

Under the twenty-sixth resolution relating to stock options, which was adopted by the Shareholders' Meeting of April 6, 2020, on October 13, 2021, the Board of Directors set up a share subscription option plan, subject to continuous service and performance conditions, which provides for the allocation of a target number of 123,518 options, or 0.05% of the share capital as at December 31, 2021, to 36 managers.

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

PERFORMANCE AND PREFERRED SHARES (tenth resolution of the Shareholders' Meeting of September 7, 2021)

Under the tenth resolution relating to performance and preferred shares, which was adopted by the Ordinary and Extraordinary Shareholders' Meeting of September 7, 2021, on October 13, 2021, the Board of Directors decided to allocate, subject to continuous service and performance conditions, a target number of 1,618,690 performance shares and 3,621,598 preferred shares, or 2.29% of the share capital as at December 31, 2021, to 73 managers.

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

2.2.3.3 Potential dilution as at December 31, 2021

On June 30, 2021, as part of its financial restructuring, Vallourec issued 30,342,337 share subscription warrants without pre-emptive subscription rights to BNP Paribas, Natixis, Banque Fédérative du Crédit Mutuel and CIC. Each Warrant entitles its holder to subscribe to one (1) new share in the Company, at an exercise price of €10.11 per Warrant. The exercise ratio may be adjusted following transactions implemented by the Company after the issue date, in order to maintain the rights of the holders of Warrants, in accordance with the terms and conditions of the Warrants. The Warrants may be exercised during a period of five years as from their issuance. Potential dilution amounts to 13.25% as at December 31, 2021.

Until 2020, performance share and free share plans (see section 7.3.1.2 below) are covered by existing shares, so they have no dilutive impact. As concerns performance share and preferred share plans implemented in 2021, at the date of this Universal Registration Document, the Board of Directors had not opted to release existing shares or shares to be issued.

The award of share subscription options (see section 7.3.1.2 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 canceled or that have lapsed, potential dilution to shareholders as at December 31, 2021 was 1.11%.

2.2.4 Share buybacks

2.2.4.1 Information on transactions under the share buyback program during 2021

SHARE BUYBACKS

As at January 1, 2021, Vallourec held 1,081 Vallourec shares representing 0.009% of the share capital at that date, all earmarked to cover free share or performance share plans.

Between January 1 and December 31, 2021, Vallourec bought back 220,000 shares and transferred 33,416 shares under its free share and performance share plans.

Total gross cash flows relating to purchases and disposals/transfers of shares (excluding the liquidity agreement) between January 1 and December 31, 2021 were as follows:

	Purchases	Transfers/sales
Number of shares	220,000	33,416
Average unit price (in €)	9.9978	21.82843
AGGREGATE AMOUNT (IN €)	**2,199,559**	**729,419**

TREASURY SHARES AS AT DECEMBER 31, 2021

As at December 31, 2021, Vallourec held 187,665 Vallourec shares, or 0.08198% of the share capital at that date, all earmarked to cover free share or performance share plans. The carrying amount of the portfolio as at December 31, 2021 was €1,513,799.72, including a par value of €3,753.30 and a market value on the same date of €1,651,452.

TREASURY SHARES

None.

OPEN DERIVATIVE POSITIONS AS AT DECEMBER 31, 2021

None.

2.2.4.2 Description of the 2020-2021 share buyback program, submitted to the Ordinary and Extraordinary Shareholders' Meeting of May 24, 2022 (17th resolution)

The purpose of this description, pursuant to Articles 241-1 *et seq.* of the General Regulations of the French financial markets authority (*Autorité des marchés financiers* – AMF), is to explain the objectives and the terms and conditions of Vallourec's share buyback program that will be submitted to the Ordinary and Extraordinary Shareholders' Meeting on May 24, 2022.

ALLOCATION OF VALLOUREC SHARES HELD BY THE COMPANY AS AT FEBRUARY 28, 2022

As at February 28, 2022, Vallourec held 187,665 Vallourec shares, or 0.08% of the share capital at that date, all earmarked to cover free share or performance share plans.

OBJECTIVES OF THE SHARE BUYBACK PROGRAM SUBMITTED TO THE ORDINARY AND EXTRAORDINARY SHAREHOLDERS' MEETING OF MAY 24, 2022

In accordance with the provisions of European Regulation 596/2014 of April 16, 2014 and the market practices accepted by the French financial markets authority (*Autorité des marchés financiers* – AMF), the objectives of the share buyback program subject to approval at the Ordinary and Extraordinary Shareholders' Meeting of May 24, 2022 are as follows:

1. to implement any Company share purchase options plan or any similar plan, in accordance with the provisions of Articles L.225-177 *et seq.* and L.22-10-56 to L.22-10-58 of the French Commercial Code;
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 du travail)*;
3. to allocate shares free of charge or to allocate performance shares under the provisions of Articles L.225-197-1 *et seq.* and L.22-10-59 *et seq.* of the French Commercial Code;
4. to allocate shares to employees and/or corporate officers of the Group, particularly in the context of international employee share ownership plans or long-term incentive plans;
5. to make a market in the Company's shares on the secondary market or to increase the liquidity of Vallourec's shares through an investment services provider, under the terms of a liquidity agreement 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 and in accordance with the market practices accepted by the French financial markets authority (*Autorité des marchés financiers* – AMF);
6. to be held for subsequent delivery (in payment, exchange, or otherwise) in connection with any future acquisitions, mergers, demergers or asset contributions;
7. to deliver shares upon the exercise of rights attached to securities convertible, redeemable, exchangeable or otherwise exercisable for shares, including through the exercise of a warrant or by any other means; or
8. to cancel some or all of the acquired shares, provided that the Board of Directors has a valid authorization from the Extraordinary Shareholders' Meeting allowing it to reduce the share capital by canceling shares acquired under a buyback program.

TERMS OF THE SHARE BUYBACK PROGRAM SUBMITTED TO THE SHAREHOLDERS' MEETING OF MAY 24, 2022

The table below shows the maximum percentage of capital, the maximum number, and the characteristics of the shares that the Company could acquire under its share buyback program as submitted to the Ordinary and Extraordinary Shareholders' Meeting of May 24, 2022, as well as the maximum unit purchase price:

Share characteristics	Maximum percentage of capital	Maximum number of shares [(a)]	Maximum unit purchase price *(per share)*
Ordinary shares	10%	22,892,842	€20

(a) This number corresponds to the theoretical number of ordinary shares that the Company could acquire, calculated based on the share capital as at February 28, 2022, i.e., €4,578,568.56, divided into 228,928,428 shares with a par value of €0.02. Based on the number of ordinary shares held by Vallourec at that date (i.e., 187,665 shares), Vallourec could acquire 22,705,177 of its own shares.

TERM OF THE SHARE BUYBACK PROGRAM SUBMITTED TO THE SHAREHOLDERS' MEETING OF MAY 24, 2022

The authorization given to the Board of Directors to implement the share buyback program will be granted for a term of 18 months from the date of the Shareholders' Meeting of May 24, 2022, i.e., until November 24, 2023, 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 €)*
06/25/2015	–	3,090,460	133,688,435	6,180,920	53,774,004	267,376,870
12/15/2015	–	1,999,997	135,688,432	3,999,994	13,647,426	271,376,864
05/03/2016	–	217,101,488	352,789,920	434,202,976	45,591,312	705,579,840
05/03/2016	–	30,282,564	383,072,484	60,565,128	108,737,646	766,144,968
06/20/2016	–	61,565,565	444,638,049	123,131,130	221,067,653	889,276,098
12/14/2016	–	6,599,956	451,238,005	13,199,912	13,118,608	902,476,010
12/14/2017	–	6,749,755	457,987,760	13,499,510	13,486,494	915,975,520
05/26/2020	–	–	11,449,694	–	–	228,993.88
06/30/2021	_	52,954,807	64,404,501	1,059,096.14	298,665,111.48	1,288,090.02
06/30/2021	_	164,523,927	228,928,428	3,290,478.54	1,327,708,090.89	4,578,568.56

2.2.6 Non-equity instruments

No securities exist that would be considered non-equity instruments.

Marketable securities entitling the allocation of debt securities

As at December 31, 2021, the Board of Directors has not decided to issue any marketable securities entitling their bearers to be allocated debt securities.

Commercial paper program

On October 12, 2011, Vallourec set up a commercial paper program to meet its short-term financing requirements. The program was updated on February 8, 2022, and has the following main characteristics:

Maximum ceiling on the program	€1 billion
Duration	> 1 day < 365 days
Minimum unit value	€150,000
Currency of issue	Euros (€), US dollars ($)
Paying agent	Crédit Industriel et Commercial
Underwriters	Aurel BGC BNP Paribas BRED Banque Populaire CM - CIC Crédit du Nord GFI Securities Limited HPC ING Bank NV Kepler Cheuvreux Natixis Newedge Group Société Générale TSAF OTC
Short-term rating (Standard & Poor's)	B

The financial prospectus for the commercial paper issue program and the 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/en).

Bond issues

Upon completion of the financial restructuring described in chapter 6, the former bonds were cancelled and delisted from their respective markets.

In the context of the financial restructuring, Vallourec issued:

- on June 30, 2021, a €1,023 million fixed-rate bond issue maturing on June 30, 2026 (the "June 2026 Bonds"). The June 2026 Bonds have a unit par value of €1,000 and are admitted to trading on the Euro MTF stock market of the Luxembourg Stock Exchange. They bear interest at an annual fixed rate of 8.5%, payable semi-annually in arrears on April 15 and October 15 each year, and are rated B+ by Standard & Poor's.

The nominal value and interest on the June 2026 Bonds represent direct, unconditional, unsubordinated liabilities, not backed by Vallourec assets, ranked *pari passu*, without preference, with all other present or future unsecured and unsubordinated Vallourec bonds. Throughout the bonds' maturity period, Vallourec has undertaken not to grant any security or guarantee (mortgage, lien, pledge, security right, etc.) on its assets, income or rights, present or future, to holders of bonds, warrants or marketable 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.

This bond issue specifically includes 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, as appropriate, 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 main characteristics of the June 2026 Bonds are described in the Offering Memorandum, which is available on the Company's website (www.vallourec.com).

Rating

As at January 1, 2021, the opening date of the fiscal year, Vallourec's debt was rated CC/negative/C by Standard & Poor's. On February 11, 2021, Standard & Poor's revised Vallourec's rating to SD/D. On July 1, 2021, following the financial restructuring, Standard & Poor's allocated Vallourec a rating of B/B; and a rating of B+ for the June 2026 Bonds.

At December 31, 2021, the financial rating of Vallourec's debt by Standard & Poor's was B/B and that of the June 2026 Bonds was B+.

2.3 Distribution of share capital and voting rights

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

2019 (as at December 31)

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)]	302,921,566	66.15%	304,859,744	64.88%	64.88%
Group employees [(b)]	15,120,610	3.30%	16,175,207	3.44%	3.44%
Bpifrance Participations SA [(c)]	66,695,708	14.56%	73,654,348	15.67%	15.67%
CDC Savings Funds	6,030,658	1.32%	6,030,658	1.28%	1.28%
Subtotal CDC group [(d)]	**72,726,366**	**15.88%**	**79,685,006**	**16.96%**	**16.96%**
Nippon Steel Corporation [(c)]	66,695,715	14.56%	68,668,849	14.61%	14.61%
Treasury shares [(e)]	523,503	0.11%	523,503	0.11%	0.00%
TOTAL	**457,987,760**	**100.00%**	**469,912,309**	**100.00%**	**100.00%**

(a) *A summary of thresholds crossed in 2019 is detailed in the table below.*

(b) *Group statutory employee profit-sharing as at December 31, 2019 includes all of the shares subscribed via company mutual funds under the international employee share ownership plans that have been implemented by the Group since 2007, which include allocated shares at that date. Under the leveraged formula of these plans, the performance multiple on the Vallourec shares is obtained by transferring the discount on dividends and other financial rights related to ownership of the shares to the bank structuring the transaction through a swap contract.*

(c) *As from February 1, 2016, both Bpifrance Participations and Nippon Steel Corporation (NSC, formerly NSSMC) must respect a 15% cap on their voting rights for a 15-year period, subject to certain reservations.*

(d) *In a letter received by the AMF on April 30, 2014, Caisse des dépôts et consignations (CDC) and Bpifrance Participations SA clarified that they were each acting alone, and CDC declared that there was no concert with Bpifrance Participations SA.*

(e) *Treasury shares include the shares held in treasury by the Company to cover free share and performance share plans. As a result, the number of treasury shares is subject to change at any time.*

Legal thresholds crossed in 2019

AMF Notice no.	Date threshold crossed	Group	Number of securities after threshold crossed	% capital after threshold crossed	% voting rights after threshold crossed	Comments	Number of shares comprising the capital	Number of voting rights
219C0061	01/03/2019	JP Morgan Chase & Co	24,573,800	5.37	5.23	Above the 5% capital and voting rights thresholds	457,987,760	470,286,184
219C0077	01/08/2019	JP Morgan Chase & Co	133,403	0.03	0.03	Below the 5% capital and voting rights thresholds	457,987,760	470,286,184

2020 (as at December 31)

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)]	7,616,474	66.52%	7,762,991	65.73%	65.74%
Group employees [(b)]	346,589	3.03%	389,165	3.30%	3.30%
Bpifrance Participations SA [(c)]	1,667,392	14.56%	1,750,269	14.82%	14.82%
CDC Savings Funds	150,766	1.32%	150,766	1.28%	1.28%
Group CDC subtotal [(d)]	**1,818,158**	**15.88%**	**1,901,035**	**16.10%**	**16.10%**
Nippon Steel Corporation [(c)]	1,667,392	14.56%	1,756,184	14.87%	14.87%
Treasury shares [(e)]	1,081	0.01%	1,081	0.01%	0.00%
TOTAL	**11,449,694**	**100.00%**	**11,810,456**	**100.00%**	**100.00%**

(a) *Group statutory employee profit-sharing as at December 31, 2020 includes all of the shares subscribed via company mutual funds under the international employee share ownership plans that have been implemented by the Group since 2007, which include allocated shares at that date. Under the leveraged formula of these plans, the performance multiple on the Vallourec shares is obtained by transferring the discount on dividends and other financial rights related to ownership of the shares to the bank structuring the transaction through a swap contract. As at December 31, 2020, the company mutual funds held 123,589 unallocated shares, representing an employee stake of 1.08% in the share capital and of 1.41% in voting rights at that date.*

(b) *A summary of thresholds crossed in 2020 is detailed in the table below.*

(c) *As from February 1, 2016, both Bpifrance Participations and Nippon Steel Corporation (NSC, formerly NSSMC) must respect a 15% cap on their voting rights for a 15-year period, subject to certain reservations.*

(d) *In a letter received by the AMF on April 30, 2014, Caisse des dépôts et consignations (CDC) and Bpifrance Participations SA clarified that they were each acting alone, and CDC declared that there was no concert with Bpifrance Participations SA.*

(e) *Treasury shares include the shares held in treasury by the Company to cover free share and performance share plans. As a result, the number of treasury shares is subject to change at any time.*

Legal thresholds crossed in 2020

AMF Notice no.	Date threshold crossed	Group	Number of securities after threshold crossed	% capital after threshold crossed	% voting rights after threshold crossed	Comments	Number of shares comprising the capital	Number of voting rights
220C1184	03/26/2020	Bpifrance Participations SA	66,695,708	14.56	14.99	Below the 15% voting rights threshold	457,987,760	470,286,184
220C1185	03/26/2020	Caisse des Dépôts et Consignations (CDC)	6,030,658	1.32	1.29	-	457,987,760	470,286,184
220C1185	**03/26/2020**	**CDC group**	**72,726,366**	**15.88**	**16.29**	**No threshold crossed**	**457,987,760**	**470,286,184**
220C1541	05/09/2020	Bpifrance Participations SA	66,695,708	14.56	22.01	Above the 15% and 20% voting rights thresholds	457,987,760	470,286,184
220C1535	05/09/2020	Caisse des Dépôts et Consignations (CDC)	6,030,658	1.32	1.18	-	457,987,760	470,286,184
220C1535	**05/09/2020**	**CDC group**	**72,726,366**	**15.882**	**23.19**	**Above the 20% voting rights threshold**	**457,987,760**	**470,286,184**
220C1541	05/13/2020	Bpifrance Participations SA	66,695,708	14.56	14.98	Below the 20% and 15% voting rights thresholds	457,987,760	470,286,184
220C1535	05/13/2020	Caisse des Dépôts et Consignations (CDC)	6,030,658	1.32	1.29	-	457,987,760	470,286,184
220C1535	**05/13/2020**	**CDC group**	**72,726,366**	**15.88**	**16.28**	**Below the 20% voting rights threshold**	**457,987,760**	**470,286,184**

As at December 31, 2020, Vallourec's free float amounted to 66.52%.

2021 (as at December 31)

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]	134,734,650	58.85%	134,734,650	58.85%	58.90%
Group employees [b]	603,561	0.26%	603,561	0.26%	0.26%
Apollo	65,243,206	28.50%	65,243,206	28.50%	28.52%
SVPGlobal	28,159,346	12.30%	28,159,346	12.30%	12.31%
Treasury shares [c]	187,665	0.08%	187,665	0.08%	0.00%
TOTAL	**228,928,428**	**100.00%**	**228,928,428**	**100.00%**	**100.00%**

(a) *A summary of thresholds crossed in 2021 is detailed in the table below.*

(b) *Group statutory employee profit-sharing as at December 31, 2021 includes all of the shares subscribed via company mutual funds under the international employee share ownership plans that have been implemented by the Group since 2007, which include allocated shares at that date. Under the leveraged formula of these plans, the performance multiple on the Vallourec shares is obtained by transferring the discount on dividends and other financial rights related to ownership of the shares to the bank structuring the transaction through a swap contract. As at December 31, 2021, the company mutual funds held 603,561 unallocated shares, representing an employee stake of 0.26% in the share capital and of 0.26% in voting rights at that date.*

(c) *Treasury shares include the shares held in treasury by the Company to cover free share and performance share plans. As a result, the number of treasury shares is subject to change at any time.*

Legal thresholds crossed in 2021

AMF Notice no.	Date threshold crossed	Group	Number of securities after threshold crossed	% capital after threshold crossed	% voting rights after threshold crossed	Comments	Number of shares comprising the capital	Number of voting rights
221C0348	02/08/2021	Caisse des Dépôts et Consignations (CDC)	0	0	0	-	11,449,964	11,809,652
221C0348	02/08/2021	Bpifrance Participations SA	1,667,392	14.56	14.82	-	11,449,964	11,809,652
221C0348	02/08/2021	CNP Assurances	2,881	0.03	0.02	-	11,449,964	11,809,652
221C0348	**02/08/2021**	**CDC group**	**1,670,273**	**14.59**	**14.85**	**Below the 15% capital and voting rights threshold**	**11,449,964**	**11,809,652**
221C1616	06/25/2021	Encompass Capital Advisors LLC	572,900	5.004	4.85	Above the 5% capital threshold	11,449,694	11,811,810
221C1689	06/30/2021	Encompass Capital Advisors LLC	964,473	0.42	0.42	Below the 5% capital threshold	228,928,428	228,928,428
221C1710	06/30/2021	Bpifrance Participations SA	5,200,966	2.27	2.27	Below the 10% and 5% capital and voting rights thresholds	228,928,428	228,928,428
221C1711	06/30/2021	Nippon Steel & Sumitomo Metal Corporation	7,851,128	3.43	3.43	Below the 10% and 5% capital and voting rights thresholds	228,928,428	228,928,428
221C1714	06/30/2021	Caisse des Dépôts et Consignations (CDC)	0	0	0	-	228,928,428	228,928,428
221C1714	06/30/2021	Bpifrance Participations SA	5,200,966	2.27	2.27	-	228,928,428	228,928,428
221C1714	**06/30/2021**	**CDC group**	**5,200,966**	**2.27**	**2.27**	**Below the 10% and 5% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C1715	06/30/2021	North Star Partners SCSp	45,161,407	19.73	19.73	Above the 5%, 10% and 15% capital and voting rights thresholds	228,928,428	228,928,428
221C1715	06/30/2021	Junonia Partners SCSp	8,007,198	3.50	3.50	-	228,928,428	228,928,428
221C1715	**06/30/2021**	**Total Apollo Management Inc.**	**53,168,605**	**23.22**	**23.22**	**Above the 5%, 10%, 15% and 20% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C1716	06/30/2021	Kings Forest S.à r.l	1,555,612	0.68	0.68	-	228,928,428	228,928,428
221C1716	06/30/2021	Rathgar S.à r.l	12,397,459	5.42	5.42	Above the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C1716	06/30/2021	Queens Gate S.à r.l	6,794,543	2.97	2.97	-	228,928,428	228,928,428
221C1716	06/30/2021	Red Maple S.à r.l	7,411,732	3.24	3.24	-	228,928,428	228,928,428
221C1716	**06/30/2021**	**Total Strategic Value Partner, LLC**	**28,159,346**	**12.3**	**12.3**	**Above the 5% and 10% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C1793	07/12/2021	Monarch Master Funding 2	11,568,926	5.05	5.05	Above the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C1977	07/28/2021	Goldman Sachs International	11,697,932	5.11	5.11	Above the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C1977	07/28/2021	Goldman, Sachs & Co. LLC	20,295	0.01	0.01	-	228,928,428	228,928,428

AMF Notice no.	Date threshold crossed	Group	Number of securities after threshold crossed	% capital after threshold crossed	% voting rights after threshold crossed	Comments	Number of shares comprising the capital	Number of voting rights
221C1977	**07/28/2021**	**Total The Goldman Sachs Group, Inc.**	**11,718,227**	**5.12**	**5.12**	**Above the 5% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C1978	07/29/2021	Goldman Sachs International	336,326	0.15	0.15	Below the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C1978	07/29/2021	Goldman, Sachs & Co. LLC	153,791	0.07	0.07	-	228,928,428	228,928,428
221C1978	**07/29/2021**	**Total The Goldman Sachs Group, Inc.**	**490,117**	**0.21**	**0.21**	**Below the 5% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C1992	07/29/2021	Luxor Capital Group LP	11,748,762	5.13	5.13	Above the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C2007	08/02/2021	Goldman Sachs International	12,263,430	5.36	5.36	Above the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C2007	08/02/2021	Goldman, Sachs & Co. LLC	73,257	0.03	0.03	-	228,928,428	228,928,428
221C2007	**08/02/2021**	**Total The Goldman Sachs Group, Inc.**	**12,336,687**	**5.39**	**5.39**	**Above the 5% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C2283	09/01/2021	Goldman Sachs International	4,488,538	1.96	1.96	Below the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C2283	09/01/2021	Goldman, Sachs & Co. LLC	7,863,320	3.43	3.43	-	228,928,428	228,928,428
221C2283	**09/01/2021**	**Total The Goldman Sachs Group, Inc.**	**12,351,858**	**5.40**	**5.40**	**Has not crossed any threshold**	**228,928,428**	**228,928,428**
221C2303	09/02/2021	Goldman Sachs International	11,883,499	5.19	5.19	Above the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C2303	09/02/2021	Goldman, Sachs & Co. LLC	188,416	0.08	0.08	-	228,928,428	228,928,428
221C2303	**09/02/2021**	**Total The Goldman Sachs Group, Inc.**	**12,071,915**	**5.27**	**5.27**	**Has not crossed any threshold**	**228,928,428**	**228,928,428**
221C2395	09/10/2021	Goldman Sachs International	0	0	0	Below the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C2395	09/10/2021	Goldman, Sachs & Co. LLC	129,110	0.06	0.06	-	228,928,428	228,928,428
221C2395	**09/10/2021**	**Total The Goldman Sachs Group, Inc.**	**129,110**	**0.06**	**0.06**	**Below the 5% capital and voting rights thresholds**	**228,928,428**	**228,928,428**
221C3241	11/16/2021	Luxor Capital Group LP	11,084,063	4.84	4.84	Below the 5% capital and voting rights thresholds	228,928,428	228,928,428
221C3298	11/22/2021	North Star Partners SCSp	52,277,210	22.84	22.84	Above the 20% capital and voting rights thresholds	228,928,428	228,928,428
221C3298	11/22/2021	Junonia Partners SCSp	9,262,928	4.05	4.05	-	228,928,428	228,928,428
221C3298	**11/22/2021**	**Total Apollo Management Inc**	**61,540,138**	**26.88**	**26.88**	**Above the 25% capital and voting rights thresholds**	**228,928,428**	**228,928,428**

As at December 31, 2021, Vallourec's free float amounted to 58.85%.

2.3.2 Absence of control over the Company

No other persons exercise control over Vallourec.

2.3.3 Shareholders' agreements

The shareholders' agreement entered into on February 1, 2016 with Nippon Steel Corporation (NSC) and the shareholders' agreement entered into on February 1, 2016 with Bpifrance Participations, neither of which are deemed to represent actions in concert, expired on the date of completion of the Company's financial restructuring on June 30, 2021.

As part of the Company's financial restructuring on June 30, 2021, two separate governance agreements were entered into by the Company for terms of 15 years (unless terminated early, in the event that the shareholder concerned no longer holds any shares in the Company), with Apollo and SVPGlobal (the "**Shareholders' Agreements**"). These agreements do not constitute an action in concert with the Company or between Apollo and SVPGlobal vis-à-vis the Company. These agreements set certain rights and obligations in terms of governance, as well as of the any sales of shares in the Company by Apollo and SVPGlobal.

Governance agreements

The membership of the Board of Directors is decided in compliance with the recommendations of the AFEP-MEDEF Code as well as with the following rules:

- Apollo may propose the appointment of two directors for as long as it holds more than 15% of the Company's share capital and the appointment of one director for as long as it holds 5% of the share capital; one of the two directors appointed by Apollo will be the Vice-Chairman of the Board of Directors (and Lead Independent Director [*administrateur référent*] if he meets the AFEP-MEDEF Code criteria for this position); if Apollo holds less than 15% of the share capital, it shall cause one of the directors appointed on its proposal to resign; if Apollo holds less than 5% of the share capital, it shall cause the other director appointed on its proposal to resign.
- SVPGlobal may propose the appointment of a director for as long as it holds more than 5% of the share capital. In the event that SVPGlobal holds more than 15% of the Company's share capital, SVPGlobal may request the appointment of a second director, in which case the parties would determine whether the total number of directors can be maintained or should be increased; the same rules as those set forth above regarding Apollo shall apply in the event of a reduction in the ownership interest of SVPGlobal below the 15% threshold (to the extent that it had previously been crossed) and 5% threshold of the share capital.
- In accordance with the law, the proportion of directors of each gender must be at least 40%, excluding the employee director.

The Board of Directors have appointed two Observers, one put forward by Apollo and the other put forward by SVPGlobal (acting in an advisory capacity only).

Transfer restrictions

- Restrictions on the sale of shares: Apollo and SVPGlobal undertake not to sell, on a single trading session, a number of Company's shares exceeding 25% of the average daily number of Company's shares traded during the 30 days preceding the date of the contemplated sale (subject to the same exceptions as mentioned above, as well as in the event of an off-market transfer).
- Right of first offer: both Apollo and SVPGlobal undertake to inform the Company in the event of a proposed sale of shares to a competitor of the Company. The Company then has the right to make an offer to purchase the shares offered for sale at a price set by the Company. If the Company exercises its right of first offer, Apollo and SVPGlobal may not sell the shares concerned to the third-party competitor unless the price paid by said third party is higher than the price set by the Company in its offer and the sale is completed within six months.
- Apollo and SVPGlobal undertake not to solicit or facilitate the launch by a competitor of a tender offer on the Company.

Concert

Apollo and SVPGlobal have declared that they do not intend to act in concert and will not act in concert with respect to the Company, or with the Company, at the Effective Restructuring Date.

A description of the main provisions of these shareholders' agreements appears in the declarations submitted to the French financial markets authority (*Autorité des marchés financiers* – AMF) regarding the communication of agreements between shareholders, pursuant to Article L.233-11 of the French Commercial Code *(Code de commerce)*. These declarations are available on the AMF website: http://www.amf-france.org/en.

2.4 Market for Vallourec's shares

2.4.1 Stock market

The Company's shares are listed in Sub-Fund B of the Euronext Paris regulated market (ISIN code: FR0013506730-VK). They are a qualifying investment under French laws on equity savings plans (*Plan d'Épargne en Actions* – PEA) and are eligible for the deferred settlement service (SRD).

The Vallourec share is one of the shares traded on the CAC Mid 60, SBF 120 and Next 150 indexes.

The June 2026 Bonds are admitted to trading on the Euro MTF stock market of the Luxembourg Stock Exchange under the Regulation codes S ISIN XS2352739184, Rule 144 A ISIN XS2352739770 and IAI ISIN XS2352740604 (see section 2.2.6, "Non-equity instruments" above).

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.

An ADR is a US-dollar-denominated marketable security representing shares in a non-US company, which allows US 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.

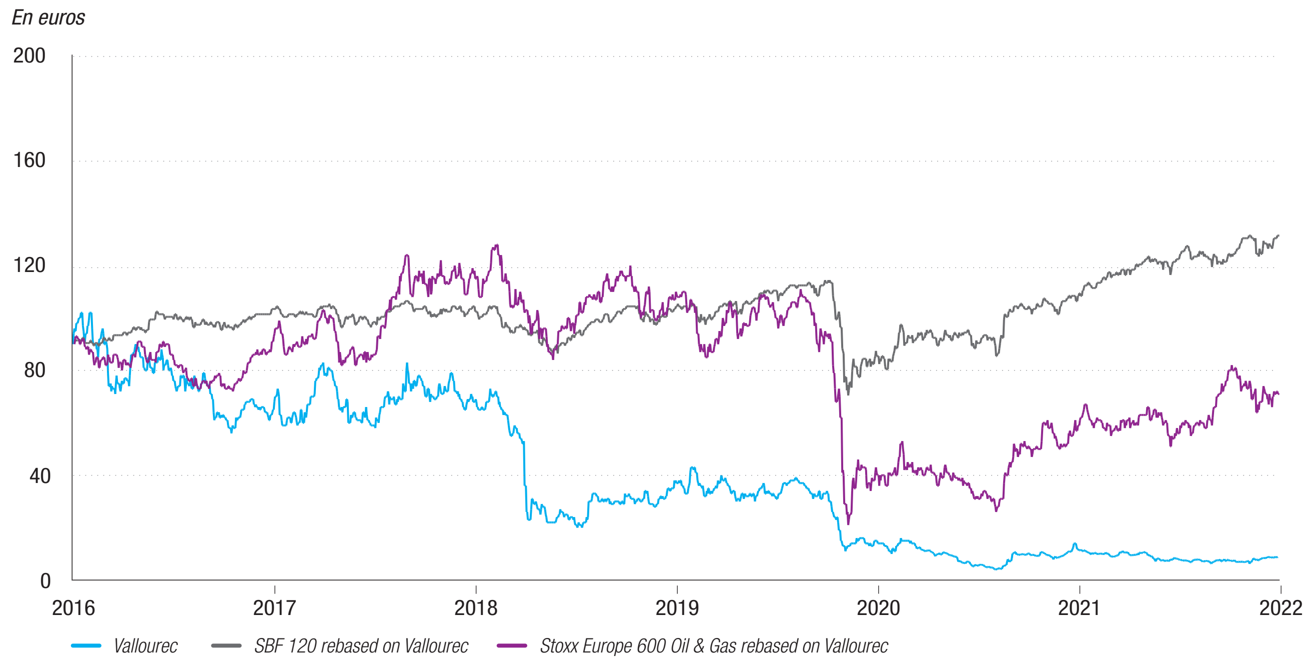
JPMorgan is the custodian bank responsible for administering the ADR program. Technical information about the ADR program is available on the Group's website in the "Shares and Dividends" section. For further information, ADR holders may contact JPMorgan services, as follows:

- by phone: (800) 466-7215 (general) or (651) 453-2128 (if calling from outside the United States);
- online at www.shareowneronline.com, or by mail at the following address:

  EQ Shareowner Services, P.O. Box 64874, St. Paul, MN 55164 – 0874, USA

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

Vallourec share price performance over the last five years compared to the SBF 120 index and the Stoxx Europe 600 Oil & Gas



Source: IR Insight.

Note: 1-for-40 reverse stock split of May 25, 2020.

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

In euros	2017	2018	2019	2020*	2021**
Number of shares outstanding (as at December 31)	457,987,760	457,987,760	457,987,760	11,449,694	228,928,428
High	7.47	6.08	3.19	114.68	14.53
Low	4.02	1.56	1.37	11.19	6.01
Average (closing) price for the year	5.40	4.60	2.31	41.35	8.79
Year-end price	5.04	1.63	2.81	26.75	8.80
Market capitalization (year-end price)	2,305,968,372	744,459,104	1,286,945,606	306,279,314	2,014,570,166

Source: Euronext.

* *1-for-40 reverse stock split effective on May 25, 2020.*

** *Financial restructuring finalized on June 30, 2021.*

2.5 Dividend policy

2.5.1 Dividend policy

The shareholders will be asked not to pay a dividend in respect of 2021 at the Shareholders' Meeting of May 24, 2022 (third resolution).

The dividends per share paid for the last five fiscal years are as follows:

In euros per share	Gross earnings	Tax credit	Net dividend	Payout ratio
2017	0	None	0	-
2018	0	None	0	-
2019	0	None	0	-
2020	0	None	0	-
2021 [a]	0	None	0	-

(a) *Subject to approval at the Shareholders' Meeting of May 24, 2022.*

Vallourec's dividend payment policy for fiscal years ending after December 31, 2021 will take into account Vallourec's results, its financial position and the restrictions applicable to the payment of dividends which the Company is subject to.

2.5.2 Restrictions on the distribution of dividends

The restrictions applicable to the distribution of dividends will be those provided for under the various debt instruments of the Group, i.e., (i) a revolving credit facility of a principal amount of €462 million (the "**RCF**"), (ii) a state-guaranteed loan with a principal amount of €262 million ("**state-guaranteed loan**") and (iii) high-yield bonds with a principal amount of €1,023 million ("**Bonds**", together with the RCF and state-guaranteed loan, the "**Debt Instruments**").

Under the terms of the RCF and the state-guaranteed loan, the Company may not distribute dividends, reserves or premiums during 2021. In addition, regarding distributions for subsequent years, the documentation relating to the Debt Instruments only permits Vallourec to distribute dividends in certain cases, including those described below.

1. <u>Distribution authorized on the basis of total consolidated net income</u>

In this case, the distribution of dividends is authorized if (i) no default or event of default has occurred or is likely to occur following such a distribution; (ii) Vallourec is able to contract at least €1 in additional debt with regard to the hedging ratio of consolidated fixed financial expenses (as defined in the terms of the Bonds), which must be greater than 2:1 on a *pro forma* basis and (iii) the proposed total amount of the dividend (combined with the amounts of other payments subject to restrictions) plus the amount distributed since the issue date of these Bonds does not exceed 50% of consolidated net income for the period (treated as an accounting period) from the first quarter following the issue date until the end of the most recent financial quarter completed before the date of payment, and for which financial statements are available (or, for example, if consolidated net income is negative, after deducting 100% of this deficit), increased by certain amounts corresponding to capital contributions or conversions of securities into capital.

2. <u>Distribution authorized specifically in respect of dividends</u>

In this case, the distribution of dividends is authorized on the conditions that (i) no default occurs and persists or is likely to occur as a result of the distribution, that (ii) Vallourec securities are still admitted for trading on Euronext Paris, (iii) the annual amount does not exceed 5% of Vallourec's market capitalization, and (iv) the consolidated net leverage ratio is less than or equal to 2.25:1 on a *pro forma* basis.

3. <u>Distribution authorized in view of the leverage ratio</u>

In this case, the distribution of dividends is authorized on the conditions that (i) no default or event of default occurs and persists or is likely to occur as a result of the distribution and (ii) the consolidated net leverage ratio is less than or equal to 2:1 on a *pro forma* basis (after taking into account the proposed distribution).

2.6 Financial disclosure policy

The Group's priority is to maintain lasting, trust-based relations with all its shareholders, both individual and institutional, French and international. The role of the Investor Relations team is to facilitate shareholders' access to accurate and precise information that faithfully reflects the Group's activities, results, outlook and strategic developments.

Accordingly, and with ongoing concern for clarity and transparency, a wide variety of dedicated communications media are made available, and regular meetings are arranged throughout the year.

2.6.1 Information available to all shareholders

Financial information and communications media are available in electronic format to all shareholders on the Group's website (www.vallourec.com) in the "Investors" section, the Group's authoritative financial communications database. These include:

- all financial and strategic information issued to the financial markets, including quarterly results, press releases, financing, presentations and audio broadcasts of the annual results, and video broadcasts of the Shareholders' Meeting;
- all the regulatory information disclosed pursuant to the European Transparency Directive of December 15, 2004 as amended, and specifically:
  - the Universal Registration Document, including the annual financial report, the half-year report and the management report of the Board of Directors, filed with the French financial markets authority (*Autorité des marchés financiers* – AMF),
  - documents relating to the Shareholders' Meeting (notice of meeting, proposed resolutions, voting forms, meeting brochure, etc.).

All Group press releases, presentations and publications are also available in the "Media" section.

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

Shareholders' Meetings

The 2021 Annual Shareholders' Meeting was held behind closed doors on the Group's premises and was streamed live on the Group's website. The Ordinary and Extraordinary Shareholders' Meeting of September 7, 2021 was held with shareholders in physical attendance. The Investor Relations team is available to assist shareholders in their efforts to vote and participate in the Shareholders' Meeting.

Newsfeed

Vallourec offers shareholders and stakeholders the option to subscribe to a Group newsfeed via the Internet at www.vallourec.com ("Investors" section), through a simple online registration process. Subscribers to the newsfeed receive electronic notifications of the Group's financial publications and activities.

2.6.2 Relations with institutional investors and financial analysts

On a regular basis and in line with best business practices, the Investor Relations Department organizes, meetings between various members of the Group's executive management and institutional investors or 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. The Company's Management present the results and answer questions from analysts. The conference call is broadcast live and rebroadcast on the Group's website;
- **each year, when public health conditions allow, a face-to-face meeting 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;
- **periodic "Investor Days" are organized**, including presentations to the financial community of the Group's strategy, products and operations. Accessible to all in the form of a webcast available on the Group's website, Investor Days enable investors and analysts to hold detailed discussions on a wide range of topics, outside of the results reporting periods.

In addition, **many events are organized throughout the year between the Group's Management and the financial community.** In 2021, Vallourec's Executive Management and Investor Relations team took part in 139 meetings and conference calls, and dedicated around 31 days to roadshows and conferences.

In 2021, the health crisis meant that most of these meetings and conferences were held by videoconference and telephone.

2.6.3 Relations with individual shareholders

The Group seeks to promote sustained dialogue with its individual shareholders and strengthen the trust-based relationships it has built with them. This dialogue also give Vallourec greater insight into the concerns of its individual shareholders so that it can better address their expectations.

Specific communications media have been developed to further this goal:

- an individual shareholders' sub-section in the "Investors" section of the Group's website (www.vallourec.com);
- the posting of financial notices in conformity with the current regulations (results releases, notices of meetings, etc.);
- a dedicated toll-free number for individual shareholders (+33 (0) 800 505 110, free from any landline in mainland France), allowing them to access information such as the financial agenda, or to get in touch with the Investor Relations team (or BNP Paribas Securities Services, if the shareholder has registered shares or is interested in acquiring such shares);
- a newsfeed which sends subscribers notifications of press releases and of financial publications to be received electronically, simply by registering online at www.vallourec.com ('Investors' section);
- in certain years, participating in the Actionaria trade show, where the Investor Relations team, along with the business line experts, present or reintroduce the Group's business lines, know-how and solutions, and speak with the individual shareholders;
- a Shareholders' Club allowing members to participate in meetings dedicated to presenting financial results and to having more regular exchanges with Vallourec in order to gain a better understanding of its activities. The Shareholders' Club and the conditions for joining and registering are accessible online at www.vallourec.com ("Investors/Shareholder space" section);
- lastly, the Investor Relations team is always available to answer shareholders' questions.

Directly registered shares

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

- **free management:** exemption 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);
- **guaranteed receipt of personalized information on:**
  - invitations to Shareholders' Meetings, with automatic receipt of notices of meetings, individual postal voting and proxy form s, and, upon request, admission cards and legal documentation;
  - securities management (purchase and sale orders, etc.), securities transactions organized by Vallourec, etc. A team of dedicated operators is continuously available to answer shareholders's queries on these and other issues 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:** automatic invitation Shareholders' Meetings, and an exemption from having to first request a certificate of shareholding to vote;
- **the dedicated Planetshares website:** https://planetshares.bnpparibas.com. This site allows shareholders to:
  - manage 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:

- by mail at the following address:

  BNP PARIBAS SECURITIES SERVICES

  Corporate Trust Operations
  Relations Actionnaires Vallourec
  9, rue du Débarcadère
  93761 Pantin Cedex
- 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 Department

- Address: 12 rue de la Verrerie – 92190 Meudon, France
- Telephone: +33 (0) 800 505 110
- E-mail: investor.relations@vallourec.com or actionnaires@vallourec.com

2.6.5 2022 financial calendar (dates subject to change)

May 19, 2022	Publication of first-quarter 2022 results
May 24, 2022	Ordinary and Extraordinary Shareholders' Meeting
July 27, 2022	Publication of second-quarter and first-half 2022 results
November 21, 2022	Publication of third-quarter and nine-month 2022 results

chapter 3
PRESENTATION OF THE VALLOUREC GROUP AND ITS BUSINESSES

3 PRESENTATION OF THE VALLOUREC GROUP AND ITS BUSINESSES

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3.1 History and development of Vallourec and the Vallourec Group

The Vallourec Group is over 100 years old, with some of the original Group companies having been created in the last decade of the 19th century. Vallourec originated in two regions of France, both with long manufacturing traditions, and where the Group still has a significant presence: the Hauts-de-France region around Valenciennes and the Burgundy region around Montbard, in Côte-d'Or. Since the end of the 1990s and the creation of the joint venture between Vallourec and Mannesmann, the Group has also been based 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 greatly strengthened its positioning in North America and established itself in Asia. Also present in Africa and the Middle East, Vallourec is now an international group, with operations located close to its customers.

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

In 1886, the Mannesmann brothers filed a patent that revolutionized the tube industry: using a rolling mill with an oblique cylinder piercer, they were able to produce seamless steel tubes.

In the late 19th century in France, tube manufacturers began to adopt the seamless tube manufacturing process that had been perfected by the Mannesmann brothers in Germany. 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 Stock Exchange 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 Société 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 of the 1930s 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

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 (a combination of the names Vallourec and Alexandre Madrelle, the engineer who developed the connection) revolutionized the oil industry. Thanks to its unique mechanical features, the VAM® connection ensures flawless 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), creating a joint venture with the company in 1984 to produce and market VAM® connections in America. These agreements were the starting point for a long-standing partnership.

1997: CREATION OF THE JOINT VENTURE 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 Germany's Mannesmannröhren-Werke (45%), enabled the two companies to offer their customers the widest range of tube sizes in the world.

2000: DEVELOPMENT IN BRAZIL

Vallourec & Mannesmann Tubes acquired Mannesmannröhren-Werke's Brazilian subsidiary, since renamed Vallourec Soluções Tubulares do Brasil.

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

Established since 1984 in the United States, the reference market for tubes designed for oil and gas wells (Oil Country Tubular Goods – OCTG), Vallourec 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). Renamed Vallourec Star, this company is wholly owned by Vallourec Tubes.

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 the strategy of the joint venture.

2006-2011: EXPANSION IN CHINA

In order to pursue its growth in the production of tubes for the power generation market, in 2006 Vallourec opened a subsidiary, Vallourec Changzhou Co.[1] located in Changzhou, China, which specializes 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.

(1) On August 18, 2017, this company changed its name to Vallourec (China) Co., Ltd.

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 respectively specialize 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 complex threading operations. In 2009, Atlas Bradford® Premium Threading & Services and TCA® were merged into VAM USA LLC and Vallourec Star respectively.

2010: CONSOLIDATION OF THE PREMIUM SOLUTIONS OFFER

Vallourec acquired Serimax, the world leader in welding solutions for offshore line pipes. This acquisition rounded out Vallourec's offshore line pipe activities, and enabled the Group to offer its customers integrated solutions.

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

In 2011, the new integrated joint industrial site for Vallourec & Sumitomo Tubos do Brasil 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.

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: SUPPORT FOR THE DEVELOPMENT OF UNCONVENTIONAL HYDROCARBONS IN THE UNITED STATES

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

2013: VALLOUREC BECOMES THE SINGLE BRAND FOR ALL GROUP COMPANIES

Since the formation of the Vallourec & Mannesmann Tubes joint venture, numerous Group entities have operated under the V&M name. In 2013, in efforts to help strengthen its world leadership and support its growth strategy, Vallourec decided that all of its entities would operate under the Vallourec banner from then on, underlining the successful integration of the numerous companies acquired by the Group worldwide.

2014: VALLOUREC BOOSTS ITS SALES IN AFRICA

Having operated in Angola since 2007 via a service center, Vallourec opened a sales office and premium tube threading plant in Nigeria in 2009. This led to the signature in 2014 of three major contracts in Africa for the supply of subsea line pipes and premium tubular solutions for use in highly complex deepwater offshore projects in Ghana, Nigeria and Angola.

2016: VALLOUREC ACCELERATES ITS TRANSFORMATION AND ANNOUNCES MAJOR STRATEGIC INITIATIVES

On February 1, 2016, Vallourec announced major strategic initiatives to streamline its industrial footprint in Europe and Brazil, acquiring control of Tianda Oil Pipe in China, and raising nearly €1 billion through a capital increase.

2017-2018: VALLOUREC CONTINUES ITS TRANSFORMATION WITH THE RAMP-UP OF NEW COMPETITIVE PRODUCTION ROUTES

Vallourec continued its transformation, notably through the establishment of a new organization based around four Regions and two Central Departments, and the ramp-up of new production routes from China and Brazil. In Brazil, the Group also renewed its long-term (three-year) contract with Petrobras for the supply of premium OCTG tubes and services (subsequently extended until mid-2023).

2019: LAUNCH OF SMARTENGO™ AND COMMERCIAL SUCCESS IN EA-MEA REGIONS

In March 2019, Vallourec launched Smartengo™, its new online sales platform for the Oil & Gas market. On September 9, 2019, Vallourec announced that it had won a five-year contract worth USD 900 million for the supply of OCTG tubes to Abu Dhabi National Oil Company (ADNOC), with a two-year extension clause. Under this contract, Vallourec also supplies a wide range of services, from plant to wells, developed as part of its new global service range, Vallourec.smart.

2020: PLANS TO STRENGTHEN THE BALANCE SHEET ARE SHELVED DUE TO THE COVID-19 CRISIS AND SHARP DECLINE IN OIL & GAS MARKETS; FINANCIAL RESTRUCTURING ANNOUNCED

In February 2020, Vallourec announced plans to strengthen its balance sheet to support its strategy, which notably included a rights issue of €800 million and a refinancing of its bank facilities. This project was abandoned due to the Covid-19 crisis, which led to a sharp decline in the global Oil & Gas markets. In September 2020, Vallourec announced that it was entering into discussions with its creditors with the aim of significantly reducing its debt.

2021: COMPLETION OF THE FINANCIAL RESTRUCTURING, CAPITAL INCREASES AND NEW SHAREHOLDER STRUCTURE, LAUNCH OF THE DISPOSAL PROCESS FOR GERMAN ASSETS

On June 24, 2021, Vallourec announced the success of its share capital increase with pre-emptive subscription rights, representing a gross amount (including issue premiums) of €299,724,207.62.

On June 30, 2021, Vallourec SA completed its financial restructuring and, in accordance with the resolutions adopted on April 20, 2021 by the Ordinary and Extraordinary Shareholders' Meeting, changed its two-tier governance and management structure with an Executive Board and Supervisory Board to a single-tier organization with a Board of Directors.

In November 2021, Vallourec announced the launch of the disposal process for its German assets and the progressive transfer of their Oil & Gas activities to Brazilian production sites.

3.2 Description of the Group's business model and activities

3.2.1 Valloúrec's business model

3.2.1.1 General presentation of the Group

Vallourec is a world leader in premium tubular solutions, primarily aimed at the Energy and Industry markets. With nearly 17,000 employees as of the end of 2021, 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 21st century.

Originally based in France and Germany, Vallourec now has leading positions in the United States, Brazil, Europe, the Middle East and Asia. With more than 40 production units and finishing lines around the world, Vallourec has integrated sites combining steel mills and tube mills in the United States and Brazil.

The Group provides a wide range of premium tubular solutions – high-performance solutions requiring 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's offer includes:

- a range of seamless tubes that is among the most extensive in the world in terms of sizes and proportions (length, diameter, thickness), and with more than 250 grades of steel (high-grade and low-grade carbon steel alloys, stainless steels, nickel alloys, etc.);
- specialty tubes;
- connections, including VAM® and accessories; and
- innovative and connected services.

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

- Oil & Gas: tubes, connections and connected services for exploration and operation of oil and gas fields, from the simplest to the most complex. Vallourec offers a full range of such products and services, which allows it to serve all oil extraction options: shale, onshore and offshore;
- Industry (mechanicals, automotive, and construction): lightweight and resistant tubes for a wide range of applications, hollow sections, tubes and hollow bars for the Automotive, Mechanicals and Construction markets;
- Iron ore: operation of an iron mine in Brazil, with a portion of its production supplying the Jeceaba site and the remainder sold on the local market.

Developments in these markets in 2021 are presented in section 3.4 of this Universal Registration Document.

AMBITION: TO BE THE INNOVATIVE AND AGILE PARTNER OF CHOICE FOR ITS CUSTOMERS

Vallourec's ambition is to be the innovative and agile partner of choice for smart and sustainable tubular solutions for all of its customers.

A partner of choice: a global player with leading regional positions, the Group aims to satisfy each customer at the lowest cost, thanks to a differentiated offer of products and services that allows customers both to optimize operating costs and to access high value added products for extremely complex applications.

Agile: to respond to its customers' needs increasingly rapidly, Vallourec has reviewed its innovation policy to become more responsive and rapidly offer new solutions that meet market expectations. Furthermore, its regional presence allows it to offer its customers delivery and service time frames that meet their expectations.

Innovative: innovation is at the core of the Group's DNA, and results in the development of leading-edge products and connections. In order to continue to best respond to the expectations of its customers and markets, Vallourec has broadened its innovation strategy to encompass new products, services and business models, alongside the development of more conventional products. Incorporating digital aspects in commercial services is a key component of this strategy, leading, for example, to the launch of the Vallourec.smart service in 2018. This offering brings together the Group's physical and digital services.

A DIVERSIFIED RANGE OF PRODUCTS AND SOLUTIONS AND A BROAD GEOGRAPHICAL FOOTPRINT TO SERVE ITS CUSTOMERS

In order to be as close as possible to its customers and assist them in all of their development projects, in 2017 Vallourec established a regional organization around four main hubs: Europe/Africa, Middle East/Asia, North America, and South America.

The Group has a diversified customer portfolio and a global presence allowing it to leverage growth opportunities in each of its markets. Vallourec benefits from a balanced distribution of its revenue. The Group's top ten customers represented 23% of its total revenue in 2021 and the balanced geographical distribution of revenue demonstrates the Group's strong positions on its strategic markets. The distribution of revenue by market is presented in section 3.2.2.1 of this Universal Registration Document.

INNOVATION IS PART OF THE GROUP'S DNA

Vallourec has developed the VAM® connection, a patented technology that gives it a strong competitive advantage, ensuring flawless tube column sealing in installation areas and making the Group a leading manufacturer of seamless tubes.

Vallourec intends to maintain its technological progress, which allows it to anticipate its customers' needs. Innovation is at the heart of its growth strategy:

- Vallourec's customers seek assistance in optimizing and securing their facilities. Vallourec responds to their needs with a comprehensive, high-value-added range of integrated and connected tubes and services;
- the Group innovates in manufacturing processes, new product development and improving the performance of existing products, as well as in rolling out new customer services and solutions.

The digital revolution has created new possibilities for optimizing operational efficiency across the value chain, as well as increased demand from Vallourec's customers across all sectors for smart solutions of this type. Vallourec already offers connected solutions and continues to develop this offer closely in line with its customers' needs.

It is also preparing for the energy transition by exploring how the Group's products can be used in this context. Some of its products have already been incorporated into concrete applications, for example geothermal plants, which require tubes with strict specifications (able to withstand corrosion, extreme heat conditions, etc.), supercritical carbon dioxide storage (low temperatures), hydrogen storage, and various structural applications (solar, offshore wind).

A RESPONSIBLE PLAYER

In terms of safety, quality, and social and environmental policy, Vallourec has always integrated the highest standards of responsibility and quality in its strategy: its corporate social responsibility goals and approach are set out in its Sustainable Development Charter and are described in the consolidated statement of non-financial performance, which is included in chapter 4 of this Universal Registration Document.

Vallourec is regularly assessed by the main non-financial rating agencies and specialized SRI funds such as Vigeo-Eiris, MSCI, Sustainalytics, Ecovadis and CDP.

The Vallourec Group intends to play a part in the energy transition and support its customers in their transformation. Vallourec's products and services already feature in numerous applications in support of the energy transition, and the Group also participates in research projects focused on onshore and offshore wind farms, and carbon and hydrogen transportation and storage – in addition to its current solar solutions.

The Group is looking at development opportunities to meet the future needs of rapidly changing markets and has launched a structure dedicated to this activity, which targets four key areas: geothermal energy (in order to grow this existing Vallourec business); offshore wind power (notably a wind turbine anchoring solution – currently at the prototype stage, related jacket structures, lattice structures for jackets and offshore wind turbine installation vessels); carbon capture, utilization and storage (CCUS); and hydrogen. Carbon and hydrogen solutions draw on the Group's vast expertise and offer the greatest potential, albeit within a slightly longer time frame.

3.2.1.2 Products and services for the Oil & Gas market

Vallourec has expanded its offer to provide customers both standard and high-performing products, which enables the Group to meet the requirements of the least demanding environments as well as the requirements of highly complex applications in terms of pressure, temperature and corrosion. The Group is developing a range of services for these products to improve operators' costs, facilitate product implementation, and increase the useful lives of assets and facilities.

PRODUCTS FOR THE OIL & GAS MARKET

Vallourec has developed a range of premium tubular solutions for the Oil & Gas industry that satisfies the strictest requirements and covers the entire value chain, from exploration to production and hydrocarbon transportation.

The standard product ranges meet international standards (API, DNV, IOGP, Shell DEP, etc.), and thanks to Vallourec's competitive offer, help reduce operators' costs.

The Group's premium product lines are adapted to extreme and increasingly complex environments, including:

- fairly standard onshore applications requiring optimal operational efficiency;
- deep wells;
- corrosive environments;
- deviated and horizontal wells; and
- high pressure/high temperature (HP/HT) wells.

The Group's products and services cover the entire Oil & Gas value chain, from exploration, development and production to transportation and processing:

- **OCTG:** Vallourec's OCTG (Oil Country Tubular Goods) products are seamless tubes with a threaded connector 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.
- **Transportation and processing:** oil and gas are transported from wells to offshore or onshore processing units using Vallourec tubes and accessories.

Tubes and accessories for the Oil & Gas market

For production phases, the Group has developed OCTG products, which are threaded tubes designed for oil and gas wells. The OCTG products manufactured 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 develops tubing, consisting of small-diameter steel tubes assembled using leak-tight connections to form a production string used to lift the fluids produced from the bottom of the well towards the surface.

The sealed assembly of OCTG premium tubes is provided by the Group's VAM® connections (see the section on VAM® connections below). These connections have technical characteristics that enable them to withstand the stresses that OCTG products are subjected to under extreme conditions.

Vallourec's OCTG activities cover Europe, Africa, the Middle East and Asia, as well as North and South America. Each region integrates tube rolling, heat treatment and threading facilities.

The Group is also a major player in the accessories market, providing both finished and semi-finished products, as well as brackets for connecting complex equipment (wellheads, safety valves, etc.) to OCTG tubes.

VAM® connections

VAM® connections, used for Oil & Gas activities for more than 55 years, are premium threaded connections invented and patented by Vallourec. They provide tubes with connections that are resistant to all the mechanical constraints that are present in wells, such as pressure and compression, and ensure flawless sealing for tube columns.

The development of VAM® connections is a joint business operation between Vallourec and Nippon Steel Corporation (NSC). This joint business, which has allowed the VAM® brand to become the global benchmark in its markets, is still as dynamic as ever and helps develop solutions that are best adapted to the needs of operators in the energy segment.

Since the first VAM® patent, which Vallourec filed in 1965, more than 30 VAM® product lines have been put on the market, in addition to specific developments, meeting a broad range of requirements. The VAM® offering notably includes:

- VAM® 21: available in diameters from 3.5 to 16 inches, this innovative connection has become the new product of choice. As resistant as the tube itself, it was the first to deliver a performance meeting the CAL IV standard defined in the most recent changes to ISO 13679 and API RP 5C5, two standard technical specifications that document product performance and thereby promote responsible use. New versions of the VAM® 21 meeting the specific needs of operators (higher torque capacity, development in thick tubes, etc.) are added to the product line every year;
- VAM® SLIJ-3: thanks to better performance, this semi-flush connection is rapidly replacing the previous generation (VAM® SLIJ-II). For example, the new VAM® SLIJ-3 connection, with a diameter of 14 inches, offers an additional 21% of traction capacity, 38% more compression capacity, and nearly 50% additional torque capacity. Already tested to today's most stringent standard (API CAL IV:2017) on several sizes ranging from 7⅝ to 16¼ inches, this product line has received unanimously positive feedback from early adopters, paving the way for many future applications;
- CLEANWELL®: this dry coating applied to VAM® connections at the plant is the ideal way of getting the most out of the connections, providing anti-corrosion protection for the product during transport, storage and lubrication during assembly. Beyond the obvious environmental benefits of eliminating grease, CLEANWELL® improves safety and running performance. In light of the rapid adoption of the CLEANWELL® solution by players in the European energy market, Vallourec will increase its production capacities in the next few years;
- VAM® HTTC (High Torque Threaded and Coupled): designed for highly deviated wells with long horizontal sections, this premium connection for casing and tubing withstands extreme torque and compressive stress when the column is being installed and maintains a perfect seal during production. Available in various dimensions, VAM® HTTC is a high-added-value product that allows the most complex horizontal drilling to be carried out safely;
- VAM® BOLT-II: the mechanical integrity and sealability of this premium integral connection for large-diameter casing make it especially well-suited to high-pressure, high-temperature deepwater offshore wells, which are common in the Gulf of Mexico, off the Brazilian coast in the Gulf of Guinea, as well as in North Africa and the Asia Pacific region;
- the VAM® SPRINT product line: building on the commercial success of its integral versions (VAM® SPRINT-SF and VAM® SPRINT-FJ), Vallourec has continued to support all non-conventional Oil & Gas producers in the United States by adding a third version, the VAM® SPRINT-TC. By meeting the need for a range of high-torque and cost-efficient threaded products, Vallourec has once again pushed the boundaries of connection design to offer the most appropriate solution for its customers' challenges.

In order to maintain the position of the VAM® range as market leader in threaded connections, Vallourec's Research and Development teams are coordinated from Vallourec Oil & Gas France, with R&D branches close to the major markets in the United States (VAM USA in Houston) and Brazil (VSB in Belo Horizonte). Support for the VAM® product lines worldwide is provided by a broad network of local licensees situated close to customers' operations.

Development of high-performance steels for wells

For both tubes and threaded connections, operators in the energy market need cost-efficient solutions that can meet constantly growing technical constraints.

In recent years, Vallourec has finalized the development and industrialization of high yield strength carbon steels resistant to H_2S (hydrogen sulfide) corrosion. For example, the recently launched VM110MS has been recognized by several major customers as a technically viable and economically attractive alternative to the common C110 grade. In the field of high-performance steel grades, VM110XS offers unrivalled resistance to the most corrosive well conditions.

In 2021, Vallourec also supported its customers by offering products that can withstand high collapse and rupture pressures. This technical feat was achieved by combining proprietary steel grades (such as the "High Collapse" and "Extreme Collapse" product lines), a scientific performance prediction model, and individual product traceability from plant to end users. In order to meet the expectations of the Energy industry, orders can now be delivered in which products are segregated into two batches: a "high collapse" batch and an "extreme collapse" batch, for the most challenging wells.

Tubes and accessories for oil and gas transportation

The Group's product line for transportation includes:

- rigid subsea line pipes (production and injection lines known as 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 (stainless 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.

Each of these products is developed in various grades of steel to meet our customers' specific requirements in terms of mechanical properties and corrosion resistance. Among the latest premium-grade developments for line pipes, X80 is a steel grade designed to meet the technical challenges of ultra-deepwater offshore environments.

Various types of anticorrosion or thermal insulation coatings can be applied in our plants or with the help of our subcontractors.

Tubes for the processing of industrial fluids and oil and gas

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

In particular, the Group manufactures seamless tubes for the refining, petrochemical and biofuel industries. The most technical products are used in refinery furnaces and in floating liquefied natural gas units (FLNG) and floating production, storage and offloading units (FPSO).

SERVICES FOR THE OIL & GAS MARKET

In terms of efficiency, cost and integrity, Vallourec has developed its services offer to include innovative solutions tailored to specific project needs, such as on-site offshore and onshore welding, coating, bending, and complex project management, to respond to the needs of customers (operators, engineering firms and distributors).

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 facility. These include:

- VAM® Field Service, which includes more than 150 technicians and engineers in 17 locations around the world, available around-the-clock at the well site to assist customers in lowering tubes, inspecting connections, and supervising assembly. The Group has also set up and manages a network of more than 200 licensees to repair Vallourec products and thread tubes with VAM® on all oil accessories;
- 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 well design. Vallourec experts recommend the most appropriate tubing and casing (in terms of sizing and steel grade) to customers and connections that best respond to the requirements of the well;
- training sessions, including "Tubular Essentials" courses which are provided by the Group's experts to teach operators best practices for optimal use of tubes and connections, handling, and inventory management.

The Group also offers a range of bespoke services within the Vallourec.smart offering tailored to customers' needs, including tube inspection, maintenance and repair, on-site services, preparation for drilling operations, and well coordination and supply based on customers' drilling programs. For example, Vallourec has delivered deepwater offshore 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.

The Group offers specific integrated solutions for the subsea line pipe market, including welding, coating, insulation, logistics and specific service agreements that may be entered into depending on the customer's needs. 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.

The Group also offers tube coating and welding services on site, 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. Serimax leverages its welding research centers to develop joint research programs with its customers and 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.

Lastly, the Group is continuing 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 rolled out in Mexico, Brazil, France, Singapore and Indonesia to provide, in addition to the network of licensed partners, global coverage for accessory requirements to meet customer needs for the VAM® joint.

3.2.1.3 Products and services for other markets

The Group offers comprehensive solutions for the Industry market (Mechanicals, Automotive and Construction) as well as for the Renewable Energy market.

PRODUCTS AND SERVICES FOR THE INDUSTRY MARKET

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

Vallourec's premium tubular solutions are found in the construction of infrastructure such as bridges, stadiums, industrial and logistics buildings, airports and other ambitious architectural projects. The mechanical industry uses Vallourec's tubes and rings to manufacture cranes, construction machinery, agricultural machinery, and hydraulic cylinders. Automotive manufacturers equip their light and heavy vehicles with the tubes and axles produced by the Group.

IRON ORE PRODUCTION

In Brazil, the Group extracts iron ore in its Pau Branco mine in the state of Minas Gerais, 30 kilometers south of Belo Horizonte. The mine supplies the blast furnaces and the pellet plant of its affiliates located at Jeceaba in Minas Gerais, and also markets its production locally.

In the second quarter of 2019, Vallourec was granted a license from the Minas Gerais authorities to extend production capacity by building a new processing unit. This should enable it to reach a total production capacity of around 8.7 million metric tons per annum. Production volumes represented 8.1 million metric tons in 2021. The extension of the mine's production capacity was completed at end-2021.

PRODUCTS AND SERVICES FOR THE RENEWABLE ENERGY MARKET

Vallourec is also involved in various innovation projects concerning renewable energies, such as onshore and offshore wind farms, solar power, and the transportation and storage of carbon and hydrogen.

Vallourec has already identified numerous opportunities and is now looking to accelerate its expansion in these new markets. Our expertise allows us to offer tubular solutions that meet the challenges of putting in place the infrastructure associated with these different types of renewable energy.

Through public and private partnerships and the acquisition of fresh expertise, Vallourec aims to cement its position as a true partner and expert within the global community of low-carbon-emitting companies.

We also seek to contribute to turnkey renewable energy development projects throughout the world.

In the field of geothermal energy, Vallourec is involved in closed loop projects that do not require a large quantity of water in the subsoil. Thermocase® VIT (Vacuum Insulation Tubing) products allow the circulation of cold and hot flows in the same well thanks to their excellent thermal insulation. This high-potential technology will considerably increase the number of sites where geothermal power can be installed.

During extensive laboratory tests in 2021, we reproduced the future conditions of use of the tubes and connections for hydrogen applications and CCS (carbon capture storage) injection wells. Vallourec products are qualified to meet future customer needs (VAM® 21 for 100% hydrogen content and VAM® TOP for CCS at a temperature of 250°C).

PRODUCTS AND SERVICES FOR THE POWER GENERATION MARKET

In the first quarter of 2020, the decision was made to close the plant in Reisholz (Germany) specializing in tubes for conventional power plants, which became effective in the summer of 2020.

On June 1, 2021, Vallourec announced that it had finalized the sale of Valinox Nucléaire SAS, located at the Montbard production site in France (Burgundy, Côte-d'Or) to Framatome.

3.2.2 Markets and customers

3.2.2.1 Vallourec's markets

The Group's main markets are Oil & Gas and Petrochemicals, respectively representing 68.1% and 59.7% of the Group's revenue in 2020 and 2021. The table below shows the breakdown of the Group's revenue by market in 2020 and 2021.

In € millions	2020	% of revenue	2021	% of revenue
Oil & Gas	2,007	61.9%	1,859	54.0%
Petrochemicals	200	6.2%	197	5.7%
Total Oil & Gas and Petrochemicals	**2,207**	**68.1%**	**2,056**	**59.7%**
Mechanicals	296	9.1%	477	13.9%
Automotive	59	1.8%	87	2.5%
Construction & Other	471	14.5%	677	19.7%
Industry	**826**	**25.5%**	**1,241**	**36.1%**
Power Generation	**210**	**6.5%**	**145**	**4.2%**
TOTAL	**3,242**	**100.0%**	**3,442**	**100.0%**

Due to rounding, the numbers presented in the table above may not add up precisely to the totals provided and the percentages may not precisely reflect the absolute figures.

For an analysis of changes in the market, see section 3.4 "Market environment" and for an analysis of changes in the Group's revenue by market, see section 3.7 "Results of operations" of this Universal Registration Document.

Section 3.7 of this Universal Registration Document also provides a breakdown of revenue by geographic region in 2021.

3.2.2.2 Main Group customers

The Group's largest customers include:

- in the Oil & Gas market: international oil companies (TotalEnergies, Shell), national companies (Adnoc, Petrobras), private independent companies, US distributors, oil service companies, as well as engineering and construction companies (TechnipFMC);
- in the Industry market: European and international distributors and industrial equipment manufacturers.

In certain regional markets, particularly in the United States and Germany, the Group's main customers are distributors. In the rest of the world, the Group's customers are end-users.

In 2021, the Group's ten largest customers represented 23% of consolidated revenue, and the five largest customers 18% of consolidated revenue.

3.2.3 Competitive position

The information below on the various markets in which Vallourec operates is based on the Group's internal analyses and estimates.

See the "Risks related to competition" paragraph in section 5.1.1 of this Universal Registration Document for more details.

3.2.3.1 Oil & Gas

Vallourec operates in two markets: threaded seamless tubes installed in oil and gas wells used in exploration and production (OCTG), and offshore and onshore line pipes 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:
  - the VAM® range, produced in cooperation with Nippon Steel Corporation (NSC, formerly NSSMC), is the world leader in the market for premium connections that satisfy demanding technical performance criteria,
  - the Group's main competitors in the OCTG market are Tenaris, NSC, JFE, US Steel Tubulars, TMK, TPCO and Voest Alpine Tubulars;
- in the offshore line pipe market for premium seamless tubes, Vallourec is one of the three major players alongside Tenaris and NSC:
  - the Group is notably engaged in deepwater (500+ meters) projects, which require extremely technical products,
  - Vallourec is also present in the onshore line pipe segment,
  - through its subsidiary Serimax, Vallourec is also the world leader in welding and coating solutions for both offshore and onshore line pipes,
  - Vallourec also proposes a premium line of welded super duplex steel tubes that can be fitted into umbilicals at offshore oil and gas fields. The first tubes were successfully assembled in 2016 for a project in the North Sea (Glenlivet project, Scotland). A total of 2,000km of pipes has since been manufactured for 15 projects around the world, including Platina, M2 Horst and Dalia in Angola, and Liza 2 and Payara in French Guiana. Recent major projects include Northern Lights, a CCUS project for Equinor in the North Sea.

3.2.3.2 Petrochemicals

Vallourec's products and solutions target various applications: seamless tubes for refineries, petrochemical facilities, floating liquefied natural gas plants, and floating production, storage and offloading units. Vallourec is a front-ranking market player and its main competitors are Tenaris, ArcelorMittal, NSC (formerly NSSMC) and various Chinese groups.

3.2.3.3 Power Generation

Traditionally, Vallourec offered a large range of tubes, product sizes and steel grades (including patented grades) for the Power Generation market, mainly for conventional thermal power plants. However, at the beginning of 2020, the Group decided to close the Reisholz specialized site in Germany and only continue its repair and maintenance activity in Europe and North America, as well as activities related to biomass in Brazil. In 2021, Vallourec finalized the sale to Framatome of Valinox Nucléaire SAS, a company specializing in the manufacture of tubes for steam generators.

3.2.3.4 Industry and Other

In 2021, Vallourec decided to launch the divestment of its German production assets, with the aim of finding a new operator to profitably serve the European Industry markets.

During the year Vallourec also announced that it had formed a joint venture with the Açotubo group called Vallourec Tubos para Indústria. This new entity will manufacture tubular solutions and cold-rolled steel tubes for the entire industry, especially for automotive, energy, machinery and industrial equipment applications.

MECHANICALS

Vallourec is a long-standing European leader in seamless tubes for mechanical engineering applications.

This market is characterized by:

- a wide range of applications: tubes for hydraulic cylinders, construction and civil engineering cranes, agricultural machinery, construction and mine exploitation machinery, industrial building frames, public works, oil rigs, etc.;
- competition from numerous alternative techniques: welded tubes, drilled steel bars, cold-drawn tubes, forged and formed tubes, etc.

AUTOMOTIVE

Vallourec provides a wide range of products for the automotive industry, such as axle tubes and gearbox applications.

In Brazil, Vallourec Soluções Tubulares do Brasil is the market leader for seamless hot-rolled, cold-formed, forged or drawn tube manufacturing. The products from Vallourec Soluções Tubulares do Brasil have numerous industrial applications in various market segments such as light and heavy vehicles and two-wheeled vehicles, primarily for transmission and steering systems, as well as for construction and agricultural equipment and machinery.

On Thursday March 3, 2022, Vallourec entered into exclusive talks with Mutares SE & Co. KGaA further to receiving an irrevocable offer for the acquisition of Vallourec Bearing Tubes (VBT). The transaction is expected to close in the second quarter of 2022 further to the works council consultation process and subject to approval of the antitrust authorities.

CONSTRUCTION

Vallourec is a major supplier of seamless and streamlined tubes for construction projects. It provides solutions for civil constructions such as concourses, stadiums, museums, and other infrastructure such as bridges, as well as solutions for offshore projects, in particular offshore oil and gas platforms.

In Brazil, Vallourec Soluções Tubulares do Brasil also offers standard or formed seamless tubes for the construction of bridges, stadiiums, airports, power lines, foundations for walkways, and other infrastructure projects.

3.2.4 Group facilities

Vallourec places its teams and the production of its premium solutions as close as possible to its customers. The Group has nearly 40 production sites worldwide. As at December 31, 2021, its facilities included:

- 3 steel mills, including 1 in Germany, Hüttenwerke Krupp Mannesmann (HKM – 20%-owned by the Group), 1 in the United States and 1 in Brazil;
- 12 tube mills in Europe, the United States, Brazil and Asia;
- 5 Research and Development centers, described in section 3.3 below;
- 22 finishing units;
- numerous sales offices and service centers located near our customers; and
- a group of forestry assets and an iron ore mine in Brazil.

The Group has nearly 3.2 million metric tons of rolled tube production capacity, which is fairly evenly distributed across its four operating regions:

Rolled tube production capacity by region

Europe	~25%
North America	~24%
Brazil	~35%
China	~17%

3.2.5 Procurement

3.2.5.1 Raw materials and purchases

The Group purchases the following items for its production activities:

- raw materials (ferroalloys, electrodes, refractories, scrap metal, etc.);
- semi-finished products (roundbars, flat products, etc.);
- consumables and supplies (mechanical and electrical supplies, cutting tools, lubricants, thread protectors, etc.);
- maintenance (services and spare parts);
- energy (electricity, natural gas, etc.).

Purchases consumed in production in 2020 and 2021 can be analyzed as follows:

In € thousands	**2020**	**2021**
Scrap metal and ferroalloys	274,838	562,854
Rounds/billets	521,761	714,385
Flat products	31	0
Tubes	69,752	125,209
Miscellaneous [(a)]	238,951	85,962
TOTAL	**1,105,334**	**1,488,410**

(a) *Including change in inventories.*

Rounds and billets represented 48% of purchases consumed in 2021, while tubes represented 8%.

Other purchases include:

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

For a description of risks related to changes in the price of raw materials, see chapter 5 "Risk and risk management" of this Universal Registration Document.

3.2.5.2 Sourcing policy

The Group has implemented a structured and coherent purchasing strategy, balanced between central management and local guidance:

- use and continued improvement of effective, formal purchasing processes to optimize the Group's performance in terms of quality, cost, and lead times;
- together with the Group's internal customers, selection of the best suppliers based on business line requirements, purchasing strategies by area, supplier risk assessment and agreed criteria prior to the start of the tendering process;
- use of a solid contractual approach by all Vallourec entities, taking into account local characteristics to limit risks, ensure compliance with global directives and improve visibility;
- use of a shared, global supplier monitoring approach to continuously improve the Group's performance in terms of quality, cost and lead times, as well as social and environmental responsibility;
- identification and mitigation of supplier risks borne by the Group as part of its ongoing responsible procurement policy;
- identification of purchasing opportunities in low-cost countries or domestic purchases according to the Group's purchasing segmentation in order to respectively optimize the Group's global cost base and the regional industrial fabric;
- where appropriate, centralization of purchasing functions on a regional or global basis according to purchasing families. Supply is primarily managed locally and pooled within regional shared services centers.

3.2.6 Group organization

3.2.6.1 Vallourec Group legal organization chart as at March 31, 2022 (1)

VALLOUREC

100%

VALLOUREC TUBES

EUROPE/AFRICA (EA)

FRANCE

- 100% Vallourec Bearing Tubes
- 100% Vallourec Oil and Gas France
- 100% Vallourec Tubes France
- 51% Vallourec Umbilicals
- 80% Serimax Holdings

REST OF EUROPE

- 100% Vallourec Deutschland GmbH (Germany)
- 100% Vallourec Oil & Gas UK (United Kingdom)
- 100% Vallourec RUS (Russia)
- 50.1% Vallourec Niko Tube Holding GmbH (Germany)
- 20% Hüttenwerke Krupp Mannesmann (Germany)

AFRICA

- 100% VAM Field Service Angola, LDA (Angola)
- 100% Vallourec Nigeria Limited (Nigeria)
- 100% Vallourec Oil & Gas Egypt LLC (Egypt)
- 100% Vallourec Oil and Gas Kenya Limited (Kenya)
- 49% Vallourec O&G Nigeria Limited (Nigeria)
- 100% Vallourec OilandGas Uganda (Uganda)

MIDDLE EAST/ASIA (MEA)

MIDDLE EAST

- 75% Vallourec Al Qahtani LLC (Saudi Arabia)
- 100% Vallourec Middle East FZE (United Arab Emirates)
- 80% Vallourec Saudi Arabia LLC (Saudi Arabia)
- 49% Vallourec Tubular Services LLC (United Arab Emirates)

CHINA

- 99.7% Vallourec Tianda (Anhui) Co., Ltd
- 100% Vallourec (China) Co., Ltd.
- 100% Vallourec Oil & Gas (China) Co., Ltd.

REST OF ASIA

- 81.7% PT Citra Tubindo Tbk (Indonesia)
- 100% Vallourec Asia Pacific Corp. Pte Ltd. (Singapore)
- 51% VAM Far East (Singapore)

SPECIALTY TUBES

- 100% Valinox Nucléaire Tubes (Guangzhou) Co., Ltd.

NORTH AMERICA (NA)

OCTG

- 100% Vallourec Canada Inc. (Canada)(2)
- 100% Vallourec Oil & Gas Mexico, SA de CV (Mexico)
- 100% Vallourec Star, LP (United States)
- 100% Vallourec Tube-Alloy, LLC (United States)
- 100% VAM USA LLC (United States)
- 100% Vallourec Digital Solutions LLC (United States)

MARKETING COMPANIES

- 100% Vallourec Canada Inc. (Canada)(2)
- 100% Vallourec USA Corp. (United States)

SOUTH AMERICA (SA)

BRAZIL & OTHER

- 100% Vallourec Tubos do Brasil Ltda
  - 100% Vallourec Florestal Ltda
  - 100% Vallourec Transportes Serviços Ltda
  - 96.78% Vallourec Soluções Tubulares do Brasil S.A.
    - 75% Vallourec Tubos para Indústria S.A.
  - 100% Vallourec Uruguay S.A. (Uruguay)
  - 100% Vallourec Soluciones Tubulares Argentina S.A.U. (Argentina)

(1) Refers to the percentage of share capital and voting rights held directly or indirectly.
(2) Vallourec Canada Inc. performs both OCTG and marketing activities.

3.2.6.2 Organization of Group businesses

Following the establishment of its Transformation Plan and to best serve its customers worldwide, since April 2017 the Group has adopted and rolled out a new organization based on two Central Departments – Development & Innovation (D&I) and Technology & Industry (T&I) – and four main Regions: Europe/Africa (EA), Middle East/Asia (MEA), North America, and South America:

- the Regions are responsible for all of the sales and industrial operations located within their geographic scope;
- the Development & Innovation Department (D&I) is responsible for defining and implementing the development strategy for product lines. It is also responsible for innovation and R&D;
- 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 also in charge of technology and manages the Group's supplies, as well as central planning.

The aim of this organization is to strengthen the Group's local presence and proximity to customers, optimize the overall use of its resources, and drive forward its development.

In addition to its operating entities, the Group also has holding and marketing companies.

TECHNOLOGY & INDUSTRY

The Technology and Industry Department (T&I) includes the various functions of the Industrial Department in charge of the Group's strategy and performance with respect to safety, quality, customer service, technological expertise and performance, production cost optimization, procurement and logistics. T&I is in charge of the Group's industrial strategy and determines changes in its industrial facilities in conjunction with the Regions. It manages the investment portfolio and makes sure investments are properly carried out from a technical standpoint, within the agreed time frames and economic parameters.

The department is organized as six "core field" units that interact with one another and coordinate the activities of the Regions defined in the industrial plan:

- the **Safety/Quality/Industrialization Department** defines the Group's policies, objectives and methodologies in terms of improving safety performance (accident frequency rate), quality as perceived by customers (number and processing of claims), accreditations/certifications, and regulatory requirements. It is also responsible for the tube industrialization plan and methodology;
- the **Industrial Excellence Department** coordinates the competitiveness improvement plans of the Regions through the Group's "CAP20" program, and prepares and deploys the Group's Operational Excellence guidelines based on lean management methodologies. It is also in charge of the Group's industrial equipment maintenance policy and the associated improvement processes, as well as knowledge management (KM) tools. Along with the Regions, it conducts strategic studies in connection with the Group's industrial plan, as well as studies looking at the transformation of industrial facilities. It is also in charge of defining and deploying "Industry 4.0" tools via the digital industrial plan;
- the **Managing CAPEX and Insurance Department** manages the investment portfolio within the scope of the strategic plan and annual budget process, and is in charge of the process of qualifying and approving investment projects. It is also responsible for project management methods. It manages the Group's insurance policy portfolio, liaising with the Regions and arranging global insurance coverage, and conducts annual negotiations with insurance companies;
- the **Sourcing Department** is in charge of the Group's entire sourcing activity. It defines and coordinates purchasing policies and the operational teams based in the Regions report directly to this department;
- the **Supply Chain Department** is an operational team in charge of preparing the medium-term production plan and deciding order allocations to optimize the use of production capacities at Group level (Sales & Operation planning). It defines the policies, objectives and methodologies for improving delivery (on-time delivery, lead times), logistics (service, costs), performance and associated levels of inventories;
- the **Technology & Performance & Engineering Department** is in charge of monitoring and improving the technical performance of production facilities, and of their technological development (R&D process) in the areas of steel production, rolling, heat treatment, non-destructive testing, tube finishing, threading and "Dopefree" (CLEANWELL®) technologies applied to VAM® connections. It is responsible for the industrialization of VAM® products for all of the Group's threading sites, for the execution of engineering work resulting from major investments for the Group, and for the development of automation technology expertise.

DEVELOPMENT AND INNOVATION

The Development & Innovation Department (D&I) comprises the Group's various Product Line Departments, the departments responsible for diversifying into Services and Energy Transformation and the various sales support functions: strategic marketing, commercial excellence, Innovation, Research and Development, and Industrial Property.

D&I is in charge of the commercial and development strategy for product lines, and together with the Regions defines the Group's commercial objectives for developing new markets, and optimizing the product and customer portfolios, in particular key accounts. It is also responsible for Research and Development, for innovation designed to improve Vallourec's competitive advantages and for creating value in customer solutions (including digital).

D&I manages the product development and services portfolio and makes sure products and services are available on the market within the time frame and performance requirements needed to meet the value creation goals set in all Regions.

D&I is also responsible for the Group's diversification in support of the energy transition, particularly in geothermal energy, hydrogen, carbon capture, and offshore wind power.

D&I is organized as three Product Lines, one Service Line Department, one Energy Transition Department, supported by the Innovation, and one Research and Development Department. D&I's organizational structure interacts with the Regions and coordinates development activity at Group level through action plans that are determined with the regions.

The Product Line Departments cover all of the Group’s markets, as described below.

I. OCTG and Accessories

- **OCTG** (Oil Country Tubular Goods) covers the casing and production tubes used to construct onshore or offshore oil and gas production wells. This segment comprises the VAM® range of joints, as well as the entire VAM® system, including the network of approximately 200 VAM® licensees, who are audited annually and provide maintenance and repair services for VAM® joints worldwide as close as possible to the operating regions, supported by VAM® Field Services International. It also includes customer supply chain optimization and well design services.
- **Accessories** cover all products – mainly Oil & Gas – that are designed and manufactured by Vallourec, integrated into the production strings and necessary for optimizing the production of oil or gas wells.

II. Line Pipe Project

- The **Line Pipe Project** linked to EPCI (Engineering, Procurement, Construction, and Installation) markets comprises the tubes, expertise and integrated solutions used to connect all of the offshore and onshore facilities of an oil field, from the wellhead to the platform or production vessel, as well as the tubes needed to connect these production facilities to the onshore refining and treatment facilities.
- The **Line Pipe Process** comprises the tubular products in which the hydrocarbons are transported or transformed, both in offshore operations (FPSO: Floating Production Storage and Offloading/ FLNG: Floating Liquefied Natural Gas), and onshore operations (hydrocarbon processing: LNG, refining, petrochemical).

III. Industry

- **Industry** comprises a wide variety of industrial applications: agricultural machinery, cylinders, cranes, offshore wind turbine installation equipment, construction (offshore, bridges, stadiums, etc.), and mechanical industries.

IV. Nuclear

- The **thermal power plant market using nuclear energy** concerns tubes of steam generators for primary circuits, as well as tubes for supplying steam to the turbines.

V. Services

- The **Service Line** focuses on the **Vallourec.smart** brand and the Group’s ambition to use service as a differentiating factor for its historical product lines and to diversify by developing new services supported by digital technology and the **Smartego™** brand. It brings together the physical services offered to the Group's customers: teams of on-site engineers, customer supply chain optimization services, through to the execution of service contracts and the incubation and development of a complementary and stand-alone digital offering.
- The tube welding activity, which falls within the scope of the Serimax® subsidiary, is part of the Group's Service Line, and aims to capitalize on all of the Group's services skills.

VI. Energy Transition

A team focuses on identifying and developing growth opportunities in four **Energy Transition** sectors: geothermal energy, hydrogen, carbon capture, and offshore wind power.

VII. D&I support functions

Support functions for these departments include:

- the **Strategic Marketing Department**, which is in charge of anticipating the development of our markets to help the Group’s Product and Services Departments adapt their offers and evaluate diversification opportunities;
- the **Key Accounts Department**, which is in charge of optimizing the commercial development of the Group’s key accounts for all of the Regions and product lines;
- the **Research and Development Department**, which includes all of the Group’s resources and laboratories in France, Brazil and the United States. This department is in charge of developing the high-performing products and processes needed to expand Vallourec’s customer offer within the appropriate time frame and budget. The Department ensures that optimum use is made of the Group’s Research and Development in terms of internal expertise. It also develops partnerships with companies or universities that are able to provide additional expertise, and participates in numerous Joint Industry Programs (JIPs) to develop bespoke solutions alongside customers;
- the **Innovation Department**, which is in charge of accelerating the diversification of Vallourec’s offer by helping the Product and Services Departments expand their value proposal by evaluating new business models. It is in charge of identifying and driving potential catalysts for growth beyond the Group’s current core business. The Innovation Department helps to deploy the three "boosters": digital, additive manufacturing, and connected objects (IoT, smart products);
- the **Industrial Property Department**, which is in charge of technical intelligence, patent filing, and protection of the Group's industrial property. In 2021, the Group filed 31 patents.

EUROPE/AFRICA REGION

The Group's birthplace and home of its technological expertise, the Europe/Africa Region serves all of Vallourec’s markets from its own production and service units as well as from those in other Group Regions.

The business activities of the Europe/Africa Region aim to ensure customer satisfaction by providing them with a wide range of products that meet their expectations at competitive prices. The Region has its own production units which also supply Vallourec's other Regions.

Industrial activities in the Europe/Africa Region, which include rolling mills, heat treatment plants, finishing and specialty units, have undergone significant changes in recent years.

Following the sale of the Saint-Saulve steel mill in 2017, all European tube mills are now mostly supplied with raw materials from European steel mills, and in particular, in the case of ordinary steels, from the Huckingen mill operated by Hüttenwerke Krupp Mannesmann (HKM), in which Vallourec Tubes has a 20% capital stake.

After the shutdown of the rolling mills at Déville-lès-Rouen in 2016 and Saint-Saulve in 2017, the Düsseldorf-Reisholz (North Rhine-Westphalia) plant specializing in tubes for conventional power plants was closed in 2020, while the Déville-lès-Rouen (Hauts-de-France) plant including the heat treatment facilities was closed in 2021.

A new stage in this transformation of the Group's industrial footprint in Europe is planned for 2022, with the November 2021 announcement of the launch of a process to dispose (i) Vallourec Bearing Tubes (Montbard, Côte d'Or), a subsidiary specializing in the supply of tubes for the manufacture of bearings (Assel rolling mill), and (ii) the German tube mills located in Mülheim (continuous rolling mill, finishing lines) and Düsseldorf-Rath (Stiefel rolling mill, Pèlerin rolling mill, threading and finishing lines).

Vallourec's long-term objective is to refocus its European operations on production serving the Oil & Gas market through Vallourec Tubes France (100%), which operates a heat treatment plant in Saint-Saulve (Hauts-de-France) and a forge in Aulnoye-Aymeries (Hauts-de-France), and through the OCTG tube threading plants of Vallourec Oil & Gas France in Aulnoye-Aymeries (Hauts-de-France), Vallourec Oil & Gas UK in Bellshill (United Kingdom) and Vallourec Oil & Gas Nigeria in Onne (Nigeria).

Oil Country Tubular Goods (OCTG)

Coordinated at Regional level, the industrial and commercial operations of OCTG Europe/Africa are carried out by the following subsidiaries:

- Vallourec Oil & Gas France (VOGFR) – France (100%), which produces standard threaded connections and the full range of premium VAM® products. VOGF France has a production unit in Aulnoye-Aymeries including several Oil & Gas tube threading lines that can manufacture all of the dimensions and connections of the VAM® product line, as well as a line to apply the multifunctional CLEANWELL® coating on certain products, which was especially designed for VAM® connections as a substitute for storage and assembly greases;
- Vallourec Oil & Gas UK Ltd. – United Kingdom (100%), which combines facilities specializing in threading in Clydesdale Bellshill (Scotland), and service bases in Scotland and Norway catering to the needs of the North Sea market;
- Vallourec Nigeria Ltd. – Nigeria (100%), which operates a tube threading and finishing plant for line pipes located in the Onne free-trade zone in Port Harcourt (Rivers State, Nigeria). In operation since December 2009, the plant supplies the local market.

Line Pipe/Process

The Line Pipe business serves the Oil & Gas transportation market, with a dual strategic position in upstream oil production and in downstream operations. The business includes all products and services used by engineering and oil companies, from the wellhead to the refineries, petrochemicals and gas treatment plants.

Line Pipe Project activities are carried out by Vallourec Tubes France and Vallourec Deutschland GmbH. Strong synergies have been unlocked with the Group's Services subsidiaries, such as Serimax – France (80%) for welding and Serimax Field Joint Coating – UK (wholly owned by Serimax) for coating.

Powergen/ST&P

As Vallourec's European coal-fired thermal power plant market segment has shrunk sharply and energy policies increasingly favor the development of renewable energies, the Group decided to close the finishing line for small-diameter boiler tubes at the Saint-Saulve tube mill (France) in 2018 as well as the Reisholz (Germany) plant, which specialized in tubes for conventional power plants (closure during the summer of 2020).

Industry

Following the disposal of Vallourec Bearing Tubes and the assets of Vallourec Deutschland GmbH, the Group will continue to market tubes for the mechanicals (cranes, hydraulic cylinders, agricultural machinery, OCTG mechanical parts, etc.), automotive, and construction (bridges, stadiums, offshore lifting platforms, airport terminals, exhibition halls, etc.) markets, manufactured by the forge located in Aulnoye-Aymeries (Hauts-de-France) and sold by Vallourec Tubes France (100%).

Vallourec and Interpipe, a Ukrainian manufacturer of seamless tubes, decided to terminate their cooperation agreement in 2021. Under this agreement, Vallourec was responsible for the sale of non-OCTG carbon seamless tubes rolled by Interpipe in Europe under the Vallourec brand. These tubes were inspected and packaged in a joint finishing unit, Vallourec Niko Tube – Ukraine (50.1%), which is managed by Vallourec and located in Nikopol (Ukraine).

Specialty Activities

Vallourec Bearing Tubes – France (100%) is a long-standing European leader in seamless tubes and rings for the manufacture of bearings. In addition to manufacturing bearing tubes, 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 a plant in Montbard (Burgundy, Côte-d'Or), which is equipped with heat treatment and a hot rolling mill. Vallourec decided to launch a process to sell this subsidiary in November 2021 (see section 3.5.2 "First-quarter 2022").

Vallourec Umbilicals – France (100%), located in Venarey-les-Laumes (Burgundy, Côte-d'Or, France), manufactures welded stainless steel super duplex tubes for umbilicals for the offshore Oil & Gas market.

MIDDLE EAST/ASIA REGION

Oil Country Tubular Goods (OCTG)

OCTG Middle East/Asia operations are carried out by the following subsidiaries:

- Vallourec Oil & Gas (China) Co., Ltd – China (100%), created in April 2010. This company sells premium Vallourec OCTG products on the Chinese domestic market, Vallourec Tianda (Anhui) Co., Ltd. (formerly Tianda Oil Pipe Company Limited (TOP)) API product exports, along with Line Pipe, Process and OCTG products from factories outside China. It also provides technical support and quality control services;
- Vallourec Asia Pacific Corp. Pte Ltd. – Singapore (100%), which markets OCTG tubes and accessories, process tubes and services in the Asia-Pacific region;

- VAM Far East Pte Ltd – Singapore (51%), a privately owned company incorporated on February 10, 1992. The company's core business is the provision of technical and analytical services, including testing, inspection and certification of tubes and connections in the Asia-Pacific region;
- PT Citra Tubindo TBK – Indonesia (81.7% held directly and/or indirectly by the Group), which has carried out heat treatment on tubes and threading of API, NS® and VAM® joints since 1985;
- Vallourec Tianda (Anhui) Co., Ltd. (formerly Tianda Oil Pipe Company Limited (TOP)) – China (99.727%). This company notably operates a PQF® continuous rolling mill to produce seamless tubes for the Oil & Gas market. Since 2011, Vallourec has owned 19.5% of Vallourec Tianda (Anhui) Co., Ltd. At the end of 2016, Vallourec acquired 70.07% of the domestic shares of this company, before purchasing shares from individual shareholders from 2017 onwards. This acquisition allows Vallourec to develop an expanded offer of highly competitive solutions that combine VAM® connections with Vallourec Tianda tubes. On January 1, 2020, VAM Changzhou Oil & Gas Premium Equipments Co., Ltd., created in September 2006 to operate a premium connection threading plant for oil and gas well equipment, became a Vallourec Tianda (Anhui) Co., Ltd. branch;
- Vallourec Middle East FZE. – United Arab Emirates (100%). Created in March 2011, this company sells OCTG, Line Pipe & Process tubes and accessories, and logistics services for the Middle Eastern market;
- Vallourec Saudi Arabia LLC – Saudi Arabia (80%). In November 2011, the Group acquired Saudi Seamless Pipes Factory Company Ltd., a processing and finishing company for seamless OCTG tubes located in Dammam, Saudi Arabia, from the Zamil group. This acquisition provided Vallourec with heat treatment and premium threading facilities. Abdel Hadi Abdullah Al-Qahtani & Sons Co. holds a 20% stake in this company;
- Vallourec Al Qahtani LLC. – Saudi Arabia (75% held directly or indirectly by the Group). Created in February 2010, the organization sells OCTG tubes and accessories on the Saudi market. It is the result of a joint venture between Vallourec (75%) and Abdel Hadi Abdullah Al-Qahtani & Sons Co. (25%);
- Vallourec Tubular Services LLC. – United Arab Emirates (49%), in association with Abu Dhabi Oilfield Services LLC (ADOS) (51%). Since January 2020, this company has been operating a logistics platform in Abu Dhabi for the local market.

Powergen/ST&P

Powergen's activities are notably run through Vallourec (China) Co., Ltd, formerly known as Vallourec (Changzhou) Co., Ltd. (China).

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

Specialty Products

The Specialty Products business 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 is primarily the responsibility of Valinox Nucléaire Tubes Guangzhou Co., Ltd. – China (100%), which specializes in tubes for steam generators in Guangdong province (China), and opened on June 6, 2013.

NORTH AMERICA REGION

Oil & Gas

Oil & Gas operations in North America are carried out through the following subsidiaries:

- Vallourec Star, LP – United States (100% directly and/or indirectly held by the Group since the acquisition of the Sumitomo Corporation of Americas 19.5% stake), an integrated manufacturer of seamless tubes for the Oil & Gas industry. Its facilities include an electric steel mill, two rolling mills equipped with cutting-edge technology, and heat treatment and threading units. The company's production units are located in Youngstown (Ohio), Houston (Texas) and Muskogee (Oklahoma);
- VAM USA LLC – United States (100% directly and/or indirectly held by the Group since the acquisition of the NSC shares (34%) and the Sumitomo Corporation of Americas shares (15%)). This company specializes in the threading of VAM® premium joints and the provision of services. 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;
- Vallourec Oil & Gas Mexico SA de CV – Mexico (100%), which specializes in the threading of premium VAM® connections and provides the Mexican Oil & Gas industry with the complete range of VAM® products;
- Vallourec Canada Inc – Canada (100%), which has a sales office in Calgary, Alberta. The production unit in Saint John's (Newfoundland) was divested in 2021;
- Vallourec Tube-Alloy, LLC – United States (100% directly held by the Group), which produces and repairs accessories used inside oil and gas wells. The company specializes in complex threading operations and in machining bespoke parts for both oil operators and component manufacturers. Its production units are located in Houma (Louisiana) and Houston (Texas).

SOUTH AMERICA REGION

Brazil

In 2021, Brazil continued to roll out its Transformation Plan to improve competitiveness. Following the 2018 industrial reorganization, which saw the shutdown of the Barreiro steel plant and blast furnace, a new organizational structure was put in place in 2020 and fine-tuned in mid-2021, with the objective of reducing administrative layers, gaining agility, and improving efficiency and results.

The majority of business activities continued to be driven by exports to foreign markets.

Business activities in South America are carried out through the companies listed below, entirely held by Vallourec Tubos do Brasil SA (VBR), which has been the holding company for the Brazilian entities since October 1, 2016. As of March 2020, VBR also encompasses the Shared Services Center activities and both the mining and forestry business units.

- Vallourec Soluções Tubulares do Brasil SA. (VSB) – On February 3, 2021, in the context of the announcement of Vallourec's financial restructuring plan, the Group highlighted that the appointment of an ad hoc representative had triggered the option for Nippon Steel Corporation to sell its 15.4% holding [1] in VSB to the Vallourec Group, which Nippon Steel decided to exercise. This sale was completed on March 26, 2021. The subsequent termination of the joint venture put an end to the supply agreement between Nippon Steel and VSB for a volume of 300,000 metric tons of pipes manufactured at the Jeceaba site in Brazil. VSB comprises the Jeceaba, Barreiro (Minas Gerais) and Serra (Espirito Santo) industrial sites.
  - The Jeceaba industrial site is located 120 kilometers south of Belo Horizonte. It consists of a premium rolling mill and also includes a pellet unit that produces pellets used by the Jeceaba blast furnaces and the local Brazilian market; a steel mill (with a blast furnace and electrical furnace), which supplies steel bars for production at the Barreiro and Jeceaba plants; an innovative premium rolling mill; and finishing lines. The Jeceaba site performs all types of API and premium threading types, in particular the VAM® product range.
  - Located in Belo Horizonte, the Barreiro site occupies a surface area of more than 300 hectares and is set to mark 70 years of operation in 2022. This integrated unit combines production and hot rolling equipment for the tube finishing lines. In particular, the site provides tubular products for ultra-deep water projects, notably pre-salt reservoirs. Since 2015, it has housed the Vallourec Research Connections Center Brazil (VRCC Brazil), which tests all the new exclusive threaded connections for compliance with industry standards, and to ensure that they guarantee the level of performance needed for challenging pre-salt environments.
  - VSB also acts as an industrial supplier to all Vallourec entities, primarily for the international Oil & Gas markets, exporting semi-finished products to Vallourec's finishing plants throughout the world.
  - VSB's seamless steel tubes are used in the following applications:
    - the Oil & Gas market, delivering seamless steel tubes for oil production and exploration (casing, tubing, accessories, and premium VAM® connections) and the transport of oil and gas (line pipes, riser columns, flow lines, etc.). VSB tubes offer resistance not only to high pressures and high temperatures, but also to corrosion by carbon dioxide and sulfates;
    - the Industry market (petrochemicals, power generation, mechanicals, etc.), a market that is mainly served by authorized distributors working closely with VSB to guarantee quality and technical assistance;
    - the Automotive Industry (light vehicles, trucks and agricultural equipment), with precision parts such as tubes for diesel injectors, bearing rings and forged parts such as transmission shafts and axles; and
    - the Civil Engineering and Construction sector: tubes for infrastructure and industrial foundations, structural tubes for commercial assets, capital goods, ancillary machines and materials.
- VTI – VSB partnered with the Açotubo group (the country's leading distributor of tubes) to create the joint venture Vallourec Tubos para Indústria (VTI) on October 1, 2021, 75%-controlled by Vallourec Soluções Tubulares do Brasil SA (VSB). VTI manufactures and sells seamless and welded round tubes with square or rectangular cold-drawn profiles, as well as tubular components. In the new structure, VSB's former cold drawn facility in Barreiro and Açotubo's cold drawn facility in Guarulhos are part of the new company. In addition, two new assets were incorporated: the parts and components service facility (also located in Guarulhos) and a welded tube plant (located in Taubaté). In addition to VSB's customary Automotive & Industry target markets, VTI will also target applications typical of welded tubes, such as structural parts for buses, trailers, agricultural machinery, motorcycles, civil construction and photovoltaic panels. Thus, VTI repositions Vallourec as a highly competitive provider of a wide range of tubular solutions for the Automotive & Industry markets.
- Vallourec Florestal Ltda. (100%) plants and manages eucalyptus forests for the production of charcoal from wood. Charcoal is one of the principal components in the production of liquid crude iron by blast furnaces. Vallourec Florestal Ltda. owns 165,000 hectares of agricultural land in the north of the State of Minas Gerais and currently has approximately 44,000 hectares of eucalyptus forest, which are managed and operated by the VBR's forestry business unit, which is responsible for the whole charcoal production cycle. The production process breaks down into forest planting, forest harvesting, charcoal production, and delivery on a just-in-time basis for VSB's blast furnace.

(1) *The 15.4% stake in Brazilian joint venture Vallourec Soluções Tubulares do Brasil (VSB) sold to the Vallourec Group includes a 15% interest held by Nippon Steel Corporation group and a 0.4% stake held by Sumitomo Corporation subject to the put option.*

- VBR Mining Unit (formerly Vallourec Mineração Ltda.) 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. In the second quarter of 2020, Vallourec started a new ore processing unit – ITM2. The dispatched volume reached 8.1 metric tons in 2021 (7.9 metric tons in 2020) thanks to improvements at ITM1 and the commissioning of ITM2 in the fourth quarter of 2021. The mine supplies VSB's blast furnace and pellet plant in Jeceaba, but it also sells its production on the local markets.
- Also part of the Transformation Plan, Tubos Soldados Atlanticos Ltda (TSA), located in Serra, formed Vallourec Transportes e Serviços Ltda (VTS), located in Rio das Ostras, on June 1, 2021. The objective of this merger was to create a specialized Oil & Gas services provider, with a comprehensive portfolio – OCTG, PLP, accessories and services – regardless of the product line. In addition, a number of administrative and operational synergies also generated cost reductions.

Uruguay

- Vallourec Uruguay SA (100%) was formed on July 13, 2017, to market the tubes produced by the Group for OCTG and process applications in South America.

Argentina

- Vallourec Soluciones Tubulares Argentina SAU, formed on March 4, 2020, is a trade and services company wholly owned by Vallourec Tubos do Brasil (VBR). Its main objective is to render specialized tubular services and also to support imports of Vallourec pipes into the Argentinian market.

ACTIVITIES OF THE HOLDING COMPANIES

Vallourec is a holding company that:

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

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

MARKETING COMPANIES

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

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

- Canada;
- Egypt;
- Uruguay;
- Russia;
- Dubai;
- Singapore;
- Italy;
- Sweden.

3.3 Innovation, Research and Development

Innovation, which is the key to competitiveness and growth, has always been at the heart of Vallourec's strategy and has been a major factor in its leadership in premium tubular solutions. In a very competitive global environment, the Group intends to continue addressing and anticipating the technological challenges faced by its customers. It must respond to radical, fast-paced changes in its customers' needs by offering them tailored solutions that are safe, reliable, sustainable and value-creating, in line with its premium position.

3.3.1 Organization of Innovation and Research and Development

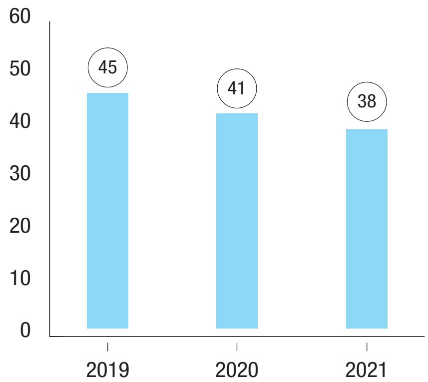
3.3.1.1 Information and key figures

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

The three cornerstones of the Group's research are:

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

In 2021, Research and Development (R&D) expenses totaled €38 million. The chart below shows R&D expenses over the past three years. The Group continues to make significant investments in R&D in order to develop innovative new products and solutions.



Since April 2017, Vallourec's expertise in R&D, marketing and innovation has been coordinated by the Development & Innovation (D&I) Department. This Central Department also includes the product lines. Thanks to this structure, the R&D and Innovation teams are situated in close proximity to the markets. In all, almost 390 researchers and technicians were involved in R&D in the Group in 2021.

The Group's key technological challenges include the following:

- for the Oil & Gas market, the Group must address the growing complexity of the fields and of oil and gas transportation (onshore and offshore), and help operators and EPCI (Engineering, Procurement, Construction and Installation) find solutions to reduce their total cost of ownership (TCO). The Group is developing digital solutions across the entire life cycle of its products (from facility design, traceability and implementation to integrity monitoring during use) to support its customers in this regard;
- for the Renewable Energy market, the Group must anticipate needs arising from future energies and drivers of the energy transition (solar, wind, geothermal, hydrogen, CO_2 capture and transportation), both for energy storage and mobility. All such initiatives fall under the responsibility of a single product line known as Energy Transition Opportunities (ETO);
- for the Industry market, the Group has to reduce the weight of mechanical infrastructure by designing lighter structures and increasing the payload of existing designs.

3.3.1.2 Centers of research and expertise with a global reach

Vallourec has five research centers throughout the world specializing in specific products, processes and technologies.

Aulnoye-Aymeries, France:

- the Vallourec Research Center France is the Group's historic research hub, specializing in metallurgy, welding, non-destructive testing, corrosion resistance, surface treatments, data science, and digital simulations of manufacturing processes and products, particularly for Oil & Gas applications and mechanical infrastructure. This center also provides technical assistance to the Group's plants and departments. New expertise has recently been developed, such as in additive manufacturing using metal deposition, and the transportation and storage of CO_2 and hydrogen to support the Group's new areas of growth;
- the Vallourec Research Center Connections develops and tests the range of VAM® threaded connections. For more than 50 years, its teams of experts have developed the range of threaded connections and assisted with their commercial production throughout the worldwide licensee network. Whatever the needs of energy operators, the performance of the solution developed is verified through tests on real-sized samples. These tests, which are conducted at one of Vallourec's three test laboratories worldwide, are designed to subject products to all operating constraints (make-and-break operations initially, followed by combined load simulations at various temperatures). The expertise of the Vallourec Research Center Connections has for several years included the CLEANWELL® solution (dry coating for VAM® connections) as well as digital solutions, coordinated by the VAM Data Department, which uses data to provide better support to customers during on-site product implementation. In 2021, the Vallourec Research Center Connections also developed specific expertise in the evaluation and testing of threaded connections for energy transition applications. Beyond its proven geothermal expertise, this led to the qualification of VAM® products under actual conditions encountered during CO_2 or hydrogen transportation and storage.

Riesa, Germany:

- the Rolling Process Performance & Technology Department is in charge of research into hot-forming for the production of seamless steel tubes, drawing on the skills of various partners including universities and Vallourec's teams of experts. It operates alongside the Vallourec Competence Center Riesa, a cutting-edge laboratory allowing Vallourec to accelerate innovation in terms of manufacturing 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. Its facilities are also used as training tools and pilot units for Industry 4.0 developments.

Belo Horizonte and Rio de Janeiro, Brazil:

- the Vallourec Research Center Brazil brings together teams of experts who adapt the Group's solutions to the specific local needs (customers and plants) and develop new solutions meeting the Group's needs across the globe. The Vallourec Competence Center Rio is located in the technology park of the University of Rio de Janeiro, in close proximity to CENPES, the Petrobras research center, as well as academic laboratories. The Center enters into technical partnerships that use mature and emerging technologies;
- lastly, subsidiary Vallourec Florestal, which operates the Group's eucalyptus forest in Brazil, conducts research into forestry, charcoal and the preservation of the environment. This work helps to ensure the optimal operation of forests for charcoal used in steel production by reducing consumption and emissions in compliance with environmental standards.

Houston, Texas (US):

- the VAM USA Research Center Connections in conjunction with the Vallourec Research Center Connections in Aulnoye-Aymeries researches specific developments in VAM® connections for the US market. Its design and testing capacities have enabled it to market connections for the extraction of shale deposits (VAM® SG, VAM® EDGE SF +, VAM® SPRINT-SF, VAM® SPRINT-FJ, VAM® SPRINT-TC) and for deep offshore wells (VAM® BOLT-II, VAM® HP, VAM® SLIJ-3, CLEANWELL®).

In terms of threaded connections and surface treatments such as CLEANWELL®, the VAM® Threading Competence Center designs, develops and industrializes all production methods for VAM® and CLEANWELL® connections. In addition, VAM® TCC supports operations in the Group's plants through training, benchmarking and on-site technical support.In addition, VAM® TCC supports operations in the Group's plants through training, benchmarking and on-site technical support. It provides plants with equipment standards and machinery, as well as critical maintenance and operating methods. This Competence Center has a dedicated production line designed to optimize threading operations and industrially test solutions before the R&D phase.

The Group is also engaged in R&D elsewhere in the world, notably in Indonesia, through its subsidiary PT Citra Tubindo, and in Japan, with its longstanding partner Nippon Steel Corporation (NSC).

3.3.1.3 A collaborative approach to innovation with customers and markets

Innovation is behind many advances that allow Vallourec's customers to push the boundaries of technology, tap into previously unused resources, and improve the performance of their facilities. As innovation is a process of ongoing dialog with customers, the Group works in close collaboration with some of these customers to develop solutions that meet their operating needs.

The Group has a long-standing working relationship with Petrobras, and more broadly with all Energy market players present in Brazil (ExxonMobil, Total, Equinor) on complex and highly corrosive pre-salt fields (deep offshore), offering innovative tubular solutions for exploration and extraction of deposits, but also for the transport of fluids with the help of the risers and line pipe product ranges, which have been tested to these specifications.

After two years of joint development with OpenField Technology, a start-up specializing in microsensors, Vallourec launched its Intelligent Pipes solution, a high-performing technology for monitoring wells. This solution, which consists of integrating high-tech pressure and temperature microsensors directly into the tube, makes it possible to anticipate integrity problems that customers may encounter throughout the life of their wells, from commissioning and operation to dismantling.

For its customers in the Middle East, Vallourec has delivered a comprehensive tubular solution for the extraction of deposits under extreme conditions of H_2S (hydrogen sulfide) gas corrosion. The VM110XS steel grade has proven its worth in an area not yet fully guaranteed by industry standards, and where the only alternative up to now was to use thicker, heavier and less cost-efficient tubes.

In 2021, the Group engaged in the widespread testing and supply of VAM® SLIJ-3 connections, the latest generation of VAM® integral connections for the ultra-deep offshore environments of the Gulf of Mexico. This connection has a higher torque and compression capacity for a superior overall performance. Its optimized design makes it easier to assemble and delivers better performance in high-pressure and high-temperature operations. The robustness of this product has been tested to the most recent and most rigorous testing protocols, thereby ensuring the reliability of critical operations.

Vallourec has also extended its comprehensive technical support offering, for example by working with a Gulf of Mexico operator from the outset to develop existing solutions as necessary, combining the benefits of steel grades such as VM130MS and VM140XC with VAM® SLIJ-3 connections.

With regard to offshore renewable energy production, Vallourec obtained ABS and DNV approvals for its new X100 steel grade. This extends Vallourec's Oceanfit® offering and its range of products specifically intended for demanding offshore applications. The X100/S690 grade exhibits high mechanical resistance combined with exceptional weldability, and maintains its ductility even in arctic environments. These tubes are an effective solution with a significantly lower TCO (confirmed by the customer) in the construction of jack-up oil platforms and wind turbine installation vessels (WTIV) for offshore wind farms.

Metal structures capable of supporting large-scale photovoltaic panels, such as on the roofs of agricultural sheds or parking lots, are increasingly in demand by the solar industry. In this sector, where welded tubes and open profiles predominate, Vallourec's MSH structural hollow sections, combined with the Preon® box design tool, offer competitive solutions, particularly when the available surface must have a dual use.

In the field of geothermal energy, Vallourec is involved in closed loop projects that do not require a large quantity of water in the subsoil. Thermocase® VIT (Vacuum Insulation Tubing) products allow the circulation of cold and hot flows in the same well thanks to their excellent thermal insulation. This high-potential technology will considerably increase the number of sites where geothermal power can be installed.

During extensive laboratory tests in 2021, we reproduced the future conditions of use of the tubes and connections for hydrogen applications and CCS (carbon capture and storage) injection wells. Vallourec products are thereby qualified for future customer needs (VAM® TOP for CCS at a temperature of -250°C and VAM® 21 for 100% hydrogen content).

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 with Nippon Steel Corporation (NSC) in particular, with which a collaboration has been in place since 1976 in the area of VAM® connections for the Oil & Gas market.

The Group also participates in critical research work with a host of university laboratories in Europe and around the world.

3.3.2 An enhanced innovation culture

The Group's innovation strategy is to maintain its difference in its premium product range, develop new solutions for the use of its products, and open up new markets. The common goal of these three components of our strategy is to increase value for our customers and optimize Vallourec's positioning. In line with this strategy, the Development & Innovation Department (D&I) is strengthening the innovation expertise and capacities of the Group's teams, both by developing deeper knowledge and sharing it on our markets, and by establishing agile and efficient innovation methods.

3.3.2.1 Innovation culture and approach

In order to optimize the generation and selection of ideas that will be the innovations of tomorrow, D&I organizes "front-end innovation workshops" to better understand its customers' needs and generate ideas. Depending on the subject, these workshops are organized internally or with the Group's customers.

They enable the Group to deploy 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 these workshops, namely Marketing, R&D, Sales, Industrialization and Production.

This process, based on collaboration and collective intelligence applied to both knowledge- and experience-sharing and group brainstorming, yields effective results while strengthening Vallourec's culture of innovation.

Since 2017, these workshops have also been organized directly with our customers. They allow us to discuss any issues they have had using our products, so that we can better understand their needs and respond more effectively by generating solutions selected by Vallourec and customer teams. Feedback from participating customers shows that these measures strengthen Vallourec's image as a partner and supplier of innovative solutions beyond premium products.

Vallourec has extended its innovation approach to all of its employees by launching an internal innovation platform. This cross-divisional and international tool aims to increase visibility, and to share and enrich innovative ideas from employees. The objective is to generate ideas for which the chances of technical and commercial success are high, in order to propose new value offers to our customers. This platform has helped to place innovation at the heart of the Company and to leverage the full creativity of its teams.

Vallourec launched the fourth edition of its "Open Innovation Challenge" in 2021. As in previous years, this initiative was open to start-ups, laboratories and companies across the globe able to propose and develop innovative solutions tailored to the Group's markets. The Group has already embarked on win-win partnerships with start-ups, as demonstrated by its four-year Big Data cooperation with Saagie or the collaboration with OpenField that aims to integrate microsensors into tubes to measure and record pressure and temperature data in hard-to-access areas. Other promising projects are underway to develop new functions for our tubes, including the ability to transmit data. The Group is also working with start-ups in the field of additive manufacturing.

In 2021, the challenge focused on new energies, tube reuse and on-site support services. These issues are fundamental concerns for the Group, which actively seeks opportunities related to the energy transition, reduction of CO_2 footprint and the development of services. The Group received several dozen proposals in the space of a few short weeks, once again demonstrating Vallourec's attractiveness to start-ups and growth companies.

Due to the Covid-19 pandemic, the various shortlisted ideas were presented on video. These presentations covered the best ideas put forward by both employees and start-ups. The pitches were presented at the 2021 Innovation Days. This two-day event was streamed live, and was watched remotely by almost 200 of our employees around the world. The Innovation Days provided an opportunity to present and exchange on changes in the environment, customers' needs and our portfolio of innovations. The quizzes and workshops on the agenda allowed participants to reinforce their commitment and contribution to innovation.

Four of our employees along with three start-ups selected from over 40 companies that submitted a collaborative project presented their ideas to a jury made up of the Group's key executives, as well as some external partners.

The ideas presented had been selected from among the 430 ideas submitted via the Group's internal platform by nearly 150 Vallourec employees. Several screening sessions were organized with the Regions and product lines, and four were ultimately shortlisted to present their respective proposals.

The partnerships launched with the start-ups selected through these initiatives allow Vallourec to integrate the latest innovative technologies, accelerate development projects and deepen discussions between teams, providing a win-win for both the Group and its external partners.

Alongside these idea-generating initiatives, for projects already in development, D&I supports the project teams to ensure efficient execution so that products are brought to market as rapidly as possible. Execution is managed based on various criteria, including customer value, technical feasibility, turnaround times, as well as related risks. These factors are reviewed at various milestones by a validation committee.

To ensure the agile development of new solutions, "Boosters" have been introduced in recent years. These execution tools are overseen by a Business Manager – Product Manager team who aim to develop our new technology-based solutions as quickly as possible while also nurturing the new associated expertise. For example, the Group has one Booster for digital solutions and another for solutions related to additive manufacturing. In 2021, the Additive Manufacturing Booster developed and produced several parts for customers both inside and outside the Oil & Gas sector, strengthening Vallourec's position in this process of the future.

In order to regularly review the value of the developments and ensure the best decisions are reached, the portfolio of innovative projects for the product lines is reviewed by a special committee that comprises all of the Company's functions. This means that decisions are made and projects prioritized both within a given product line and between the different product lines.

The experts, process communities, project teams and R&D teams also develop and participate in online collaborative spaces and tools, enabling them to share information across the Group.

3.3.2.2 Expert Career program

Vallourec's Expert Career program covers 13 areas of expertise, including steel production, rolling, heat treatment, non-destructive testing, threading, digital modeling, materials science and product applications. Designed especially to nurture and reward employees with sought-after technical skills, the program offers a career development path and provides technical talent the best possible resources to continue developing their expertise. There are currently more than 270 expert employees following one of the four levels of the program. Links between management responsibilities and technical expertise were established under the coordination of the Human Resources Department, guaranteeing the same level of recognition irrespective of the path taken.

3.3.3 State-of-the-art manufacturing processes

3.3.3.1 Forest and blast furnaces

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

3.3.3.2 Steel production

The development and production of steels using continuous-casting processes forms the basis of the Group's range of high-tech solutions, and is the object of much of its work. Research on the cleanliness of steel is a key aspect of research for 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.

3.3.3.3 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. Vallourec offers a wide range of steel, containing up to 13% chrome.

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

Developments are in progress for the very latest hot-rolling techniques (PQF, FQM, etc.).

3.3.3.4 Heat treatment

A large proportion of the Group's premium products is heat-treated to enable it to deliver exceptional 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, creep or rupture resistance, corrosion resistance and steel weldability.

3.3.3.5 Non-destructive testing

Non-destructive testing, which evaluates the integrity of structures or materials at various stages of life without causing damage, are being extensively developed to ensure superior product reliability. Innovations in this sector are major differentiating factors. Cutting-edge non-destructive test benches capable of detecting imperfections independently of direction, are used on a daily basis to inspect products.

3.3.3.6 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 Group's main manufacturing processes. These include the production and continuous casting of steel, heating rounds, hot rolling, forging, heat treatment, non-destructive testing, threading and tube finishing (coating, marking, machining, etc.). Its activities are regularly benchmarked to ensure that Vallourec's practices and technologies remain compliant with best practices and best available technologies. Our processes are continually improved thanks to significant internal efforts in Research and Development. SHALYN, the Company's Industry 4.0 platform, was set up to manage and control manufacturing processes. The cutting-edge level 2 systems and applications are connected in order to continuously improve the performance of our products and services.

3.3.4 Standards for the Group's products

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 according to each region in which the Group operates and to the product concerned and the use of that product. The Group also has a regulatory intelligence process to ensure that its products comply with applicable regulations, standards and certifications.

The Group is subject to two types of standards: mandatory standards set by law, and non-mandatory standards voluntarily applied by the Group in response to customers' demands.

Mandatory standards generally require certification by laboratories and/or independent organizations, and are notified by governments. Their main purpose is to protect user health and safety by demonstrating that the product complies with regulatory requirements. They focus primarily on fire resistance and slip resistance properties, and on limits to toxic emissions. Non-mandatory standards are required by the Group's customers, whose specifications require compliance with these standards.

3.3.4.2 Standardization organizations and standards applied in different regions

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

The Group relies on the Vallourec Management System (VMS), whose fundamental objective is to improve the Group's performance in the fields of quality, health, safety, the environment and logistics.

3.3.5 Industrial property

The strengthening of the Group's industrial property efforts continued in 2021, with the monitoring of major Research and Development projects, the international deployment of a process designed to encourage researchers to register and better protect their inventions, and support for the development of expertise in the Group's new areas of innovation through competitive intelligence.

The Group's patent filing activity accelerated in 2021 as a result of the initiatives mentioned above. The Group filed 31 patent applications for 31 new inventions, an increase of more than 50% compared to 2020, and proceeded with more than 500 geographical extensions of patent applications. Patent protection remained high with more than 4,600 patents worldwide. We noted a fall in offensive and defensive opposition procedures due to the pandemic and the decline in activity of the European patent office. The Group's budget for intellectual property remained stable in 2021.

Vallourec also continued its efforts to protect its trademarks through renewals and opposition procedures in 2021. More specifically, the Smartengo™ and Vallourec® services brands are in the process of being registered. The Group has also added new service brands such as BEHUB-E™ to its portfolio.

3.4 Market environment

3.4.1 Oil & Gas

Oil & Gas demand and supply balance is the main driver for growth in capital expenditures

According to the market report published by the IEA [1] in January 2022, global oil demand rebounded strongly in 2021 following an unprecedented decline in 2020 due to the Covid-19 pandemic (down 8.6 mb/d compared to 2019, to an annual average of 90.9 mb/d). The rebound drove global oil demand to an average 96.4 mb/d over the year, with a more significant increase in the second half of the year.

Total oil supply in 2021 (annual average of 95.3 mb/d) remains below the level recorded in 2019 (annual average of 100.5 mb/d), despite supply gradually increasing over the year to an average of 98.2 mb/d in the fourth quarter.

Oil prices

In 2021, WTI [2] averaged USD 67.9/barrel compared to USD 39.8/ barrel in 2020, an increase of nearly 70% which reflects the rebound in global oil demand following the economic crisis caused by the pandemic.

Following the same trend, Brent [3] crude averaged USD 70.6/barrel in 2021 (versus USD 43.4/barrel in 2020, an increase of around 63% year on year.

Oil & Gas market in the United States

In the United States, the average rig count has bottomed out, after an impressive fall in the second and third quarters of 2020 (from a monthly average of 772 rigs in March 2020 to a monthly average of 250 rigs in August 2020). Since then, the rig count has been recovering and stood at 579 on average in December 2021. Standing at 586 rigs at the end of the year, the rig count increased by 235 in 2021.

OCTG prices in the United States [4] hit a low of USD 1,290/ton in August 2020. OCTG prices rose sharply in 2021, up 79% to USD 2,649/ton in December from USD 1,480/ton in January.

In the US, consumption per rig [5] has been gradually increasing, averaging 459 tons per month in 2021 compared to 445 tons in 2020, a rise of 3.3%.

Oil & Gas market in Brazil

According to the IEA's January 2022 market report, despite the decline in output in the second quarter of 2021 due to maintenance operations in several fields, oil production remained above 3 mb/d on average over the year as a whole.

Oil & Gas market in EA-MEA regions

The rig count on international markets has continuously decreased, from an average of 1,059 rigs in March 2020 to an average of 665 in December 2020. Since end-2020, there has been a gradual upturn in the rig count, which stood at an average of 834 units in December 2021. In all, 157 units in operation were added during the year.

In the MEA region, OCTG prices [6] have remained broadly stable since July 2019, at around USD 1,550-1,600 per metric ton. From June 2020, they started to decrease and reached USD 1,330 per metric ton in December. OCTG prices began to rise again from the second half of 2021, reaching USD 1,770 per metric ton at the end of December, an increase of 31% over the year.

In Western Europe, OCTG prices [6] rose in 2019 to hit a high of USD 1,690 per metric ton in July 2019, before starting to decrease in 2020 owing to the pandemic. In 2021, OCTG prices in Western Europe followed a solid upward trend, reaching USD 1,700 per metric ton in December, a 19% increase since the beginning of the year.

3.4.2 Industry and other markets

Demand for industrial applications is dependent on the growth or decline of industrial sectors such as automotive, construction or industrial manufacturing. Growth in these sectors is correlated with various factors, notably GDP growth.

Europe (Germany)

The ifo Business Climate Index hit a low of 75.6 in April 2020, reflecting the impact of Covid-19 on the German economy. Since then, it has steadily risen, reaching a high of 101.7 in June 2021. In the second half of the year, commodity price inflation and the emergence of new Covid-19 variants curbed the increase. In December 2021, the Business Climate Index stood at 94.7.

Brazil

GDP is forecast to grow by 4.5% [7] in 2021. A broad-based recovery has been confirmed, fueled by industry, including Automotive. Agriculture continues to prove resilient and to play an important role in the Brazilian economy. The industrial tube market is also seeing upward momentum driven by a rise in demand and the impact of customer restocking.

(1) IEA (International Energy Agency) – Oil Market Report – January 2022.
(2) WTI price: IR Nasdaq – data collected in January 2022.
(3) Brent price: IR Nasdaq – data collected in January 2022.
(4) Pipe Logix (average seamless pipes) – December 2021.
(5) Preston pipe & tube report – January 2022.
(6) Rystad (OCTG casing L80 premium connection) – January 2022.
(7) Based on Brazil Central Bank/Focus Report, January 3, 2022.

3.4.3 Power Generation

Demand for seamless tubes in the Power Generation market depends on construction or maintenance operations at conventional or nuclear power plants.

3.4.3.1 Conventional energy

Demand for conventional coal-fired power plants is declining worldwide.

In view of this decline, the Reisholz mill (Germany), specialized in tubes for conventional power plants, was shuttered in the summer of 2020.

3.4.3.2 Nuclear energy

The development of nuclear power is generally slowing due to a combination of financing difficulties, more demanding safety requirements, and a lack of political will in certain countries.

On February 17, 2021, Vallourec announced that it had initiated discussions regarding the sale of Valinox Nucléaire SAS. Created in 1974 and located at Montbard (Burgundy, Côte-d'Or) in France, Valinox Nucléaire SAS specializes in tubes for steam generators. On June 1, 2021, Vallourec announced that it had finalized the sale of Valinox Nucléaire SAS to Framatome.

3.4.4 Renewable energies and the energy transition

In the wake of COP21 and the Paris agreement, there is a strong push from public authorities as well as the private sector for the development of renewable energies to pave the way for the energy transition towards a carbon-free, sustainable lifestyle.

Vallourec is involved in various innovative projects that will enable it to capitalize on new opportunities linked to the energy transition. Demand for tubular solutions could be enhanced by offerings for the following markets:

- geothermal energy for power generation. Today, geothermal energy represents approximately 1% of total installed renewable energy generation capacities, and is mainly found in volcanic hot spots (Western United States, Indonesia, East Africa, etc.). Capacity is expected to grow by 5% annually up to 2040;
- wind power represents nearly half of the installed renewable energy generation capacities, and has grown steadily by around 10% per year in recent years. Within this segment, the offshore segment is still relatively small, and located mainly in the North Sea, but is expected to continue to grow sharply in the coming decades;
- carbon Capture Utilization and Storage (CCUS): CCUS is still an emerging technology which needs to go through demonstration phases before reaching commercial scale-up. According to the IEA, emissions targets require the capture, store or re-use of some 850 million tons of carbon dioxide annually by 2030. The recent increase in carbon prices in the European Union, the launch of a carbon market in China in 2017, and the 45Q tax credit reform in the United States (granting a USD 50 tax credit for every ton of CO_2 captured and stored) are signs that new opportunities are opening up;
- the production of "blue" (linked to carbon capture) and "green" (produced through electrolysis) hydrogen could be a competitive solution with potential. The development of hydrogen applications would be facilitated by the lower cost of electrolysis that could result from economies of scale, as well as by government support in facilitating the roll-out of the necessary infrastructure (refueling stations, hydrogen products);
- solar is the cheapest energy and its use is increasingly widespread. It can be rolled out through a vast array of projects, from very large surface solar farms used only to generate power, to more elaborate projects designed to adapt to difficult weather conditions, space restrictions or other reasons (farming, hangars, etc.).

3.4.5 Raw materials

Scrap metal

Prices of raw materials such as scrap metal have an impact on Vallourec's earnings, particularly in the United States and Brazil.

Vallourec's US steel plant is equipped with an electric arc furnace that uses scrap metal. In the United States, average scrap metal prices [(1)] rose 73% in 2021 to USD 482/t from USD 278/t in 2020.

Covid-19 led to a sharp fall in scrap metal prices in 2020, especially in April (USD 235/t, 18% lower than in March 2020). However, strong demand in 2021 in line with the global economic recovery led prices to rally sharply between January (USD 475/t) and December (USD 540/t) 2021.

Vallourec's steel production in Brazil is now based at the Jeceaba steel mill, a modern site equipped with an electric arc furnace using scrap metal and a blast furnace using iron ore supplied by the Group's mine.

Iron ore

In 2021, the average price of iron ore [(2)] on the international market increased to USD 161/t, compared with USD 108/t in 2020. After the decline observed in April 2020 (USD 84/t) due to the pandemic, international iron ore prices have rallied sharply, particularly in 2021, to reach an average of USD 212/t in July. During the second half of 2021, prices declined steadily, ending the year at an average of USD 112/t in December.

(1) CRU – Shredded Pittsburgh – $/LT.
(2) Platts SBB – IODEX Iron ore fines 62% CFR North China $/t.

3.4.6 Currencies

Vallourec is exposed to volatility in foreign currencies (notably the Brazilian real and US dollar).

The translation effect reflects the valuation difference of the financial statements of subsidiaries whose functional currency is not the euro within the Group's consolidated financial statements. For profitable subsidiaries, this impact is positive when the currency rises against the euro and negative when it falls against the euro.

The transaction effect represents the gain or loss in revenue (or costs) when contracts are invoiced in a currency other than the entity's functional currency, and is expressed in the functional currency of the entity. The effect is positive when the functional currency depreciates and negative when it appreciates, and may be deferred if hedges are in place.

3.5 Significant events in 2021 and early 2022

3.5.1 2021

Financial restructuring

On February 3, 2021, Vallourec announced that it had reached an agreement in principle with its main creditors as part of its financial restructuring. This agreement met the Company's objectives to rebalance its capital structure by reducing its debt and securing the necessary liquidity that will enable the Company to implement its strategic plan in a volatile market environment.

On February 4, 2021, the Commercial Court of Nanterre opened safeguard proceedings (*procédure de sauvegarde*) with respect to Vallourec SA to allow it to implement its financial restructuring.

On April 20, 2021, all of the resolutions necessary for the implementation of the financial restructuring were approved at the Company's Shareholders' Meeting.

On May 19, 2021, the Commercial Court of Nanterre approved the safeguard plan.

On June 3, 2021, the Company announced the launch of a share capital increase with shareholders' subscription rights for an amount of €300 million, open from June 8, 2021 until June 21, 2021.

On June 24, 2021, Vallourec announced the success of its capital increase with pre-emptive subscription rights through the issuance of 52,954,807 new ordinary shares at a subscription price of €5.66 per share, representing a gross amount of €299,724,207.62 (issue premium included). The transaction was part of the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021.

The proceeds of the Capital Increase with Pre-emptive Subscription Rights were used for the partial repayment of the claims under the various RCFs and the bonds of the Company's creditors (the "Converting Creditors"), with the exception of BNP Paribas, CIC and Natixis (the "Commercial Banks").

On June 30, 2021, Vallourec finalized its financial restructuring, reducing the Group's debt by €1.7 billion further to the completion of the final steps in the safeguard plan:

- a €1,331 million debt-for-equity swap by way of a capital increase without shareholders' pre-emptive subscription rights reserved for the converting creditors, for a gross amount (including issue premiums) of €1,331 million, through the issue of 164,523,927 new shares subscribed by the converting creditors (at a price of €8.09 per share, including issue premiums) by way of set-off against a portion of their claims;
- the issue of 30,342,337 share subscription warrants reserved for the commercial banks, subscribed by way of set-off against a portion of their claims in respect of the Company's revolving credit facilities for an amount of €0.3 million;
- a debt write-off granted by the commercial banks in the amount of €169 million;
- the issue of new bonds for a nominal aggregate amount of €1,023 million, subscribed by the converting creditors by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the arrangement by the commercial banks of a €462 million revolving credit facility;
- the arrangement by the commercial banks of a State-guaranteed loan for an aggregate amount of €262 million; and
- the repayment in cash of a portion of the receivables in respect of the Company's bonds and revolving credit facilities for €562 million, financed in particular by the proceeds from the rights issue with pre-emptive subscription rights for a gross aggregate amount (including issue premiums) of €300 million through the issue of 52,954,807 new shares subscribed in cash (at a price of €5.66 per share, including issue premiums) by holders of the Company's pre-emptive subscription rights.

In addition, the commercial banks arranged bonding lines on behalf of Vallourec Tubes and certain subsidiaries, for a total amount €178 million over a period of five years.

Further to these transactions, the former bonds and revolving credit facilities were canceled, and the outstanding bonds were delisted from their respective markets.

Governance

Pursuant to the terms of the aforementioned Agreement in Principle and the resolutions adopted on April 20, 2021 by the Ordinary and Extraordinary Shareholders' Meeting, the new governance structure entered into force on July 1, 2021, resulting in:

- the modification of the Company's governance and management structure to a single-tier structure with a Board of Directors replacing the previous two-tier structure with a Management Board and Supervisory Board;
- the expiration of the terms of office of the members of the Company's Supervisory Board and Management Board;
- the take-up of office of new directors; and
- the appointment of Edouard Guinotte as Chairman and Chief Executive Officer and Olivier Mallet as Deputy Chief Executive Officer.

The Company's new Articles of Association, which notably abolish double voting rights, came into force on July 1, 2021.

Acquisition of minority interests in Brazil and the United States simplifying Vallourec's corporate structure

In March 2021, Vallourec acquired the 15.4% stake in VSB (and its associated rolling capacity of 300 kt/year) from Nippon Steel, allowing full ownership of all Brazilian assets.

In the United States, in addition to the July 2021 acquisition of a €35 million, 49% minority stake in VAM USA, which specializes in the threading of VAM® premium joints, in September 2021 Vallourec acquired the 19.5% minority stake owned by Sumitomo Corporation in Vallourec Star, an integrated industrial facility including a steel mill, two rolling mills and finishing lines, for €83 million. Thanks to these acquisitions, Vallourec fully owns its North American entities and will now be able to benefit from complete operational flexibility, further develop synergies and use large tax credits more efficiently.

A transformational move: launch of the disposal process for German assets and progressive transfer of their Oil & Gas activities to highly competitive Brazilian production sites

LAUNCH OF THE DISPOSAL PROCESS FOR GERMAN ASSETS

On November 17, 2021, Vallourec has decided to launch a disposal process for its German production units with the aim of finding a new operator to profitably serve the European Industry markets. The Group seeks a responsible and long-term buyer to secure the future of its assets, its employees and all of its stakeholders.

The disposal process is targeting a binding offer by the second quarter of 2022. If no buyer is identified, Vallourec will look at all alternatives, including closure.

PROGRESSIVE TRANSFER OF GERMAN ASSETS' ROLLING MILL ACTIVITIES TO BRAZIL

The transfer will be accompanied by the gradual implementation of a capital expenditure program worth approximately €100 million in Brazil to enable the production of the full range of premium tubular products for Brazilian as well as international Oil & Gas customers.

A GAME CHANGER FOR VALLOUREC'S PERFORMANCE IN INTERNATIONAL OIL & GAS MARKETS

Following the progressive transfer of German rolling mill activities for Oil & Gas, the Brazilian hub will supply the full range of tubular products to international markets, leveraging an already optimized cost base and benefiting from better absorption of its fixed costs. This will allow greater competitiveness and improved margins in international Oil & Gas markets, and will also have a positive impact on CO_2 emissions, thanks to the excellent carbon footprint of the Brazilian operations (the CO_2 content of tubes produced in Brazil is 30% lower than that of tubes produced in Germany).

These transactions are expected to generate a €130 million run rate EBITDA increase and a €20 million capex reduction per annum.

Sale of Valinox Nucléaire SAS

On February 17, 2021, Vallourec announced that it had initiated discussions regarding the sale of Valinox Nucléaire SAS. On June 1, 2021, Vallourec announced that it had finalized the sale to Framatome of Valinox Nucléaire SAS, located at the Montbard production site in France (Burgundy, Côte d'Or).

Commercial success

On October 26, 2021, Vallourec announced that it had signed a major 10-year frame agreement with Esso Exploration and Production Guyana Limited (EEPGL), an affiliate of ExxonMobil, one of the world's largest energy companies, to supply line pipe products in Guyana.

This agreement enables long-term line pipe supply by defining contractual and commercial terms to support EEPGL's future oil and gas developments in this strategic region. EEPGL operates the Stabroek block (26,800 km2), where approximately 10 billion barrels of oil equivalent have been discovered since 2015.

This positions Vallourec as a strategic supplier of seamless tubes for future projects in Guyana to build subsea flowlines and risers. Vallourec line pipe is manufactured to the tightest tolerance required for deep-water pipeline installations.

On December 4, 2021, Vallourec announced that it had signed a contract with Beacon Offshore Energy Exploration & Production LLC to supply OCTG products for the Shenandoah project in the Gulf of Mexico.

The recently commissioned Shenandoah project is a next-generation high-pressure/high-temperature (HPHT) development, requiring a pressure rating of 20,000 pounds per square inch (psi) for deep-water drilling in the Gulf of Mexico. Shenandoah is located 257km off the coast of Louisiana, in Walker Ridge blocks 51, 52 and 53.

The drilling phase is expected to begin in the third quarter of 2022, with initial production slated for the fourth quarter of 2024. Vallourec will supply intermediate and production casing tubes. The contract includes the latest connection technology, including VAM® SLIJ-3 and VAM® BOLT-II, custom products, and proprietary steel grades.

Launch of the Behub-e platform

On November 4, 2021, Vallourec announced the launch of a global marketplace platform providing an online sales channel for sellers and buyers in the Energy and Industry markets. Developed in close collaboration with customers and suppliers in the Energy and Industry sectors, Behub-e will provide an innovative online procurement channel hosting a wide range of equipment, consumables and services related to the use of our tubular products. It will allow trusted sellers to offer their surplus production and product inventory to a wide base of trusted buyers in the industry, who in turn will be able to reduce their procurement costs and improve the circular economy.

ESG: a commitment applauded by non-financial rating agencies

The Group's Sustainable Development policy is regularly applauded by non-financial rating agencies. Our performance, particularly in the three key areas of energy, water and waste management, highlight Vallourec's contribution as a responsible market player.

On June 25, 2020, Vallourec announced its ambition to reduce its direct and indirect carbon emissions by 2025, taking 2017 as its baseline year. These objectives were approved by the Science-Based Targets initiative (SBTi), and Vallourec became the first company in the Oil & Gas sector to obtain this recognition [(1)]. In concrete terms, the Group, which is already a low emitter of greenhouse gases, is committed to:

- reducing its direct emissions by 20% (Scopes 1 & 2);
- reducing both direct and indirect emissions by 25% (Scopes 1, 2 & 3).

In December 2021, Vallourec announced that it was again part of the "A List" compiled by the CDP, the global environmental non-profit organization that encourages companies and governments to reduce their greenhouse gas emissions. This accomplishment serves as recognition for the Company's transparency and leadership on climate issues.

In 2021, MSCI ESG Rating confirmed Vallourec's "AA" rating. At the same time, the ESG rating agency Sustainalytics ranked the Group in 19th [(2)] position among the 112 energy sector players in the study.

3.5.2 First-quarter 2022

On January 8, 2022, following the exceptionally heavy rainfall in Minas Gerais State (Brazil), some material from a waste pile associated with the operations of Vallourec's Pau Branco mine slid into a rainwater dam ("the Lisa Dam") causing it to overflow, and resulting in the interruption of traffic on the nearby highway. The structure of the dam was not affected, and there were no casualties.

As a result of this incident, the operations of the mine have been temporarily suspended. Vallourec plans to restart them in the coming weeks subject to receiving the necessary consents, at first without using the waste pile. In the meantime, Vallourec is preparing the report on the stability of the waste pile, to be validated by the mining authorities. The mine could therefore reach full capacity during the second quarter.

In addition, on January 21, 2022, Vallourec signed an agreement with the Public Prosecutor's Office regarding the consequences of the overflow of the Lisa Dam. The agreement includes the implementation of emergency measures, many of which have already been completed, and a commitment to the environmental restoration of the affected area. It also includes the provision of BRL 200 million (approximately €35 million) as a guarantee in a bank account held by Vallourec. As previously disclosed, Vallourec confirms that the BRL 288 million (approximately €50 million) fine is currently being challenged. These one-time costs will be registered below EBITDA in Vallourec's 2022 consolidated results.

The Group has not experienced any interruption in supply to its Jeceaba blast furnace.

On Thursday March 3, 2022, Vallourec entered into exclusive talks with Mutares SE & Co. KGaA further to receiving an irrevocable offer for the acquisition of Vallourec Bearing Tubes (VBT). The transaction is expected to close in the second quarter of 2022 further to the works council consultation process and subject to approval of the antitrust authorities.

On March 21, 2022, Vallourec announced the appointment of Philippe Guillemot to succeed Edouard Guinotte as Chairman and Chief Executive Officer of Vallourec.

(1) It should be noted that SBTi classifies Vallourec in the "Mining – Iron, Aluminum, Other Metals" sector when assessing its targets. However, given that Vallourec derives the bulk of its revenue from the Oil & Gas sector, the Company compared itself to SBTi's "Oil & Gas" category, and no company in this sector has had its roadmap validated by SBTi.

(2) Sustainalytics, as consulted on February 28, 2022.

3.6 Strategic vision

3.6.1 Strengthened competitiveness with the launch of the disposal process for German assets and the progressive transfer of their Oil & Gas activities to Brazil

3.6.1.1 In recent years, Vallourec has implemented cost-cutting measures to strengthen the competitiveness of its industrial footprint

Vallourec's industrial footprint has been rebalanced towards its most competitive manufacturing routes. The European share of the Group's rolling capacities dropped from approximately 45% in 2016 to less than 30% in 2020. This rebalancing in favor of more competitive production routes in Brazil and China has been accompanied by an increase in their utilization to serve EA-MEA region customers. In addition, the acquisition of minority interests in Brazil and the United States has also simplified Vallourec's corporate structure. The Group's industrial footprint is now largely based on highly efficient production sites in North America, where Vallourec owns competitive, right-sized and low-carbon production units serving the local market, and in Brazil and China, where Vallourec has cost-effective operations that increasingly support sales in premium international markets.

3.6.1.2 Nevertheless, the viability of European rolling mills is structurally problematic

Vallourec's seamless tube rolling operations in Europe are carried out in Germany and continue to significantly underperform.

In Europe, Vallourec's seamless tube production is based on the three rolling mills located in Germany (Mülheim, Rath Plug and Rath Pilger), with a total capacity of 685kt/year, supplying the Industry and Oil & Gas markets.

Production at Vallourec's German mills does not generate a sufficient margin to cover the mills' high fixed costs:

- intense competition from low-cost producers in the Industry markets in Europe precludes generating sufficient margins;
- despite additional margins on premium tubes for the EA-MEA Oil & Gas markets, the fixed cost base cannot be absorbed.

Despite successive turnaround plans, over €700 million [1] in cumulative losses were recorded in the 2015-2021 period.

3.6.1.3 Recently acquired additional capacity in Brazil will allow EA-MEA customers to be served more cost effectively

Thanks to the acquisition of Nippon Steel's minority stake in VSB, Vallourec has obtained access to 300 kt/year of additional rolling capacity. Vallourec has three rolling mills (PQF in Jeceaba, and Plug and Mandrel in Belo Horizonte) producing small- and medium-diameter tubes for the local Industry market and the local and international Oil & Gas markets.

Vallourec's Brazilian assets are among the world's most competitive. Serving customers in international Oil & Gas markets from Brazil is significantly more cost effective than from Germany. Variable costs for producing and shipping medium-diameter tubes to the Middle East from Brazil are around 25% less than for tubes produced in Germany.

3.6.1.4 Transformational move: launch of the disposal process for German assets and progressive transfer of their Oil & Gas activities to highly competitive Brazilian production sites with a better carbon footprint

Vallourec has decided to launch the disposal process for its German manufacturing assets and progressively transfer their rolling mill activities to Oil & Gas markets in Brazil. The transfer will be facilitated by a capital expenditure program worth approximately €100 million in Brazil to enable the production of the full range of premium tubular products for Brazilian as well as international Oil & Gas customers.

Following the progressive transfer of German rolling mill activities for Oil & Gas, the Brazilian hub will supply the full range of tubular products to international markets, leveraging an optimized cost base and benefiting from better absorption of its fixed costs. This will allow greater competitiveness and improved margins in international Oil & Gas markets, and will also have a positive impact on CO_2 emissions, thanks to the excellent carbon footprint of the Brazilian operations (the CO_2 content of tubes produced in Brazil is 30% lower than that of tubes produced in Germany).

(1) *Vallourec Deutschland excluding Reisholz*

3.6.2 Technological edge and brand recognition are at the heart of Vallourec's strategy

The Group also intends to increase its revenue by leveraging its technological edge and brand recognition to develop new products and solutions.

Thanks to its proven know-how, supported by its five dedicated R&D hubs in Europe, Brazil and the United States, and its 430 engineers and technicians, the Group enjoys a front-ranking position in premium OCTG connections through the VAM® product family, developed in partnership with Nippon Steel.

Vallourec continues to innovate and maintain its technological edge: the Group has recently successfully launched new connections such as VAM® Sprint-SF, VAM® Sprint-FJ and VAM® SLIJ-3, and has developed a new range of steel grades offering superior corrosion resistance, robustness at very low temperatures and excellent weldability.

Vallourec is involved in an increasing number of projects with its customers and with start-ups to develop innovative solutions, such as the recent inaugural 3D printing of a safety-critical component delivered to Total in the North Sea.

3.6.3 A service offering combining on-site assistance and digital solutions

Vallourec's technical excellence is also rounded out by a wide range of digital solutions and services.

The Group's ambition is to use its service offering as a differentiating factor for its traditional product lines and intends to diversify by developing new services using digital technologies and the Smartengo™ brand.

The service offering includes physical services to customers such as on-site engineering teams, supply chain optimization services and the incubation and development of a complementary and autonomous digital service offering based on Smartengo™ solutions.

3.6.4 Additional drivers of value creation have been clearly identified

3.6.4.1 Leveraging the full potential of the mine in Brazil: new iron ore treatment line by the end of 2021

Following an investment of approximately €60 million in 2020 and 2021, the expansion of the iron ore mine's production capacity was completed by the end of 2021, with total targeted production of 8.7 Mt per annum. Thanks to its very competitive cost structure, the mine is very profitable.

3.6.4.2 Innovating in low-carbon energy solutions to seize growth opportunities arising from the energy transition

The Group intends to seize energy transition opportunities by developing geothermal energy, offshore wind power, carbon capture and storage (CCUS), as well as hydrogen and solar power solutions.

Vallourec will draw on its industrial expertise, capacity for innovation, and its relationships with customers committed to the energy transition to make the most of these opportunities. The Group has set up a dedicated organization focused on leading these innovative projects and is already active in each of these segments.

- In the field of geothermal energy, Vallourec is already adapting its expertise in the Oil & Gas industry to support the growth of its customers operating in harsh environments (corrosion, high temperatures, etc.);
- In the field of offshore wind power, Vallourec supplies secondary structures for wind turbine foundations, as well as tubular structures for jackets and wind turbine installation vessels and cranes;
- The Group is also contributing to the safe deployment of CCUS infrastructures (carbon capture, transportation, injection, storage). Its line pipes allow safe transportation of CO_2 and its OCTG products are suitable for underground injection;
- In the hydrogen field, Vallourec provides tubular solutions for transportation, distribution and storage, which require high sealing and corrosion resistance;
- Vallourec supplies operators in the solar energy sector with tubular solutions optimized to support solar panels in large-scale structures, such as parking lot shades or agricultural and industrial hangars.

3.7 Results of operations

3.7.1 Consolidated Group results

3.7.1.1 Income statement

Comparison of 2021 with 2020

Consolidated data *in € millions*	2020	2021	Change
Production shipped *(in thousands of metric tons)*	**1,599**	**1,640**	**+2.6%**
Revenue	**3,242**	**3,442**	**+6.1%**
Cost of sales [(a)]	(2,634)	(2,605)	-1.1%
Industrial margin	**608**	**837**	**+37.7%**
(as a % of revenue)	*18.8%*	*24.3%*	*+5.5 p.p.*
Selling, general and administrative expenses [(a)]	**(325)**	**(316)**	**-2.8%**
(as a % of revenue)	*-10.0%*	*-9.2%*	*+0.8 p.p.*
Other	(25)	(29)	-€4m
EBITDA	**258**	**492**	**+€234m**
(as a % of revenue)	*8.0%*	*14.3%*	*+6.3 p.p.*
Depreciation of industrial assets	(213)	(160)	-24.9%
Depreciation and amortization, restructuring costs and other	(197)	47	N/A
Impairment of assets and goodwill	(850)	(5)	N/A
Operating income (loss)	**(1,002)**	**374**	**+€1,376m**
NET INCOME (LOSS), GROUP SHARE	**(1,206)**	**40**	**+€1,246m**

(a) Before depreciation and amortization

3.7.1.2 Manufacturing

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 shipped, which corresponds to the volumes produced in Vallourec rolling mills, expressed in metric tons of hot-rolled seamless tubes:

In thousands of metric tons	2020	2021	Change
First quarter	450	358	-20.4%
Second quarter	422	381	-9.7%
Third quarter	319	391	+22.6%
Fourth quarter	408	510	+24.9%
TOTAL	**1,599**	**1,640**	**+2.6%**

The 2.6% increase in production shipped in 2021 versus 2020 is mainly driven by higher deliveries in Industry and Other, which more than offset lower Oil & Gas shipments in EA-MEA.

3.7.1.3 Revenue

Data presented at constant exchange rates are calculated by eliminating the impact of translating into euros revenue generated by Group subsidiaries whose functional currency is not the euro. The foreign exchange impact of translation is eliminated by applying 2020 exchange rates to these subsidiaries' 2021 revenue. However, the transaction effect – resulting from commercial exposure from sales and purchases made by certain Group subsidiaries in currencies other than their functional currency – has not been eliminated.

CONSOLIDATED REVENUE

Consolidated revenue amounted to €3,442 million in 2021, an increase of 6.1% year on year. At constant exchange rates, consolidated revenue was up 10% year on year. This reflects a 3% positive volume impact and a positive price/mix effect of 7%.

REVENUE BY GEOGRAPHICAL MARKET

The following table shows the change in consolidated revenue by geographic region in which products were sold between 2020 and 2021:

In € millions	2020	% of revenue	2021	% of revenue	2021/2020 change at current exchange rates	2021/2020 change at constant exchange rates
France	83	2.6%	87	2.5%	+5.2%	+5.2%
Germany	212	6.5%	247	7.2%	+16.5%	+16.5%
Other EU countries [(a)]	239	7.4%	195	5.7%	-18.2%	-18.6%
Total Europe	**533**	**16.4%**	**529**	**15.4%**	**-0.8%**	**-1.0%**
North America	**719**	**22.2%**	**836**	**24.3%**	**+16.4%**	**+20.0%**
Brazil	743	22.9%	1,057	30.7%	+42.3%	+53.8%
Other Central & South America	14	0.4%	20	0.6%	+46.2%	+55.5%
Total South America	**756**	**23.3%**	**1,077**	**31.3%**	**+42.3%**	**+53.8%**
China	224	6.9%	201	5.8%	-10.3%	-13.0%
Other Asia and Middle East	676	20.9%	565	16.4%	-16.5%	-13.7%
Total Asia and Middle East	**900**	**27.8%**	**766**	**22.2%**	**-14.9%**	**-13.5%**
CIS	35	1.1%	30	0.9%	-15.0%	-13.0%
Rest of the world	299	9.2%	204	5.9%	-31.7%	-31.9%
Total Rest of the world	**334**	**10.3%**	**234**	**6.8%**	**-30.0%**	**-29.9%**
TOTAL REVENUE	**3,242**	**100.0%**	**3,442**	**100.0%**	**+6.1%**	**+10.0%**

(a) *Other European Union countries, excluding Germany and France.*
Due to rounding, the numbers shown in these tables may not add up exactly to the totals provided and percentages may not precisely reflect the absolute figures.

In Europe, Oil & Gas and Industry revenue remained almost stable.

In North America, revenue rose sharply compared with 2020, reflecting more sustained Oil & Gas activity.

In South America, revenue benefited from the increase in mining activity and in deliveries of OCTG products for pre-salt offshore, as well as from higher sales to Industry markets.

In Asia and the Middle East, and in the rest of the world, the fall in revenue reflects the slowdown in the Oil & Gas market.

REVENUE BY BUSINESS

In 2021, consolidated revenue for Oil & Gas, Petrochemicals and Power Generation activities fell, while revenue for Industry and Other was up. The following table shows the breakdown of the Group's revenue by business in 2020 and 2021:

In € millions	2020	2021	% change at current exchange rates	% change at constant exchange rates [(a)]
Oil & Gas	2,007	1,859	-7.4%	-5.3%
Petrochemicals	200	197	-1.7%	+0.4%
Oil & Gas and Petrochemicals	**2,207**	**2,056**	**-6.8%**	**-4.8%**
Power Generation	**210**	**145**	**-30.7%**	**-31.7%**
Mechanicals	296	477	+61.1%	+63.9%
Automotive	59	87	+46.3%	+53.4%
Construction & Other	471	677	+43.8%	+58.3%
Industry & Other [(b)]	**826**	**1,241**	**+50.2%**	**+59.9%**
TOTAL	**3,242**	**3,442**	**+6.1%**	**+10.0%**

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

(b) *Including sales of iron ore.*

Oil & Gas, Petrochemicals (60% of consolidated revenue)

Over full-year 2021, Oil & Gas revenue totaled €1,859 million, decreasing by 7% year-on-year (down 5.3% at constant exchange rates), with the lower activity in EA-MEA following the reduced order intake in 2020 not fully offset by higher revenue and deliveries in North America, which picked up in the second half the year, and in South America.

Over full-year 2021, Petrochemicals revenue totaled €197 million, down 1.7% year-on-year (up 0.4% at constant exchange rates).

Industry & Other (36% of consolidated revenue)

Over full-year 2021, Industry & Other revenue totaled €1,241 million, up 50% year on year (up 60% at constant exchange rates) as a result of a higher contribution from the mine (reflecting higher iron ore prices and volumes at 8.1 million metric tons versus 7.9 million metric tons in 2020) and of higher deliveries in Industry markets in Europe and South America, despite an unfavorable currency translation effect.

Power Generation (4% of consolidated revenue)

For full-year 2021, revenue totaled €145 million, down 31% year-on-year (down 32% at constant exchange rates), reflecting notably the disposal of Valinox Nucléaire SAS on May 31, 2021.

REVENUE BY QUARTER

In € millions	First quarter	Second quarter	Third quarter	Fourth quarter	Full year
2020	853	843	716	830	3,242
2021	702	842	834	1,064	3,442
% year-on-year change	-17.7%	-0.12%	+16.48%	+28.19%	+6.17%
o/w volume effect	*-20%*	*-10%*	*+23%*	*+25%*	*+3%*
o/w currency translation effect	*-13%*	*-6%*	*+2%*	*+3%*	*-4%*
o/w other effects (price, mix, etc.)	*+15%*	*+16%*	*-8%*	*+1%*	*+7%*

In the first quarter of 2021, Vallourec recorded revenue of €702 million, down 18% compared with the first quarter of 2020 (down 5% at constant exchange rates), with a negative volume impact of 20%, a positive price/mix effect of 15% and a negative currency conversion effect of 13%.

In the second quarter of 2021, Vallourec recorded revenue of €842 million, stable compared with second-quarter 2020 (up 6% at constant exchange rates), with a negative volume impact of 10%, a positive price/mix effect of 16% and a negative currency conversion effect of 6%.

In the third quarter of 2021, Vallourec recorded revenue of €834 million, up 16.4% compared with the third quarter of 2020 (up 15% at constant exchange rates), with a positive volume impact of 23%, a negative price/mix effect of 8% and a positive currency conversion effect of 2%.

In the fourth quarter of 2021, Vallourec recorded revenue of €1,064 million, up 28% compared with the fourth quarter of 2020 (up 25.5% at constant exchange rates), with a positive volume impact of 25%, a positive price/mix effect of 1% and a positive currency conversion effect of 3%.

3.7.1.4 EBITDA

EBITDA came in at €492 million in 2021, up €234 million compared to 2020, and represented 14.3% of revenue, versus an EBITDA margin of 8.0% in 2020.

The following table shows changes in the principal components of EBITDA in 2020 and 2021.

In € millions	2020	2021	Change
Revenue	**3,242**	**3,442**	**+6.1%**
Cost of sales [(a)]	(2,634)	(2,605)	-1.1%
Industrial margin	**608**	**837**	**+37.7%**
(as a % of revenue)	*18.8%*	*24.3%*	*+5.5 p.p.*
Selling, general and administrative expenses [(a)]	(325)	(316)	-2.8%
Other	(25)	(29)	-€4m
EBITDA	**258**	**492**	**€234m**
(as a % of revenue)	*8.0%*	*14.3%*	*+6.3 p.p.*

(a) Before depreciation and amortization

INDUSTRIAL MARGIN

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

In 2021, the industrial margin came out at €837 million, or 24.3% of revenue, increasing by 38% year on year, reflecting a higher contribution from the mine in prices and volumes, a higher level of activity in the Oil & Gas market in North America and in Industry markets, along with savings, which more than offset lower activity in the Oil & Gas market in EA-MEA and raw materials and energy cost increases.

The following table shows the breakdown of cost of sales (excluding depreciation and amortization) in 2020 and 2021:

In € millions	**2020**	**2021**	**Change**
Direct cost of sales	183	182	-0.6%
Cost of raw materials consumed	1,092	1,228	+12.5%
Labor costs	580	563	-2.9%
Other manufacturing costs [(a)]	709	742	+4.7%
Change in non-raw-material inventories	70	(110)	N/A
TOTAL	**2,634**	**2,605**	**-1.1%**

(a) "Other manufacturing costs" mainly include energy and consumables, sub-contracting and maintenance expenditure, and provisions.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses (SG&A) fell by 2.8% to €316 million in 2021, or 9.2% of revenue, compared to 10% of revenue in 2020.

The following table shows the breakdown in SG&A (excluding depreciation and amortization) in 2020 and 2021:

In € millions	**2020**	**2021**	**Change**
Research and Development costs	41	39	-4.8%
Selling and marketing costs	62	59	-4.8%
General and administrative costs	222	218	-1.8%
TOTAL	**325**	**316**	**-2.8%**

PERSONNEL EXPENSES

Personnel expenses are divided among cost of sales, SG&A, and other operating expenses.

In 2021, personnel expenses totaled €782 million compared to €764 million in 2020.

Personnel expenses can be broken down as follows:

In € millions	**2020**	**2021**	**Change**
Wages and salaries	(594)	(595)	-1
Employee profit sharing and bonuses	(17)	(35)	-18
Expenses related to stock options and performance shares	(3)	(3)	N/A
Social security costs	(150)	(149)	+1
TOTAL	**(764)**	**(782)**	**-18**

Group headcount as at December 31, 2021 was 16,025, compared to 15,962 as at December 31, 2020:

Headcount of consolidated companies as at December 31	**2020**	**2021**	**Change**
Managers (cadres)	2,902	2,808	-94
Technical and supervisory staff	2,303	2,136	-167
Production staff	10,757	11,081	+324
TOTAL	**15,962**	**16,025**	**+63**

For more details on the workforce, see section 4.2.2.1 "Group workforce" of this Universal Registration Document.

3.7.1.5 Operating income (loss)

Operating income was positive at €374 million compared to a loss of €1,002 million in full-year 2020 (which was negatively impacted by impairment charges for €850 million and by restructuring charges), resulting from the improvement in EBITDA, lower depreciation of industrial assets and the positive effects from the sale of Reisholz buildings and land as well as from the favorable Brazilian Supreme Court decision on PIS/COFINS tax claim.

DEPRECIATION OF INDUSTRIAL ASSETS

Depreciation of industrial assets decreased, amounting to €160 million in 2021 compared to €213 million in 2020.

DEPRECIATION, AMORTIZATION, RESTRUCTURING COSTS AND ASSET IMPAIRMENT

- Non-industrial (Research and Development, sales and administrative) depreciation and amortization represented a loss of €42 million in 2021, versus a loss of €54 million in 2020.
- Restructuring costs, asset impairment and other items represented income of €89 million in 2021, compared with a loss of €143 million in 2020, and mainly consisted of;
  - gains on disposals during 2021 mainly concern the land and industrial buildings of the Reisholz plant in Germany for €70 million,
  - during the year, a favorable decision handed down by the Brazilian Supreme Court in connection with tax recovery claims on PIS/COFINS value added taxes led to the recognition of €32 million in non-recurring income (excluding the related translation adjustment, recognized in financial items for €27 million;
- Impairment expenses were recognized in an amount of €5 million in 2021.

Asset impairment can be broken down as follows:

In € millions	**2020**	**2021**
Impairment of property, plant and equipment	(442)	(5)
Other impairment of assets	(408)	-
TOTAL	**(850)**	**(5)**

3.7.1.6 Financial income (loss)

Financial income was negative at €(236) million, compared to €(227) million in full year 2020. Net interest expenses amounted to €147 million versus €196 million in full year 2020. Other financial income was a negative €(40) million, compared with €28 million in full year 2020, due largely to one-offs such as the €(70) million cost of exercising the DBOT purchase option, partially offset by the positive effects of the PIS/COFINS tax litigation in Brazil for €28 million. In addition, the financial restructuring had a negative impact on financial income of €(42) million.

Financial income (loss) can be broken down as follows:

In € millions	**2020**	**2021**	**Change**
Interest income	4	4	N/A
Interest expense	(201)	(151)	-24.88%
Net interest expense	**(196)**	**(147)**	**-25%**
Other financial income and expenses	**4**	**(86)**	**N/A**
Interest expense on leases	**(30)**	**(24)**	**-20%**
Other discounting expenses	**(5)**	**21**	**N/A**
FINANCIAL INCOME (LOSS)	**(227)**	**(236)**	**-€9m**

3.7.1.7 Income tax

Income tax expense was €101 million in 2021 compared with €96 million in the previous year, and mainly related to Brazil, including the partial reversal of deferred tax asset provisions and a positive one-off recovery of tax credits.

The 73% rate mainly reflects the items detailed below:

The impact of tax loss carryforwards and temporary differences mainly concerns the non-recognition of deferred tax assets (DTAs) for the year in France and Germany, and a reversal of impairment recognized against deferred tax assets arising on prior-year tax losses in the United States.

Deferred taxes on the impairment of assets recognized during the year in countries where deferred taxes on losses were not recognized were also written down.

Permanent differences reflect the add-back of financial expenses, primarily in France, as well as the tax credits obtained in Brazil.

Differences in tax rates mainly reflect the diverse range of tax rates applied in the Group's various countries (Germany 31.6%, United States 21%, Brazil 34.0%, China 25.0%, and Saudi Arabia 20%).

The fall in the income tax rate in France has no impact on the deferred taxes of the Group in France since deferred taxes on tax losses and temporary differences were not recognized.

3.7.1.8 Net income (loss)

Non-controlling interests in net income (loss) represented a loss of €8 million in 2021, compared with a loss of €122 million in 2020. As a reminder, the Group acquired non-controlling interests in Vallourec Star, VAM USA and VSB during the year.

Net income, Group share amounted to €40 million, compared to a net loss of €1,206 million in 2020.

Earnings per share represented €0.3 in 2021, compared to a per-share loss of €105.4 in 2020.

3.7.2 Liquidity and capital resources

3.7.2.1 Overview

Free cash flow for 2021 was a negative €284 million, compared with a negative €111 million in 2020, and was impacted notably by the working capital rebuild along with the activity recovery and one-off charges, which include financial restructuring costs.

As of December 31, 2021, gross debt amounted to €1,577 million including €91 million of fair value adjustment under IFRS 9 (which will be reversed over the life of the debt). Long-term debt amounted to €1,387 million, and short-term debt totaled €190 million.

As of December 31, 2021, lease liabilities stood at €48 million, compared with €108 million at December 31, 2020 following the application of IFRS 5.

The liquidity position was strong at €1,081 million, with cash amounting to €619 million and undrawn committed Revolving Credit Facility equal to €462 million.

At end-2021, the Group's equity represented €1,763 million versus a negative €187 million as at December 31, 2020, a year-on-year increase of €1,950 million following the financial restructuring.

3.7.2.2 Cash flow

Condensed statement of cash flows

In € millions	2020	2021
Cash flow from (used in) operating activities	(146)	26
Change in operating working capital (+ decrease/(increase))	173	(172)
Net cash flow from (used in) operating activities (1)	**27**	**(146)**
Net cash flow used in investing activities (2)	**(128)**	**(30)**
Net cash flow used in financing activities (3)	**(217)**	**(604)**
Impact of changes in exchange rates (4)	(90)	9
CHANGE IN CASH (1 + 2 + 3 + 4)	**(407)**	**(771)**

NET CASH FROM (USED IN) OPERATING ACTIVITIES

For full-year 2021, cash flow from operating activities was a positive €26 million compared to a negative €146 million in full-year 2020, mainly due to higher EBITDA and lower interest expense, which more than offset the increase in tax expense. This included one-offs such as debt restructuring fees (€56 million), the cost of exercising the purchase option on the DBOT (€72 million) partially offset by a positive tax litigation settlement receipt in Brazil (€28 million).

Net cash flow used in operating activities represented an outflow of €146 million in 2021, compared to an inflow of €27 million in 2020.

For full-year 2021, operating working capital increased by €(172) million versus a decrease of €173 million in full-year 2020, mainly as a result of the business recovery.

Changes in working capital were as follows:

Gross amounts	Dec. 31, 2020	Currency translation reserve	Change	Reclassification and other	Items held for sale	Dec. 31, 2021
Inventories	768,012	39,093	324,766	(17,826)	(174,201)	939,844
Trade receivables	474,351	22,132	83,014	(2,368)	(23,613)	553,516
Trade payables	(426,097)	(25,280)	(149,274)	13,566	130,231	(456,854)
Working capital	**816,266**	**35,945**	**258,506**	**(6,628)**	**(67,583)**	**1,036,506**
Other receivables and payables	49,203	1,128	(71,190)	(49,305)	(10,911)	(81,075)
Operating working capital	**865,469**	**37,074**	**187,317**	**(55,933)**	**(78,494)**	**955,432**
Impact of hedging instruments			**(15,274)**			
TOTAL			**172,043**			
Change in operating working capital in the statement of cash flows			**(172,043)**			

NET CASH USED IN INVESTING ACTIVITIES

Gross capital expenditure was €138 million in 2021, unchanged from 2020.

Net capital expenditure was impacted in particular by the sale of (i) the Reisholz buildings and land and (ii) Valinox Nucléaire SAS.

See section 3.7.2.3 “Capital expenditure” below for a description of the main investments in 2021 and 2020.

NET CASH USED IN FINANCING ACTIVITIES

Net cash flow relating to financing activities represented an outflow of €604 million in 2021, compared to an outflow of €217 million in 2020, mainly due to the financial restructuring. See section 6.1.3 “Consolidated statement of cash flows” below for a description of the main investments in 2021 and 2020.

3.7.2.3 Capital expenditure

INVESTMENT DECISIONS

Investment decisions are a central pillar of the Group’s strategy, addressing requirements in terms of:

- innovation as regards new products or services, along with digitalization;
- keeping personnel and facilities safe and complying with legal obligations, such as those relating to safety and the environment;
- developing Vallourec’s businesses through organic and acquisition-led growth;
- optimizing production units’ economic performance and enhancing the quality of Group products; and
- maintaining machinery and equipment in good working order, and replacing them when obsolete.

In all its investment projects, the Group looks to ensure that environmental and energy performance concerns are a priority.

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

For projects worth more than €1 million, there is a stricter investment authorization process, with:

- systematic preparation for each project through three front-end loading phases;
- qualification of each of the three phases 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
- authorization at each of the three phases by a committee including the Director of Management Control and the Director of Capital Expenditure and Insurance for projects worth over €1 million. For projects worth over €5 million, the committee also comprises the members of the Executive Committee. During these committee meetings, the projects are verified in terms of alignment with strategy and with profitability requirements, and for compliance with the Group’s budget.

MAIN INVESTMENTS DURING THE 2020-2021 PERIOD

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

Investments over the past two years can be analyzed as follows:

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

In € millions	Dec. 31, 2020	Dec. 31, 2021
Europe	39.9	25.9
North America	28.0	29.4
Central & South America	60.9 [a]	67.8 [b]
Asia	11.71	16.0
Other	0.3	0.2
TOTAL CAPITAL EXPENDITURE [b]	**140.8 [c]**	**139.3 [c]**
o/w Capital expenditure payments during the year	138.2	137.7

(a) Including €5.8 million in biological assets.
(b) Including €5.5 million in biological assets.
(c) The difference between capital expenditure payments made during the year and total capital expenditure corresponds to the change in amounts payable on non-current assets.

The largest capital expenditure programs in 2020 and 2021 are outlined below.

2020

Capital expenditure decreased 15% in 2020 compared to 2019.

Programs initiated in previous years accounted for 47% of expenditure in 2020.

The main new investments in 2020 related to:

- the continuation of a project to renew saws for cutting billets at the Barreiro rolling mill;
- the launch of a project to extend the capacity and lifetime of the iron ore mine in Brazil;
- the launch of a project to modernize non-destructive testing facilities at the Youngstown rolling mill, aimed at improving quality, cost, time frames and capacities;
- numerous projects aimed at improving productivity and costs to support the Group's transformation;
- numerous projects to digitize, maintain and restore installations, as well as improve the safety of people and facilities.

2021

In 2021, capital expenditure was stable compared to 2020.

Programs initiated in previous years accounted for 42% of expenditure in 2021.

The main new investments in 2021 related to:

- the completion of a project to renew saws for cutting billets at the Barreiro rolling mill;
- the commissioning of a project to extend the capacity and lifespan of the iron ore mine in Brazil;
- the completion of a project to modernize non-destructive testing facilities at the Youngstown rolling mill, aimed at improving quality, cost, time frames and capacities;
- numerous projects aimed at improving productivity and costs to support the Group's transformation;
- numerous projects to digitize, maintain and restore installations, as well as improve the safety of people and facilities.

MAIN INVESTMENTS PLANNED FOR 2022

The investment budget for 2022 is expected to be just above €200 million.

The 2022 program provides for an increase in new investments compared to the previous year, designed to strengthen production capacity at its Brazilian plants, in particular:

- launch of a major program at Jeceaba and Barreiro to upgrade and reorganize facilities, with a view to producing large-diameter tubes and increasing the production capacity for OCTG and line pipe;
- launch of a project to build an automated furnace for the production of charcoal using the Carboval process (Brazil);
- launch of a production line in Houston to implement the Cleanwell process for OCTG products;
- numerous projects aimed at improving productivity and costs to support the Group's transformation;
- numerous projects to digitize, maintain and restore installations, as well as improve the safety of people and facilities.

3.7.2.4 Free cash flow

In 2021, free cash flow represented a negative €284 million, compared to a negative €111 million in 2020. Free cash flow is defined as net cash flow from operating activities minus gross capital expenditure. The following table shows the calculation of free cash flow in 2020 and 2021:

In € millions	2020	2021
Cash flow from (used in) operating activities	(146)	26
Change in operating working capital (+ decrease, (increase))	173	(172)
Net cash flow from (used in) operating activities	27	(146)
Gross capital expenditure	(138)	(138)
FREE CASH FLOW	**(111)**	**(284)**

3.7.2.5 Liquidity and debt

As at December 31, 2021, consolidated gross debt totaled €1,577 million, including €1,387 million in medium- and long-term debt and €190 million in debt due within one year. As at that date, the Group had €619 million in cash and cash equivalents. Net debt totaled €958 million at the end of 2021, an decrease of €1,256 million compared to €2,214 million as at December 31, 2020.

As at December 31, 2021, no material repayments of the principal of borrowings are due before December 2022.

The Group's financial resources comprise bank and market financing.

The majority of bank financing was arranged in Europe through Vallourec SA, and to a lesser extent through the Group's subsidiaries in Brazil. Vallourec SA now has an undrawn, committed €462 million revolving credit facility that matures in June 2026.

Financing on the capital markets (€1,023 million bond issue maturing in June 2026) is arranged exclusively by Vallourec SA.

The following table shows the Group's main debt as at December 31, 2021:

In € millions	As at December 31, 2021
Bond issue – maturing in June 2026	1,164
State-guaranteed loans	212
ACC ACE programs	164
Other	37
TOTAL GROSS DEBT	**1,577**

The €462 million revolving credit facility includes a covenant stipulating that Vallourec's gearing ratio (consolidated net debt to equity) must not exceed 100%. The gearing ratio is defined as the ratio of consolidated net debt (including financial lease debt) to consolidated equity, restated for gains and losses on derivatives and foreign currency translation differences (exchange differences on translating net assets of consolidated foreign subsidiaries).

The covenant will be tested on a trailing 12-month basis on December 31 of each year, with the first test scheduled for end-2023.

A breach of the covenant could trigger the mandatory early repayment of the credit facility and redemption of the bond.

A change of control at Vallourec could trigger repayment of all or part of the credit facility or State-guaranteed loans, as decided by each participating bank. Furthermore, the facilities will become immediately due and payable if the Group defaults on any 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.

The following table shows the repayment schedule for the Group's medium- and long-term debt as at December 31, 2021:

	2020	2021
> 1 year	786,709	2,066
> 2 years	399,755	1,212
> 3 years	501,690	2,617
> 4 years	2,344	1,165,739
5 years and more	60,029	215,647
TOTAL	**1,750,527**	**1,387,281**

3.7.2.6 Equity

The Group's equity totaled €1,808 million as at December 31, 2021, compared to €134 million as at December 31, 2020. The increase in equity can be explained by the following main factors:

- the capital increase subscribed in cash for €300 million and the capital increase by set-off of claims for €1,257 million (measured at fair value):
  - a change in the foreign currency translation reserve, adding €132 million to equity,
  - changes in the scope of consolidation, reducing equity by €97 million;
- comprehensive income for 2021 amounting to €32 million (versus a comprehensive loss of €1,328 million in 2020).

3.8 Outlook

3.8.1 Group outlook for 2022

In its February 24, 2022 press release reporting its 2021 results, the Group announced the following outlook for 2022:

- further improvement in EBITDA relative to 2021;
- capex slightly above €200 million, including approximately €50 million for the preparation of the transfer of operations from Germany to Brazil.

The outlook presented above is based on data, assumptions and estimates considered reasonable by the Group, and was prepared in accordance with the provisions of Delegated Regulation (EU) No. 2019/980, supplementing Regulation (EU) 2017/1129, and ESMA's guidelines on profit forecasts. These data, assumptions and estimates could subsequently change on account of uncertainties relating in particular to the economic, financial, competitive, tax and/or regulatory environment. The occurrence of one or more of the risks described in chapter 5 "Risk factors" of this Universal Registration Document, and in particular the most significant risks which are marked with an asterisk, could have an impact on the Group's business, financial position, earnings or outlook and may therefore affect its ability to meet its objectives and forecasts. Accordingly, the Group does not make any commitments or provide any guarantees that the forecasts set out above will be achieved.

3.8.2 Main assumptions

The outlook for the year ending December 31, 2022 presented above were prepared on a comparable basis to the historical financial data and in accordance with the accounting methods applied in the Group' consolidated financial statements for the year ended December 31, 2021.

The outlook for 2022 is mainly based on the assumptions outlined below.

1. In the Oil & Gas market:

- in North America, the very favorable market conditions observed at the end of 2021 should continue and even improve during the first half of 2022, both in terms of prices and capacity utilization. Although visibility is less certain for the second half of the year, a strong increase in the region's contribution is expected over the full year;
- in EA-MEA, following the resumption of tendering activities in 2021, volumes to be delivered in 2022 are expected to rise significantly. Cost inflation, notably on energy and logistics, is expected to weigh on margin, notably at the start of the year;
- in South America, Oil & Gas volumes delivered in 2022 are expected to increase slightly.

2. On the Industry market:

- in Europe, both volumes and prices are expected to increase;
- in Brazil, after a very positive year in 2021, volumes for Industry are expected to decrease slightly due to distributor stock normalization and election uncertainties.

3. Vallourec is targeting a gradual restart of the mine in the second quarter as described above in section 3.5.2 "First-quarter 2022". Consensus estimates for iron ore average prices for 2022 are approximately USD 110/metric tons compared to an average of USD 161/metric tons in 2021.
4. There are contrasting assumptions as regards the annual average price of raw materials, with a significant drop expected in iron ore, a slight drop in scrap in the United States and carbon steel in China, but a slight increase in steel in Europe and a broad increase in alloys used in the composition of special steels.
5. Inflation excluding raw materials is expected to be slightly higher than for 2021, as a result of the rise in inflation expected in the United States and Europe, and a high inflationary environment in Brazil.
6. For 2022, the Group expects the euro to depreciate slightly on average over the year against the USD and the CNY, and for it to rise slightly against the BRL.
7. A stable political, regulatory and fiscal environment.
8. The implementation of saving measures which will enable the Group to continue to lower its cost base, as well as to maintain strict cash discipline, with capital expenditure at approximately €200 million.
9. Changes in scope including the disposal of Vallourec Bearing Tubes in France during the first half of 2022. The related assets were recognized as held for sale as at December 31, 2021.

Among the above-mentioned assumptions, assumptions eight and nine correspond to factors that can be influenced by Executive Management.

3.9 Parent company earnings

Vallourec posted an operating loss of €19.3 million for 2021, an increase compared to 2020 when it reported an operating loss of €14.8 million. The loss stems from the costs incurred by the holding company (personnel expenses, legal and communications fees, loan issue expenses and changes in provisions).

The Company reported financial income of €418 million in 2021, versus a financial loss of €3,076.8 million in 2020. This change can be explained by a decrease in the provision for impairment of securities (provision reversal of €454 million in 2021 versus a provision expense of €3,002 million in 2020), and a decrease in interest expense (€148.3 million in 2021 compared to €187.1 million in 2020). Net interest expense consist of expenses and interest on bond issues and commercial paper, commitment fees under medium-term bank facilities, and interest income from financing granted by Vallourec to its subsidiary Vallourec Tubes.

The Company reported non-recurring income of €112.3 million in 2021, versus a non-recurring loss of €2.0 million in 2020. Non-recurring income reflected the waiver of debt (€169.1 million) granted to Vallourec SA as part of its financial restructuring, as well as from one-time costs and fees of €66 million relating to the transaction, charged to the issue premium on the capital increase with pre-emptive subscription rights for €9 million (i.e., included in non-recurring expenses for €57 million).

Corporate income tax represented a benefit of €0.04 million.

Net income for the year amounted to €510.7 million, versus a net loss of €3,093.5 million in 2020.

Subscribed capital, fully paid up, totaled €4,578,569, divided into 228,928,428 shares, each with a par value of €0.02.

Equity increased by €2,133 million to €3,111 million at December 31, 2021, from €978 million at December 31, 2020.

Borrowings totaled €1,306 million, down €2,196 million compared with 2020 following the financial restructuring.

To the Company's knowledge, none of the expenses referred to in Article 39-4 of the French General Tax Code (CGI) were incurred in 2021.

In accordance with Article D.441-4 of the French Commercial Code, the following tables provide a breakdown of the balance of trade payables and receivables by maturity as at December 31, 2021.

Due (D = Dec. 31, 2021) *In € thousands*	**Trade receivables outstanding**	**0 to 30 days past due**	**31 to 60 days past due**	**61 to 90 days past due**	**91+ days past due**	**Total past due**
Total amount of invoices concerned, including VAT	1,418	37	6	25	217	285
Number of invoices concerned	29	10	12	3	32	57
Percentage of purchases, including VAT	15.75%	0.41%	0.06%	0.28%	2.42%	3.17%
Invoices excluded, including VAT	651					
Trade payables difference, including VAT	-					
TOTAL	**2,069**	**37**	**6**	**25**	**217**	**285**

Due (D = Dec. 31, 2021) *In € thousands*	**Trade receivables outstanding**	**0 to 30 days past due**	**31 to 60 days past due**	**61 to 90 days past due**	**91+ days past due**	**Total past due**
Total amount of invoices concerned, including VAT	963	-	-	-	-	-
Number of invoices concerned	10	-	-	-	-	-
Percentage of sales, including VAT	27.95%	0.00%	0.00%	0.00%	0.00%	0.00%
Invoices excluded, including VAT	-					
Trade receivables difference, including VAT	-					
TOTAL	**963**	**-**	**-**	**-**	**-**	**-**

3.10 Location of main facilities

3.10.1 Property, plant and equipment

The Group's registered office is located at 12, rue de la Verrerie, 92190 Meudon – France. The premises are occupied under the terms of a nine-year, three-month lease with effect from June 1, 2021. The properties occupied by the Company and its subsidiaries are not owned by any of the Company's corporate officers.

At December 31, 2021, the Group operated some 40 production facilities, almost all 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 international profile (see section 3.2.4 "Group facilities" of this Universal Registration Document). The Group considers these plants an essential resource for conducting its various operations and a primary element of its manufacturing resource planning.

The Group's property, plant and equipment (including assets held under leases) and biological assets held by consolidated companies had a net carrying amount of €1,703.6 million as at December 31, 2021 (€1,748.5 million as at the end of 2020). Property, plant and equipment mainly consists of property assets and industrial equipment:

- the Group's property assets mainly include factory buildings and administrative offices;
- 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, section 6.1.7 of this Universal Registration Document:

- analysis of property, plant and equipment (including right-of-use assets) by type and flow in Notes 4.4 and 4.5;
- geographical distribution of capital expenditure (property, plant and equipment and intangible assets) for the year (excluding changes in consolidation scope) in Note 2.1.

Details of investments made in 2021 to expand the Company's property, plant and equipment base, are provided above (see section 3.7.2.3 "Capital expenditure" of this Universal Registration Document).

3.10.2 Environmental considerations relating to the Company's property assets

3.10.2.1 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 involved. These facilities are in compliance with these regulations:

- two facilities (Vallourec Tubes France and Vallourec Oil and Gas France, located at Aulnoye-Aymeries in northern France) are subject to authorization and are therefore run in accordance with specific operating requirements issued via prefectorial order, following the submission of an operating license application, consultations with various organizations and a public inquiry; as at December 31, 2021, both of these facilities held valid prefectorial orders;
- four facilities are subject to a registration regime, i.e., operated in compliance with standard operating obligations: Vallourec Research Center France located at Aulnoye-Aymeries (Hauts-de-France region); Vallourec Tubes France (Saint-Saulve, Hauts-de-France region); Vallourec Bearing Tubes (located at Montbard, Burgundy, Côte-d'Or); and Vallourec Umbilicals, located at Venarey-les-Laumes (Burgundy, Côte-d'Or).

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

3.10.2.2 Environmental situation of former industrial sites

Following its closure, the Anzin plant in northern France was sold to the Valenciennes urban community on November 17, 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, VDFR Aulnoye, VDFR Tarbes, VDFR Cosne, and the VTFR Saint-Saulve steel mill), underwent complete environmental investigations. Groundwater monitoring and rehabilitation work was carried out at the VDFR Cosne site.

The situation of operational sites with regard to soil pollution is described in chapter 4 “Corporate social responsibility” of this Universal Registration Document.

Environmental constraints that may impact the Group’s use of its property, plant and equipment are described in section 4.2.4 “Environmental commitments” and in the “Industrial and environmental risks” paragraph in section 5.1.2 “Operational risks” of this Universal Registration Document.

3.10.3 Changes in scope

The main changes in the scope of consolidation during 2021 were as follows:

- on March 31, 2021, Vallourec acquired Nippon Steel’s 15.4% interest in the Brazilian joint venture Vallourec Soluções Tubulares do Brasil (VSB). Further to this transaction, Vallourec held the entire share capital of VSB;
- on July 27, 2021, the Vallourec Group acquired the non-controlling interests in VAM USA LLC (United States) based on a valuation of USD 85 million for the entire share capital, i.e., the acquisition of the 34% interest held by Nippon Steel Oilfield Services Inc. for USD 28.9 million and of the 15% held by Sumitomo Corporation of Americas for USD 12.75 million;
- on September 30, 2021, Vallourec purchased Sumitomo Corporation's 19.5% non-controlling interest in Vallourec Star (United States) for €83 million;
- on October 1, 2021, Vallourec launched Vallourec Tubos para Indústria (VTI), a joint venture between its VSB and the Cold Drawn Tubes Division of the Açotubo Group. Vallourec owns 75% of VTI;
- in addition, Vallourec sold assets classified as held for sale at end-December 2020, chiefly including Valinox Nucléaire SAS (Montbard plant in France), Reisholz assets in Germany, and certain biological assets and forestry assets in Brazil.

In 2020 and 2019, changes in scope were not material and mainly concerned internal mergers.

3.11 Related-party transactions

Transactions with related parties are described in Note 5.3 to the consolidated financial statements, “Related-party transactions” in chapter 6 of this Universal Registration Document.

chapter 4
CORPORATE SOCIAL RESPONSIBILITY

4 CORPORATE SOCIAL RESPONSIBILITY

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Introduction

STRATEGIC GUIDELINES

The Vallourec Group has long taken a proactive approach to corporate social responsibility issues, in an effort to act responsibly. Vallourec's approach to these social issues is formalized in the Group's Sustainable Development Charter, which is available at www.vallourec.com.

The Group has made strong commitments in these areas, in particular with the 2008 signing, along with a global employee representation organization, of its "principles of responsibility" and by becoming a signatory to the United Nations Global Compact back in 2010. It has also signed several commitments to promote climate action and the circular economy, under joint initiatives with AFEP, MEDEF and Cercle de l'Industrie, as well as the Sustainable Development Charter of the International Steel Federation. Lastly, in 2018 the Group adopted a "carbon policy" to rally the Company around the many facets of these issues.

The Board of Directors has created a special CSR Committee to assist it with issues related to corporate social responsibility strategy. This committee is responsible for ensuring that the Group correctly anticipates the challenges, opportunities and non-financial risks relating to its business in order to promote long-term and harmonious value creation.

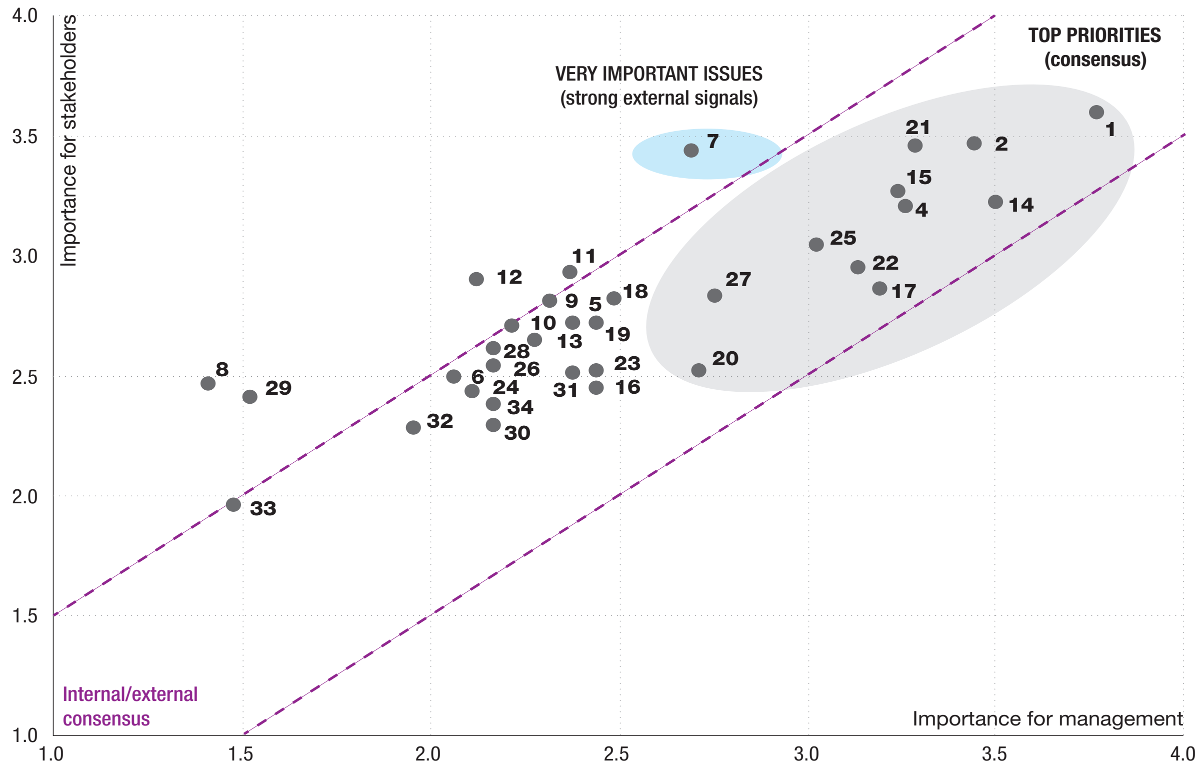
The Sustainable Development Department has implemented a strategic plan for sustainable development and corporate social responsibility (CSR). This plan has been incorporated into the medium- to long-term guidelines of the Group and is updated annually. It consists of the following seven cornerstones:

- strengthening governance in sustainable development and CSR;
- setting medium-term objectives;
- further incorporating sustainable development issues into the Group's business model;
- involving more employees in its daily work to promote CSR;
- developing the Group's social commitments;
- strengthening ongoing progress work; and
- obtaining institutional recognition for its work.

The actions necessary for implementing this plan may be subject to the approval of the Executive Committee, whenever approval is deemed necessary.

To better assess the relevance of these choices, in 2021 the Group called in a specialist consultancy to assist in drafting a new materiality analysis (the first analysis was carried out in 2016.) The new analysis made it possible to identify new challenges facing the Group, and to factor in new prospects for the Group's business lines, the Group's new industrial footprint, and the changing expectations of its stakeholders. The analysis, which was conducted using proven methodology, allowed the Group to hear the opinions and expectations of our main stakeholders on the 34 issues identified as important and specific to the Company. The analysis took the form of questionnaires and interviews with senior executives, employees, investors, customers, suppliers, NGOs and the media. In all, 350 questionnaires were sent with an overall response rate of nearly 60%. The results of this analysis are as follows:

Materiality analysis: results



Legend

1 Resilience of the business model
2 Innovation strategy for renewable energies
3 Evaluating our presence in sensitive markets
4 Supporting the transition by rethinking our involvement in Oil & Gas markets
5 Integrating the concept of sustainability
6 Oversight of sustainability issues by the Board of Directors
7 Business ethics and zero tolerance for corruption
8 Fair and transparent tax strategy
9 Risk frequency and management
10 ESG responsibility and transparency
11 Respect for human rights
12 Responsible supplier relationships
13 Responsible purchasing policy with a sustainability focus
14 Products and services that improve integrity and safety
15 Products and services that enhance efficiency
16 Eco-design of products and processes
17 Helping our clients to achieve their environmental objectives
18 High-quality social dialogue in all economic circumstances
19 Fair compensation and benefits
20 Diversity and inclusion
21 Occupational health and safety
22 Employee skills and development
23 Innovative, transparent and responsible employee relations
24 Mobilizing employees on sustainability
25 Reducing GHG emissions to achieve carbon neutrality
26 Product circularity for material efficiency
27 Reducing the environmental impact on local communities
28 Reducing the water footprint
29 Biodiversity
30 Reducing the supply chain impact
31 Forest and forest product management
32 Local socio-economic development and local content
33 Corporate citizenship
34 Support for education and engineering curricula

This new analysis confirmed that the challenges identified were pertinent, and that the importance attached to them was in line with the expectations of its stakeholders. It also confirmed stakeholders' global convergence on the particular importance given to sustainability of the economic model. In this new analysis, challenges concerning reductions in greenhouse gas emissions and products' carbon footprints are now generally considered very important issues for the Group. Among employees, there is also a strong consensus on health and safety at work. In addition, management stresses the importance of diversity and inclusion in the workforce. The conclusions of this analysis were approved by Executive Management, submitted to the CSR Committee, and included in the strategic plan.

In 2021, the Group strengthened its commitments on the UN Sustainable Development Goals for 2030, and aligned its objectives to make an active contribution to work in this direction.

Progress achieved in 2021 is shown in the chart below:

HEALTH AND SAFETY

Targets : 3.9, 8.5

Topics	Measures	Section
Security	TRIR equal to **1.65** in 2021	4.2.2.2
Health	CHEMSAFE program: **71%** replacement rate for CMR products	4.1.2/4.2.2.2

ENVIRONMENT

Targets : 6.3, 6.4, 7.2, 9.4, 11.4, 12.2, 12.4, 12.5, 13.2, 13.3, 14.1, 15.1, 15.2, 15b

Topics	Measures	Section
Reduce our impact	**93%** of plants certified ISO 14001, representing more than **97%** of production	4.2.4.1
	42% of energy consumed is from renewable sources	4.2.4.4
	49% of steel produced is made from recycled scrap iron	4.2.4.3
	Life cycle analysis, publication of Environmental Product Declaration (EPD)	4.2.4.2
	Waste recovery rate of **97.6%**	4.2.4.5
Water resources management	Water treatment stations at the biggest sites consuming the most water	4.2.4.3
	Reduced emissions of pollutants in water	4.2.4.5
	14% of water used in production is rainwater	4.2.4.3
	Reduced water consumption in production	4.2.4.3
Biodiversity **Sustainable forest management**	**1,600** replanted hectares returned to nature in Brazil	4.2.4.7
	176 animal species and **154** plant species identified in Brazil	4.2.4.7
	Brazil and Indonesia: awareness raised on preserving biodiversity	4.2.4.7

SOCIAL AND SOCIETAL

Targets : 4.4, 5.5, 8.5, 8.6, 10.4, 11.4, 13.3

Topics	Measures	Section
Diversity	Rate of women in management positions: **24%** Women@Vallourec	4.2.2.1 4.2.2.6
Employees and communities	**78%**: collective bargaining agreements "Social Barometer" **77%** "Sustainability Journey" **€4.78m** invested in societal projects, of which **24%** in education	4.1.2 4.2.2.5 4.2.3.4

ETHICS AND COMPLIANCE

Targets : 8.7, 16.5, 16.6

Topics	Measures	Section
	Anti-Corruption Code of Conduct and Code of Ethics ✓	4.2.1.2
	Vallourec Integrity Line ✓	4.1.3

RESPONSIBLE PROCUREMENT

Targets : 8.4, 12.6

Topics	Measures	Section
	726 suppliers assessed for CSR: **65%** of overall spend	4.2.3.3

Without comprising its future commitments, in 2020 the Group published five objectives for 2025 covering five essential themes, and communicates annually on its achievements. These objectives are:

I – Our commitments	Our targets	Corresponding key indicator	2017	2018	2019	2020	2021	2022 target	2025 target
Satisfy our shareholders over the long term	Hold a forefront position in our sector	Average rating of a panel of non-financial rating agencies	-	B+	B	A-	A-	A	A
Ensure the safety and protect the health of our employees; ensure good working conditions for all employees	Protect our employees by becoming the industry benchmark in this respect	TRIR index for employees, temporary staff and sub-contractors	3.13	2.97	2.25	1.67	1.65	= or <1.1 without fatal accident	= or <1 without fatal accident
Take urgent measures to combat climate change and impacts on the environment and biodiversity	Reduce our GHG emissions	Direct + Indirect intensity (Scopes 1, 2 & 3 upstream) in metric tons of CO_2/ metric tons of tubes shipped	1.82	1.90	1.71	1.75	1.97	1.82	1.47
		Total CO_2 emissions equivalent (in kT)	13,312	11,656	10,014	8,200	8,616	10,319	9,984
Train and motivate our employees through skills development, recognition of expertise, talent promotion and career development	Promote diversity	% of women in management roles	22%	22%	22%	23%	24%	25%	25%
Establish a network of reliable and responsible suppliers	Ensure take-up of CSR commitments by key suppliers	% of purchasing volumes from suppliers in the formal CSR assessment	-	-	50%	58%	65%	65%	65%

METHODOLOGY

Most of the indicators listed were developed in reference to the Global Reporting Initiative (GRI), which aims to facilitate the measurement of companies' economic, environmental and social reporting indicators on a global scale. This information sets out the Group's commitment to corporate social responsibility with facts, and highlights the results of its key actions.

The way that this information was gathered by Vallourec 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 Company's Statutory Auditors conducted audits with a moderate level of assurance of all of the information presented in the consolidated statement of non-financial performance, and issued an opinion with reasonable assurance on selected indicators, giving rise to the report in Appendix 1 to this chapter. The indicators audited with a reasonable level of assurance are preceded in the text and Appendices by the symbol ☑.

ASSESSMENT

This information forms the basis for the periodic assessments of the main non-financial agencies or specialized SRI funds. Even though each of these bodies uses its own methodology, the assessments overall can be summarized as representing an "A-" rating, on a scale ranging from A to D. This shows real progress compared to 2018 despite a tendency to apply more stringent assessment grids.

This assessment is consistent with the Group's achievement of the Advanced level for the "Communication on Progress" in the Global Compact awarded six years ago. It should also be noted that the Group was included on the "A-list" of the Carbon Disclosure Project (CDP), a reflection of its commitment to a low-carbon economy. The result was "A" at the start of 2020 and "A-" at the start of 2021.

EXTRA-FINANCIAL RATING AGENCIES

	MSCI 2021	VIGEO EIRIS 2021	Sustainalytics 2021	Ecovadis 2019	Gaia 2020	FTSE Russell 2021	SBTI Science Based Target Initiative	CDP 2021			STATISTA 2021
AGENCIES	MSCI ESG RATINGS AA	VIGEO EIRIS 2021	SUSTAINALYTICS RATED	GOLD 2019 ecovadis Sustainability Rating	GAIA 2020	FTSE Russell 2021	SCIENCE BASED TARGETS	Climate	Water	Forest	Challenges LES CHAMPIONS DU CLIMAT 2022
SCORE	7.5/10	66/100	23.3/100 Medium Risk	75/100	86/100	4/10	-25% in 2025 vs 2017 Well below 2°C	A	B	C	rank 4 out of 75

TAXONOMY

The European Union (EU) “Taxonomy” Regulation 2020/852 of June 18, 2020 sets out a framework on facilitating sustainable investment. Under this regulation, the Group is required to publish performance indicator values for fiscal year 2021 showing the proportion of revenue, capital expenditure and operating expenditure arising from products and/or services related to economic activities considered sustainable in the sense of this regulation and its delegated acts for the first two climate objectives of mitigation and adaptation.

This initial assessment of the eligibility of Group activities involved a detailed analysis of all activities, carried out jointly by the Sustainable Development Department, the Finance Department, the Investments Department, the Consolidation Department, the Financial Reporting Department, and the Group’s businesses, with regard to:

- the Delegated Climate Regulation of June 4, 2021 and its annexes, which supplements Regulation (EU) 2020/852 by specifying the technical criteria for determining the conditions under which an economic activity may be considered as contributing substantially to mitigating or adapting to climate change;
- European Commission Delegated Regulation 2021/2178 of July 6, 2021 and its annexes, which supplements Regulation (EU) 2020/852 by specifying the calculation of key performance indicators and the content and presentation of information for disclosure.

The methodology behind the Group’s analysis (definitions, assumptions and estimations) is outlined below. The Group will review its methodology, analysis and calculations in place with application of the Taxonomy and with changes in the activities and technical examination criteria it specifies.

Determination of Taxonomy-eligible activities

The list of Taxonomy-eligible activities was drawn up following a full review of the Group’s portfolio of activities and products.

The Group offers smart and sustainable tubular solutions, including steel tubes and associated services under NACE code 2420, “Manufacture of tubes, pipes, hollow profiles and related fittings, of seamless steel” in the European statistical classification of economic activities, to Regulation (EC) 1893/2006 of the European Parliament and Council of December 20, 2006. This activity, listed in category 3.9 “Manufacture of iron and steel” of the European Taxonomy, is a transient activity considered eligible.

It meets the criteria for substantial contribution to climate change mitigation and adaptation.

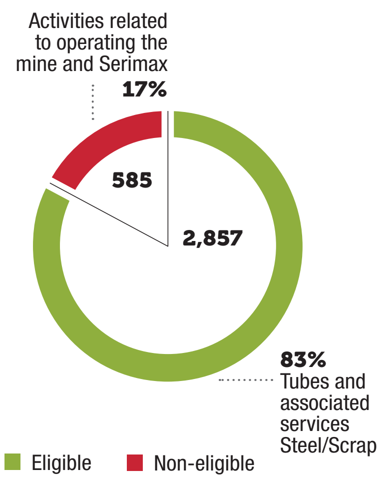
Since activities concerning operation of the mine in Brazil (NACE code 0710) and services provided by Serimax (NACE code 2790) are not listed in the European Taxonomy, the Group placed them in the non-eligible category.

The notion of alignment, to be introduced under the regulation as from the next fiscal year, will be covered by the Group in the next Universal Registration Document.

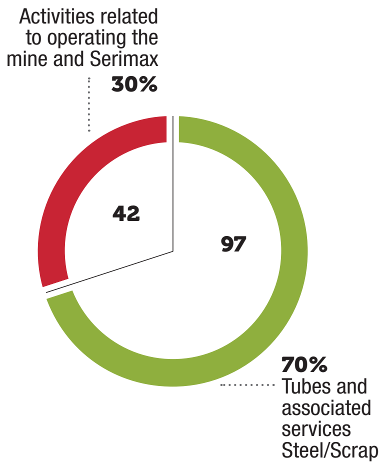
Indicator calculations

The Group calculated indicator values in compliance with the requirements of European Commission Delegated Regulation 2021/2178 of July 6, 2021 and its annexes, which supplements Regulation (EU) 2020/852, using its existing reporting processes and systems.

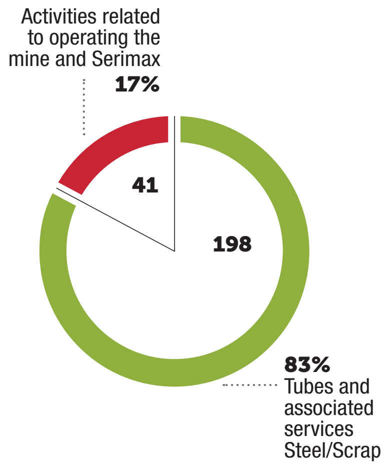
REVENUE: €3,442m



CAPITAL EXPENDITURE: €139m



OPERATING EXPENDITURE: €239m



The results cover all Group activities included in the financial consolidation scope at December 31, 2021.

Financial information comes from the Group's information systems (derived from the consolidation software) during the annual accounts closing. It underwent analysis and verification carried out jointly by local and central teams, to ensure consistency with the consolidated revenue and investment figures contained in the consolidated financial statements, and was then reviewed by the Finance Department, the Sustainable Development Department, the Investments Department, the Consolidation Department and the Financial Reporting Department.

- Revenue:

The proportion of eligible revenue is given on the basis of an analytical accounting view of items considered eligible. Fifty-nine per cent of consolidated revenue (€3,442 million) is generated in the Oil & Gas and Petrochemicals sector.

- Capital expenditure:

The proportion of eligible capital expenditure is determined by dividing the total capital expenditure of eligible activities by the total capital expenditure appearing in the consolidated financial statements (excluding from both numerator and denominator, rights of use calculated in application of IFRS 16, whose amounts the Group considered non-material in 2021).

- Operating expenditure:

The operating expenditure calculated by the Group in application of annexe 1 of European Commission Delegated Regulation 2021/2178 of July 6, 2021 was restricted to the following categories:

- research and development expenditure, including related personnel expenses;
- expenditure on maintenance, servicing and repair of industrial equipment and buildings, including related personnel expenses;
- other direct expenses on running maintenance of property, plant and equipment by the company or third parties commissioned with such activities, as required for continued operation.

The proportion of eligible operating expenditure is determined using the same methodology as for revenue.

4.1 Vigilance Plan

To continue to uphold the commitments mentioned above, Vallourec established, both for itself and for all of the subsidiaries it controls, a Vigilance Plan in application of French Law 2017-399 of March 27, 2017 on the duty of care of parent companies and contracting companies. This law requires that a plan be set out containing reasonable vigilance measures specific to identifying risks and preventing serious violations of human rights and fundamental freedoms. The plan must also anticipate risks to the health and safety of individuals and the environment, resulting from the activities of the Company. The requirements of the plan shall apply to all of the Group's subsidiaries it controls, as well as those of subcontractors or suppliers with which it has maintained an existing business relationship, when these activities are related to such relationship.

This process is consistent with the priorities that the Group has set for itself, the pertinence of which has been confirmed by the results of the materiality analysis presented above. Four issues among the ten deemed top priority, both by our external stakeholders and by corporate management, form an integral part of the points covered by the Vigilance Plan. As concerns environmental issues, the materiality analysis classifies them as being very important. Vallourec's Vigilance Plan thus fits in perfectly with a continuous improvement process, in line with Vallourec's proactive approach in areas of corporate social responsibility.

A working group comprised of representatives from the Sustainable Development Department, the Legal Department, the Human Resources Department, the Purchasing Department and the Internal Control and Risk Management Department was created for the purpose of establishing the plan.

4.1.1 Identification and evaluation of risks

Generally, the main risks to which the Group is exposed are identified with its operating and functional departments. Risk mapping is done for each of the major entities, Regions, and for the Group as a whole. Each map incorporates the main risks, along with their impact, probability of occurrence, and current level of control.

Priorities are determined according to probability of occurrence and/or consequences of risks and control level.

As concerns risks to human rights and fundamental freedoms, the health and safety of individuals and the environment, which result from the activities of the Company and from all of the subsidiaries it controls, as well as from the top subcontractors or suppliers with which it has a solid business relationship, Vallourec has identified the following risks, which specifically result from the Group's activities:

1. The Group is exposed to pandemics (such as Covid-19), which require it to make adjustments in its plants and offices, adopt remote working arrangements if possible, and purchase protective equipment (face coverings, gel).
2. The Group conducts a significant part of its business in developing countries, in particular because of its strategy of being located close to its customers in these countries. There are risks of serious violations of human rights and fundamental freedoms and risks to the health and safety of individuals and the environment relating to the activities carried out in these countries, whether directly or through subcontracted companies. Such risks may result, among other things, from political, economic and social instability (nationalization and expropriation of assets, uncertainty as to applicable law and the application of laws, impact of sanctions, accidents, terrorism, etc.).
3. The importance of the industrial labor force to the Group's business makes it essential to manage employees' health and safety. Health and safety management is a priority for the Group and a fundamental value for Vallourec.
4. The very nature of the Group's industrial and mining activity entails environmental risks. Due to their nature, the Group's activities are the source of noise pollution, require the use of hazardous chemical products and substances, generate waste that is classified as hazardous, may quantitatively or qualitatively impact local water resources, result in soil pollution, give rise to harmful air emissions, and have a negative impact on biodiversity.

Just like any other organization, the Group faces the risk of non-compliance with its core values under the Code of Ethics, supplemented by the Anti-Corruption Code of Conduct and the Group's internal rules and policies.

4.1.2 Management of identified risks

In general, Vallourec relies on a risk management policy. Risk management is guaranteed by committees that meet once a year, for each entity and Region concerned, the Director of the entity or Region in question, their main deputies and the business managers concerned by the specific risks, where applicable.

Each committee meeting handles the following matters:

- validation of analysis and follow-up of action plans;
- validation of the key risk indicators.

Centralized risk management reporting is prepared every year in cooperation with the main entities to monitor the progress of action plans and ensure they are consistent with the priority guidelines at the Group level. Additional information appears in section 5.2 “Risk management and internal control system” of this Universal Registration Document.

In order to progress and reduce the risks in question, the Group relies on the Vallourec Management System (VMS), which is primarily designed to improve the Group’s performance in all of its operating processes. VMS thus serves to enhance 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 quality management (ISO 9001, IATF 16949, API and ASME), health and safety (ISO 45001), the environment (ISO 14001) and energy (ISO 50001) are taken into account.

The specific risks to human rights and fundamental freedoms, the health and safety of individuals, and the environment, resulting from the Group’s activities, as well as from its leading subcontractors or suppliers, with which it maintains an established business relationship, are managed thanks to the structure and measures described below.

I - Risk management in human rights and fundamental freedom issues SDG 8.7, 16.5

STRUCTURE

Risk management in human rights and fundamental freedom issues is the joint responsibility of the Human Resources Department, in relation to the Group’s employees, and the Purchasing Department, in relation to subcontractors or suppliers, with which it maintains an established business relationship (see the “Risk management linked to the supply chain” paragraph below), in close cooperation with the Ethics and Compliance Officer.

MEASURES

As an international company, Vallourec has taken on significant corporate social responsibility commitments, in particular with regard to respect for human rights and universal fundamental principles that protect the dignity, respect and freedom of employees.

In this light, Vallourec strongly condemns:

- all forms of forced or compulsory labor;
- child labor;
- any difference in treatment between individuals that is based on criteria other than their skills or aptitude; and
- any act of physical or mental violence, or the threat of such acts.

On the other hand, Vallourec promotes:

- a safe and healthy work environment that ensures physical and mental integrity; and
- the employees’ freedom of association and collective bargaining.

In 2008, Vallourec undertook to comply with the fundamental principles enacted by the conventions of the International Labour Organization. These principles were included in the “Agreement on the principles of responsibility applicable in the Vallourec Group”, which was approved by the European Committee and forms an integral part of the Code of Ethics. Vallourec has also been a signatory of the UN Global Compact since 2010.

By way of example, wherever the Group operates, it has made social dialogue a priority. This is organized in each country, in accordance with local regulations. To date, at least 78% of the workforce are covered by industry- or company-wide collective agreements. The Group’s actions in terms of employer-employee dialog are more extensively described in section 4.2.2.3 “Social relations” in this Universal Registration Document.

Vallourec affirms its commitment to diversity and to combating discrimination in the workplace through the Code of Ethics.

Respect of men and women, their dignity, their diversity and the variety of their cultures is at the heart of the commitment of Vallourec’s teams. Under the rollout of the Code of Ethics, a program to educate all employees on the issue of discrimination was completed using everyday examples.

In terms of gender equality, the Group’s policy is structured around increasing the presence of women in operational business lines, in particular production business lines, and in increasing women’s access to leadership roles.

- Three key actions have been put in place: a balanced representation of women and men at all management levels, for which multi-year objectives have been defined, creating working conditions appropriate to the career development of women, and ensuring that men and women receive equal pay for equal work.
- In early 2019, four priority actions were identified: relaunch and develop mentoring programs involving Group senior executives; systematically put forward female candidates for positions that are internally vacant; adapt the work environment; and develop women’s participation in decision-making processes. These actions are more extensively described in section 4.2.2.6 “Diversity and equal opportunities” of this Universal Registration Document.
- Indicators are in place to ensure follow-up and accountability in the actions taken by the Group.
- For example, compensation surveys have shown, on average, a very small gender gap, although there are some geographical variations.
- In 2017, the Group launched Women@Vallourec, a network of women and men dedicated to debating and discussing equality and the place of women within the Group, which aims to reveal genuine ideas for action. More precisely, Women@Vallourec’s mission is to improve diversity, starting with gender diversity, and to therefore assist the Group in its transformation by improving performance and innovation.

- On March 8, 2018, Vallourec signed the United Nations World Charter on "Women's Empowerment Principles" (WEP) in the Middle East, thereby committing to make every effort to offer women and men the same possibilities to fully realize their potential. The principles of the Charter in particular concern education, training, and professional development of women, along with the commitment to equality at the highest business levels.

In terms of equal opportunities, the Group strives to promote the continued employment of workers with disabilities. These actions are more extensively described in section 4.2.2.6 "Diversity and equal opportunities" of this Universal Registration Document.

Vallourec ensures that these rights and principles are respected within the Group and by its subcontractors by incorporating them into its regular assessments. The actions taken with respect to subcontractors are more extensively described below.

The Group's responsibility does not stop at the doors of its offices and plants, but extends way beyond, through its influence in the wider community. Under a firm commitment of respect for a balanced development model, Vallourec ascribes major importance to its surrounding communities, with which it strives to establish relationships of mutual understanding and trust. Actions in this direction are discussed more fully in section 4.2.3.4 "Support for the local social and economic fabric" in this Universal Registration Document.

Valloure also strives to prevent specific risks in terms of compliance with competition and anti-corruption rules. The implementation of the Group's Vigilance Plan and actions in ethics and compliance matters are described in more detail in section 4.2.1 "Business Ethics and Compliance" of this Universal Registration Document.

II - Risk management linked to the supply chain

STRUCTURE

Vallourec's Purchasing Department is centrally structured to have a general view of the suppliers and supply chain, by using standardized processes between the Regions and appropriate information systems. A particular process of overseeing supplier risks is deployed at each of the Regions and centralized purchasing departments to identify, analyze and rank these risks. Ongoing monitoring of the action plans to mitigate or eliminate these risks is conducted on a quarterly basis. Moreover, Vallourec's policy is to establish sustainable contracts as much as possible with its suppliers, which not only structure the commercial transaction but also provide lasting accountability for external stakeholders on performance and requirements that are linked to Vallourec's values.

MEASURES

Within the context of this responsible purchasing policy, Vallourec has established numerous tools and processes aimed at better controlling suppliers and directly considering social and environmental responsibility criteria, and sustainable development, ethics and safety issues. In application of this policy, Vallourec is leading formal and regular evaluation campaigns of its suppliers on social and environmental responsibility, along with progress action plans. All suppliers with significant activity (more than €1 million per year) are subject to a request for formal evaluation on the criteria of social and environmental responsibility, namely the environment, ethics, respect of human rights and labor rights, and control of their own suppliers and subcontractors. The results of these evaluations are systematically taken into account in Vallourec's decisions and guidelines with regard to its suppliers and subcontractors.

In accordance with US law and European directives, Vallourec has also committed to prohibiting the use by its suppliers of potential "conflict minerals" originating from certain African countries.

The implementation of the Vigilance Plan and the actions pertaining to relations with subcontractors and suppliers are described in section 4.2.3 "Relations with stakeholders" of this Universal Registration Document.

III - Risk management in health and safety issues

STRUCTURE

The Health and Safety policy that was updated in 2020 entails an updated health section. Entities therefore aim to further investigate the health risks specific to the processes, while setting out the means designed to eliminate or mitigate them. There are numerous issues, in particular concerning our processes, which cover chemical risk, noise, air quality and workstation ergonomics.

MEASURES

Safety is the Group's main priority and it aims to become a benchmark and a model for success in this area.

In 2021, around three-quarters of Vallourec facilities were certified ISO 45001 [(1)]. The other sites are still certified OHSAS 18001 [(2)]. These establishments together represent the entire production in metric tons.

OHSAS 18001: international guidelines relating to occupational health and safety, published in 2001 under the authority of the International Labour Organization.

In 2020 and onwards, management of the Coronavirus pandemic became essential to maintaining the health of employees and to business continuity, and therefore to delivering on our commitment to customers. Management tools were implemented in all facilities in order to define and deploy appropriate rules (social distancing – wearing masks – hygiene rules etc.) to protect people and to comply with local/national rules and standards that have been defined by governments or other official bodies. A strict weekly/biweekly management routine has been set up in order to manage the quickly changing situation. During this time, working at home became an appropriate measure to reduce office attendance wherever possible.

Each year Vallourec renews its "CAPTEN+ Safe" safety improvement program, which is particularly focused on the major risks that could lead to a fatal accident and, since 2016, has had a special focus on subcontractors.

In 2021, it was patently clear that lockdowns adversely affected peoples' behavior with respect to safety in the workplace. In response to this issue, an initiative was introduced to step up and maintain the presence of managers during operations.

In order to prevent the occurrence or limit the impact of risks linked to the Group's activities in emerging countries, the Group implements assessment procedures for security and health risks, as well as emergency protection procedures, which are systematic for each of the high-risk countries where the Group frequently deploys its staff. It also implements specific procedures for other countries, with the support of recognized external providers in all cases.

(1) ISO 45001: Occupational Health and Safety, 3/2018.
(2) OHSAS 18001: International guidelines relating to occupational health and safety, published in 2001 under the authority of the International Labour Organization.

The Group respects all regulations, standards and certifications in the countries where it markets its products which primarily aim to ensure the safety and protect the health of users by demonstrating the product's compliance with the regulatory requirements. They relate primarily to the properties of fire resistance and slip resistance and to limits on toxic emissions.

The use of chemical products and substances is secure thanks to the rollout of the CHEMSAFE program, which identifies products and assesses risks in order to establish the appropriate means of prevention.

Hazardous waste is specifically managed: handling and storage are subject to strict safety rules to preserve the environment and health of the staff handling them.

The implementation of the Group's Vigilance Plan and its actions in health and safety matters are described in more detail in section 4.2.2.2 "Health and safety" of this Universal Registration Document.

IV - Risk management in environmental issues

STRUCTURE

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 Environment Department, reporting to the Sustainable Development Department, is tasked with preparing the Group's environmental policies, monitoring their application, and coordinating actions. It is supported by the HSE Managers of the Regions and production sites, who are responsible for implementing these policies.

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.

MEASURES

Vallourec notably aims 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 early 2018, the Group also laid down a carbon policy to cover all of the corresponding issues.

Risk assessments have led to the establishment of measures designed to reduce the likelihood of accidents and limit their consequences and environmental impact. These measures relate to the design of facilities, strengthening of protective measures, organizational structures to be put in place and compensation for any environmental impact if it is deemed inevitable.

Vallourec seeks to limit the industrial and environmental risk relating to 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 raising the awareness of all parties involved, as well as by implementing a policy of environmentally friendly investments that reduce industrial risks. Each investment project undergoes a mandatory, formal evaluation. A multidisciplinary committee meets monthly to examine the various characteristics, assessing impacts and determining whether to approve them.

In 2018, the Group published for the first time its medium-term objective for emissions. In 2019, Vallourec decided to join the Science-Based Targets initiative (SBTi) with the aim of reducing its direct and indirect carbon emissions by 2025 in order to contribute to limiting global warming to below 2°C. In March 2020, Vallourec proposed four reduction targets covering the emissions from its processes and also those related to its supplies and products. In May 2020, these objectives were validated by the SBTi, making Vallourec the first company in the Oil & Gas sector to have a trajectory aligned with the Paris Agreement.

Total provisions and guarantees for environmental risks are presented in Note 9 to the consolidated financial statements. This provision covers the cost of treating industrial land and cleaning up mines once resources have been exhausted. The management of industrial and environmental risks is presented in general terms under section 5.1.2 in the paragraph entitled "Industrial and environmental risks".

The Group's commitments in environmental matters and the results of policies implemented are more extensively described in section 4.2.4 "Environmental commitments" of this Universal Registration Document.

4.1.3 Whistleblowing and reporting systems

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

SDG 16.5, 16.6

The Code of Ethics and Anti-Corruption Code of Conduct provide that the Group's employees may report conduct that violates the values and principles of both of these Codes, for example by contacting their line manager, human resources manager, the Group Compliance Officer, Group Ethics Officer, or one of the local ethics correspondents.

In addition to these traditional notification methods, the Vallourec Integrity Line whistleblowing system was rolled out within the Group in 2018 and is now available across all entities, including North America where a dedicated telephone line has been active for some time. This system is available in eight languages to employees and external and occasional collaborators of the Group, but also to customers, suppliers, service providers and other external stakeholders through a secure website hosted by an independent company. The rollout of this whistleblowing system was widely communicated across many channels within the Group, and communication activities are regularly carried out with Group employees via Vallourec's intranet, the monthly Compliance newsletter and targeted e-mails. A link to the dedicated site is available from Vallourec's website and on the Group intranet.

The scope of the whistleblowing system is broad, and includes behavior in violation of the Code of Ethics, the Anti-Corruption Code of Conduct, and internal rules and policies. It notably includes allegations of anti-competitive practices, corruption, fraud, conflicts of interest, discrimination and harassment at work, as well as irregularities that could affect Vallourec's activity or reputation that are linked to human rights and fundamental freedoms, the health and safety of people, or the environment. The system allows conduct to be reported anonymously.

An internal policy specifies the terms of use for the whistleblowing system and the rules that apply to data protection and processing and confirms that any reporting is covered by the principle of confidentiality. It also specifies that the whistleblower may benefit from specific protection and will not be subject to any discriminatory measures or disciplinary sanctions.

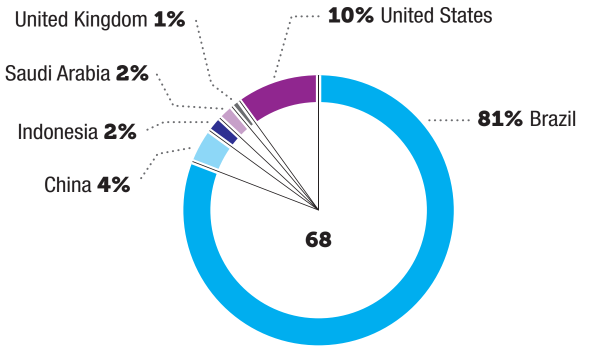
Reports are processed in accordance with the internal procedure relating to investigations.

The rollout of the Vallourec Integrity Line since 2018 has led to an increase in the number of reports made (up 17% on 2020 in 2021). In 2021, 68 reports were made on the Vallourec Integrity Line. As in previous years, the bulk of the reports (81%) came from Brazil. Out of 68 reports, 16 were not considered alerts, 30 were not identified to be violations, 18 were confirmed violations and 4 are still under investigation. Ten reports led to disciplinary measures, seven of which involving dismissals. 61% of the cases identified as violations relate to human resources matters, and 67% of reports were submitted internally.

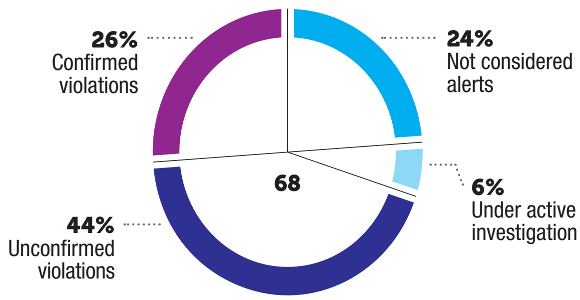
None of these cases had a significant impact on the Group.

These items are presented regularly by the Group Compliance Officer to the network of ethics correspondents, the Chief Financial Officer, the Compliance Committee and, annually, to the Audit Committee.

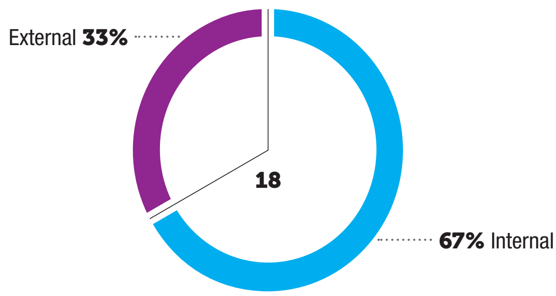
Breakdown by country of origin



Status



Origin of reports



4.2 Consolidated statement of non-financial performance

In accordance with Article L.22-10-36 of the French Commercial Code, the consolidated statement of non-financial performance describes how the Group takes into account the consequences of its corporate social responsibility activities, in relation to the respect of human rights and the fight against corruption and tax evasion. It describes the main risks relating to the business and, where relevant and proportionate, the risks created by the Group's business relationships, products or services. It also describes the policies applied, including any due diligence procedures implemented to prevent, identify, and mitigate the occurrence of risks, and the results of these policies, including key performance indicators.

The results of the general risk mapping have been examined in conjunction with the results of the materiality analysis in order to determine the Group's main non-financial risk exposure. The material nature of the risk has been assessed based on the probability of occurrence, the significance of the impact and the exposure. The resulting list was approved by the Board of Directors in its management report.

In 2021, the Covid-19 pandemic did not change the list of main non-financial risks, but amplified the significant nature of certain risks.

Non-financial information category	Definition of risk (or of opportunity)	Policy applied	Key performance indicators
Consequences of global reactions to climate change	• Business model risk • Image risk • Customer risk	• Sustainable Development Charter • Carbon policy • Energy Transition Opportunities (ETO)	• Carbon footprint • Deployment of the ETO plan
Adaptation to the consequences of climate change	• Risks of flooding, heat waves and prolonged drought, disturbance of water resources, hurricanes	• Update of the prospective study on the impacts of climate change on sites • Adaptation plan by site • Follow-up on insurance recommendations • Capex verification	• % of sites with an approved and internally controlled adaptation plan (KPI to be developed)
Sustainable use of resources/circular economy	• Increase of regulatory constraints and of costs • Opportunity for economic (customer service) and image enhancement	• Sustainable Development Charter • Environmental Policy • Public commitment	• Raw materials footprint • % of steel used, made from scrap
Energy efficiency	• Energy costs	• Energy Policy • "GreenHouse" program for energy savings	• Energy consumption in kWh/metric ton processed • % of non-carbon/renewable energy and electricity • Amount of corresponding investments • % of production by ISO 50001 certified plants
Water management	• Shortage risk • Pollution risk	• Sustainable Development Charter • Environmental Policy	• Volumes and types of water intake and water discharged • Water Impact Index • HSE investments amount
Waste management	• Pollution risks • Health risks • Hazardous waste risks	• Sustainable Development Charter • Commitment to responsible performance • "By-product" approach	• Tonnage of waste put into landfill • % hazardous waste • HSE investments amount
Air quality	• Air pollution risks: steam, gas and particle emissions	• Sustainable Development Charter	• Measurement of air pollutant emissions • HSE investments amount
Respect of ethics (excluding corruption)	• Non-compliance with the Code of Ethics • Image risk	• Code of Ethics • Compliance program • E-learning • Responsible purchasing policy	• Number and type of internal/external alerts • Number and type of sanctions applied • % of the quantity of purchases from suppliers involved in the formal CSR appraisal process
Diversity	• Gender equality	• Code of Ethics • Mentoring for women • Presence of women in succession plans • Short- and medium-term objectives	• Ratio of women managers and executives • Ratio of women senior executives • Wage disparity rate

Non-financial information category	Definition of risk (or of opportunity)	Policy applied	Key performance indicators
Occupational health	• Health risks linked to the use of chemical products and substances • Health risks linked to noise pollution exposure • Occupational illnesses • Risks associated with the Covid-19 pandemic	• Health Policy • Evaluation of health risks in certain countries • CMR classified product substitute plans • Whistleblowing and reporting systems • Action plan to prevent noise pollution • Workstation ergonomics • Review of operating procedures, circulation in the premises, provision of protective equipment	• CMR products replacement rate • HSE investments amount • Mapping of employees' exposure to noise • Noise measurement surrounding sites • Number of confirmed occupational illnesses • Number of Covid-19 cases
Occupational safety	• Accident risks	• CAPTEN+ Safe program • Particular focus on fatal accidents and subcontractors • Evaluation of security risks in certain countries • Whistleblowing and reporting systems	• LTIR, TRIR • OHSAS 18001 and ISO 45001 certification rates • HSE investments amount
Employees' skills and development	• Key personnel departure risk • Loss of skills and expertise risk • Risk of isolation and disengagement	• People review • Succession plans • "Expert" program • Vallourec University • Training Policy • Agreement on the principles of responsibility of the ILO conventions • Raising awareness and training for managers, psychological support set up by specialized firms	• Turnover rate and reasons for termination of employment • Social Barometer (response rate/ satisfaction rate) • Number of training hours
Employee relations	• Risk of deterioration in the social climate and employees' commitment	• Employer-employee dialog • Agreement on the principles of responsibility of the ILO conventions	• "Social Barometer" • Percentage of the workforce covered by business line or company collective agreements
Quality of products and services/ customer relations	• Claim risk • Image risk • Opportunity to strengthen customer relations	• Commercial Excellence Program	• Number of claims • Severity of claims • Claims processing time
Corruption	• Public markets access risk • Conviction risk • Image risk	• Code of Ethics • Anti-Corruption Code of Conduct • Responsible purchasing policy • Internal procedures: supervisors/ gifts/sponsorship	• Number and type of internal/external alerts
Equal opportunity/ discrimination risk	• Non-compliance with the Code of Ethics • Inappropriate compensation • Image risk	• Code of Ethics • Compliance program • Agreement on the principles of responsibility of the ILO conventions • E-learning • Responsible purchasing policy • Whistleblowing and reporting systems	• Number and type of internal/external alerts

The consolidated statement of non-financial performance also contains social, environmental and societal information, information on the fight against corruption and tax evasion, information on human rights initiatives mentioned in Article R.225-105-1 of the French Commercial Code, where relevant to the aforementioned main risks or policies, on a global scale. Unless otherwise specified, 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 Vallourec controls as defined by Article L.233-3 of the French Commercial Code.

A concordance table showing the information required under the aforementioned article and the information presented in this chapter appear in Appendix 3 hereto.

4.2.1 Business Ethics and Compliance

4.2.1.1 Organization

Risks relating to business ethics and corruption are presented in section 4.1 “Vigilance Plan” and in section 5.1.3 “Legal and tax risks” of this Universal Registration Document.

The business ethics and compliance organization underwent changes in 2021. Alongside the Compliance Department, headed by the Group Compliance Officer, a Group Ethics Officer was appointed in March 2021 to ensure that Vallourec’s ethical principles and values are upheld by all of the Group’s employees and stakeholders. The Group Ethics Officer liaises closely with the Group Compliance Officer. The Group Compliance Officer leads and works with the Compliance Committee to implement and apply the internal compliance policies and, in particular, the system for detecting and preventing corruption. The Group Compliance Officer reports to the Group General Counsel and regularly to the Deputy Chief Executive Officer and the Chief Financial Officer. They make annual presentations to the Audit Committee regarding the action taken by the Group with regard to matters involving business ethics.

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

The Group Compliance Officer relies on a global network of 11 local ethics correspondents who are organized by geographic areas, as well as on the legal managers from the Regions. The local ethics correspondents are tasked with disseminating the values and principles of the Group’s Code of Ethics in entities worldwide, rolling out training and making sure that internal procedures are properly applied. A meeting of the network of local ethical correspondents is organized and facilitated by the Group’s Compliance Department each month. These meetings cover topics such as internal procedures, the fight against corruption, regulatory updates and competition rules.

A Compliance Newsletter is issued monthly via the Group’s social network and appears on the Ethics and Compliance page of its intranet, to ensure good group-wide visibility.

4.2.1.2 Code of Ethics and Anti-Corruption Code of Conduct SDG 8.7, 16.5

The Group’s ethical standards are presented in a seminal document, the Code of Ethics, which was updated in 2021.

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 each employee’s day-to-day activities through behavioral guidelines based on these values. The guidelines reflect how Vallourec seeks to manage its relationships with all of its partners and stakeholders, including its employees, customers, shareholders and suppliers, and form the Group’s benchmark in implementing its sustainable development and corporate social responsibility plans.

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. To that end, it has been translated into nine languages (French, English, Portuguese, German, Chinese, Spanish, Arabic, Indonesian and Russian). It has also been published on the Company’s intranet and website to affirm the Group’s values with regard to third parties.

The Code of Ethics is the seminal document which is underpinned by a certain number of directives and recommendations, helping Group employees to apply the Code. In an effort to help implement the Code of Ethics with all employees, notably managers, the Group Compliance Officer has 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
- submitting cases of non-compliance with the Ethical Charter to the Compliance Committee and the Audit Committee.

In addition to the Code of Ethics and the existing internal procedures, and in line with the current regulations, Vallourec introduced an Anti-Corruption Code of Conduct in 2019, which was updated in 2021. This document constitutes the Vallourec Group’s anti-corruption policy. It is intended for all employees, as well as Vallourec’s industrial and commercial partners. The Anti-Corruption Code of Conduct underscores Vallourec’s commitment in the fight against corruption. It contains definitions and practical examples of unacceptable conduct that could constitute acts of corruption or influence peddling. In particular, it covers the way in which Vallourec manages its relations with commercial partners, corporate gifts and invitations, facilitating payments, conflicts of interest, representatives of interests, and the funding of political parties. Lastly, it details the various reporting methods available to employees and stakeholders who wish to report non-compliance with the Code of Ethics or the Code of Conduct.

The Anti-Corruption Code of Conduct, available in nine languages (French, English, Portuguese, German, Chinese, Spanish, Arabic, Indonesian, and Russian) is distributed to all the employees of the Group and to third parties. It is posted online on the Group’s intranet site and on the Company’s website.

4.2.1.3 Compliance program SDG 16.5

In line with the principles set out in the Code of Ethics and the commitments of the Global Compact of the United Nations that the Group joined in 2010, Vallourec seeks to prevent specific risks of non-compliance with legislation and regulations, particularly in relation to competition and the fight against corruption, within the framework of a Global Legal Compliance Program rolled out in all of the Group's companies.

The Group's Global Compliance Program, including the system for detecting and preventing corruption, is designed and rolled out by the Compliance Department and focuses primarily on the following:

- the governing body's commitment as set out in the Code of Ethics and the Anti-Corruption Code of Conduct and on the ethics and compliance page on the Group's website. This commitment is also reflected in presentations given at internal events and by ad hoc communications campaigns;
- a group risk map that incorporates the risk of corruption;
- prevention measures and procedures:
  - the Anti-Corruption Code of Conduct, which applies both to employees and to third parties, supplemented by internal procedures relating to the use of sales agents, gifts and invitations, and philanthropy and sponsorship, local partners, lobbying and political life. These procedures are reviewed on a regular basis,
  - awareness-raising and training initiatives for all Group employees aimed at addressing the risks to which these employees may be exposed in their activities by means of detailed, informative and practical recommendations that can be understood by all. The training program for managers, via in-person sessions and online courses (especially during the pandemic) continued in 2021, covering France, the United States, Mexico, Nigeria, Angola, the United Kingdom, the United Arab Emirates, Russia, and Asia (China, Indonesia and Singapore). Initiatives to raise awareness of ethics were also rolled out in the Group's plants. Training is provided by teams from the Group's Compliance Department or by the local ethics correspondents. A Compliance Quiz took place during the Commercial Days, addressing group-wide sales forces to raise awareness on anti-corruption and respect for compliance with competition rules.

    In addition, a mandatory e-learning program, introduced in 2014 and currently undergoing a full-scale makeover, seeks to educate all Group managers and technical and supervisory personnel on legislation and regulations concerning competition and anti-corruption.

    A Welcome Package was launched in 2017 to bolster internal communication on the main procedures involved. This is a module disseminated via the Learning Management System (LMS) of Vallourec University to all new employees, so that they are aware of the Company's values and workplace rules from the time of their arrival into the Group,
  - an internal whistleblowing system, as described in section 4.1.3 "Whistleblowing and reporting systems",
  - assessment of the integrity of third parties. In 2021, the Group continued with the preliminary checks carried out when recruiting sales agents, and tightened checks on suppliers and customers,
  - a monthly Compliance Newsletter keeps employees up to date on compliance matters and systematically includes reminders on applicable procedures within the Group,
  - tighter controls,
  - a list of points to check during audits has been drawn up, along with a schedule of regular meetings with the audit department.

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

In 2018, the Vallourec Group obtained ETHIC Intelligence Program anti-corruption certification for the design of its corruption detection and prevention program. This certification confirmed that the program addresses the Group's fraud and corruption risks, and corresponds to the best practices and regulations applicable in the fight against corruption. The certification also allowed it to promote and strengthen the Group's values in terms of integrity and ethics with outside commercial partners and stakeholders.

The anti-corruption system is monitored by the operational functions and the Compliance Department as part of the application of internal procedures, as well as by the Audit and Internal Control Department as part of its audits, which incorporate compliance.

4.2.1.4 Tax policies applied – Combating tax evasion

The Group's tax, accounting and/or legal teams (calling on external experts and advisors where necessary) work at a central and local level to ensure:

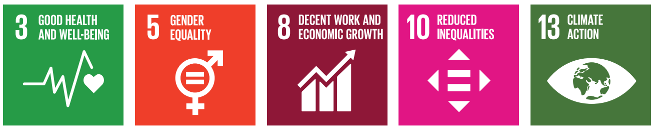
- implementation of accounting principles, the transfer price policy and suitable procedures to ensure that tax is calculated correctly and paid in a timely manner in the countries where it is due;
- identification and request within the legal time frames of tax relief likely to benefit the Group;
- regular monitoring of the change in legal and regulatory requirements applicable to Group entities, and advice and aid given on a daily basis to Group employees to ensure proper compliance with the applicable laws and regulations, particularly to combat tax evasion; and
- adequate personnel and/or external advisors to monitor tax audits so that they run smoothly and to enable them to be completed as quickly as possible.

This policy applies to all tax due at all levels of jurisdiction (local, regional, and national).

The Group's entities are regularly audited by the tax authorities to which they are subject.

As at December 31, 2021, no Group entity was involved in a dispute over tax evasion.

4.2.2 Social policy



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

4.2.2.1 Group workforce SDG 5.5

I – CHANGES AND DISTRIBUTION

Breakdown of workforce by age, gender and geographical area

As at December 31, 2021, 16,685 employees worked at more than 40 production or service sites under contracts with Vallourec (short-term or permanent contracts), compared to 16,636 employees in 2020. In 2021, Vallourec continued to implement its transformation plan, particularly in Europe involving France and Germany, with an adjustment of the workforce.

Distribution by geographical area

	Number of employees	
Country	**2020**	**2021**
Brazil	6,476	7,050
France	2,695	2,194
Germany	2,686	2,463
United States	1,337	1,591
China	1,279	1,151
Indonesia	727	712
United Kingdom	356	311
Mexico	336	429
Saudi Arabia	177	185
United Arab Emirates	98	98
Malaysia	225	189
Other regions	244	312

Workforce as at December 31 (short-term and permanent contracts)	2020	2021	Change 2020/2021	2020 Breakdown	2021 Breakdown
Europe	5,780	5,093	-11.9%	35%	31%
Brazil	6,476	7,050	+8.9%	39%	42%
Asia	2,349	2,164	-7.9%	14%	13%
NAFTA (United States, Canada, Mexico)	1,696	2,030	+19.7%	10%	12%
Middle East	277	286	+3.2%	2%	2%
Africa	58	62	+6.9%	N.S.	N/A
TOTAL	**16,636**	**16,685**	**+0.3%**	**100%**	**100%**

Breakdown by gender

As at December 31, 2021, the Group had 2,038 women (1,910 with permanent contracts), which represents 12% of the total permanent workforce. Marginally present in the category of production staff, women mainly hold administrative and sales positions. They represent 32% of the Group's technical and supervisory staff (administrative personnel, technicians or field supervisors), and 24% of its managers. The proportion of women remained unchanged for the 2020–2021 period by area, for the Group as a whole.

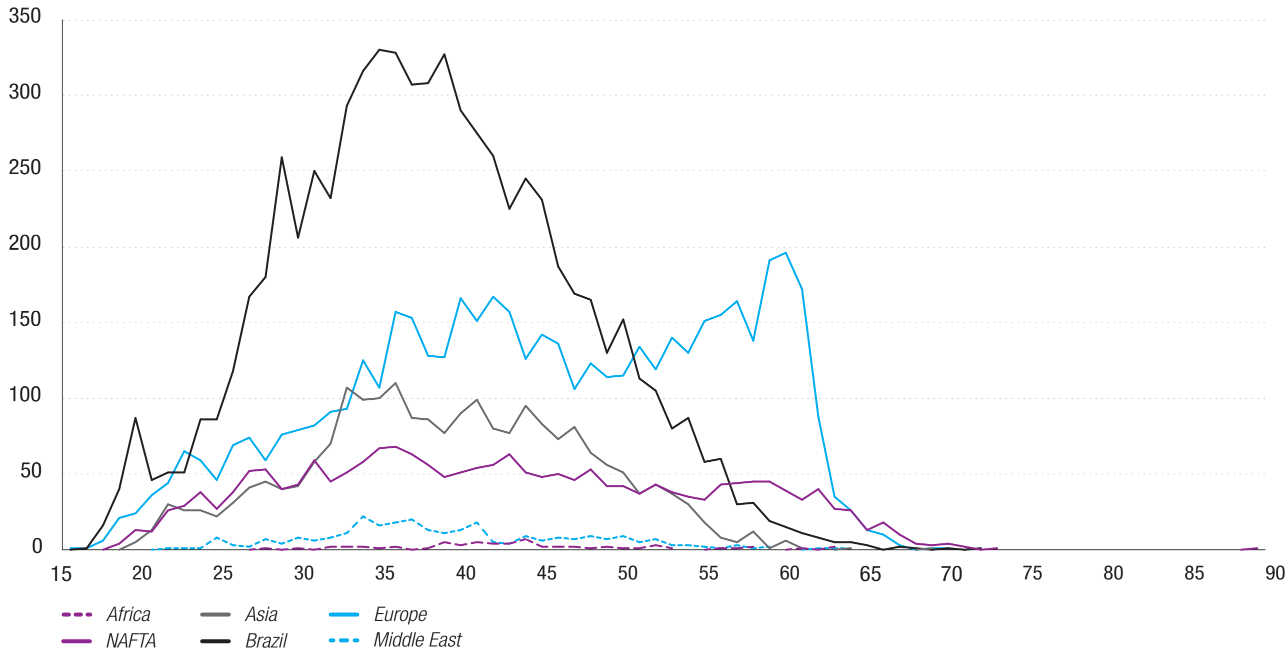
% of women (permanent)	Production staff		Technical and supervisory staff		Managers (cadres)		Total	
	2020	2021	2020	2021	2020	2021	2020	2021
Europe	2%	1%	32%	33%	23%	23%	12%	12%
Brazil	6%	6%	34%	36%	25%	27%	11%	11%
Asia	12%	12%	29%	29%	16%	18%	17%	17%
NAFTA (United States, Canada, Mexico)	1%	2%	28%	28%	22%	23%	11%	10%
Middle East	1%	-	22%	26%	17%	15%	11%	11%
Africa	4%	5%	14%	13%	-	-	9%	8%
WORLD	**5%**	**5%**	**31%**	**32%**	**23%**	**24%**	**12%**	**12%**

Breakdown by age

The age pyramids show significant disparities in terms of geographical areas. The average age across the whole group is around 40.

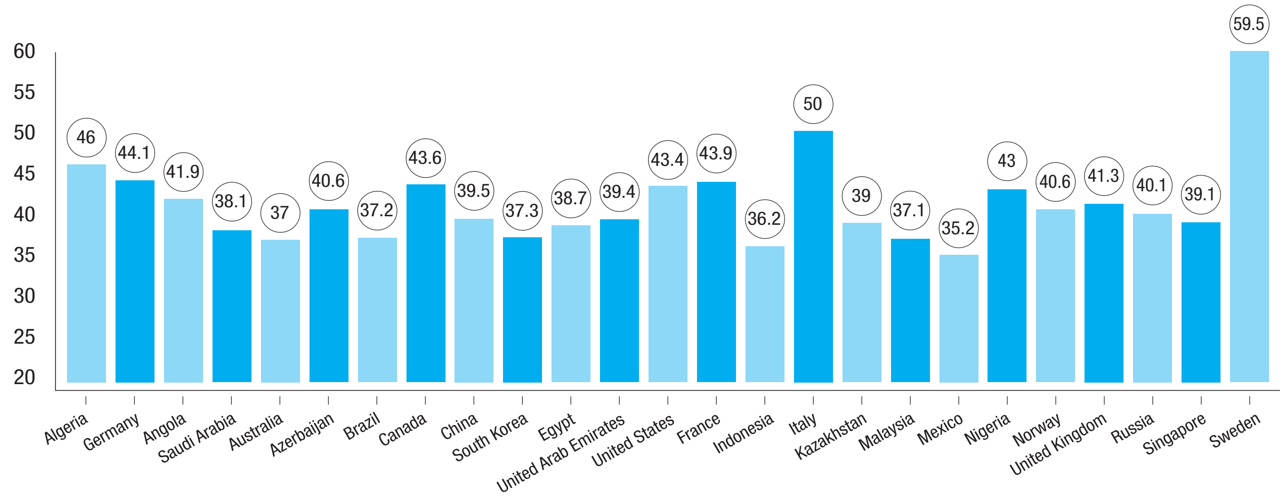
The Brazilian employee population is young, with a strong concentration in the 25- to 40-year-old segment. In the NAFTA region, the distribution of the population among the various age categories is well balanced. Asia has practically no employees older than 55. Conversely, Europe continues to be characterized by a large number of employees over the age of 50 (approximately 37% of the European population). 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 country



Breakdown of the workforce by professional category and type of contract

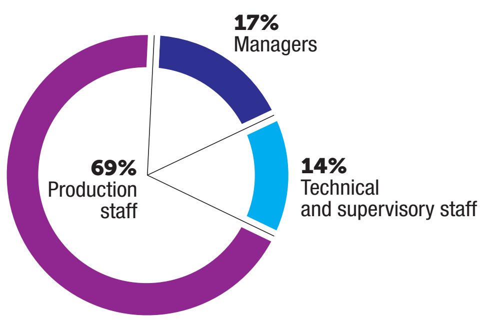
Breakdown by professional category

Production staff represents two thirds of the workforce.

Technical and supervisory staff includes administrative personnel, technicians and field supervisors, who account for 14% of the workforce. Managers represent 17% of the workforce.

Breakdown of workforce by category in 2021

In 2021, the proportion of executives and technical and supervisory staff remained unchanged from 2020.



Group's registered workforce by professional category	2020	2021
Managers (cadres)	2,915	2,870
Technical and supervisory staff	2,485	2,350
Production staff	11,236	11,465
TOTAL	**16,636**	**16,685**

Breakdown of registered workforce	Production staff		Technical and supervisory staff		Managers *(cadres)*		Total	
	2020	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**
Europe	21%	18%	7%	6%	8%	7%	35%	31%
Brazil	31%	34%	2%	3%	6%	6%	39%	42%
Asia	9%	8%	3%	3%	1%	1%	14%	13%
NAFTA (United States, Canada, Mexico)	6%	8%	2%	2%	2%	2%	10%	12%
Middle East	1%	1%	<1%	<1%	<1%	<1%	<1%	2%
Africa	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
WORLD	**68%**	**69%**	**15%**	**14%**	**18%**	**17%**	**100%**	**100%**

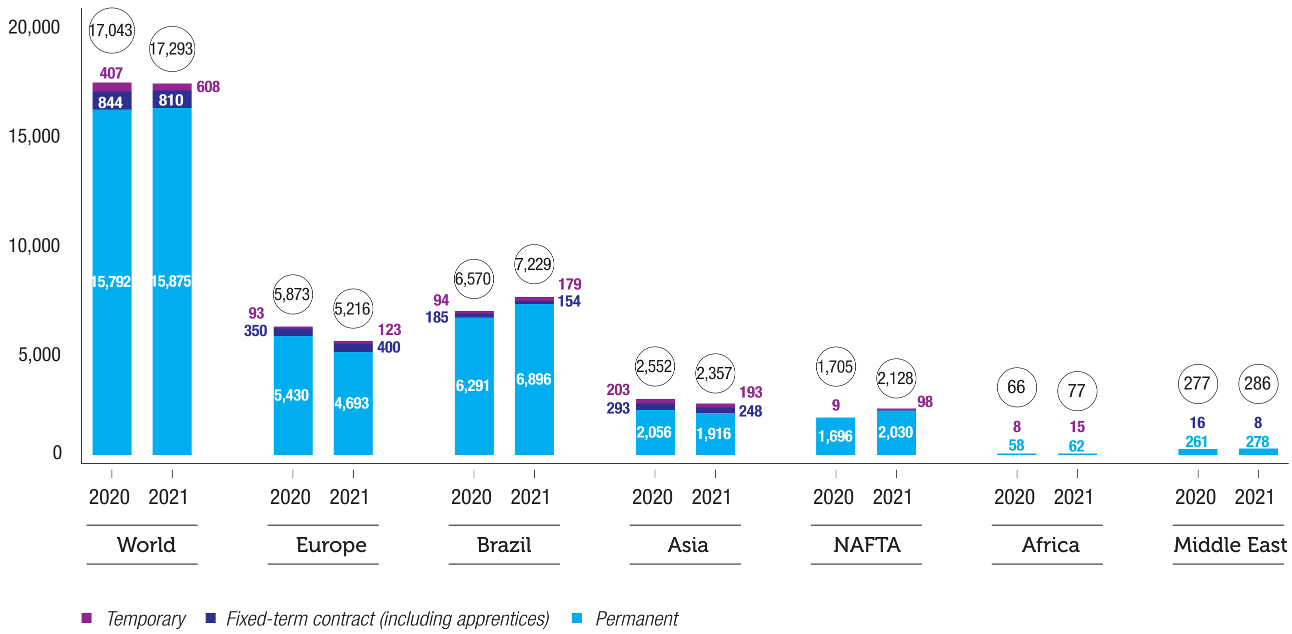
Nearly 50% of production staff are still located in Europe and Brazil, while 21% of managers and technical and supervisory staff are located in this same area.

In 2021, the production staff population still accounted for approximately 69% of the Group's total workforce, which is consistent with previous years.

Breakdown by type of contract

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 low point activity are handled via flexible local solutions (e.g., loans between plants, working time adjustments in Europe, temporary staff and short-term contracts).

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



In 2021, there were 15,875 permanent workers worldwide, compared to 15,792 at the end of 2020.

II – NEW JOINERS AND DEPARTURES

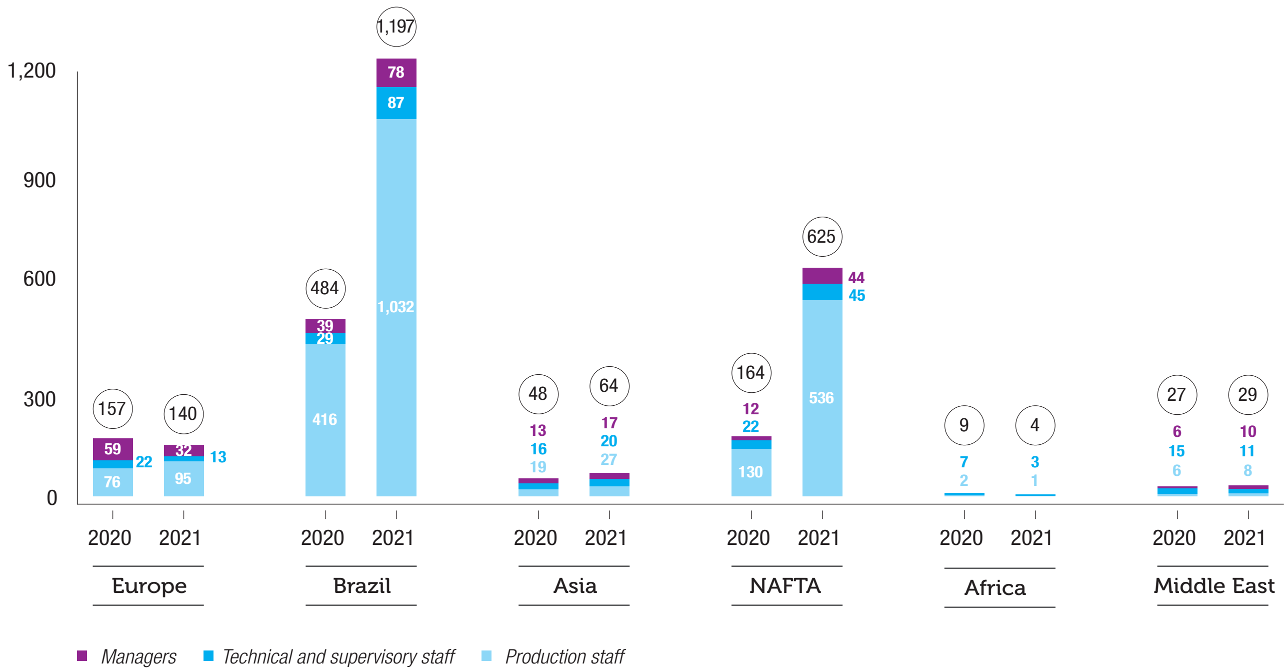
New hires and transfers

The total number of new hires on permanent contracts in Europe continued to fall in 2021 because of the economic context, the health crisis and the group's strategy in the Europe region. The number of new hires in Brazil in 2021 rose considerably because of business growth and Group strategy on support functions. This explains why hiring is on the rise among both production staff and technical and supervisory and managerial personnel. In early 2020, the Oil & Gas market suffered a slow-down under the impact of the Covid-19 crisis in the Brazil and NAFTA regions. This required a 30% adaptation to our production staff population. In 2021, the market in these regions picked up rapidly, calling for many new hires to meet rising demand volumes.

Though the overall Group headcount remains fairly constant, we do note a considerable increase in the Brazil and NAFTA regions, owing to the large number of new hires and a much lower departures figure.

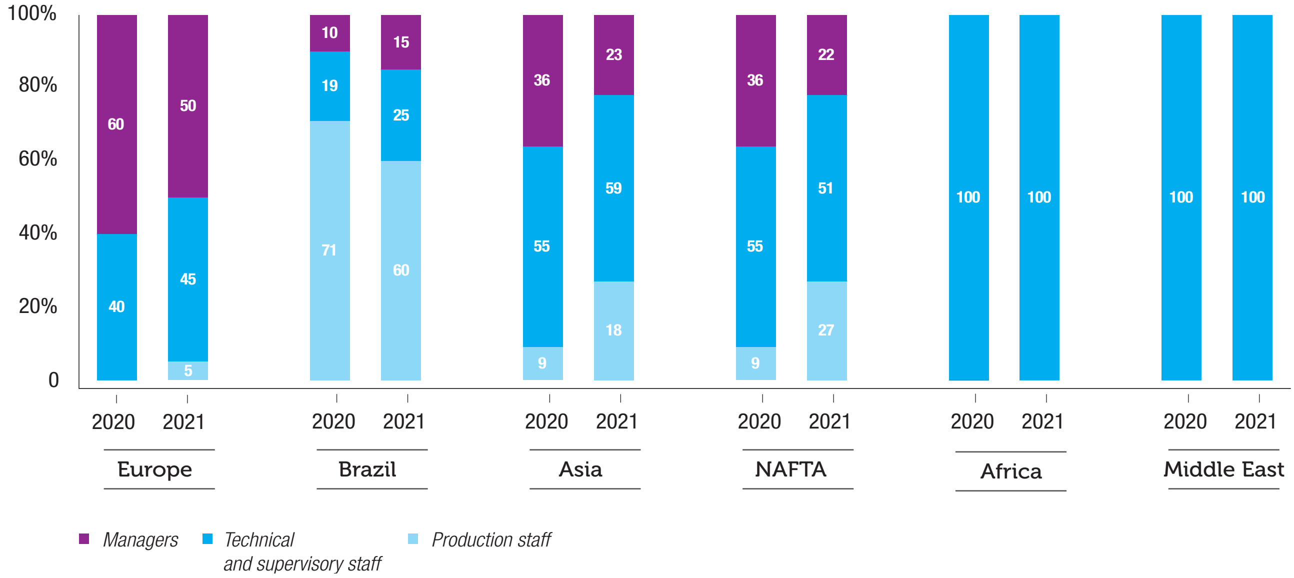
The breakdown of new hires by professional category and geographical area is as follows:

Breakdown of new hires by professional category



In 2021, we simultaneously recorded nearly 290 departures in the NAFTA area, 698 in Brazil, 224 in the Asia area, and 919 in the Europe area.

Breakdown of new hires of women by professional category



For all areas except Brazil, female employees were primarily hired in the professional categories of technical and supervisory staff, and managers. Female new hires in the production staff category remain significant in Brazil. The proportion of women in the Group remained unchanged at 12%. The Group's policy, as defined by the Management Board in 2016, focuses on two objectives, which are increasing the number of women in operations-related positions, and improving women's access to leadership roles.

Departures

The Group's permanent headcount changed little from 2020 to 2021. The same is true of the temporary workforce

Turnover rate by area

Turnover rate *(permanent workforce)*	**2020**	**2021**
Africa	14%	5%
NAFTA (United States, Canada, Mexico)	22%	27%
Asia	9%	7%
Brazil	10%	15%
Europe	7%	10%
Middle East	9%	11%
World	**11%**	**13%**

The turnover rate includes departures and new joiners for the year in question and is defined as follows:

(number of departures + number of new joiners for the year) × 2 × 100/(headcount as of December 31 of the preceding year).

This takes into account departures, new joiners and transfers within areas.

Reasons for termination of employment contract by area

	Retirement		Resignation		Dismissal		Other reasons	
	2020	2021	2020	2021	2020	2021	2020	2021
Europe	34%	21%	17%	15%	25%	20%	24%	40
Brazil	<1%	<1%	7%	14%	91%	80%	2%	5%
NAFTA	4%	8%	8%	61%	86%	24%	2%	7%
Asia	7%	8%	45%	70%	45%	15%	3%	7%
Middle East			67%	54%	6%	18%	28%	28%
Africa			14%		71%		14%	100%

In Brazil, given the employment regulations, dismissal is the method by which contracts are typically terminated. Following the restructuring plan, the dismissal rate remained high in 2021, at around 80%, though this is lower than the 2020 figure, chiefly because of the higher number of resignations.

In the NAFTA region, the number of dismissals fell sharply in proportion, with a much higher number of voluntary departures than in 2020. The number of voluntary departures increased sharply in the Asia region as well. In Europe, 21% of departures were for retirement (compared to 34% in 2020), and 15% were voluntary departures. In 2021, Vallourec continued to pursue its restructuring plan, with divestment of Valinox Nucléaire SAS in France which raised in the number of departures in the “Other reasons” category in Europe.

III - ORGANIZATION OF WORKING TIME

Working time

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 nature of working patterns, research is being done in conjunction with occupational physicians and employees into the structuring of working patterns to coincide with physiological patterns. This research is then followed by trials.

Innovative solutions have been implemented, which vary greatly based on cultural factors and applicable national laws.

In order for the Group 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 time

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		Of which the average number of overtime hours worked per employee during the year	
	2020	2021	2020	2021
Europe	1,355	1,368	36	41
Brazil	1,852	1,966	81	124
NAFTA	2,123	2,363	279	425
Asia	2,157	2,220	255	395
Middle East	2,151	2,298	362	443
Africa	1,754	1,793	149	174

Average number of hours worked per employee	2020	2021
China	2,178	2,489
United States	2,050	2,237
Indonesia	2,257	2,045
Mexico	2,476	2,869
Saudi Arabia	2,158	2,431
United Arab Emirates	2,144	2,081
Singapore	1,985	1,962
Nigeria	1,769	1,777
Brazil	1,852	1,964
Azerbaijan	2,032	1,944
Egypt	1,644	1,294
Malaysia	1,819	1,464
Algeria	1,984	1,888
South Korea	1,845	1,877
United Kingdom	1,848	1,787
Canada	1,717	1,846
Angola	1,689	2,002
Australia	2,550	2,326
France	1,373	1,407
Germany	1,252	1,263
Norway	1,484	1,261
Russia	2,825	1,943
Italy	1,562	1,580

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.

Furthermore, in France, a company agreement signed by all social partners in 2019 paved the way for home working to be implemented at Vallourec.

The aim of this approach is to develop the autonomy of teams, to empower and place greater trust in them, as well as to simplify operating methods, in order to enhance the quality of life at work and achieve a better work-life balance.

The expected benefits of home working were very quickly confirmed by initial feedback from employees and managers.

In the very first year, 2019, more than 500 employees tried home working, both in industrial and service sites.

This trial period ensured that the lockdowns resulting from the Covid-19 crisis were managed smoothly. All service employees worked remotely under the conditions set out in the existing agreement and with the office resources that had already been put in place during the trial period.

The success of home working in France, along with widespread lockdowns throughout the world, encouraged Vallourec to adopt a global policy that aims to promote and regulate home working.

Absenteeism

The absenteeism rate is calculated by comparing the aggregate of all paid leave (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.

In 2021, the absenteeism rate at Group level was 4.64% compared with 4.66% in 2020.

Absenteeism rate	2020	2021
Europe	8.6%	8.22%
Brazil	3.7%	3.83%
NAFTA	2.4%	3.64%
Asia	2.2%	1.74%
Middle East	2.0%	1.37%
Africa	4.4%	2.44 -
TOTAL	**4.7%**	☑ **4.6%**

4.2.2.2 Health and safety SDG 3.9, 8.8

The health and safety risks are presented in section 5.1.2. "Operational risks" of this Universal Registration Document.

I - SAFETY

COMMITMENT TO RESPONSIBLE PERFORMANCE

Ensure the safety and protect the health of our employees; ensure good working conditions for all employees

- **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, including subcontractors.

- **2021 OBJECTIVES**

To achieve an LTIR of <0.56 and a TRIR of <1.40 (including the performance of subcontractors) and avoid fatalities.

- **ACHIEVEMENT OF THE 2021 OBJECTIVE**

The Group achieved an LTIR of 1.11 and a TRIR of 1.65.

- **2022 OBJECTIVE**

Avoidance of fatalities and ongoing efforts to achieve an LTIR of well below 1.00 and a TRIR of under 1.20 first-half and 1.00 second-half, targeting <1.00 by 2023 at the latest.

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 2021, all Vallourec sites were already OHSAS 18001 (1) or ISO 45001 (2) certified, with certified sites representing Vallourec's entire production in metric tons.

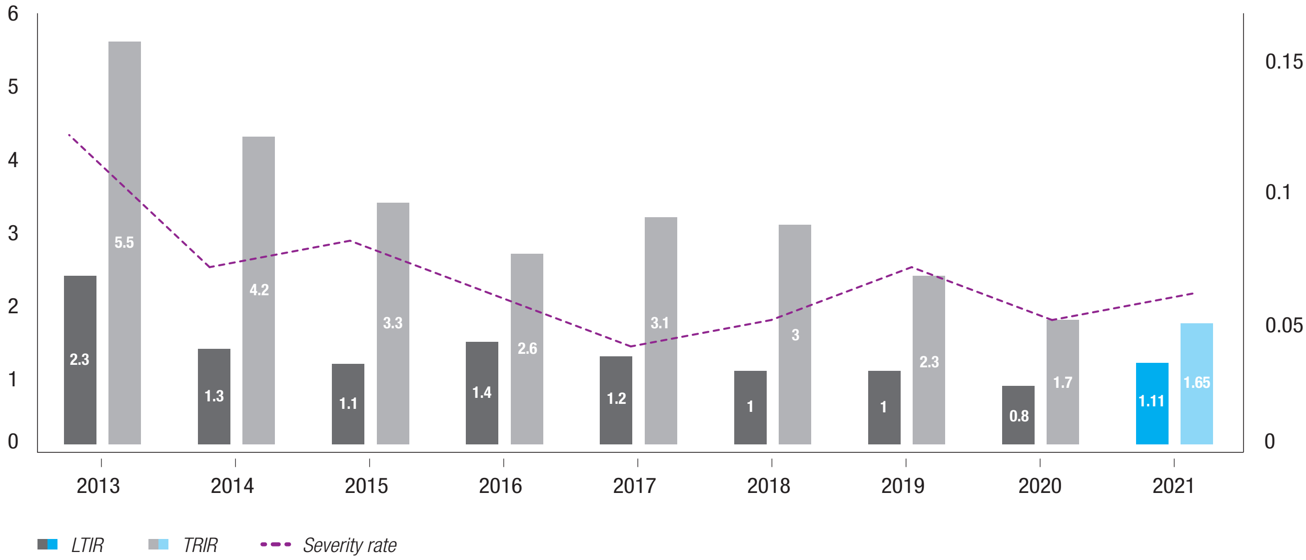
Valllourec has been committed to its "CAPTEN+ Safe" safety improvement program for several years. The program has been renewed each year with a particular focus on the major risks that could lead to a fatal accident and, starting in 2016, a specific focus on subcontractors.

Since 2016 the performance indicators have incorporated Vallourec staff, temporary workers and subcontractors.

At the end of 2021 the LTIR was 1.11 and the TRIR was 1.65. No fatality was reported during this period. But the utmost attention was paid to risk assessment, personnel awareness, training on safety management, and personnel supervision during operations.

In 2021, the Severity Rate (SR) of the Lost Time Injury Rate was 0.060.

Changes 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) *ISO 45001: Health and safety at work, 3/2018.*

Whenever an accident involving lost time or a potentially serious incident occurs, the Group Executive Committee is informed immediately.

The safety improvement program includes the following measures at all Group sites:

- safety management committees at all levels of the Company (Vallourec);
- ongoing safety risk assessment, a high-risk reduction program, and systematic analysis of root causes of all incidents, including near misses;
- more targeted action to reduce risks that could lead to a fatal accident (maintaining loads, working at heights, lockout-tagout of equipment, confined spaces);
- a safety visit and short meetings;
- continuous improvement teams (CITs) on safety issues and especially on the "hands free" concept;
- systematic communications at workstations concerning safety issues;
- firm involvement throughout the entire managerial line, for presence during operations, examination and remediation of safety issues, and assessment of leadership skills;
- strong employee involvement to stop and report any situation involving risk;
- eight golden rules, which are grouped into eight chapters/themes: "my attitude to safety," flow of machines and pedestrians, lifting, manual tools, working at height, confined spaces, energies and lockout-tagout procedures (LOTO) and health protection. An e-learning tool focusing on these eight golden rules, translated into the languages used within the Group, is available to all employees.

As from 2017, each reported accident is analyzed for actual and potential severity, relying on an internal scale (level 1: minor accident, level 8: fatal or potentially fatal accident). Beyond merely calculating days lost, this approach provides depth to the analysis of root causes and allows corrective actions to be taken at the Group and regional levels.

In 2021, accidents were primarily to the hands (48%), feet (13%), legs (7%), and ankles (7%).

For the total accidents and near-misses reported, the golden rules infringed mainly relate to attitudes to safety (52%), lifting/crane handling (14%), traffic with vehicles and pedestrians (11%) and fuel/consignments (11%).

Education and training about safety rules is mandatory for all new employees of the Group, in particular for managers at all levels, and includes concerted follow-up. The programs for temporary staff have been extended to subcontracting companies just as for the permanent workforce.

Each year a day is devoted to safety in all of the Group's sites. This is an opportunity 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 at heights, evacuation drills, etc.) during which production is suspended. A great number of top managers make special trips to sites for this event or – given the coronavirus crisis – participate remotely using modern communication tools. The site recording the best progress in safety performance also receives a safety award on that day.

Major priorities for executive management in 2022 will be to: keep sights set on control or elimination of operations prone to possibly mortal hazard; strengthen the risk assessment methodology to improve understanding of non-habitual and unexpected situations; spend time in workshops to observe safety conditions and behaviors; and assess the application and efficacy of safety management systems.

In an effort to signal its commitment to safety issues, the Board of Directors has included safety objectives for several years in the variable portion of the executive corporate officers' compensation, as well as in that of the main managers in charge of supervising staff at the sites, i.e., nearly 2,000 managers.

II - HEALTH

Health policy

The Group did not sign any collective agreements regarding occupational health and safety. However, the Health and Safety policy that was updated in 2016 contains a more robust health section. Entities thus aim to gain further knowledge about the health risks specific to their processes, and determine the means to eliminate or mitigate them locally.

At the end of 2018, the Executive Committee decided to ensure that all health risks were sufficiently taken into account and implement such considerations on a group level by setting up a Health Committee. There are indeed various issues that relate to the health of Vallourec's employees. As concerns our process, chemical risk (see below), noise, air quality and the ergonomics of workstations have been the subject of structured adaptation plans for several years. The issues also concern medical follow-up of employees, the risks of psychosocial risks to which they could be exposed, and the ability to offer them adapted health coverage. Lastly, the Group's health policy must also ensure that the products used for its customers' operations are safe.

Prevention of chemical risk

The safe use of chemical products and substances is of critical concern to Vallourec, which has had a dedicated plan in this regard for numerous years. The database containing their details is regularly updated to ensure rigorous monitoring of developments and thus prevent the risks of harmful effects. Three points should be emphasized:

a) in 2016, this database was optimized to better assist the HSE teams in determining the danger of products, and thus establish adequate means of prevention. The application was also modified 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. The rollout is continuing at all sites. Regular training sessions for the HSE teams ensure the sustainability of the initiative on all sites following the various reorganizations and the changes in the tool's functionalities.

This tool also evolved to integrate the evaluation of chemical risk at the workstation. The method was tested at a few pilot sites. This new functionality was gradually extended to other sites in the Group and its rollout will be continued in 2022. The objective is to evaluate each product at the primary workstation and eliminate the existing Excel tracking files;

b) 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. In 2019, Vallourec developed an application to formalize these validations and connect them to the Group's database;

c) the impact of chemical risk is similarly 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 investment projects were thus validated at the corporate level from a chemical risk perspective. The most at-risk projects are monitored and validated at each stage, through to industrialization on site. This process is the result of close collaboration with process communities and purchasing teams. For example, the development of the next generation of grease-free coating for our connections (*Cleanwell Dry* 2) has allowed us to define and establish use of CMR (Carcinogenic, Mutagenic or toxic for Reproduction) products via closed-cup systems, and thereby guarantee zero contact to ensure maximum staff protection. These highly secure processes were then monitored by local HSE teamshome working;

d) lastly, audits of high-risk chemical processes are conducted to guarantee good practices and protection levels. Some audits are also conducted at Vallourec's subcontractors for the same reasons. Oversight arrangements have been established and are monitored by the local teams.

Product substitute plans

Changes in legislation and improved knowledge about the toxicity of substances increase the number of products that are identified as CMR each year. 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 2021, 71.2% [(1)] of the 789 plant items identified as CMR [(2)] were replaced [(3)]. Consideration of changes in the Group's industrial scope, as well as the rollout of the new GHS classification system, resulted in an additional list of products that had not yet been identified as CMR, and in new substitution actions being undertaken. In addition, the training of teams in the United States and the rollout of on-site inventories at all sites in North America identified a large number of products that had not been taken into account until now. Initial substitution actions have already been carried out in order to change usages.

As mentioned above, 16 industrial uses of distinct CMR products remain identified as non-substitutable owing to technical problems or lack of a substitute on the market: of these, 23% are integrated in machines or structures, with no risk of exposure (insulation materials, for example), 21% are used in closed-compartment laboratory testing techniques, 11% in coating processes, and 46% in specific industrial processes. Their uses are therefore monitored by the HSE teams and the Environment Department.

The specific action plans rolled out at the Group level continue to develop, and concern, in particular:

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 are progressively dropped off during maintenance operations when an alternative solution is available;

b) lead dope: 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 is still not substitutable under certain extreme conditions. It is currently only used when operating conditions do not allow for any other options. In 2021, the sites used 190.7 metric tons of grease, including 12% leaded grease. It should be noted that the use of leaded grease is limited to running operations and it is no longer used as protection for threads during storage as other non-CMR greases have been validated for this purpose;

c) nickel phosphates: in 2017, the competent process community, known as VAM, rolled out a test program with the three suppliers concerned, to validate three Ni-free solutions. This collaborative work with these three suppliers has enabled worldwide supply coverage, and has also allowed the process parameters to be optimized to ensure gains on energy consumption, processing time and waste production. The three solutions were approved and presented by this process community at the plants at a specific meeting. In 2018, the Group gave the "Vallourec Environment Award" to this same community for its work on substituting nickel salts in phosphating processes. The substitution programs began to be rolled out site by site, with the support of the community. Certain modifications to the process lines made it possible to quickly implement the substitution for some sites (53%). Investments have continued since then to complete substitutions on all phosphating lines.

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, which was taken up by another process community. After numerous tests, some products have been qualified in the laboratory. A boron-free substitute product has been partially qualified at the Brazilian site, and these qualifications will continue to cover the entire manufacturing range. A second substitute product has been validated at our research center in Germany, and industrial testing will continue in 2022.

(1) Note that the products identified as non-substitutable are considered as substituted and included in the percentage calculated.

(2) Chemicals or preparations may have various adverse effects on human health. These are classified into "CMR" categories. Under Article R.4412-60 of the French Labor Code, substances or preparations are considered CMR agents if they are carcinogenic (C), mutagenic (M) and/or toxic for reproduction (R), as defined in appendix I of regulation (EC) 1272/2008.

(3) Some sites reported their inventory. New substances have also been officially classified as CMR.

4.2.2.3 Employee relations SDG 10.4

I - EMPLOYER-EMPLOYEE DIALOGUE

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 78% of the workforce are covered by industry- or company-wide collective agreements.

- At Group level, in October 2021 the Group Committee appointed an employee representative member of the Board of Directors, to sit for four years.
- In Europe, 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 2021, regular and special meetings allowed office members to really understand the economic and industrial issues impacting the Group's competitiveness, along with the action plans linked to the Group's transformation, in particular the adaptations made in Europe.
- In France:

In 2021, numerous meetings were held with employee representatives. In addition to the regular meetings of the various local bodies and the Group, the three most important topics were:

- information about and negotiation over the Covid-19 crisis and its implications in terms of lockdowns and partial reduction in activity;
- the consultation procedure on the proposed restructuring of French plants and entities, launched in late 2020 and culminating in signature of a majority agreement on the employment safeguard plan with union organizations;
- annual negotiations about salaries and working time;
- negotiation of a new profit-sharing agreement, for 2021-2023;
- negotiation of a new home working agreement.

- In Germany:

Several meetings with employee representatives were held in 2021. Meetings with employee representative bodies are held on a regular monthly basis, including a meeting with the economic committee and a monthly dialog session between employee representative bodies and the majority of managers.

The main subjects discussed in 2021 concerned the Covid-19 crisis, negotiation of a post-pandemic home working agreement, reduction of the VMPension share and, in the last quarter, announcement of the process on divestment of all German assets.

- In the United Kingdom:

Employees are represented through two trade unions (Community Union and Unite Union) which represent production, administrative and technical workforce. Negotiations in 2021 concerned the salary policy.

- In 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 among these employees, a list of whom is drawn up in accordance with the agreements. Negotiations concern salaries and benefits in kind.

In the United States, as required by law, employees can choose to be represented by a union and a collective bargaining agreement; so far, employees have consistently voted against union representation. The last formal union election was held in 2014 in Vallourec Star sites, in Youngstown (Ohio, United States).

Rising production in 2021 required workforce increases in all employment categories across all the companies in the region. On what is a very tense job market, companies have also been impacted by the "Great Resignation" phenomenon, at all levels, with the attendant difficulties in meeting needs for personnel to support increasing business levels.

Against the continuing complexities arising from the Covid-19 pandemic in 2021, the Group endeavored to ensure safe working conditions for its employees.

After the period of suspension because of the Covid restrictions, meetings resumed at Vallourec sites, including the quarterly region-wide employees' meeting, by videoconference recorded for subsequent release. Meetings are held to inform employees on company business, major projects and changes, and include time for question/answer sessions. They are conducive to employee engagement, dialog and transparency. Points of view are exchanged at round-table discussions with the President, Plant Management and HR Manager and a panel of employees selected at random.

The region continued its support for the "Winning as One" program, which again enabled employees to volunteer for teamwork on strategic issues, process improvements and innovative idea proposals. By combining our employees' enthusiasm with these new opportunities, we have strengthened our commitment to Vallourec's values of transparency, performance and responsiveness, respect for people and joint commitment.

All these efforts build a strong employee appreciation for working with Vallourec. The Group is proud that its North America region was awarded "The Great Place to Work" certification again in December 2021.

- In South America:

In Brazil, employees are represented by trade unions, which are formed by employees not only from Vallourec, but also from other companies covered by their territorial base.

There are legal criteria that establish the obligation of a union representation, according to the territorial location of the Company and its main 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 as well as the work conditions.

Moreover, the employees are also represented by the *Conselho Representativo dos Empregados* (Employee Representative Council – CRE), which has been a legal obligation since November 2017 for all plants with 2,000 or more employees. This Council provides employee representation internally and facilitates discussions on specific daily matters such as catering, transportation, restrooms, etc. The CRE cannot be involved in matters that are negotiated by the trade union. It plays a complementary role.

As in other regions, employee relations in 2021 focused mainly on the management of Covid-19 and the adaptation measures that led Vallourec Brazil to simplify its organizational structure and reduce its workforce.

- In China:

There are trade unions or employee representative bodies in the great majority of our entities in China, and the Group communicates regularly with these. Vallourec encourages its employees to elect representatives. A union representing employees was formed at Tianda Chuzhou in 2021. In the entities without trade union or employee representatives, employer-employee dialog occurs through direct contact between the production staff and management via internal communication meetings. Should employees request it, setting up a trade union will be considered.

II- INTERNAL SURVEY ON EMPLOYEE SATISFACTION ("SOCIAL BAROMETER")

Vallourec conducts a survey at regular intervals (one session approximately every year) with all of its employees worldwide to find out their perception, expectations and concerns. The survey is used to measure the level of satisfaction, motivation and commitment of employees.

It ensures that employees' responses will be kept completely confidential.

The response rate for the latest survey, in November 2021, was a record 64% of all employees. It yielded a high satisfaction score of 7.7/10, a steady increase since the first survey, despite challenging circumstances.

The development of new skills, the high level of autonomy and the atmosphere in the workplace appeared to be the main motivating factors for employees.

Following the survey, action plans are slated for early 2022 to respond to employees' expectations concerning the standards of excellence defined at the Group level.

III - GROUP INTERNAL COMMUNICATIONS

Internal communication has a major role in Vallourec's operations. It allows employees to be connected worldwide and to create a true sense of belonging to the Group. The goal of internal communications is to engage Vallourec's employees and have them adopt a common vision, plan and values and to support change. Vallourec maintains dialog with its employees and provides information through various channels:

- for almost a year, the Group has broadcast a series of bimonthly webcasts called "On Air" with the management team, to share all the communications headlines with the entirety of the Group's 17,000 employees. The webcast may also replace conferences with regional online conferences;
- in 2020, the Group launched a new intranet called *My Vallourec*, which is used by approximately 8,000 employees in around 20 countries. *My Vallourec* was designed to combine the Group's various intranet sites into a single platform, giving employees simplified access to local and corporate information. It offers an environment based on Office 365, which is more ergonomic, consistent, modern, and above all more open. The information provided on *My Vallourec* allows you learn more about the strategy, objectives, results and success of teams worldwide. A bi-monthly e-newsletter also presents site news;
- *My Vallourec* is supplemented by the business social networking site, which allows employees to have discussions, share knowledge and best practices via dedicated communities, and by Teams, a hub designed to promote teamwork;
- specific communication on certain projects that educates employees about key issues in the Group – safety, digital, major HR projects, ethics and values, the environment – or involves them in important matters (Innovation Challenge, major projects impacting Group life, etc.).

The Group's internal communications are also based on local resources in the countries and subsidiaries, which relay messages, provide feedback from the field and raise topics of interest within their own channels (magazines, intranets, etc.).

4.2.2.4 Remuneration and benefits

I – PAYROLL

In 2021, Group payroll, excluding temporary workers, totaled €782 million:

- €597 million in salaries;
- €36 million in employee profit sharing;
- €0.5 million in expenses associated with share subscription or share purchase options and performance shares;
- €149 million in social security costs.

Breakdown of payroll costs by country:

Breakdown of total payroll costs	2020	2021
Germany	22%	21%
Brazil	20%	21%
China	3%	3%
United States	21%	21%
France	24%	25%
Mexico	1%	1%
United Kingdom	4%	3%
Other	5%	5%
TOTAL	**100%**	**100%**

II – EMPLOYEE PROFIT SHARING AND BONUSES

Profit sharing plans are designed to associate employees with the Company's performance. In 2021, this amounted to €36 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.

III – EMPLOYEE SHARE OWNERSHIP

The Group did not continue the Value employee shareholding plan in 2021.

Shares held by employees represented 0.26% of Vallourec's share capital as at December 31, 2021, compared to 3.03% as at December 31, 2020.

IV – OTHER BENEFITS

In almost all countries, except in African and Middle East countries, employees benefit from a healthcare coverage 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: company 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.

4.2.2.5 Personnel development

SDG 10.4, 13.3

The aim of the Talent Management process is to ensure that Vallourec has the right employees to ensure its success today and also to anticipate the future of the Group.

At Vallourec a standardized system is used for the assessment and development of employees. This Talent Management system assesses which skills need to be developed for each employee in their current position, and also prepares for their future development.

This includes defining and organizing annual interviews, reviewing Talents and succession plans.

For each employee the process implies the establishment of an individual development plan (on-the-job training, coaching, mentoring and in-person or remote training).

In practice, Vallourec's Talent Management system therefore has two objectives:

- ensure the necessary skills or expertise for the development of the Group;
- optimize levers of employee engagement.

This twofold objective is key to the competitiveness of the Group.

Valloure therefore assists its employees throughout their careers, revealing and cultivating their talents thanks to several programs and initiatives that are rolled out within the Group.

I - STAFF ASSESSMENTS

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 manager cohort. Implementation of this tool, supported by the high level of involvement of all managers, enabled performance reviews to be standardized and systematically structured on an annual basis.

This tool is also accessible to technical and supervisory staff in certain countries, in particular France.

In countries where the tool is in place, the rate of completion of annual performance interviews among managers in 2021 was 99%.

Talent review

The talent review, run by the Human Resources Department in collaboration with the sites and Regions, is a key 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 develop within the organization over the short, medium and long term.

In 2021, these reviews focused particularly on young talent and their development plans, so as to better plan for the future of the Group. Special attention was also paid to the Group's new business lines and those under transformation, to prepare talents for the skills that will be needed in the future. And as in 2020, this year's talent reviews featured a specific focus on women, to include the provisions of the Women@Vallourec program.

Succession plans

Vallourec has strengthened succession plans for key positions.

II – SKILLS DEVELOPMENT

Project Management Excellence

To develop project management skills, the PME (Project Management Excellence) program was enhanced. This program seeks to plot career paths for project managers, specifying prerequisites at each stage, and to propose training capable of strengthening project management skills throughout the Group.

Expert Program

The Expert Program encourages and values individual career paths in the Group's expert professions, and allows Vallourec to develop its competitiveness to satisfy increasingly demanding markets. To date, this program allows more than 274 experts to be recognized through the Group.

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 that are offered and delivered as determined by the Group Training Department, each entity prepares its training plan each year, in accordance with the Group's strategy and educational guidelines. Specific training programs are thus established to locally address the regulatory or market requirements.

Vallourec University

Vallourec University is the corporate training entity of Vallourec. Its remit is to create a common culture of learning, develop the leadership and business skills of all employees and support the strategy and transformation of the Group by developing "training paths" for each function.

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, or via e-learning through a dedicated training platform, the Learning Management System (LMS).

To achieve these objectives, Vallourec University has developed four principles: experience, share, learn and apply, as the basis of all its training. Participants have the opportunity to discuss their experiences and gain new knowledge with 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, Regions and its teams.

More than ever, the Group must develop skills to accelerate its transformation and respond to the challenges of the strategic plan driven by the Group's vision.

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 three key pillars:

- Fundamentals and Culture, which includes the Group's induction program, cultural change and mandatory training (ethics, compliance, safety, etc.);
- Leadership and soft skills, which prepares for handling the specific challenges encountered in management and leadership roles;
- Business Expertise and Skills, which provides expertise in processes and technologies and business lines (sales, purchasing, project management, etc.), with a view to contributing to the performance of the company.

Programs at Vallourec University operate in partnership with the Vallourec business experts as well as with carefully selected service providers.

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, and are 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 incorporate the priorities of the Group.

Activities geared toward External Stakeholders aim to improve the brand's image among customers and suppliers by offering them courses such as Tubular Essentials. 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, 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, and give them direct access to the platform's digital content (e-learning, languages, MOOCs, videos, podcasts, etc.).

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. This training is part of a blended learning strategy, in which live or virtual training is prepared for or reinforced by e-learning sessions, leading to better understanding of the lessons and reducing time spent in in-person settings.

Digital transformation is at the heart of Vallourec's vision and growth objectives. Leveraging digital technology is now more essential than ever, both to support performance and as well as to underpin the way teams work together. Digital transformation requires cultural change and changes in practices, and this came very quickly in 2020 in the context of the health crisis.

Digital learning enriches the range of training opportunities available within the Group.

LMS, the Vallourec University platform that is available to all employees with a computer, expands its offering. With nearly 4,300 different types of content available online, free of charge and at any time, it gives everyone the opportunity to follow an individualized and appropriate development path.

In 2021, over 197,000 hours were spent on professional training for employees. This data collected via the unique LMS training management system includes, for in-person and digital training, data delivered at a Group level and data from the main location countries: Germany, Brazil, the United States, France, the Middle East and progressively Asia, represent a more-than 46% increase in volume compared to 2020.

Employees who have at least two hours of in-person training, or who have completed at least one e-learning training session

	Production staff		Technical and supervisory staff		Managers *(cadres)*		Total	
	2020	2021	2020	2021	2020	2021	2020	2021
GROUP TOTAL*	**57%**	**61%**	**79%**	**93%**	**87%**	**91%**	**66%**	**71%**

* *% of employees who had at least two hours of in-person training, or who completed at least one e-learning training session by socio-professional category.*

In 2021, each trained Group employee completed an average of 15 hours of training, compared to 11 hours in 2020.

As the health situation improved, we saw a significant increase in in-person training hours compared to 2020. Even so, the proportion of in-person training in the overall number of training hours decreased (to 66% in 2021 from 76% in 2020), confirming the steady advance of remote training in the overall balance.

Remote training accounted for close to 34% of overall training hours in 2021, up from 24% in 2020.

Type of training provided

	Total number of training hours in 2021	%	Total number of training hours in 2020	%	Change
Fundamentals & Culture	5,044.9	3%	3,226	2%	56%
Leadership & Soft Skills	22,487.1	11%	12,291	9%	83%
Business Expertise & Skills	169,538.3	86%	119,564	89%	42%
including HSE	*77,684.3*	*39%*	*54,656*	*40%*	*42%*
including Languages	*8,360.0*	*4%*	*8,125*	*6%*	*3%*
TOTAL	**197,070.2**	**100%**	**135,080**	**100%**	**46%**

The gradual return to a more amenable health situation in 2021 allowed a marked uptick in the number of in-person training hours. Even so, e-learning, digital content and virtual classes via Teams continued to rise steeply with respect to 2019 and 2020. Because of the health crisis, the year 2020 marked a definite turning point in usages and teaching practices.

The number of training hours provided remotely was 67,668 hours in 2021, i.e., 34% of the total training hours. Although the proportion of remote training, constantly on the increase, was still only 34% of the overall volume in 2021, this was because remote training formats are always shorter than in-person ones.

Digitalization across the training spectrum advanced considerably in 2021, with e-learning programs designed in-house on performance management and work management in hybrid mode offered to all employees having access to a computer. The library of e-learning courses accessible to employees was also considerably expanded.

Much of our training coverage remains focused on operational excellence, with a substantial proportion (39% of the overall volume) on hygiene, safety and the environment. The Sourcing School addresses the Purchasing function in particular, with an induction phase offering practically all employees in this field a total of ten half-day remote training modules on procurement fundamentals.

Apprenticeship and work-study vocational training

To ensure the transfer and enhancement of know-how in the context of Europe's demographic imbalance, and 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 98 apprentices in 2021;
- in France, where an average of 103 work/study trainees took their training course in 2021;
- in Brazil, with an average of 153 apprentices in 2021;
- in the United Kingdom, with an average of 18 apprentices in 2021.

4.2.2.6 Diversity and equal opportunity SDG 5.5, 8.5, 10.4

I – DIVERSITY

The Group considers diversity an important factor in innovation and performance, and thus an opportunity for further development. The Group's actions aimed at promoting diversity and combating discrimination are described below.

Gender equality

Women represent almost 24% of Group managers and executives overall, with a higher percentage in the lower management levels (31%) and a much lower representation at the senior management level (8%).

Since the start of 2019, a steering committee has been set up to relaunch the Women@Vallourec program. Its members meet regularly to identify the most relevant actions in order to encourage the engagement of women and develop their self-confidence, and to progress this initiative rapidly by adopting a more operational approach.

A vision has been defined: "At Vallourec, we believe that diversity is key to improving innovation, performance and the quality of service to customers".

In 2021, we continued and stepped up the action taken in relation to the Women@Vallourec program, so as to meet the three priorities we set:

- attaining the same percentage of women and men at all management levels;
- providing the conditions for women to succeed;
- guaranteeing equal pay for men and women (the same pay for the same job).

The three-year plan, endorsed by the Executive Committee and tracked by the CSR Committee, breaks down into five major actions:

- develop Vallourec's pool of female talent by taking action to raise awareness and deliver training and overhauling mobility policies and processes;
- ensure that women are represented on management and steering committees;
- boost mentoring for women (89 women mentored at end of 2021, across all regions);
- set up flexible working conditions (by country);
- guarantee equal pay.

The 2020 remuneration study designed to analyze pay gaps Group wide, was renewed in 2021. Representing more than 80% of the Group's workforce, Germany, Brazil, the United States and France were the countries used to calculate the wage disparity rate. The calculations were made on compensation levels as at June 30, 2021 and were based on samples of more than 20 employees for each grade in the Hay Guide Chart.

With the increasing number and wider scope of women on the payroll, the study analyzed more grades in 2021, with more representative samples. On this basis, the gender pay gap calculated was 3.9% group-wide; on the same basis as 2020, it was 2.6% (versus 2.5% in 2020).

The study findings are satisfactory overall; apart from certain exceptional cases, which will be rectified, the small wage disparities observed are mainly due to seniority or the position occupied.

A major program on gender bias awareness has reached more than 800 employees. This will be renewed in 2022.

In addition, numerous regional initiatives aimed mainly at structuring a path for the promotion of women in the region at all sites were relaunched.

For 2022, as in 2021, the senior vice-presidents in each Region, as well as for the D&I, T&I and HR departments, will have a quantified objective for gender diversity among their individual variable objectives.

Cultural diversity

As an international group, Vallourec enjoys a great cultural diversity. To ensure the conditions for a harmonious and rewarding collaboration, managers involved in working with multicultural teams benefit from an adapted training program.

Furthermore, an average of 60 employees of diverse origins have the benefit of working internationally, for a variable duration of one to three years, and in some 20 different countries.

II – EQUAL OPPORTUNITY

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.

4.2.3 Relations with stakeholders

4.2.3.1 Relations with employees

The social policy, and the responsible performance commitment in particular, is presented in full in sections 4.2.2 “Social policy” and 4.2.2.5 “Personnel development” of this Universal Registration Document.

4.2.3.2 Relationships with customers

I – CUSTOMER PROFILE

The Group has an extensive customer portfolio.

- As concerns the Oil & Gas markets, its customers are:
  - national oil companies such as ADNOC, Petrobras and Saudi Aramco, international companies like ExxonMobil and TotalEnergies, and independents;
  - engineering and construction oil service companies such as Petrofac, Subsea7 or TechnipFMC;
  - American distributors such as MRC Global, Pipeco, Premier Pipe and Pyramid Tubular;
  - service companies such as Baker Hugues, Halliburton, Schlumberger and Weatherford.
- On the Industry market:
  - manufacturers of industrial equipment and distributors such as Hoberg & Driesch, Klöckner, Salzgitter, ThyssenKrupp and Van Leeuwen, as well as end-users such as Horsch, Huisman, Schaeffler and Liebherr.

In 2021, the Group’s ten largest customers represented 23% of consolidated revenue, and the five largest customers 18% of 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.

II - THE COMMERCIAL EXCELLENCE PROGRAM AND CUSTOMER SATISFACTION

As part of its Commercial Excellence program, the Group tries to continuously strengthen its closeness to its customers.

One of the cornerstones of this program is the management of Vallourec’s strategic customers: the Key Accounts. The dedicated Key Account Managers are specifically trained and certified to create a special relationship at all levels of the customer’s organization. They identify their needs and contribute to differentiated sales. The community of Key Account Managers meets quarterly to exchange views and share best practices.

Another initiative of the Commercial Excellence program is the preparation of “Value Propositions”. For its different offers and on its various markets, Vallourec demonstrates the value created throughout the value chain of its customers’ activities through “Value Propositions”.

Sales Force Management is also a driver of this program, which allows commercial functions to be professionalized at all managerial levels of the Group, through specially devised training programs.

Customer satisfaction is at the heart of Vallourec’s concerns. Regular surveys are taken at our customers by the Product Lines or by the Regional sales offices in order to develop detailed knowledge of the customers’ experience. In these surveys, the satisfaction rate of the customers is measured according to several criteria (response time to a request for quotation, quality of technical support, quality of products and services, offer range, and lead times). When a gap between expectations and Group performance is detected, actions are taken to improve satisfaction or, where applicable, to 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. Claims are systematically and fully processed.

4.2.3.3 Relations with subcontractors and suppliers SDG 8.4, 12.6

In order to prevent, identify, and mitigate the risks created by business relationships in corporate social responsibility issues (including the risk of corruption) described in section 4.1 “Vigilance Plan” and in section 5.1 “Risks factors” of this Universal Registration Document, the Group has developed and is implementing a responsible purchasing policy.

COMMITMENT TO RESPONSIBLE PERFORMANCE

Establish a network of reliable and responsible suppliers

- **2022 INDICATOR**

% of the quantity of purchases from suppliers involved in the formal CSR appraisal process.

- **2021 RESULTS**

As at December 31, 2021, **more than 1,861 suppliers** were involved in Vallourec’s CSR evaluation process. The number of suppliers, with expenditure in 2021, having undergone a CSR report rose by 28%, increasing from 737 to 941 (of which 726 with expenditure in 2021, with a continued focus on emerging countries and recent regions for Vallourec (such as Asia and the Middle East and certain categories of suppliers in Brazil). The quantity of 2021 purchases from these 726 suppliers represents 65% of Vallourec’s total expenditure. As at December 31, 2021, 62% of suppliers with revenue of over €1 million and deemed to be “critical”, i.e., directly impacting Vallourec’s output or its production process, conducted a formal CSR assessment.

- **2022 OBJECTIVE**

Ensure a minimum of 65% of Vallourec’s purchasing continues to be covered by suppliers with a formal CSR evaluation, by making sure that priority is given to **suppliers considered as “at risk”** in the following categories: monopoly/dependency status, financial health, capacity, quality, human rights, environment, corruption, and those that qualify as sole suppliers. Suppliers having undergone a CSR evaluation more than three years ago or having obtained a low overall score or a low ethics performance score will be specifically monitored.

In 2021, the Group’s purchases totaled €2,796 million, i.e., a 27% increase compared to 2020. They break down geographically as follows: 37% in Europe/Africa, 23% in North America, 29% in South America and 11% in the Middle East/Asia.

I – NATIONAL PURCHASES

Vallourec pays close attention to the local, economic and social impact of its activities on the neighboring and national populations.

National purchases, which totaled an estimated amount of nearly €2.229 billion in 2021, represented approximately 84% of purchases and directly contributed to supporting the national economy.

Subcontracting, professional services, general services, industrial servicing and maintenance and energy accounted for a total of around €685 million. These concerned industrial finishing and control services, or process services and maintenance. Subcontracting and industrial maintenance purchases were for the most part local, given the quality and responsiveness requirements that providers must meet. Services correspond to a significant number of highly qualified jobs that helped strengthen the local industrial fabric, although it is not easy to determine their number. A significant proportion of local subcontractors was taken into account in the CSR evaluation of Vallourec’s suppliers.

II- RESPONSIBLE PURCHASING POLICY

Vallourec’s Purchasing function is organized for optimal supplier management, consistent and centralized governance, and shared deployment of tools and processes to all Group entities. This structure, which supports the operational departments and clarifies processes, is based on an analysis by type of purchase to facilitate the implementation of synergies.

Within this framework, a Supplier Process and Performance Department established several tools and processes in recent years which aim to best monitor suppliers, their selection and their performance: creating 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 consider such criteria as Corporate Social Responsibility (CSR), sustainable development, ethical conduct, anti-corruption and safety to be key.

Vallourec issued a formal procedure setting out its responsible purchasing policy last year.

In 2021, pursuant to this policy, Vallourec:

- conducted fewer audits at all of its sites, due to the public health climate associated with Covid-19, and maintained the number of supplier risk analyses carried out. This work will be continued in 2022, insofar as health restrictions permit. Vallourec will use audit guidelines, and will continue to integrate the criteria of sustainable development, ethics and safety to a considerable degree;
- continued the formal and systematic evaluation of suppliers based on CSR criteria, still with the assistance of the same specialized firm. As at December 31, 2021, 726 suppliers representing 65% of Vallourec’s expenditure conducted a complete assessment, along with progress action plans. The assessment showed that 41% of the suppliers evaluated already publish a formal report on their energy consumption and greenhouse gas emissions, 39% publish a report on their health, safety and environment (HSE) indicators, and 32% are ISO 14001 certified;

- continued and perfected a specific process to anticipate supplier risks. A scorecard on the subject matter is continually updated and reviewed quarterly by the Group's Purchasing Department Committee. In 2021, this monitoring allowed the risks identified for the Group's global suppliers to be addressed or eliminated. Furthermore, several e-learning training modules are available to train buyers and their internal customers in all aspects of supplier risk. In 2021 a major effort was made on training for all members of Sourcing Vallourec, through a Sourcing Induction program that included a module on good practices in purchasing;
- fully harnessed the heft of its unique and central Purchasing information system, which facilitates integrated management of purchases and suppliers, with visibility at all levels, from local to global. This system contains in particular a specific data sheet for each supplier in which sustainable development and safety criteria are prominently featured. It also allows supplier development and improvement action plans to be managed.

Vallourec's requirements regarding sustainable development, ethics and safety are always one of the main messages conveyed to the Group's largest suppliers.

In accordance with US law and European directives, Vallourec has also committed to monitoring any potential conflict minerals originating from certain African countries, which may be used by its suppliers. The Group's policy consists (i) of making sure, in accordance with the Group's Code of Ethics, the Sustainable Development Charter and the Environmental Policy, as well as the Anti-Corruption Code of Conduct, that none of these minerals are used directly or indirectly and (ii) where certain cases are detected, that solutions are found to replace them. This oversight campaign was more targeted and its response rate increased from 53% to 57%. These suppliers were all entered into this survey's analytical matrix. Survey responses were analyzed using dedicated software. Monitoring will continue in 2022.

III - ACTIONS TO PREVENT CORRUPTION

All suppliers are aware of and have access to the Group's Code of Ethics and Anti-Corruption Code of Conduct, particularly through Vallourec's website. Furthermore, by accepting the general purchasing conditions, the suppliers formally promise to manage their activities in accordance with the values and principles of the Code of Ethics. Vallourec's systematic assessment of suppliers based on CSR criteria, initiated in 2013 (see above), showed that 52% of Vallourec suppliers already evaluated (compared to 50% in 2020) have also formally put in place an Anti-Corruption Code of Conduct, and 39% are putting in place an active whistleblower system.

Vallourec's Anti-Corruption Code of Conduct stresses to its employees, including buyers, of the conduct to maintain when interacting with suppliers, the rules to be respected in terms of corporate gifts and invitations, and the rules concerning conflicts of interest. All members of the Purchasing structure have undergone training on the Anti-Corruption Code of Conduct and associated risks, and this code has also been sent to all Vallourec suppliers. Vallourec Integrity Line, a whistleblowing system that can be accessed in eight languages through a secure Internet platform, is available to employees and stakeholders, including service providers and suppliers.

Under our CSR evaluation in 2022, closer attention will be paid to suppliers with insufficient scores on ethics criteria.

4.2.3.4 Support for the local social and economic fabric

SDG 4.4, 8.6, 11.4, 13.3

I - 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. Social actions to benefit local stakeholders 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, even from China.

In accordance with issued recommendations, the local level has until now had the autonomy to determine the actions to be taken, with the approval of management and focusing on the following guidelines, which are included in simple recommendations at the Group level.

The Group has strengthened its governance here, bringing in a new approach on analysis of social investments. Local entities must inform the Group proactively on actions planned for the coming year, then declare the initiatives and amounts accordingly. At Group level, a specialist committee evaluates actions on a yearly basis.

This policy includes three cornerstones established by the Group: education (and, in particular, the subjects of science, digital and essential knowledge), support for initiatives to preserve the environment, and encouragement of employee volunteer involvement. Therefore, volunteer employees may take time off to get specifically involved in an initiative supported by the entity or even lead such initiatives. Each site must aim to construct a medium-term project coupled with a budget, to be validated by the managerial chain, and must encourage volunteers to get involved. Its practices must converge toward the cornerstones set by the Group in a certain number of years, and it must ensure that they respect the specific prohibitions identified.

II - ACTIONS TAKEN IN FAVOR OF LOCAL COMMUNITIES

In 2021, resources assigned to financing various partnerships totaled around €4.8 million, a slight increase on 2020 (€3 million), with exchange rates generally stable.

The survey on employee engagement was conducted in line with the new principles outlined above. In 2021, 881 employees volunteered to take part in community initiatives, a sharp increase on the 446 in 2020, but still much lower than the figure of 1,600 in 2019. This is explained by the health crisis and lockdown constraints. The volunteer employees were primarily located in Indonesia and Brazil, with the rate of employee engagement rising from 2.7% in 2020 to 5.3% of the workforce in 2021. It should also be noted that some employees took part in several initiatives.

The analysis of all initiatives showed a number of actions that are worth highlighting:

a) in Brazil, due to historic, cultural and regulatory reasons, and because the Barreiro site is located in the middle of a very urbanized district in Belo Horizonte, relations with local stakeholders, particularly low-income populations, have for several years followed a structured monitoring process in close collaboration with local authorities. These actions, which are great in number, benefited from tax incentives and include economic development, cultural, sporting and health programs. In 2021, Brazil was the country where the involvement of local stakeholders was by far the strongest, and actions were carried out at all active sites taking local characteristics into account. The 118 reported actions, whose influence is quite remarkable, include;

- the outstanding effort over the past several years to restore a historic movie theater in the city center, which has allowed the Belo Horizonte metropolis to become a major cultural center; the *Cine Theatro* Brasil Vallourec has become incredibly successful for arts activities including exhibitions, and dance, music and theater shows. Since 2017, support for the operation of this establishment is the biggest initiative that was carried out in Brazil,
- in the municipality of Nova Lima, more than one million Reals were assigned to a project to provide free musical education for children aged from 7 to 12,
- Fun Science Project: Theater shows and interactive scientific activities for children and teenagers from 4 to 17,
- training courses on IT, quality of life for elderly people, electricity, and social and environmental issues,
- optimization of photovoltaic panels for the Novo Mundo association, with the attendant cost reductions,
- social and educational activities to help ease the impacts of the pandemic on the lives of children and their families, particularly as regards mental health, school life and social-emotional development,
- financial support to several hospitals and donations of equipment for protection against the Covid-19 epidemic,
- rallying support for the elderly,
- numerous ongoing social and educational projects, and support for encouraging young people to do sports, such as theater and circus workshops,
- actions on the preservation of natural and cultural heritage,
- financial support for CNPEM to determine the causes of resistance to breast cancer treatment,
- organization of various sports activities;

b) in the United States we note around a dozen initiatives, of various amounts, chiefly concerning local sports. In 2021, Vallourec North America sponsored the Women's Global Leadership Conference in Energy (WGLC), one of the biggest womens' energy industry events in recent years, covering economic, environmental, career development and human capital issues. Vallourec North America's environmental program manager Amy Paff was a keynote speaker at this event;

c) in France, given the level of social infrastructure development, corporate initiatives tend to be for limited amounts in support of university, cultural and sports initiatives;

- in the region of Valenciennes and Aulnoye-Aymeries in France, Vallourec is investing alongside the *Capital Filles* association to encourage young women to take up studies in the sciences. In late 2021, employees at the Meudon site joined this initiative. For the current school year, fourteen women and two men employees at Bassin Nord, and ten women employees from Meudon have volunteered as *Capital Filles* sponsors. Over the last three school years, forty-three women and two men employees have taken part in this initiative. For each sponsor the aim is to support a female high-school student from a partner establishment over the course of one year, to help her choose a plan for the future that she can call her own and in which she can develop, while also showing her the world of work,
- several sports activities and tournaments have been organized, in football, basketball and handball mainly;

d) in Indonesia, the subsidiary PT Citra Tubindo Tbk has been committed for many years to educational, medical, social and athletic support programs for the population, which in particular benefit children and some orphanages. Environmental projects in the municipality of Batam included tree plantation in the Nogsa neighborhood and donations to the Botanical Gardens. The Nogsa community also received donations of vaccines and rapid antigen tests. PT Citra Tubindo TBK developed and financed several educational programs;

- the VALERIE program offers partner students intensive training in specific skills (such as CNC machining, heat treatment operations, sorting operations, inspection and maintenance) to open opportunities on the employment market,
- the TERRIE program offers new graduates and final-year students industry experience helping them to respond to demand for qualified job positions,
- the SARAH program offers skills refresh and re-qualification activities for students completing the Valerie and Terrie courses and former job-holders. Participants (40 in all) include job hunters and students from various high schools and higher education establishments;

e) in Nigeria, the Group contributes to restoration work on a tempest-damaged well and solar panel for the Onne community.

4.2.3.5 Relations with shareholders and investors

The Group's priority is to maintain lasting, trust-based relations with all its shareholders, both individual and institutional, French and international. 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.

In 2021, the Group participated in 139 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.

The Group maintains an ongoing dialog with its individual shareholders through various communications media and channels. Accordingly, Vallourec's Shareholders' Club notably allows them to participate in information meetings to deepen their knowledge and understanding of the Group's activities. However, no physical meetings of the Shareholders' Club took place in 2021, due to the health crisis.

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 Universal Registration Document.

4.2.4 Environmental commitment

The main environmental risks are described in section 5.1.2 "Operational risks" of this Universal Registration Document.

This chapter contains a description of the Group's commitment and its policy from an environmental perspective. It then presents four key issues, i.e., environmental footprint and the use of resources for production purposes, including water and energy, the environment impacts from the Group's activities including waste management, the problem of climate change, and biodiversity.

The environmental data included in the environmental reporting for 2021 concerns all of the subsidiaries controlled by the Group.

At the level of each production site, the majority of the ratios are established using metric tons processed (steel or tubes), in other words the sum of production from the various units, which are considered independent production workshops. This concept better accounts for the level of activity of the production units than metric tons shipped for two reasons: on the one hand, it is more representative of the flows and stages of production, and on the other, it is less affected by changes in inventory. At a Group level, ratios are expressed mainly in metric tons of tubes shipped (sold) in order to avoid multiple counts.

Since 2018, the Group chose to consider Vallourec's activity to consist of several business lines that all contribute to achieving the objective of manufacturing seamless steel tubes, and providing the associated services. This "sector-specific" approach is found in the structure of the Carbon Disclosure Project (CDP) "Climate" questionnaire, to which Vallourec responds every year, and in the "Science-Based Targets" approach Vallourec has adopted.

Since 2021, the Group has been listed in the CDP Steel sector rather than the Metal & Mining sector. It covers the following four activities:

- "Mine": extraction of iron ore from the Vallourec Mineração mine to supply the Brazilian steel mills (the Pau Branco mine is located in the State of Minas Gerais. It 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);
- "Forest": operation of a eucalyptus forest in Brazil (Florestal) and manufacturing of charcoal to supply Brazilian blast furnaces and the Jeceaba pelletization unit;
- "Iron and steel":
  - manufacture of iron ore "pellets" to supply the Jeceaba steel mill. Vallourec operates a pelletization unit there to improve the yield of the blast furnaces. This facility, which operates at nominal capacity, also supplies other Brazilian steel manufacturers,
  - production of steel in the United States and Brazil to supply steel billets to the rolling mills;
- "Tubes": manufacture of seamless steel tubes and their accessories (connections, etc.) in rolling mills, heat treatment units, finishing units, and the associated services provided to customers.

At equivalent scope, the Group's production, expressed in metric tons processed of steel and tubes, rose from 3,519 kt in 2020 to 4,193 in 2021, an increase of 19% explained by the economic recovery following the Covid-19 health crisis. During the same time, the tube sales volume went from 1,599 kilotons in 2020 to 1,640 kilotons in 2021, which represents a small increase of 2.5%.

4.2.4.1 General environmental policy

Vallourec's manufacturing policy is to minimize the impact of its activities on the environment. This commitment is stated explicitly in the Group's Sustainable Development Charter and Environmental Policy. Vallourec strengthened its commitment to the climate by co-signing in mid-2019, along with 98 other French businesses, a new version of the "French Business Climate Pledge", to contribute to a low-carbon economy. It also published its carbon policy in early 2018 (see below).

Since 2013, Vallourec has been plotting multi-year environmental roadmaps for the production facilities of each of its industrial divisions and regions. 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.

4.2.4.2 Environmental management

SDG 8.4, 9.4

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 are regularly updated and may be accessed at all plants on a dedicated portal.

The Group 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 department 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 approximately 45 full-time equivalent people for the Group as a whole, grouping together the management of the environment, energy and chemical products.

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 Group Environment Department is also responsible for coordinating and monitoring these actions to share best internal practices, and in particular for gathering and consolidating all of Vallourec's environmental data. The results are consolidated and communicated monthly to the sites, the management line, and to the Executive Committee members, in the form of a report that is specific to each Region and entity.

Since 2016, the Group has been using a new IT application to manage health and safety and environmental data. This application simplifies the collection and verification of data and offers new features to the sites that help them with their own local reporting.

In view of facilitating communication between Environment Managers and promoting the sharing of best practices, the Group Environment Department has rolled out a specific application based on a social networking service.

I – 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 energy and environmental management systems (EEMS) 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. At the end of 2021, 93% of all of the Group's sites were ISO 14001 certified, which represents more than 97% of production.

In this context, support is provided to conform to the new ISO 14001-2015 standards as concerns aspects of stakeholder mapping and product life cycle analysis.

Each year since 2011, the Group has identified a site deserving of the "Environment Award".

In 2021, as in 2020, the human and economic consequences related to the health crisis (Covid-19) meant that we could not organize this event and also forced us to postpone many engagements such as a number of audits, field visits and optimization projects.

On November 29, 2021, Vallourec USA was named ESG Top Performer in the Public Services category of the Hart Energy Awards, in recognition of efforts and contributions in corporate social responsibility, innovations on reducing environmental impacts, leadership practices and directives, and corporate culture.

Our PT Citra Tubindo site in Indonesia won two awards in 2021:

- the Indonesian Environment Ministry awarded it the environmental performance evaluation prize (blue category) in recognition of management quality and compliance with regulatory requirements on water discharge, atmospheric emissions and hazardous waste management;
- for its continuous improvement in environmental performance and achievement of environmental goals, PTCT received the Asia Corporate Excellence & Sustainability Award as a company running several CSR programs on developing local economic independence, improving school education quality and endeavoring to reduce global warming effects.

II – LEGAL COMPLIANCE

Regular audits are performed by outside specialists to assess compliance of the production sites' activities with statutory and regulatory requirements, on top of the periodic checks carried out by the environmental authorities.

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 in place for several years on a dedicated intranet portal, accessible for all production sites. This portal facilitates access to useful information. Equally, the Group shares its procedures, which are also updated periodically.

In 2021, the Group recorded eight formal notices across all of its sites from local authorities:

- one in France, at Vallourec Oil & Gas, because of insufficient means of fire protection, requiring the installation of two water tanks at the site and a fire brigade pumping location on the bank of the River Sambre. The two tanks have been installed and work on a pumping point is under way, which should allow the formal notice to be lifted in 2022;
- one in the UK, at Vallourec Oil & Gas, because of the zinc concentration in water discharge at the phosphatation workshop. An inquiry found human error and training problems to be at fault here. These conclusions were accepted by the regulatory authority (Scottish Water);

- six in Brazil, at Vallourec & Sumitomo do Brasil Ltda, for "non-compliance with deadlines on the environmental audits specified in operating licenses, and late submission of administrative documents". These resulted in fines totaling more than 152,000 Reals, the equivalent of some €24,000. This situation arose from incorrect interpretations on report submission deadlines, and internal failings on forwarding administrative notifications to the Environment Department during the Covid-19 pandemic. These explications have been given to the authorities, and a reminder has been issued to personnel.

III – 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 Legal Compliance Program, developed and coordinated by the Group's Legal Department, has an educational component on compliance with environmental regulations (see above Section 4.2.1 "Business Ethics and Compliance").

In 2021, the total number of training hours in the field of health, safety and the environment listed in the LMS system (including in-person training at the Group level and those in the main location countries: Germany, Brazil, United States, France, Middle East and China) totaled 77,684 hours, compared to 54,656 hours in 2020, i.e., an increase of 42%. They represented 39% of the total training time (197,070 hours).

IV – INVESTMENTS

The Group systematically incorporates sustainable development concerns in designing its projects. In particular, a health, safety and environment (HSE) analysis is conducted upstream to assess the potential impacts and anticipate environmental risks.

A procedure on eco-design rules has been in place since 2015 as part of the overhaul of major project governance and was updated in 2018. Since 2019, it has been extended to R&D projects. It is intended to verify the best practices and techniques available for design that meets HSE challenges in the following main areas:

- regulatory compliance and impacts on administrative authorizations;
- water management through recycling and recovery of rainwater using storage basins, and better quality through more efficient wastewater treatment plants, along with a reduction in the volumes of water discharged;
- waste management through improvements in collection, sorting and recycling;
- reduction of atmospheric emissions via continuous improvement of capture systems, as well as carbon emissions.

  To that end, since early 2017 the most important projects are required to apply a single global price to carbon emissions in order to evaluate the sensitivity of these projects' profitability to the existence of carbon pricing systems, which are likely to develop globally under the latest COP recommendations. This has a bearing on the final decision, especially if the project has structural importance and falls within the medium/long-term business development policy. The price, set at €40 per metric ton of CO_2, has doubled to €80 since July 2021.
- the optimization of energy consumption through the establishment of best practices, smart metering tools, in a structured process of ongoing improvement;
- potential impacts on biodiversity and consideration of the consequences of climate change;
- reduction of noise inside and outside the plants by emphasis on cutting noise emissions at source;
- safe use of chemical products with the goal of restricting the use of the most hazardous products;
- prevention of risks of occupational illnesses and improvement of the ergonomics at workstations.

In the context of R&D projects, special attention is paid to the supply chain and to the use of the future products.

In addition to confirming that the general principles above have been applied, some projects are clearly aimed at improving work conditions or reducing environmental impact. They concern:

- improvement in working conditions (ergonomics, noise reduction, lighting and heating, etc.);
- ensuring environmental compliance of work equipment (filtering, fume extraction, water and gas networks, fire protection systems and product storage, etc.);
- reduction in energy consumption (furnaces and heat treatment, lighting, insulation, etc.);
- improved water management (recovery and recycling, purification plants, etc.);
- forest management operated by Vallourec Florestal (reforestation, carbonization furnaces, etc.);
- decreased use of hazardous chemical substances (partitioning, extraction, substitution, etc.);
- limiting atmospheric emissions;
- layout and safety of plants in terms of roofing, roads and parking.

In 2021, HSE investments reached €27.3 million, i.e., approximately 19% of the Group's total investments, compared to 31% in 2020 and 22% in 2019.

The continuation of the health and economic crisis in 2021 hindered the development of major new projects. We did however reap full benefit from the improvements undertaken in 2019, on energy consumption reductions in particular.

The teams in our plants have also worked on optimizing production schedules and processes to adapt to periods of under-activity to the extent possible in order to limit the number of shutdowns/restarts and reduce the fixed share of energy consumption (electricity, natural gas and compressed air) and excess water consumption as much as possible.

By way of example, a list of major accomplishments achieved is given:

In Indonesia (PTCT):

- installation of connected electricity and gas meters to monitor energy consumptions and reduce waste,
- improved wastewater collection and treatment, circuits for reusing process water, and installation of rainwater recovery systems to reduce freshwater consumption.

At Youngstown (United States):

- installation of LED lighting, plant optimization to reduce gas, electricity and compressed air consumption, and step-up for field-team program on waste reduction;
- water consumption reductions through optimized operation of steel mill and rolling mill cooling systems, maximizing water recirculation and improving circuit drains.

At Jeceaba (Brazil):

- partial substitution of natural gas by gas from steel mill, recycled to heat the rolling mill furnace.

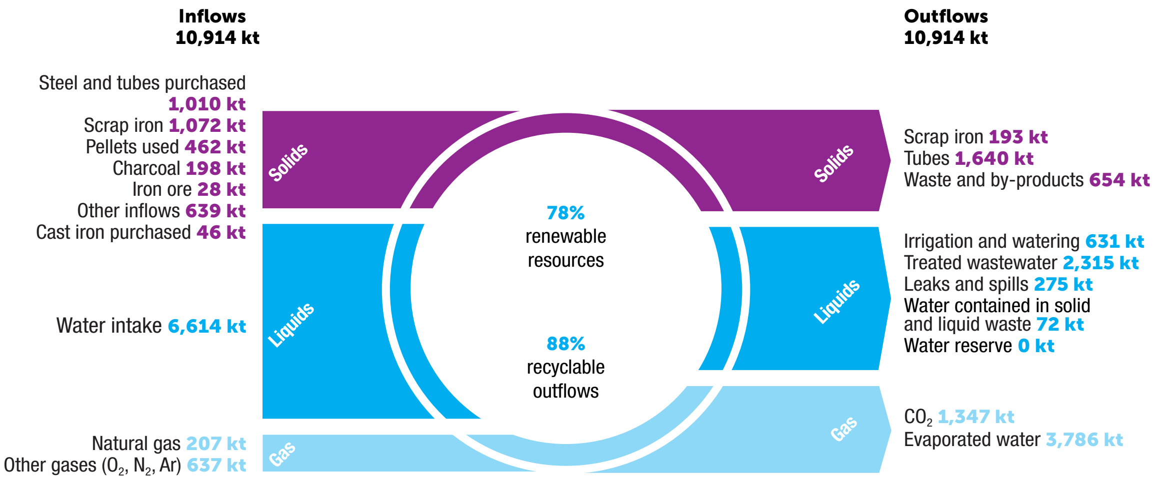
At Tianda (China):

- modification to the roof of certain halls at our finishing plant, to install rooflights for natural daytime lighting.

4.2.4.3 Environmental footprint SDG 12.4, 12.5

I – RAW MATERIALS FOOTPRINT

Since 2013, the Group has conducted an analysis of all mass flows necessary for tube production at all its industrial sites. The activities of Vallourec Mineração Ltda (iron mine), of the Jeceaba pelletization unit and of Vallourec Florestal (forest) are thus recorded in proportion to the iron ore and carbon productions used for Vallourec's internal steel production in Brazil and appear as inputs.



In 2021, the sales volume of 1,640 kilotons of tubes required the consumption of 10.9 million metric tons of various inputs. This was 11% more than in 2020 (9.84 metric tons) and 7% less than in 2019 (11.7 metric tons). In relative terms, this represented an increase from 5.1 metric tons of inputs per ton of tubes shipped in 2019 to 6.2 metric tons in 2020 and 6.7 metric tons in 2021.

Water intake represented around 60.4% of total resources, a higher figure than in the two previous years (58% in 2020 and 54.6% in 2019). This observation demonstrates the importance of continuing improvements in our management of water resources.

By 2025, Vallourec has therefore set itself the goal of reducing its water intake by 10% compared to 2017, particularly through the use of rainwater (see examples), and the recycling and reuse of wastewater.

It should also be emphasized in this regard that:

- 78% of the resources consumed are renewable (scrap, charcoal, water and oxygen), demonstrating the limited nature of the Group's net environmental footprint. This figure was 81% in 2019 and 78% in 2020. This performance can be explained by the decrease in the share of purchased steels (from 14% to 9%) in Europe and China, which are manufactured primarily (86%) by the cast iron industry with blast furnaces that consume iron ore and fossil fuels. In 2021, the extraction of non-renewable resources represented 146% of the sales volume (138% in 2020 and 94% in 2019);
- 87% of production-linked outputs (tubes, scrap metal, waste, water) could be considered recyclable. This rate was 86% in 2019 and 2020.

Record of the raw materials footprint

	2016	2017	2018	2019	2020	2021
Input/output *(kt)*	8,988	10,786	12,843	11,739	9,841	10,950
Production shipped *(kt)*	**1,281**	**2,256**	**2,364**	**2,291**	**1,599**	**1,640**
% renewable resources	86	85	80	81	78	78
% ratio of shipments/input	14	21	18	20	16	15

II – LIFE CYCLE ANALYSES

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 important end customer. The 10 key impacts evaluated (including carbon, energy, water, resource depletion, toxicity, eutrophication) demonstrated the relatively weak impact of the Group's products. The goal is to continue these analyses on other products, in cooperation with other customers, when they so request. To this end, with the aid of an outside consultancy firm, since 2017 the Group has developed a specific IT tool designed to perform these types of analyses for products that are already available on the market or that are being created through R&D programs. This software program has also been successfully used by several production sites to refine the life cycle analyses of their main production as part of their 2015 ISO 14001 certifications. Since 2019, this "eco-design" approach has been systematically used to evaluate R&D projects.

In 2020, Vallourec studied the life cycles of its products in greater depth, from the "cradle" to the customer's door ("cradle to gate"), and decided to publish the results in the form of an Environmental Product Declaration (EPD) in accordance with ISO 14025 and EN 15804+A1. This work continued in 2021 with the preparation and publication of new EPDs specific to certain product lines, including the Oil & Gas markets with OCTGs.

III – ENVIRONMENTAL IMPACT INDEX

In 2019, the Environment Department introduced a composite indicator, the Environmental Impact Index (EII), for monitoring the Group's performance and the progress achieved in the following three areas, each contributing a third to the final score:

- gas and electricity consumption and the corresponding CO_2 emissions;
- water intake;
- waste recovery.

In more detail, the EII is calculated as follows:

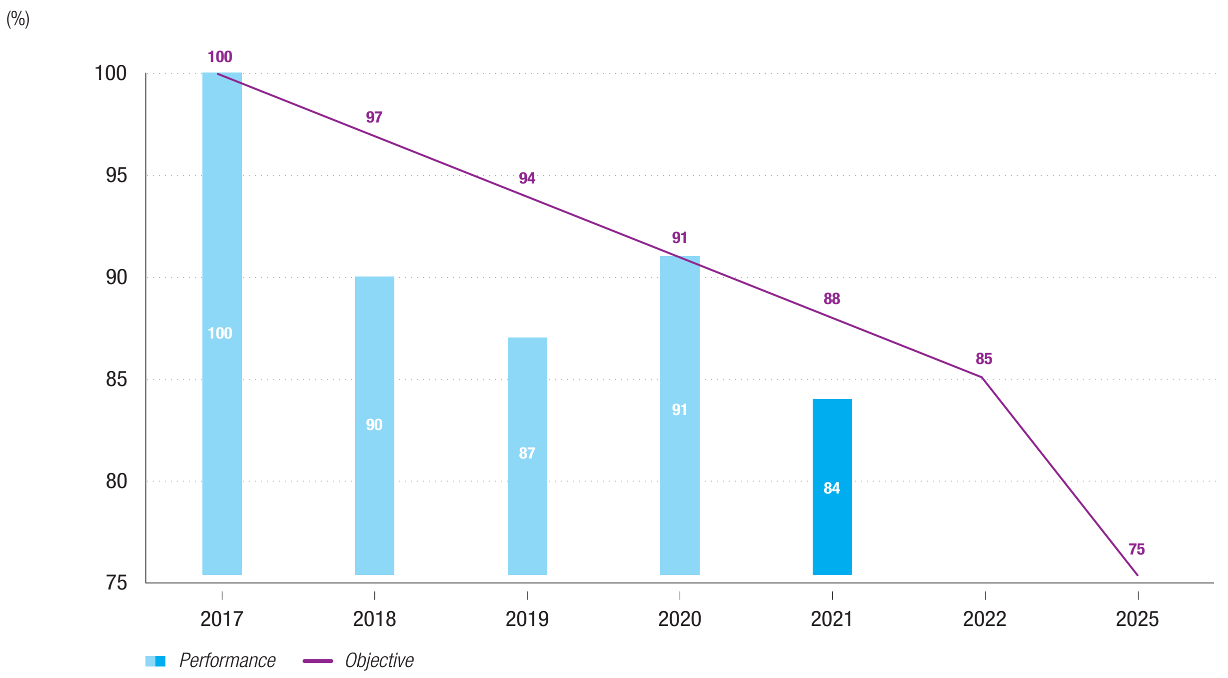
Environmental Impact Index (%)*

	Field	Item	Unit	Formula	Weighting
Environmental Impact Index (EII)	Energy consumption	Natural gas consumption	kWh/metric ton*	year y figure / year 2017 figure x 100	11.33%
		Electricity consumption	kWh/metric ton*		11.33%
	CO_2	CO_2 emissions	kg CO_2/metric ton*		11.33%
	Water	Water withdrawn	cu.m./metric ton*		33.00%
	Circular economy	Waste put into landfill	% total waste generated		33.00%

* *Metric tons of steel and tube manufactured.*

This index was set at 100 in 2017, which was selected as a baseline. Vallourec has set itself the goal of reducing this index to below 75 by the end of 2025, by reducing its specific consumption of gas and electricity, purchasing less carbon electricity, reducing its water intake and improving its waste recycling.

For 2021, the Environmental Impact Index was calculated at 84.4%, significantly below the 88% target. This very good performance is explained by the high degree of waste recovery (97.6%) and the savings in natural gas consumption (with intensity down by 13%), bringing a reduction in CO_2 emissions. That being said, our specific electricity and water consumptions remain high. The target for 2022 remains 85%.



4.2.4.4 Use of resources SDG 6.4, 9.4, 12.2, 12.5, 14.1

I – CONSUMPTION OF RAW MATERIALS

The steel used by Vallourec to manufacture tubes is prepared in part by the Group's steel mills, and in part by outside purchases of steel ingots and bars.

Internally, two processes are used: the blast furnace process in Jeceaba (Brazil) and the electric process in Jeceaba and in Youngstown (United States). Thanks to these internal processes, the Group is on the one hand promoting the use of charcoal produced from its Brazilian eucalyptus forest and, on the other, recycling scrap.

To increase the efficiency of these processes, the steel mills are trying to precisely document their internal manufacturing rules and their requirements so as to obtain different steel grades while maximizing the furnaces' energy efficiency.

Internal production and steel purchases in 2021

	Inputs for blast furnaces			
Plant *(metric tons)*	**Iron ore**	**Pellets**	**Charcoal**	**Cast iron produced**
VSB Jeceaba	28,309	462,433	198,061	318,707
TOTAL	**28,309**	**462,433**	**198,061**	**318,707**

	Inputs for electric steel mills			
Plant *(metric tons)*	**Cast iron purchased**	**Scrap iron**	**of which % of internal recycling**	**Scrap and cast iron used**
VSB Jeceaba	33,371	501,352	27	853,430
Youngstown	12,434	570,897	10	583,331
TOTAL	**45,805**	**1,072,249**	**18**	**1,436,761**

The blast furnace and steel mill in Barreiro, Brazil, finally shut down on July 15, 2018. Steel production has now been transferred to the Jeceaba site, which has its own blast furnace.

In 2021, the total internal recycling rate for scrap was 18%, compared with 19% in 2020.

The electric process (Youngstown and Jeceaba steel mills) accounted for 75% of Vallourec's internal steel production this year, compared with 69% in 2020, an improvement that contributes to the reduction in the use of natural raw materials due to the recycling of scrap metal.

In Brazil, the share of scrap metal supplied to the electric arc furnace rose from 53% in 2019 to 55% in 2020 and 59% in 2021, due mainly to load limitations at the Jeceaba blast furnace.

On steels purchased in 2021, to supply the South America, Europe/Africa and Middle-East/Asia regions, the blast-furnace process accounted for 86% compared to 82% in 2020.

All kinds of steel combined, both produced and purchased, the electric process share changed little from 2020 (48%) to 2021 (49%).

II – WATER INTAKE

The Group considers water management to be one of its major challenges due to its importance to the well-being of populations, the risks of competing usages, shortage, and because water quantitatively represents the main resource needed for the Group's production processes.

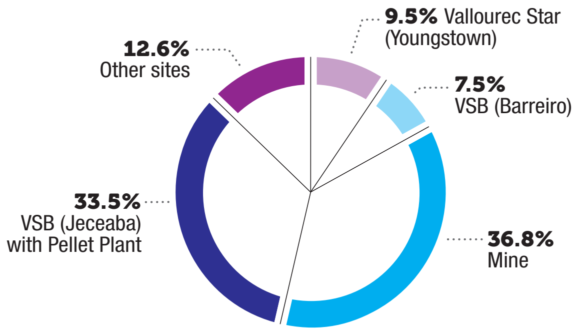
In 2019, this commitment was shown by Vallourec's decision to respond for the first time to the "Water questionnaire" of the Carbon Disclosure Project (CDP). In 2021, we renewed our commitment and maintained a B rating, which reflects the quality of our management in this area. This rating is better than that of our "Smelting, refining and forming" branch, which has a C grade.

Water was mainly used for:

- operation of the Florestal eucalyptus forest (Brazil);
- extraction of iron ore from the Vallourec Mineração iron mine and manufacturing pellets in Jeceaba;
- cooling hot machinery (steel manufacturing and rolling tubes);
- cooling tubes after heat treatment;
- solidifying liquid steel (continuous cast);
- surface treatments, hydraulic operations, non-destructive tube tests and cooling of other tools in the manufacturing process;
- emptying of dissolved or undissolved process substances;
- sanitary purposes by personnel employed at the sites.

In 2021, the water used across the Group's entire scope totaled nearly 11.2 million cu.m., 0.96 million cu.m. of which came from rainwater recovery. In 2020, the volume was 10.7 million cu.m., including rainwater. Of this amount, 34% concerns the mine, for which the recorded water comes from pumping in groundwater extraction wells, and this water is mainly immediately released back into the natural environment.

Water intake in 2021*



* *Excluding rainwater.*

a) The mine

The Vallourec Mineração "Pau Branco" iron mine is located in the surrounding area of the cities of Nova Lima and Brumadinho, in the State of Minas Gerais (Brazil). It 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.

At this stage, it is interesting to note that the developments in mining processes have led water usage to be significantly reduced, as follows:

Water intake needed for the "Vallourec Mineração" mine processes

Year	2017	2018	2019	2020	2021
Iron ore production *(metric tons)*	4,394,245	4,693,317	6,269,028	7,904,437	8,297,517
Total water intake *(cu.m.)*	2,967,715	3,097,651	2,862,980	4,222,303	3,754,433
m^3/metric tons of iron ore	0.68	0.66	0.46	0.53	0.45

In 2020, the implementation of the extension project enabled the mine to increase its production by 26.1% compared to the previous year, mainly in the second half of the year. However, this work, combined with a very dry season, had an impact on its water intake, which increased by 47.5% due to increased traffic, more frequent watering of roads and regulated cleaning of machinery and trucks. This resulted in a temporary increase in the ratio per metric ton during the period. With the completion of works in 2021, and the introduction of operating standards, the cu.m./metric ton ratio of iron fell back to below its 2019 level.

A new iron ore treatment process has been used since 2015. This process consists of filtering the mine water/waste mixture (called "tailings") resulting from the process, instead of spreading it (as was done previously) into a 3 million meters cubed hydraulic disposal site, contained by a dam. This allowed the humidity rate of the mixture to be reduced from 70% to 15%, and to establish "dry" storage on the mine site, which eliminates any risk to the stability of the dam, which is now out of service, while the water collected is reused. This process is exemplary in the industry, and in 2017 the Vallourec mine received the Group's annual "Environment" trophy.

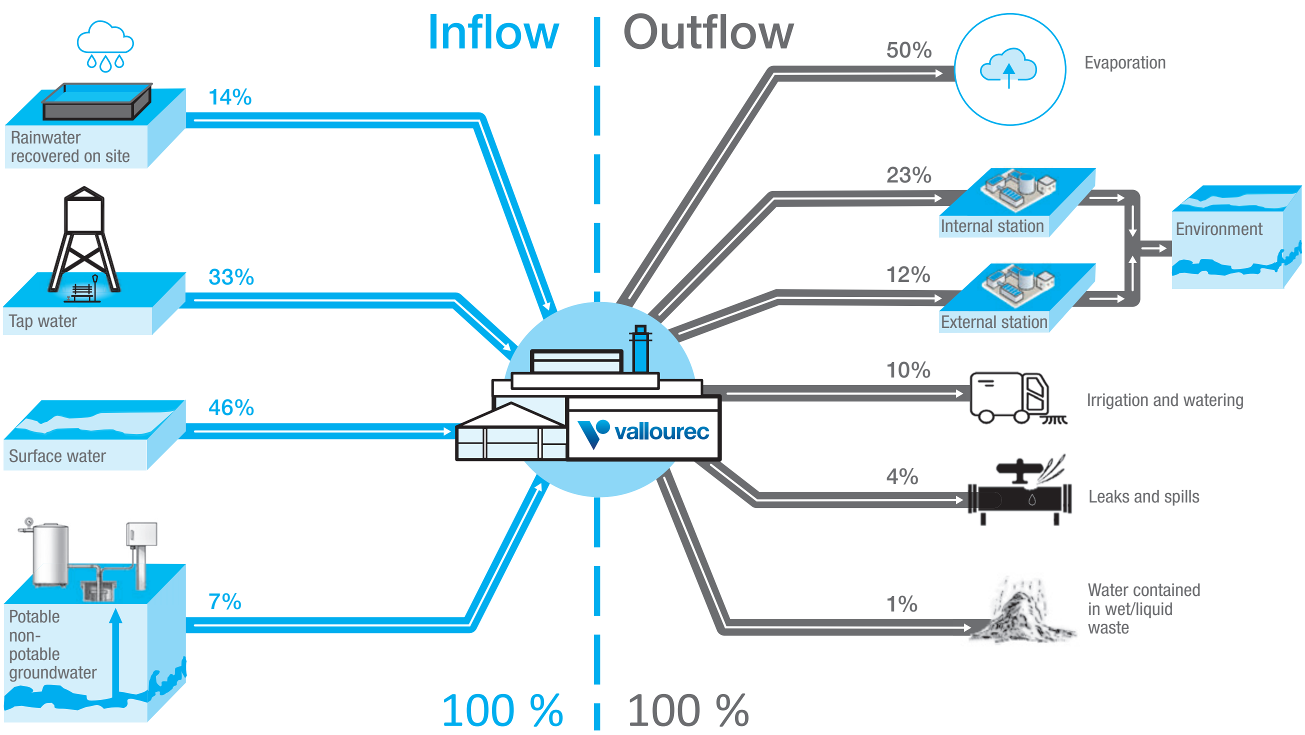
b) Tube and steel manufacturing

In 2019, we continued our discussions with the plants to improve our understanding of the range of water uses via steel mills, rolling mills and finishing units and help us gain a better understanding of how to reduce consumption. Thus, the portion of "other waters discharged", which is required to complete the "water assessment" of the Group, was 37% in 2019. Since 2020 our ambition has been to complete the Group's "water assessment" by identifying all unchanneled discharges. This gives the following chart for 2021, on production of steel and tubes (excluding mine, pellet unit and forest):

Water balance (steel and tubes, excluding mine, pellet unit and forest):

INCOMING		
Type of water	**cu.m.**	**%**
Tap water	2,208,535	33%
Surface water	3,026,105	46%
Groundwater	437,973	7%
Rainwater	941,063	14%
TOTAL INCOMING	**6,613,676**	**100%**

OUTGOING		
Water usage	**cu.m.**	**%**
Discharge to external treatment station	783,474	12%
Discharge to internal treatment station	1,530,766	23%
Evaporation	3,320,744	50%
Irrigation and watering	631,391	10%
Leaks and spills	275,353	4%
Water in waste	71,948	1%
Stock shortfall	0	0%
TOTAL OUTGOING	**6,613,676**	**100%**



It should be noted that the water reuse rate in the circuits of the integrated plants (steel mill and tube mill) totals approximately 98%, which allows for limiting the intake of water, which is still the primary resource used in our processes.

c) Numerical assessment of water used

In recent years, water intake has decreased, primarily thanks to the establishment of tools that allow the rate of reuse to increase and rainwater to be collected. Water intake from our steel mills, rolling mills and finishing plants rose from 5.7 million cu.m. in 2020 to 6.6 million cu.m. in 2021 (i.e., an increase of 15.8%), mainly due to the resumption in production following the health and economic crisis.

Specific water intake (rainwater included) in cubic meters per metric ton processed fell slightly with business recovery, to below 1.58, which is still higher than the 2019 level. In 2020, the brutal economic and health crisis caused this ratio to increase to 1.62, due mainly to the disrupted operation of plants in connection with periods of under-activity and repeated shutdowns/restarts, as well as the continued operation of certain units. Rainwater collection and reuse continued to develop strongly at certain major industrial sites, which allows surface water and groundwater intake to be reduced. In 2021, Vallourec recovered and used more than 957,000 cu.m. of rainwater compared to 878,000 cu.m. in 2020.

In Brazil in 2020, the Barreiro site installed a 1,500 cu.m. buffer tank to store excess process water and rainwater for subsequent use. This reservoir has allowed us to reduce our use of tap water.

Florestal (forest): the company is working to reduce water consumption in the regions where the plots of land are located. Most of this consumption is recorded at the seedling nursery, so we have invested in improving soil sealing and in a water storage tank. As a result in 2021, some 16,000 cu.m. of water did not have to be taken from the natural environment, reducing the nursery's water consumption.

In the United States since the beginning of 2020, VSTAR Youngstown's FQM rolling mill has been collecting rainwater to reduce its drinking water consumption.

The rainwater downpipes connected to the roof of the 8,000 sq.m. water treatment plant were diverted to the treatment facilities, allowing rainwater to be reintroduced into the plant's water circuits. The site continued its efforts to reach 99% recirculation, by improving control efficacy of the automatic discharge triggers. This major action brought reductions in the amount of tap water top-up in FQM consumption.

As a result, nearly 10,000 cu.m. was saved over the whole year.

In Indonesia, the site installed tanks to recover rainwater from the roofs. The water distribution network is being developed so that this rainwater can be used in production operations, to reduce intake from the natural surroundings.

Rainwater recovery tank, Indonesia

Lastly, in 2021, rainwater accounted for 85% of the volume of water intake at our French sites, mainly at Aulnoye-Aymeries and 40% of the volumes of our German sites (Rath). As explained above, these best practices were implemented in Brazil and the United States.

Water intake*

Year	Total water intake *(cu.m.)*	Water intake per metric ton processed *(cu.m./metric ton)*
2016	5,672,035	1.85
2017	6,179,371	1.36
2018	6,889,346	1.25
2019	6,412,443	1.21
2020	5,711,575	1.62 (1.38)
2021	**6,614,828**	**1.58 (1.35)**

** For steel mills, tube mills, finishing lines, and related services. The number in parentheses corresponds to water intake but does not take into account rainwater recovery.*

d) New methodology

The Group now considers that, except for the mine and for the reasons mentioned above, integrating all of the production units into its reports, i.e., also taking the forest and pelletization unit into account, would be appropriate.

On this basis, in 2021, water intake for the entire Vallourec scope, with the exception of the mine, came out at 7.4 million cu.m. in 2021, compared to 6.5 million cu.m. in 2020 and 7.0 million cu.m. in 2019. The corresponding ratios (without and with rainwater) were respectively 1.54 cu.m./metric ton (1.38 in 2020 and 1.05 in 2019) and 1.765 cu.m./metric ton (1.62 in 2020 and 1.21 in 2019).

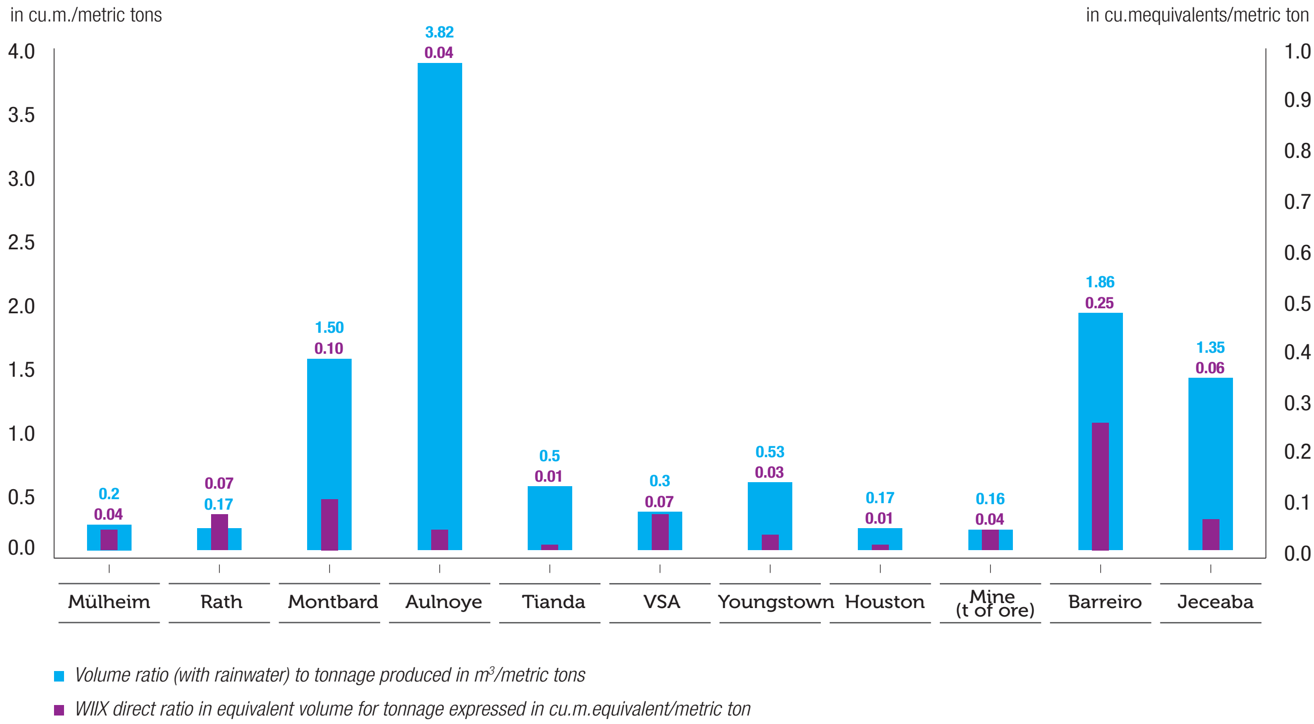
III – ANALYSIS OF "WATER FOOTPRINT"

Water management is not limited to measuring intake in natural environments or municipal networks, nor to monitoring the quantity and quality of waste. The materiality analysis mentioned above showed that the stakeholders paid greater 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" (WIIX). 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). Expressed in equivalent meters cubed 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.

Launched in 2011, this study was repeated in 2015 and again in 2018 (based on 2017 data) for the 11 largest sites, considering the new industrial scope of Vallourec: in Germany (Mülheim, Rath), France (Montbard, Aulnoye-Aymeries), China (Tianda), Saudi Arabia (VSA), the United States (Youngstown, Ohio and Houston, texas) and Brazil (Pau Branco iron mine, Barreiro and Jeceaba). In order to take into account the latest developments in the conditions of catchment areas, a more precise stress factor was used in the study: the AWARE indicator, which was developed in 2016 as part of the WULCA (Water Use in Life Cycle Analysis) university project.

The WIIX measures the impact of water intake and returns in the basin concerned. It appears from the analysis that only the Barreiro site merits particular follow-up.

Based on the summary graph below, the following comments are to be made:



- Mülheim and Rath have strong production, and therefore a low water usage ratio. Water is in large part returned to the natural environment, through purification plants, which results in a low WIIX.
- The two Montbard plants produce special low-tonnage tubes. One of them uses 100% rainwater, and the other 25%. The WIIX thus remains low despite it being a very fragile basin.
- The Aulnoye-Aymeries site contains several very different workshops and primarily uses rainwater collected on its site. The use of this large volume with regard to metric tons produced thus has little impact, despite it being a very fragile basin.
- Tianda is similar to Mülheim: its tap water consumption is a bit high, but the WIIX remains low since it is a region with many rivers and lakes.
- Vallourec Saudi Arabia uses desalinated seawater. Its impact is thus low despite being in a desert region.
- Youngstown is an integrated site that has an electric steel mill and two rolling mills. Its water consumption is thus higher, although the Ohio region has numerous dams and rivers that provide good quality water. The WIIX is therefore very low.
- Houston has several finishing workshops. The water consumption is controlled and the WIIX is low.
- The Pau Branco mine, in Brazil, pumps very large quantities of water to be able to access the iron ore but, in 2019, 78% of this water returned to the natural environment (watering and river).
- Barreiro is undergoing a full restructuring after the shutdown of its blast furnace mid-2018. Its water intake should be able to continue to drop. This site is in a growing urban area. The tap water used is thus in competition with the needs of the population.
- Jeceaba is resuming the Barreiro steel production with a blast furnace and electric steel mill, as well as a rolling mill. Water is abstracted from a river and in large part returned.

The general conclusion is that the impact from water intake in the Group's sites is very reasonable, as a result of the management efforts taken. Indeed, the average WIIX is around 0.07 cu.m. equivalent per metric ton with a maximum of 0.25 for the Barreiro site. These figures are comparable to the WIIX of major integrated European steel sites, which are between 0.20 and more than 0.30. The Vallourec Group can therefore demonstrate very responsible water resource management.

4.2.4.5 Energy SDG 7.2, 9.4, 12.2

I – ENERGY CONSUMPTION

COMMITMENT TO RESPONSIBLE PERFORMANCE

Improve the energy efficiency of our equipment and reduce carbon emissions resulting from our manufacturing processes

- **INDICATOR**

Energy consumption (Natural Gas + Electricity) in kWh/metric ton processed.

Corresponding CO_2e emissions in metric ton/metric ton processed.

- **2021 OBJECTIVES**

Energy consumption: <920 kWh/metric ton processed.

CO_2e emissions: <153 metric ton/metric ton processed.

- **2021 ASSESSMENT**

In 2021, energy consumption was 2,530 GWh for natural gas, or 603 kWh per metric ton, and 1,614 GWh for electricity, i.e., 385 kWh per metric ton.

In total, absolute energy consumption was 4,144 GWh in 2021 compared to 3,822 GWh in 2020, an increase of 8.5%, explained by the increase in steel and tube production (+19.2%) and improved energy performance.

In terms of intensity, energy consumption rose from 1,086 kWh/metric ton in 2020 to 988 kWh/metric ton in 2021 (2019: 994 metric tons), a decrease of 8.9%. This improvement is explained by the return to less perturbed plant operation, along with energy saving measures.

Specific consumption reductions were more marked in natural gas (11%) than in electricity (5.5%) because of the fixed component in utility charges.

In 2021, the corresponding CO_2 equivalent emissions totaled 628,770 metric tons, i.e. 150 kg per metric ton processed, compared to 160 kg/t in 2020 and 2019, and to 190 kg/t in 2018. This sharp improvement can be explained by the improvement in energy performance, the total decarbonization of the electricity supplied to our plants in Rath (Germany) and Youngstown (United States) and by the decrease in the carbon intensity of electricity in certain countries and areas such as Mexico, Canada, the United Kingdom, Germany, and the United States (Oklahoma).

- **2022 OBJECTIVES**

Energy consumption: <920 kWh/metric ton processed.

CO_2e emissions: <145 metric ton/metric ton processed.

- **2025 GOALS**

Vallourec is committed to reducing its specific energy consumption by 10% and the corresponding CO_2e emissions by at least 25% (2017 baseline).

Since 2018, Vallourec's energy assessment has covered all industrial sites, including the iron mine and the pelletization unit in Brazil. It includes the consumption of electricity, natural gas and fuels (gasoline, diesel, propane, bioethanol and biodiesel).

In 2021, energy consumption (gas and electricity) represented an expense of €195 million, compared to €169 million in 2020, an increase of 15%, mainly due to higher activity levels at our plants.

The Group also uses biomass as a source of energy for its pelletization unit and blast furnaces in Brazil. It owns 230,000 hectares of eucalyptus plantations and forests, for the production of charcoal, which is used to process the iron ore into cast iron in the blast furnace.

The table below shows the energy sources used by the Group:

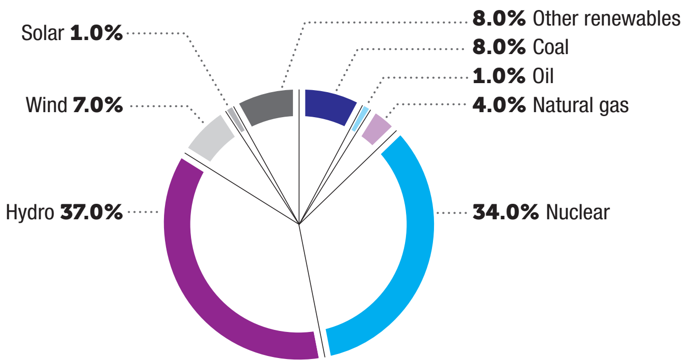
Energy source	Unit	Renewable Energy	Non-renewable Energy	Total
Electricity purchased	GWh	850	764	1,614
Natural gas (a)		0	2,530	2,530
Fuel oil (a)		2	278	280
Charcoal		1,934	0	1,934
TOTAL	**GWH**	**2,787**	**3,572**	**6,359**
Energy consumed	%	44%	56%	100%

(a) Including the fuel or natural gas needed to produce electricity at certain sites, such as Vallourec Nigeria and PT Citra Tubindo (Indonesia).

In 2021, renewables accounted for nearly 44% of the energy consumed on a Group scale. This figure was 46% in 2020. This slight decrease is explained by lower consumption of charcoal by the pellet unit and blast furnace at Jeceaba (Brazil) and by electricity a little less carbon-free in Brazil. Note that for fuels, we have been counting bioethanol consumption since 2020 and biodiesel since 2021.

As concerns electricity, since 2017, the Group has also been basing itself on information from its providers, “market-based” data, and on “location-based” national energy mix data. This allowed the Group to better measure the impact of its choice of energy supply sources and to better manage them to reduce the Vallourec Group’s carbon footprint.

The average electricity energy mix for 2021 is summarized in the graph below:



In 2021, renewable electricity accounted for 53% of the total, a lower figure than in 2020 (56%) but higher than in 2019 (51%), this being explained by the increased proportion of fossil energies in electricity generation in Brazil (from 2% in 2020 to 8% in 2021). For the same reason, the proportion of low-carbon electricity (nuclear + renewable) fell back, from 87.6% in 2020 to nearly 86.8% in 2021. This performance remains remarkable, and can be explained by the total decarbonization of the electricity delivered to our plants in Rath (Germany) and Youngstown (Ohio, United States) and by the improved carbon intensity of electricity in several countries and states (Canada, Mexico, Germany, United Kingdom, Ukraine, and Oklahoma in the United States).

The Rath site is supplied by electricity produced from gases recycled by our partner steel mill HKM. In the United States, Vallourec Star LP has entered into a contract with its supplier Energy Harbor to supply 100% nuclear-generated electricity over the 2020-2024 period (four years).

We should also mention that our Brazilian plants use electricity produced largely from renewable sources (92% in 2021, including 72% from hydroelectric dams) and that our French sites consume low-carbon electricity (in 2021, 75% nuclear-generated and 17% renewable).

II – ENERGY SAVINGS PROGRAM

In an effort to significantly reduce energy consumption, starting in 2009, the Group established the GreenHouse energy savings program, which aimed to lower specific gas and power consumption (per metric ton processed) by 20% by 2020, for an equivalent scope, product mix and level of activity, using 2008 as the baseline year. With this approach, Vallourec is also acting to promote a “low-carbon” economy, contributing to reducing greenhouse gas emissions. This commitment was further stepped up in January 2018 with the publication of the Group’s Carbon Policy, which was signed by the Chairman of the Management Board.

This program is rigorous in its approach and is supported by Vallourec Management System tools and methodologies. It is one of the levers of the Group’s Energy and Carbon policies 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 continuous 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:
  - to date, thermal balances have been carried out in respect of 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 Group's industrial footprint was significantly modified in 2017 and has since stabilized. The Group has therefore decided to measure its energy performance in relation to this reference year. New internal objectives, to be attained by 2025, were also set using this same baseline. They relate to the specific consumption of gas and electricity in relation to the metric tons processed (steel and tubes) on a like-for-like basis as well as the related CO_2 emissions:

Year	2017	2018	2019	2020	2021
Natural gas *(kWh/metric ton)*	635	619	653	678	603
Electricity *(kWh/metric ton)*	320	309	342	409	385
Total gas and electricity *(kWh/metric ton)*	955	928	994	1,086	988
CO_2e *(kg/metric ton)*	202	190	160	160	150

Based on the 2017 performance, the Group is therefore aiming to reduce its specific gas and electricity consumption by at least 10% by 2025, and the corresponding CO_2 emissions by at least 25%.

With the 2021 figure of 150 kg CO_2 per metric ton, carbon intensity was down by 25.7% on the 2017 level of 202 kg. This exceeds the target of 25% that we had set for 2025. This achievement stems chiefly from the lower-carbon electricity purchased.

On the other hand, despite the clear improvement with respect to 2020, our specific energy consumptions are still too high: in four years we have reduced the intensity (kWh per metric ton) by 4.9% for natural gas, in line with the 10% target by 2025, but electricity intensity increased by 20.3% over the same period. Firm efforts will be needed to reduce the fixed component of electricity consumptions by identifying and remediating waste.

Energy savings and CO_2 emission reductions were achieved by a number of initiatives taken by teams at our facilities in 2021. Here are some examples:

In Indonesia (PTCT):

- installation of connected electricity and gas meters to monitor energy consumptions and reduce waste,

At Youngstown (United States):

- installation of LED lighting, plant optimization to reduce gas, electricity and compressed air consumption, and step-up for field-team program on waste reduction,

At Jeceaba (Brazil):

- partial substitution of natural gas by gas from steel mill, recycled to heat the rolling mill furnace,
- continued use of charcoal fines instead of natural gas for heating the pellet unit's tube furnace.

III – 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 program and international energy efficiency standard ISO 50001.

As mentioned in its Energy Policy, Vallourec is committed to having its primary production facilities ISO 50001-certified. This certification has been obtained for the sites of Barreiro and Jeceaba (Brazil), Vallourec Tubes France (Saint-Saulve and Aulnoye-Aymeries), Vallourec Deutschland in Germany (Rath and Mülheim), Valinox Nucléaire (France) and Vallourec China (VCHA). The production at these sites thus represents 43% of the total production for 2021. In 2019, the integrated Vallourec Star Youngstown site launched its own energy management system that uses ISO 50001 as its frame of reference.

The positive outcome of the certification and the sustainability of results 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, the United States, and Indonesia.

IV – EXTENSION OF ENERGY PERFORMANCE RESEARCH

Vallourec Florestal, which manages the Brazilian forest, is also seeking to improve energy performance. Its teams developed a more efficient carbonization process that improves the mass transformation rate of wood into charcoal from 29% to nearly 35%. The procedure is applied to investments in new furnaces. This has led to (i) less need for wood and cultivated areas for production of cast iron, (ii) a very considerable reduction in methane emissions as compared with a cubic meter of charcoal, as well as (iii) a reduction in the heat released into the atmosphere.

The Carboval pilot unit and its highly innovative method produce high-quality charcoal at a 40% yield, and with no methane emissions. In 2021, its production accounted for around 1.6% of the total supplied by Florestal. By 2025 we plan to increase the number of Carboval units in operation, to meet our decarbonization goals.

4.2.4.6 Impacts and discharges SDG 6.3, 12.4, 12.5, 14.1

I – WATER

Over these past few years, the quality of plant waste has improved.

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. The sites monitor their polluting discharges and the Group reports annually on its total discharges into the natural environment, expressed in metric tons. The 2021 assessment provided the following figures:

Year	2017	2018	2019	2020	2021
SPM (suspended particulate matter) *(metric tons)*	15.7	17.1	37.5	91.5	42.3
COD (chemical oxygen demand) *(metric tons)*	63.6	77.2	125.0	71.1	49.1
BOD (biochemical oxygen demand) *(metric tons)*	9.7	18.0	30.6	15.4	11.2
TH (total hydrocarbons) *(metric tons)*	0.40	0.35	0.15	0.11	0.08
Heavy metals* *(metric tons)*	0.75	0.46	0.46	3.57	3.86

* *As, Cd, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Zn.*

Compared to 2020, the figures show a significant decrease in the emission of suspended particulate matter, the majority of which comes from our Jeceaba site. This is explained by tighter surveillance to minimize deviations. Heavy metal discharges remain high, with little change on 2020 levels. These are attributable to the Jeceaba site, which has a pellet unit, a steel mill and a tube mill. However, its annual discharges remain below regulatory limits. Discharges of hydrocarbons, COD and BOD continued to fall.

In Brazil, the Barreiro site worked on the quality of its effluents so that it could discharge directly into the waterways and thus reduce the burden on the city's water treatment plant. Thanks to the reduction of its effluents, the site can therefore focus on the treatment of other water effluents and widen the availability of drinking water to local populations. This initiative has been approved by the environmental authorities of Minas Gerais.

The Jeceaba site has automated the dosing system for effluent treatment chemicals, increasing the reliability of the treatment process.

II – AIR

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 gas compounds and particles.

a) Gas compounds

- Nitrogen oxide (NO_x) and sulfur dioxide (SO_2) emissions come from furnaces for steel billets and from the heat treatment of tubes. To limit these emissions, all furnaces are fed by natural gas, which is low in emissions, and every year some of the older burners are replaced by more efficient or "low-NO_x" burners that meet the highest technical specifications for this type of emission.
- 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. Actions are put in place every year to reduce VOC emissions at the source, by coordinating with product suppliers and the process stakeholder community and, if that is not possible, channeling and treating emissions. As concerns vapors from surface treatments, facilities are equipped with a retention and treatment system in compliance with applicable regulations.

b) Particles

- The main potential sources of particulate emissions are steel mill furnaces and hot rolling. Every year, retention systems are improved to continuously reduce the corresponding emissions.
- The conditions for replacing refractories in electric arc furnaces and ladle furnaces were also modified to prevent the formation of dust. In Youngstown, since the installation of the dust extractors, the working environment has considerably improved. Particle retention is very efficient and sampling shows that the heavy metal content released (chrome, lead, nickel, etc.) is well below the authorized limits.
- Tube mills and finishing plants also produce dust resulting from the use of facilities for hot rolling, grinding and polishing tubes. Processes for sealing, aspiration and filtering are incorporated into the machinery to collect dust at the source. Where necessary, these systems can be supplemented by extraction devices and filters on the roof to capture diffuse emissions.
- Trucks, cars and other handling equipment moving around 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 macadam. They may also be watered during a dry period to limit re-entrainment.

c) Annual assessment of emissions

Atmospheric emissions *(metric tons per year)*	2016	2017	2018	2019	2020	2021
VOCs	319	260	535	481	420	368
NO_x*	492	633	719	691	514	495
SO_2*	4.4	5.9	6.4	4.4	4.0	4.4
Particles	N/A	N/A	487	571	1,134	668

* *In 2021, the data calculated using gas consumption represented 90% of the data published.*

In 2021, combustion-gas emissions (NO_x and SO_2) fell by 7% and 10% respectively due to higher levels of natural gas consumption. Particle emissions fell sharply with improved process control at the Jeceaba tube mill (Brazil).

Nominal VOC emissions, i.e., before uptake and filtration, dropped by 41% between 2020 and 2021. This decrease owes partly to the drop in surface coatings business, but also to process optimization at certain sites with a view to reducing use of solvent products. At the Vallourec Oil and Gas site in Aulnoye-Aymeries, process and methods Research and Development teams improved technical performance to broaden the product qualification range with water-based paints and thereby reduce solvent use. In Saudi Arabia, teams worked on nozzle cleaning systems to cut out the need for solvents in this operation. Some VOC-emitting products widely used by maintenance teams have also been replaced.

To improve the quality of its monitoring of atmospheric emissions of gas and particulate matter, the Tianda Chuzhou (China) rolling mill fitted gas analyzers onto the chimneys of its furnaces. This allowed for continuous measurements to be recorded in 2019.

In 2020, we worked to reduce particulate and VOC emissions from the finishing plant at our Tianda Chuzhou (China) site. As a result, we set up a system for the capture and filtration of metallic dusts produced by the grinding of tubes, a sound-insulated installation.

At the threading facilities, we improved the collection and extraction of VOCs and installed activated carbon filters to trap them.

III – SOIL

a) French facilities

Consistent with site age and specific needs, soil studies have been completed at the Group's initiative without being required by administrations. The results of these investigations prompted some facilities to introduce piezometric sensor-based monitoring of underground water, after obtaining permission from the relevant regional authorities in France.

Groundwater monitoring using piezometric tubes continues at the Cosne-sur-Loire site. Operations were discontinued there in 2017 and the site underwent thorough cleansing. Vallourec is following the instructions of environmental authorities on site rehabilitation. Talks are underway with the municipality of Cosne-sur-Loire on a rehabilitation solution.

In Aulnoye-Aymeries, underground investigations were conducted on an old disposal site for miscellaneous materials. The site remains under close monitoring.

In Montbard, underground investigations were also conducted on an old disposal site, following a 2002 order issued by the prefecture.

The Déville-lès-Rouen site, which closed in June 2021, underwent full safety clearance and all the necessary shutdown measures were taken. This site is pending a shutdown report from the local environment administration.

Before shutting down, the VALTI site at La Charité-sur-Loire (Nièvre) underwent local decontamination under an action plan approved by the environment authorities.

b) Other entities

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 metallurgical by-product of the cast iron process) and a former sludge depot were made compliant. They underwent landscaping and the quality of the groundwater is being periodically monitored by a piezometric system. A program to make a former solid industrial waste storage site (wood, plastic, scrap, etc.) compliant with legislation, which began in 2004, is now being completed: the polluted soil has been removed and the land rehabilitated, allowing it to be considered for reuse for industrial or logistical activities.

In the United States, the industrial land is leased. Soil analyses were conducted at the majority of the sites prior to Vallourec launching its operations, in order to establish a baseline. Many of those sites are located in areas that have been industrial for many years. To the Company's knowledge, there is no record of any significant incident resulting from Vallourec's tube and steel production activities that has led to soil pollution.

IV – WASTE AND BY-PRODUCTS

COMMITMENT TO RESPONSIBLE PERFORMANCE
Respect our environment by recovering our waste

- **INDICATOR**

Percentage of waste recovered.

- **2021 OBJECTIVE**

Waste recovery rate: 97%.

- **2021 RESULTS**

The recovered waste rate reached **97.6%**, up from 2020 (97.0%). In 2021, 15,870 metric tons of waste could not be recovered, 429 metric tons less than in 2020.

- **2022 OBJECTIVE**

This ambition brings with it the target of a waste recovery rate of 97.5%, plus a discharge tonnage limit of below 15,600 metric tons.

- **2025 GOALS**

Vallourec is aiming for a 98% recovery rate by halving the amount of waste sent to landfill compared to 2019, for 15,000 metric tons of non-recovered waste.

Because of the nature of its industrial activities, the Group generates significant amounts of various types of waste. In 2021, 674 kilotons of waste were produced, which includes the mine and the pelletization unit (551 kilotons in 2020), 2.6% of which was hazardous waste (2.8% in 2020).

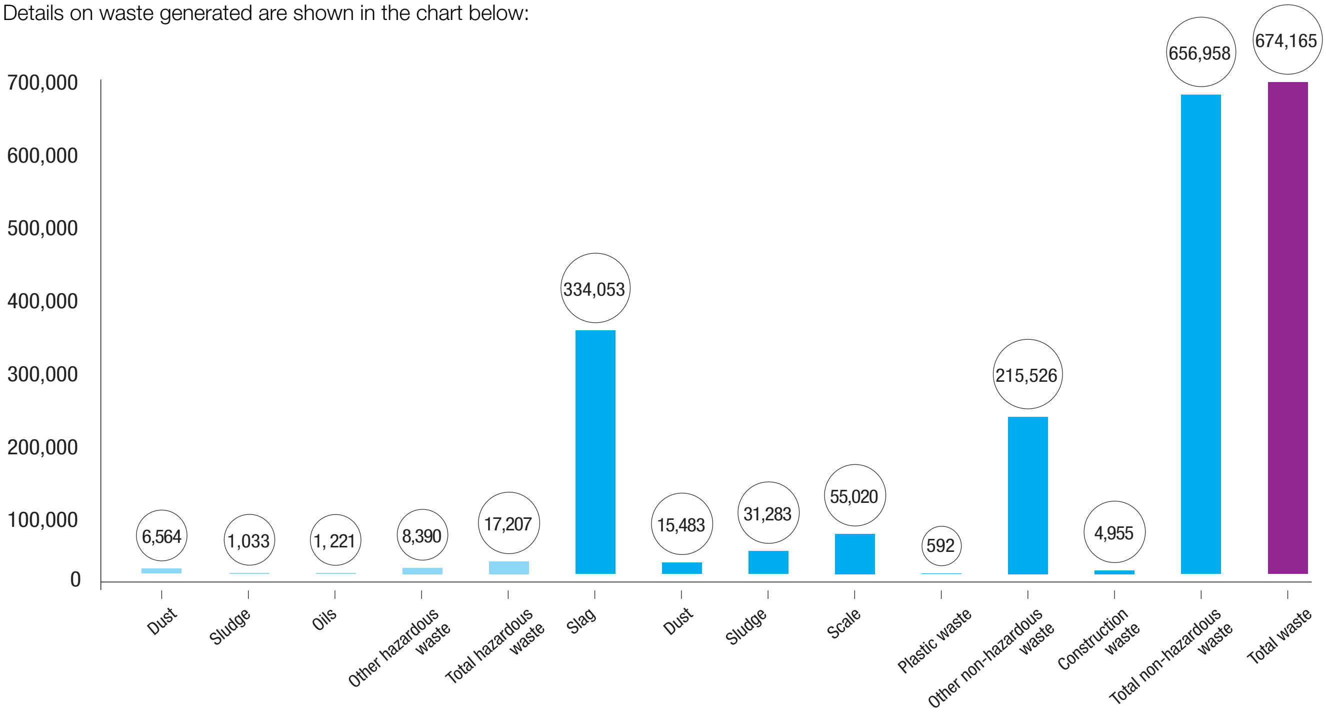
The key indicators for their management are as follows:

	2016	2017	2018	2019	2020	2021
Waste *(in thousands of metric tons)*	459	697	731	669	551	674
Waste/production processed *(%)*	15	13	13	13	15.7	16.1
% hazardous waste	6.0	3.5	3.3	3.9	2.8	2.6
% recovery	94.4	94.0	95.5	95.8	97.0	97.6

In 2019, the shutdown of the Barreiro blast furnace and the start-up of the Jeceaba furnace did not impact the Group's recovery rate. The Mineração iron mine and the Jeceaba pelletization unit also generate a lot of recovered waste. Since 2019, some sites have been fine-tuning their waste sorting process to increase the recovery rate. In this way, Valinox Montbard increased its energy recovery rate and the Houston basin also increased the amount of waste it recovers. At Jeceaba, the blast furnace and pelletization site use secondary raw materials from the tube mill such as dust, metal waste, iron ore fines, etc.

With a concern for the issue of polluting plastics, in 2020, Vallourec decided to establish a targeted reporting system for plastic waste to study possible avenues for improvement, but also in order to promote its recovery. The results show that the share of plastic waste is extremely low in relation to total industrial waste and accounts for less than 0.2%. However, it may be noted that 90% of that industrial plastic waste is recycled or reused.

Details on waste generated are shown in the chart below:



To mark its commitment to the environmental issues represented by waste management, starting in 2013, the Supervisory Board, at the recommendation of the Nomination, Remuneration and Governance Committee, introduced a waste recovery target into the variable portion of Management Board members' compensation.

Along the same lines, the Group joined the AFEP initiative to promote the circular economy, which became public in February 2017 and was updated in 2020.

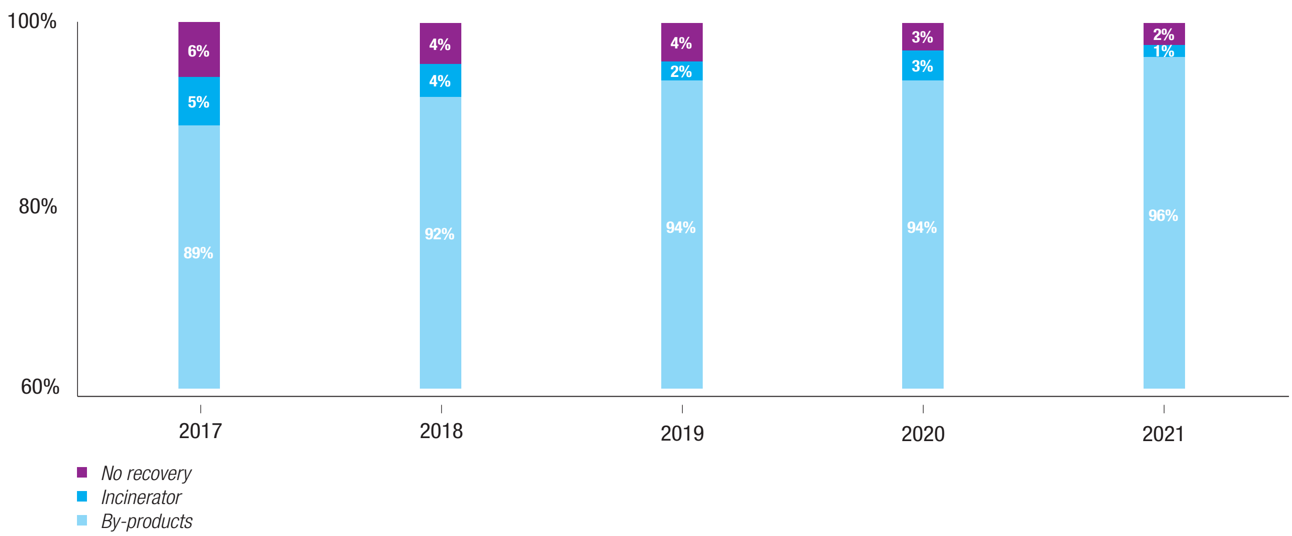
a) The "By-products" program

Waste management is a major economic and environmental concern for the Group, which believes that most of this waste should now be treated as value-added by-products that generate operating revenue. This is the objective of the "By-Products" program.

Waste is now considered a resource to be exploited rather than an unavoidable 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.

In view 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 96.3%, of waste incinerated to produce energy 1.3%, and of landfill waste 2.4%. Progress was made in the recycling of materials 2021, primarily at our Youngstown site, which ran a sludge recovery program. Advances also came in the recycling of metal waste and finer waste sorting at certain sites. With the resumption of operations and the many refit projects under way, the waste tonnage increases. We are nevertheless intent on maximizing the recycling of materials and minimizing the proportion of landfill waste. Some sites have also implemented specific actions to reduce landfilling or incineration.

Waste by end use



Based on the 3Rs principle, namely “Reduce, reuse, recycle”, the main levers of progress under the “By-Products” project are as follows:

- Reduce: Various actions are carried out at the sites to reduce waste volumes, and above all the share of hazardous waste connected with the decrease in chemical risk.

For example, a Research and Development study is underway to reduce the use of plastics in the manufacture of protectors by using biobased plastics and thus limiting our impact. Our Rio site has set up a working group to improve the sorting and reduce the share of hazardous waste. In the United States, the pH of liquid waste containing phosphate is neutralized to reduce the level of toxicity and allow the use of evaporator/concentrator systems.

The VAM Houston site installed an elementary neutralization unit (ENU) that allowed the site to neutralize all wastewater considered to be corrosive and therefore classified as hazardous waste according to environmental regulatory requirements. This corrosive water was either transported off-site to be injected into a deep well or treated and discharged. The neutralization unit that ensures that the waste is non-hazardous allows the wastewater to evaporate. Thanks to the installation of this system and the use of wastewater evaporators, the site has been able to reduce its wastewater discharges by nearly 95%, thereby saving on disposal costs and minimizing its environmental footprint. This practice was deployed at all sites in the region that had that type of waste.

The North America region worked with the procurement department to standardize contracts and identify suppliers that contribute to on-site waste. This standardization takes into account such things as the recovery of waste generated by subcontractors in an appropriate container and the reduction of plastic waste produced.

- Reuse: Some waste may be re-introduced or reused in our processes or externally, either as a result of a specific treatment or after undergoing cleaning or filtration.

Our VTS site in Brazil has set up a management system to recover protectors from customers. These used protectors are inspected, cleaned, and reconditioned for reuse. Many sites are also equipped with devices for filtering waste oils for internal reuse. In Indonesia, the site reuses 50% of its cutting fluids after applying filtration, which has allowed it to reuse the product and thus cut raw material expenses and also the cost of waste treatment.

Vallourec Soluções Tubulares do Brasil (VSB) uses blast furnace sludge as a source of soil enrichment for eucalyptus forests and as a raw material for the ceramics industry.

- Recycle: Recycling is the most important method of recovering value from our various types of waste. The recovery of materials makes up the vast majority of our recycling. However, for some types of waste, recovering energy remains the best solution available.

All sites recycle metallic waste from machining as a result of the manufacturing processes (turnings, chips, etc.) and then send this waste to channels external to the Group.

In France, the Aulnoye-Aymeries sites introduced centralized waste management at the three plants for combined collection and optimized disposal channels. This shifted the balance from incineration in favor of materials recycling.

In Mexico, the unit that manufactures protectors has organized a recovery circuit for non-compliant and unused protectors that reintroduces them into manufacturing process after a grinding operation. This recycling accounts for 28% of the raw material used.

Several sites have set up working groups to optimize flows of sludge from the processes (rolling and surface treatment), metallic residues, scale and dust.

In Brazil, the Purchasing Department has worked on identifying the best channels for recycling slag sold to the cement industry. Some mining waste is used as raw materials to manufacture interlocking paving stones, which are then used as road surfaces on the site.

Additionally, the local teams opened new waste management channels and generated additional revenue by implementing initiatives such as:

- the renegotiation of certain contracts;
- in Youngstown (United States), “bad” scale, which was previously sent to the landfill, now continues to be mixed with “good” scale. The resulting combination is sold to companies in the cement sector. This new business opportunity has reduced the amount disposed in landfill, and has decreased treatment costs. Vallourec Star Youngstown also changed its sludge dehydration practices. The addition of sawdust allowed it to reduce the amounts of sludge that are sent for treatment;
- coordinating neighboring sites to collect identical waste such as sludge to reduce transportation costs;
- in Brazil, numerous trial programs launched since 2017 to reuse certain waste internally through the steel mill, mine or pellet plant (sludge, dust) have been implemented to allow the use of the waste as a secondary raw material.

b) Treatment of hazardous waste

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., 2.6% in 2021, decreased from 2020 (2.8%).

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 treatment costs are significant. For this reason, Vallourec is trying to either reduce the portion of hazardous substances at source or apply a pretreatment to reduce the toxicity.

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 content. 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.

In Youngstown too, a change in operation for neutralizing the used phosphate and stripping baths allowed these baths to be sent to the evapo-concentrator and thus to reduce the amount of hazardous waste sent for treatment, thereby reducing costs. This solution has since been rolled out at other sites, which in some cases has also made it possible to reuse part of the water in the industrial process.

In the Houston basin, the installation of wastewater neutralization units (ENUs) has significantly reduced the amount of hazardous waste at the sites.

V – NOISE POLLUTION

Among actions to continue preventing noise pollution, in January 2012 the Sustainable Development Committee defined a noise action plan. This approach is part of the discussion conducted by Vallourec in accordance with the Sustainable Development strategic five-year plan to place a larger focus on employee health. The Health and Safety policy published in 2016 explicitly mentions this.

The Group's activities inevitably generate noise.

The noise arises from various sources: steel mill furnaces, the cutting and storage of steel bars, the impact between bars and tubes, and the steel-rolling process. Several types of measures are in place to limit noise, reduce it as far as possible or eliminate it entirely. The most effective measures are those that allow noise to be reduced at its source. For example, some plants replace pneumatic movement control by hydraulic movement control 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.

The Group wants to best protect its employees and local residents from the noise emitted by the machines (steel mills, rolling mills, cutting) from moving products (impact between bars or tubes) and by transporters (trains, trucks).

To determine noise levels, the sources of noise are measured and analyzed. Depending on local requirements, 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.

To that end, the following measures have been recommended since 2012:

- 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 the behaviors of employees and providers in the workshops;
- implementing best practices for new investments and refittings;
- reducing nuisances at the property limits and consequently for local residents by relying on regular measurement campaigns;
- favoring group protection over individual protection measures;
- reducing noise at the source.

Indicators are in place to ensure that these recommendations are respected by the plants.

The prevention and limitation of noise pollution in workshops and in the environment are criteria used for evaluating investment projects subject to validation, and this from the early stages of their eco-design.

Sound level measurements before and after the completion of work are most often requested.

Among our achievements in 2021, are the ongoing measures at the finishing plant at our Tianda Chuzhou site in China, following on from the actions performed since 2019 in the main plant, which includes the rolling mills.

As a result, after a noise study to measure noise levels at the property limits and in the facilities, we initiated a program to treat the noise sources identified by an expert firm. This would involve measures such as reinforced sound insulation for buildings and insulation for noise sources such as air compressors (see photo).

4.2.4.7 Climate change SDG 7.2, 13.2

I – OUR COMMITMENTS

The Group published its carbon policy in January 2018; Vallourec is committed to:

- continuing to better understand all of its emissions;
- reducing its direct and indirect greenhouse gas emissions;
- aligning the Group with the commitments of the Paris Agreement;
- integrating a €40 carbon price into its decision-making processes;
- pursuing the development of environmentally friendly products;
- making sure its industrial assets will resist the future impacts of climate change.

Further to the commitments made in 2015 as part of the preparation for COP21 and to the adhesion to the "Business Proposals In View Of A 2015 International Climate Change Agreement at COP21 in Paris" initiative launched by 80 international companies, in mid-2019 Vallourec, with 98 other French companies, signed a new version of the French Business Climate Pledge in order to contribute jointly to a new low-carbon economy thanks to a significant effort to finance Research and Development projects and ad hoc investments.

Since 2013, each year Vallourec has been improving its public responses to the CDP "Climate" questionnaire. Its assessment in terms of transparency and performance has continued to improve, gradually moving from "D" in 2012, to "A" in 2019 and "A-" in 2020. Vallourec's responses to the 2021 questionnaire put it back in the A-List. Since 2016, Vallourec has been one of the companies recognized by the CDP for leadership in climate matters and commitment to a low-carbon economy.

As part of these ongoing improvement efforts, in 2018 Vallourec examined, with the assistance of specialists, whether its emissions pathway could fit within the "Science-Based Targets" approach by 2025, which aims to assess the compatibility of companies' efforts with the provisions of the 2015 Paris Agreement.

Considering the result of this analysis, the Group's Management decided to join the Science-Based Targets initiative (SBTi) at the end of 2018 and to have a CO_2 emissions reduction trajectory compatible with limiting global warming to well below 2°C, using 2017 as the reference year.

The first submission of our file in the second quarter of 2019 enabled us to verify our ambitions to reduce our direct emissions (Scopes 1 & 2).

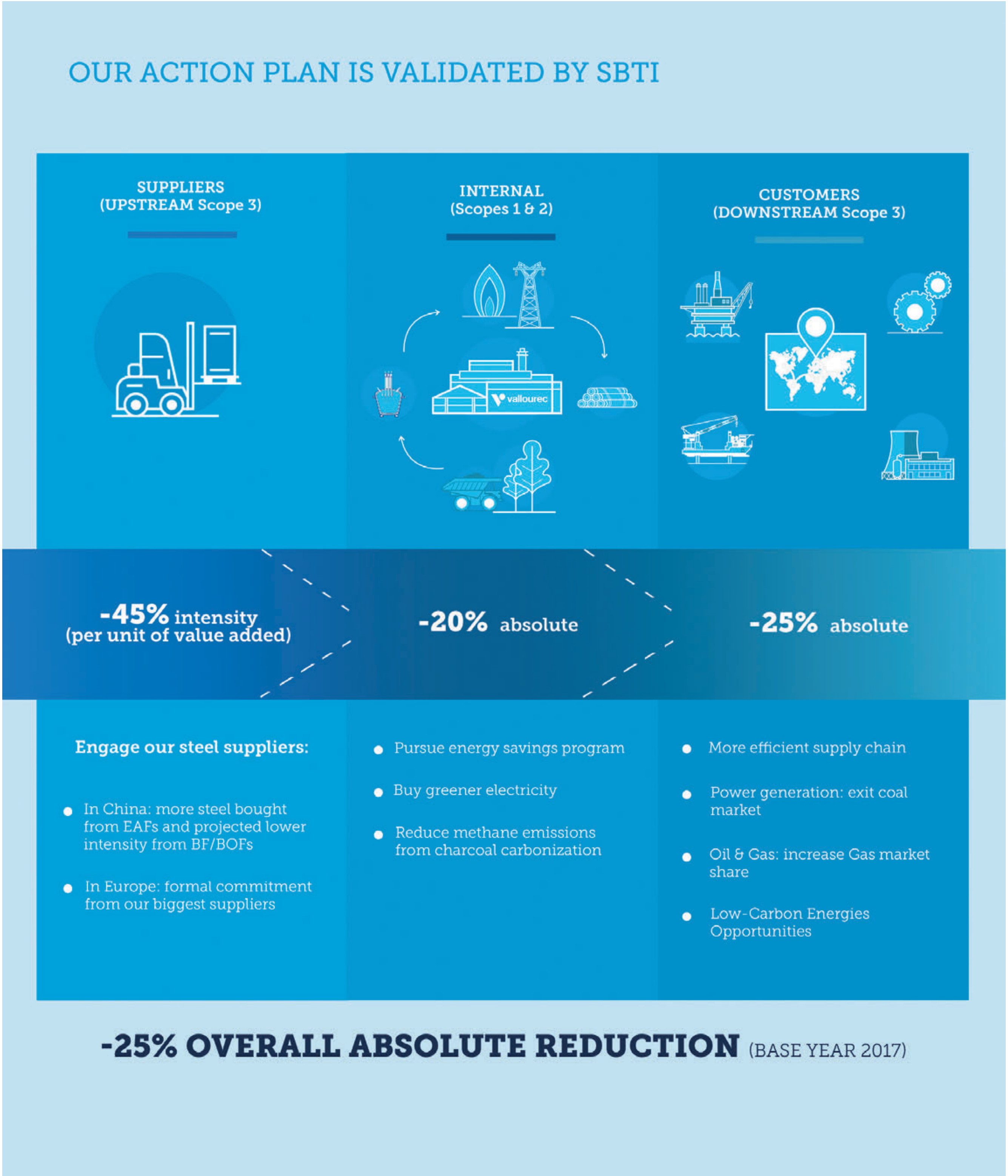
In March 2020, we strengthened our ambitions for Scope 3 upstream, obtaining commitments from our largest steel suppliers. Our file was resubmitted to the SBTi with the proposal of four objectives to reduce our carbon footprint, three of which are absolute.

Our application was formally validated ("targets set") by the Science-Based Targets initiative in May 2020, making Vallourec the first company in the oil/para-petroleum industry to obtain this recognition.

Our targets approved for 2025 are as follows, expressed with respect to 2017:

- reduce the fossil and biogenic carbon footprint of our industrial activities (Scopes 1 & 2) by 20% in absolute terms;
- reduce our value chain from the purchase of raw materials (including steel) to the use and end of life of our products (Scopes 1, 2 & 3) by 25% in absolute terms;
- to reduce the intensity (tons of CO_2 per million euros of added value) of our purchases of raw materials, including steel, by 45%; and
- reduce our Scope 3 indirect emissions by 25% in absolute terms, including our transportation and the use/end-of-life of our products in various markets.

An action plan has been devised to achieve these targets, and was approved by the Vallourec Executive Committee:



II – ASSESSMENT OF GHG EMISSIONS

(See detailed table in Appendix 4).

Reducing greenhouse gases and, first and foremost, being aware of its emission level, is Vallourec's goal.

a) Carbon sequestration via our Brazilian forest

In 2015, a detailed analysis of the carbon cycle for the forest operated in Brazil was completed with the help of university and institutional experts.

The study, which took place over several years, aimed to provide evidence that the Company had managed this forest responsibly from a carbon emissions standpoint, 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 emissions objective.

The 230,617-hectare forest area operated by Vallourec Soluções Tubulares do Brasil (VSB) within its Florestal subsidiary comprises about 76,700 ha planted with eucalyptus trees, a legal reserve of 73,300 ha, and 24,500 ha under permanent protection. The native forest areas are left untouched while the remainder 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 via photosynthesis.

The study in question provided specifics, over a long period, about the quantity of carbon involved from the twofold perspective of measuring stock and measuring the flows of carbon and greenhouse gas, taking into account initial deforestation operations. It was conducted by VSB's Sustainable Development Department, 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 supervision 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 public aerial surveys, which allowed the scope and nature of the native or exploited forest to be determined 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 stages of growth.

In essence it shows that, in the 1983-2013 period, i.e., in 30 years, the forest sequestered 29.6 million metric tons of CO_2 equivalent, after taking into account the particular property 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 250,000 metric tons per year, whereas until now, due to the conservative assumptions adopted, the estimated annual analysis was an emissions level of around 300,000 metric tons.

Based on this information, it was thus possible to redefine a method for calculating the carbon footprint of the forest/blast furnace system that was used to establish the Group's annual carbon analysis since 2015 on more precise bases.

Given the methodological changes, over the coming years, Vallourec plans to update the method used to calculate the carbon sequestered by its Brazilian forest, with the help of its Vallourec Soluções Tubulares do Brasil teams and a specialized firm.

b) Calculation of emissions

Emissions were calculated using the GHG protocol methodology, which distinguishes between direct, fossil and biogenic emissions (Scope 1), indirect emissions from electricity consumption (Scope 2), and indirect emissions from other sources of emissions based on the Group's full scope (Scope 3). Since the 2019 assessment, Vallourec has extended the range of Scope 3 by calculating the emissions associated with the use and end of life of our products. This item was taken into account retroactively in the assessments relating to 2017 and 2018.

Vallourec decided to set the start date of recording our emissions as 2017, given that this was the year used as the baseline for calculating the reduction of the Group's carbon footprint by 2025.

In short, the full simplified carbon footprint is as follows (the detailed analysis is commented on in Appendix 4):

Simplified carbon footprint (CO_2e and CH_4 equivalent)

Type of emissions	2016	2017 [a]	2018 [a]	2019 [a]	2020 [a]	2021 [a]
Non-biogenic direct emissions (Scope 1) *(CO_2e in thousands of metric tons)*	551	763	927	890	767	778
Specific emissions *(in kg per metric ton processed)*	180	169	168	168	218	186
Specific emissions *(in kg per metric ton shipped)*	430	338	392	389	480	475
Biogenic direct emissions (Scope 1) *(CO_2b and CH_4b in thousands of metric tons)*	2,121	2,348	2,626	2,106	1,968	1,943
Specific emissions *(in kg per metric ton processed)*	691	519	475	398	559	463
Specific emissions *(in kg per metric ton shipped)*	1,655	1,041	1,111	919	1,231	1,185
Total biogenic sequestration (Scope 1) *(CO_2b in thousands of metric tons)*	(3,141)	(3,079)	(3,132)	(2,844)	(2,728)	(2,864)
Specific emissions *(in kg per metric ton processed)*	(1,024)	(680)	(567)	(537)	(775)	(683)
Specific emissions *(in kg per metric ton shipped)*	(2,451)	(1,365)	(1,325)	(1,241)	(1,707)	(1,746)
TOTAL DIRECT EMISSIONS (SCOPE 1) *(CO_2e in thousands of metric tons)*	**(469)**	**33**	**421**	**152**	**6**	**(142)**
Specific emissions *(in kg per metric ton processed)*	(153)	7	76	29	2	(34)
Specific emissions *(in kg per metric ton shipped)*	(366)	15	178	66	4	(87)
INDIRECT EMISSIONS (SCOPE 2) *(CO_2e in thousands of metric tons)*	**518**	**510**	**436**	**240**	**121**	**162**
Specific emissions *(in kg per metric ton processed)*	169	113	79	45	34	39
Specific emissions *(in kg per metric ton shipped)*	404	226	185	105	76	99
UPSTREAM INDIRECT EMISSIONS (SCOPE 3) [b] *(CO_2e in thousands of metric tons)*	**1,811**	**3,199**	**3,453**	**3,216**	**2,178**	**2,637**
Specific emissions *(in kg per metric ton processed)*	590	707	625	607	619	629
Specific emissions *(in kg per metric ton shipped)*	1,413	1,418	1,461	1,404	1,362	1,608
DOWNSTREAM INDIRECT EMISSIONS (SCOPE 3) [b] *(CO_2e in thousands of metric tons)*		**8,480**	**6,444**	**5,345**	**4,808**	**4,744**
Specific emissions *(in kg per metric ton processed)*		1,874	1,167	1,009	1,366	1,131
Specific emissions *(in kg per metric ton shipped)*		3,759	2,726	2,333	4,370	2,893
TOTAL EMISSIONS *(in thousands of metric tons)*	**1,861**	**12,222**	**10,755**	**8,953**	**7,113**	**7,401**
Specific emissions *(in kg per metric ton processed)*	606	2,701	1,947	1,691	2,022	1,765
Specific emissions *(in kg per metric ton shipped)*	1,452	5,417	4,550	3,908	4,449	4,513

(a) Including the emissions from Vallourec Mineração (the mine), the Jeceaba pelletization unit and the Tianda site.

(b) The items appearing under this entry are those over which the Company has a direct effect or direct influence, and for which data are available. To date, emissions pertaining to client processes are neither known nor taken into account. For the purpose of improving the knowledge of Scope 3 due to its significance, starting in 2019, the Group defined, with the assistance of a specialized consultant, the methodology to be used to determine the carbon emissions of downstream items connected to the use and end of life of the products used by its customers. The calculation of these emissions was carried out retroactively, for 2017 and 2018.

With regard to the carbon sequestered by our Brazilian forest, the calculation for the 2021 assessment once again showed a very high level, with 2,864 kilotons compared to 2,728 kilotons in 2020. This impressive figure is explained by the fact that production by our subsidiary Florestal rose by 5% with respect to the previous year.

Vallourec believes that this sequestered carbon enters into the calculation of Scope 1 biogenic emissions as a "negative" emission, with the forest acting as a carbon sink.

Scope 1

Regarding non-biogenic Scope 1, the first observation is that ordinary direct emissions (non-biogenic) rose by only 1.4%, from 766.6 kt CO_2 in 2020 to 778.3 kt in 2021, while manufacturing production rose by 19.2%. The very slight increase of 11.7 kilotons breaks down as follows:

- +26.9 kt CO_2 for the "natural gas" item:
  - -51.2 kt through savings projects:
    - -10.8 kt at Jeceaba, with the use of blast furnace gas substituting natural gas for heating billets prior to rolling,
    - -40.7 kt through optimized plant energy performance, chiefly in the United States (-9.5 kt), Barreiro in Brazil (-15.1 kt), the MEA region (-13.5 kt) and Mülheim in Germany (-7.3 kt), less a degree of associated waste (+4.7 kt),
  - -11.1 kt explainable by closure of the Vallourec Tubes France (Déville-lès-Rouen), Valinox Nucléaire (Montbard) and Vallourec Deutschland (Reisholz) sites,
  - +89.2 kt from increased site production.
- +10.8 kt CO_2 for the "fuel consumption" item, attributable to the increase in plant production (+1.3 kt), capacity extension at our Brazil mine (+10.1 kt), since this item covers both internal handling and deliveries of ore by truck to customers, and optimization in forest operation (-0.6 kt);
- -26.0 kt CO_2 for the "blast furnace and steel mills" item: this reduction is explained by improved operation of the Jeceaba iron ore pelletization unit (-51.3 kt), offset by increased production at our two steel mills (Brazil and United States), accounting for an emissions increase of 25.3 kt CO_2.

As concerns the so-called biogenic Scope 1, emissions decreased by 1,968 kilotons of CO_2e in 2020 (2019: 2,106 kilotons) to 1,943 kilotons in 2021, i.e., a 25 kiloton decrease, or 1.3%. This breaks down into:

- +47 kt CO_2: attributable to the increase in charcoal production by Vallourec Florestal. This resulted in a rise in CO_2 emissions due to the processing of eucalyptus wood into charcoal;
- +15 kt CO_2 equivalent: attributable to the increase in charcoal production by Vallourec Florestal. This resulted in an increase in methane (CH_4) emissions due to the processing of eucalyptus wood into charcoal;
- -50 kt CO_2e: attributable to the higher proportion of methane converted to CO_2 by the use of burners or prevented by use of the Carboval process, during transformation of eucalyptus wood to charcoal;
- -48 kt CO_2: attributable to the decrease in charcoal consumption by the Jeceaba steel mill blast furnace, arising from increased use of scrap metal substituting for cast iron in the electric arc furnace;
- +11 kt CO_2: attributable to the increase in charcoal consumption in the Brazilian pelletization unit, arising from variation in its operating mode.

From 2020 to 2021 the quantity of carbon captured and sequestered by the forest rose from 2,728 to 2,864 kt CO_2, the 135 kt (5%) increase being attributable to the proportionate rise in charcoal production, from 251.9 to 263.3 kt.

We must also keep in mind that:

- the Youngstown (United States) electric steel plant used the "scrap" method to manufacture its steel. The process, which consists of melting scrap and recycled steel in its electric arc furnace, emits low levels of CO_2. This industrial feature, which limits the use of fossil carbon in comparison to the cast iron process and its blast furnaces, is one of the reasons why Vallourec's direct emissions have remained moderate;
- in Jeceaba, Brazil, the blast furnace uses charcoal as the main source of carbon. The cast iron it produces supplies a continuous arc furnace that it also able to operate with scrap and recycled steel;
- taking the sequestration of the eucalyptus forest into account means that, in 2021 as in the past two years, the direct biogenic emissions (CO_2 and CH_4) of the Vallourec Group, which are connected to wood carbonization and the burning of charcoal, are negative: -992 kt of CO_2e in 2021 compared to -761 in 2020 and -738 in 2019. This wider negative gap arises from the use of charcoal in producing iron ore pellets and cast iron in the Jeceaba blast furnace.

Scope 2

As regards Scope 2, indirect emissions resulting from electrical energy consumption rose back up by 40.4 kilotons of CO_2e from 2020 to 2021. The following factors explain this rise:

- +15 kt attributable to a rise in Vallourec's electricity consumption in absolute terms (up 12%), while steel and tube production rose by 22% (27 kt), this difference being due to energy savings (-12kt);
- +25 kt attributable to the rising carbon content in our electricity: the average emission factor fell from 141 kg CO_2 per MWh in 2019 to 85 kg in 2020, then rose back to 101 kg in 2021 because of a less favorable electricity mix in Brazil (from 96% to 72% hydroelectricity and more fossil energy). This was offset by improved carbon intensity in several countries and states (Canada, Mexico, Germany, the United Kingdom, and the United States [Oklahoma]). We also benefit from total decarbonization of the electricity delivered to our plants in Rath (Germany) and Youngstown (Ohio, United States).

As since 2017, this assessment has been established based on emission factors (kg CO_2 equivalent/kWh consumed) of Vallourec's local electricity suppliers whenever information was available from them, in particular in France, Germany, Brazil and in the United States (Ohio and Texas).

Upstream Scope 3

In 2021, indirect upstream emissions (Scope 3) represented 2,637 kilotons of CO_2e in 2021, compared to 2,178 kilotons in 2020 (2019: 3,216 kilotons), an increase of 21.1% consistent with the 19.2% rise in our manufactured steel and tube production. In greater detail, this 459 kilotons increase is attributable to:

- +430 kt: external steel purchases rose by 39% from 2020 to 2021, increasing the carbon footprint by 441 kt CO_2e. Fewer tubes were purchased in 2021 (-28%), but we counted the carbon footprint of the steel used for making them (+38 kt). For the carbon footprint of raw materials purchases for our two steel mills, finer calculation for alloys gave a lower emissions figure (-59.3 kt). And we have a 10 kt increase for indirect expenses owing to increased production;
- +18 kt: attributable to an increase in transportation of goods from our four regions (North and South America, Europe/Africa, Middle East and Asia), with the rise in tube sales;
- +15 kt: attributable to the increase in energy consumption;
- +3 kt: for the asset depreciation item;
- <-1 kt: for the business travel and employee transportation item due to health and economic restrictions;
- -7 kt: attributable to further improved waste recovery, with less landfill, effectively offsetting the increase in waste production.

It should be noted that in 2021, we have continued the work begun in previous years to measure the carbon impact of freight transportation in a more complete and accurate way. Accordingly, based on data provided by the plants and logistics departments of our four regions (Europe/Africa, Middle East/Asia, North America and South America), we have calculated the emissions resulting from upstream transportation (deliveries of raw materials including purchased steel), transportation between plants (steel mills, rolling mills and finishing) and downstream transportation (deliveries to customers). As a result, audit firm KPMG gave us a Reasonable Assurance rating on this important item in our upstream Scope 3.

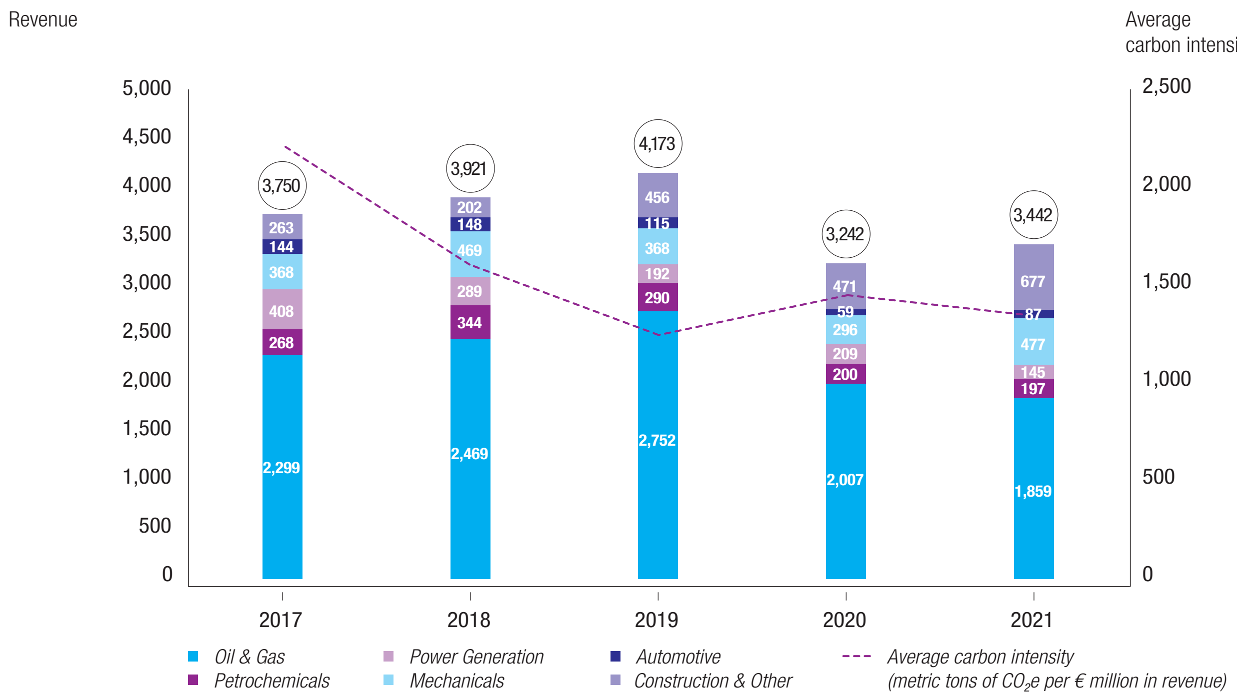
Downstream Scope 3

For the purpose of improving the knowledge of Scope 3 in light of its importance, the Group drafted in 2019, with the assistance of a specialized consultant, a methodology to determine carbon emissions of downstream items relating to the use and end of life of products used by its customers.

As in 2019 and 2020, but also retroactively for 2017 and 2018, we have carried out this calculation, which is relevant albeit approximate.

In 2021, these emissions amounted to:

- customers' use of our products: in 2021, this item accounted for 64% of all our indirect emissions. This item has the greatest impact, followed by steel goods for resale (27%). In 2021 it totaled an estimated 4,690 kt of CO_2 emissions, compared to 4,756 kt in 2020 (and 5,270 kt in 2019). This 66 kt (1.4%) decrease stems from the following factors:
  - revenue increase from €3,242 million in 2020 to €3,441 in 2021 (+6.2%): +293 kt CO_2,
  - lower the carbon footprint of our sales: -359 kt CO_2: the carbon intensity decreased by 7%, from 1,467 metric tons of CO_2 per million euros of revenue in 2020 to 1,363 in 2021 (this carbon intensity figure was 2,241 in 2017). This improvement is mainly on account of Vallourec's gradual withdrawal from the conventional power plant market, the revenue from which is three times lower than in 2017;
- end of life of our products: 54.1 kt CO_2, very close (+2.6%) to the 2020 figure (52.8 kt). This item continues to account for less than 1% of our Scope 3. These emissions are down very sharply (-27%) compared with 2017's due to the decline in our sales.



Summary

The carbon footprint of Vallourec in 2021 is summarized per metric ton of tubes sold:

Emissions item	Metric tons (metric tons CO_2e)	Intensity (kg CO_2e/metric ton)
Direct fossil fuel emissions (Scope 1)	778,323	475
Biogenic direct emissions	1,942,932	1,185
Sequestration by our forest	(2,863,567)	(1,746)
TOTAL DIRECT EMISSIONS (SCOPE 1)	**(142,313)**	**(87)**
Electricity purchases (Scope 2)	161,549	99
TOTAL EMISSIONS (SCOPES 1 & 2)	**19,236**	**12**
Upstream indirect emissions	2,636,976	1,608
Downstream indirect emissions	4,744,474	2,893
TOTAL INDIRECT EMISSIONS (SCOPE 3)	**7,381,450**	**4,501**

In 2021, thanks to the carbon sequestered by the Brazilian forest, the direct carbon footprint (Scope 1) of tubes sold by Vallourec is a negative 87 kg per metric ton, and a positive 12 kg including electricity purchased (Scope 2).

In relation to the Vallourec revenue in 2021 (€3,242 million), the carbon intensity (Scopes 1 & 2) was very low by industrial standards. The business continues to be considered a low-emissions entity.

c) Monitoring our emission reduction commitments by 2025

The Group's new industrial footprint has been effective since 2017. Forecasts of activities between now and 2025 made in 2019 before the oil and health crisis of 2020 have to be reviewed. It has become more difficult to assess what our emissions will be on this horizon given current and future uncertainties.

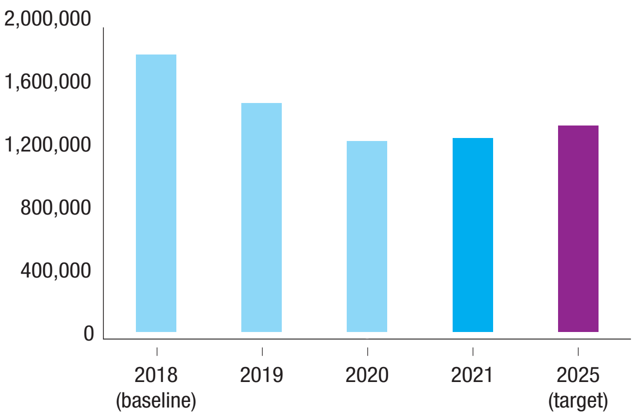
In any event, it is Vallourec's ambition to reduce its carbon footprint by 2025 by a very significant level compatible with limiting global warming to well below the 2°C threshold. Our emission reduction targets compared to 2017 for Scopes 1, 2 & 3, were submitted in March 2020 to the SBTi; in May 2020, we obtained formal validation of four quantified targets covering the entire Vallourec value chain (suppliers, plants and customers).

In order to succeed, several improvement actions have been defined and validated by Vallourec's Executive Committee. These include:

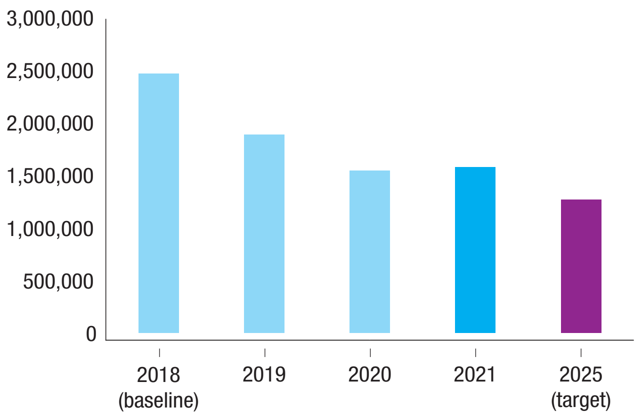
- continuing to improve the energy efficiency of our processes;
- reducing biogenic methane emissions during charcoal carbonization;
- using low-carbon electrical energy;
- reducing the carbon load of the steels we buy by engaging our main suppliers;
- continuing Vallourec's transformation toward less carbon-intensive markets.

Objective	2017 (base)	2018	2019	2020	2021	2025 (target)
Reduce the fossil and biogenic carbon footprint of our industrial activities (Scopes 1 & 2) by 20% in absolute terms	1,634,253	1,758,321	1,452,593	**1,213,363**	**1,231,612**	1,307,402
% achieved	***0%***	***-38%***	***56%***	***129%***	***123%***	***100%***
Reduce the intensity (tons of CO_2 per million euros of added value) of our purchases of raw materials and services by 45%	2,308	2,465	1,885	**1,543**	**1,575**	1,269
% achieved	***0%***	***-15%***	***41%***	***74%***	***71%***	***100%***
Reduce our Scope 3 indirect emissions by 25% in absolute terms, including our transportation and the use/end-of-life of our products in various markets	11,678,215	9,897,561	8,561,323	**6,986,234**	**7,381,450**	8,758,661
% achieved	***0%***	***61%***	***107%***	***161%***	***147%***	***100%***
Reduce our value chain from the purchase of raw materials (including steel) to the use and end of life of our products (Scopes 1, 2 & 3) by 25% in absolute terms	13,312,468	11,655,882	10,013,916	**8,199,597**	**8,613,062**	9,984,351
% achieved	***0%***	***50%***	***99%***	***154%***	***141%***	***100%***

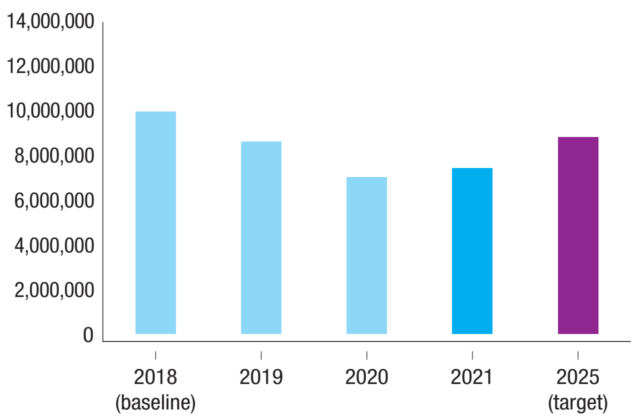
CO_2e emissions (metric tons) - total Scopes 1 + 2



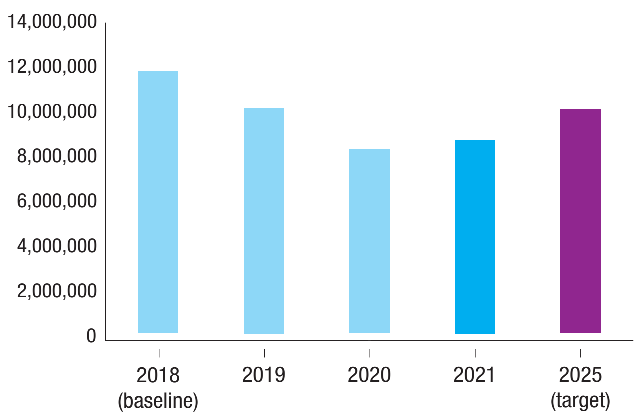
CO_2e (metric tons/€ million Value Added) - Scope 3 upstream (purchases of raw materials and services)



CO_2e emissions (metric tons) - Scope 3 downstream (use and end of life of products sold)



CO_2e emissions (metric tons) - total Scopes 1 + 2 + 3



Despite the significant (19.2%) increase in our manufactured production of steel and tubes relative to 2020, and the less impressive increase (2.5%) in sales, we remain on track in our decarbonization endeavor, meeting or exceeding the three absolute targets set for 2025 on reduction of direct (Scopes 1 & 2) and indirect (Scope 3) emissions.

The energy intensity (kWh per ton) of our processes decreased, along with their carbon intensity (tons of CO_2 per ton), as a result of efforts on energy savings and decarbonization of purchased electricity.

On reducing the footprint of our raw materials purchases, expressed in terms of intensity (metric tons of CO_2 emitted per million euros added value), in 2021, we were at 71% of the 2025 target level (74% in 2020) despite the 34% increase in internal steel production and the 39% rise in steel purchases. This good performance is explained by decarbonization in goods purchases, whose carbon footprint rose by only 28%, and by a 25% improvement in added value.

d) Emissions Regulation Systems

Since 2013, both French and German tube mills have fallen within the scope of Directive No. 2003/87/EC of the European Parliament and of the Council of October 13, 2003 establishing the European Community Emissions Trading Scheme.

Pursuant to Commission Delegated Regulation (EU) 2019/331 of December 19, 2018, Commission Implementing Regulation (EU) 2019/1842 of October 31, 2019 and the Commission decision of June 29, 2021, at the end of 2021 the national environmental authorities informed us of the total free emission quotas allocated for the years 2021 to 2025 in phase 4 of the ETS system, along with the yearly amounts for each of the eight Vallourec facilities concerned (four in France and four in Germany).

The considerable reduction in Vallourec's activity and industrial footprint in France and Germany these past few years had the result of reducing the amount of free allocations compared to those previously received by the Group.

The following annual quotas are allocated to the sites concerned for the period 2021 to 2025:

- 93,720 tonnes for Germany, compared to 155,833 in 2020, the substantial decrease of 40% being explained by exit of the Reisholz site in August 2020 (14,100 tonnes CO_2), by lower production, and by new calculation rules;
- 25,788 metric tons for France, compared with 40,586 in 2020, a substantial decrease of 36.5%, again explainable by lower production and new calculation rules. The Déville-lès-Rouen plant (France), included in the 2021 scope, halted production in April 2021 following substantial production cutback since the second half of 2020.

Business resumption at our European plants, with the economic recovery, brings an increase in CO_2 emissions. At the same time, quota allocations have decreased as explained above. This situation leads to deficit for 2021 estimated at 11,800 tonnes of CO_2, that Vallourec will be compensating by a transfer of quotas from the reserves it has built up in previous years. This figure will be confirmed once all regulatory verifications of the annual greenhouse gas emission declarations of our European plants concerned have been carried out, in the first half of 2022.

The impact of the ETS mechanism on the Group's activity is not limited to consideration of its own emissions. European electricity suppliers are required to fully cover their CO_2 emissions with emission allowances, although it is not easy to measure the corresponding impact in the price of electricity supplied. Furthermore, our steel suppliers and, in particular HKM, which uses the cast iron coke-ore process, are working to reduce their emissions in order to limit purchases of emission quotas in the coming years.

The full impact of the provisions of the ETS system on the operating costs of the Vallourec Group remained very moderate in 2021.

Vallourec's announcement on November 17, 2021 of the forthcoming process of divestment of its assets in Germany will have consequences both on the carbon footprint of its own seamless steel tube production in Europe, and on the indirect footprint from the Group's steel purchases.

III – ADAPTATION TO THE IMPACT OF CLIMATE CHANGE

In 2014, the Group conducted a study of the risks related to the consequences of climate change, identifying eight regions, each with distinct climate characteristics, namely Hauts-de-France, Burgundy, Rhine-Westphalia, Minas Gerais, Ohio, Texas, Batam Island in Indonesia, and the Shanghai region. The conclusions of this study were presented.

The study was updated in 2019, given the Group's new industrial footprint (especially in terms of the integration of the Chinese Tianda site in Chuzhou), the risk trends, recent climate events, and the greater precision of the simulation methods.

The climate scenario selected is "RCP 8.5" (Business-As-Usual or Worst-case Scenario): this scenario predicts a doubling of CO_2 concentrations in the atmosphere by 2050, with a 1.5° to 2.2 °C rise in temperature.

For the analysis of physical risks, this scenario makes it possible to anticipate the most extreme effects and set up a "no regrets" adaptation strategy.

The main conclusions are presented in terms of possible Impacts (I) and Probability of occurrence (P):

	1. Mühlheim, Germany		2. Rath Pilger, Germany		3. Montbard, France		4. Aulnoye, France		5. Chuzhou, China		6. Montbard (nuclear), France		7. Houston (Hardy Road), United States	
	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability
Increase of average temperature	3	3	3	3	1	3	1	3	3	3	1	3	3	3
Heat waves	2	3	2	3	3	3	2	3	3	3	3	3	4	3
Drought	1	1	2	1	3	1	3	1	1	1	2	1	1	1
Depletion of water resources	1	1	2	1	1	1	3	3	1	1	1	1	3	3
Heavy rain and flooding	3	1	4	1	3	1	3	1	3	1	3	1	3	1
Cyclones	3	1	3	1	1	1	1	1	2	1	1	1	4	3
Snowfall	Decrease	3	Decrease	3	N/A	N/A	N/A	N/A	Decrease	3	Decrease	3	Decrease	3
Drop in levels of waterways	4	2	4	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1	2	3	4	5	1	2	3	N/A	Decrease	N/A
low impact				*very strong/ costly impact*	*uncertain*	*probable*	*very probable*	*data unavailable*	*reduced frequency/ intensity*	

	8. Houston (Miller Road), United States		9. VAM Youngstown, United States		10. Houston (VSTAR), United States		11. Youngstown Fine Quality and Pipe Mill and steel plant, United States		12. Forest, Brazil		13. Barreiro, Brazil		14. Jeceaba Brazil		15. Mine Brazil	
	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact	Probability
Increase of average temperature	3	3	2	3	3	3	3	3	3	3	4	3	4	3	2	3
Heat waves	4	3	2	3	4	3	3	3	2	3	3	3	3	3	3	3
Drought	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Depletion of water resources	3	3	2	2	3	3	3	2	1	1	2	1	3	1	3	1
Heavy rain and flooding	3	1	5	1	3	1	5	1	3	1	4	1	4	1	4	1
Cyclones	4	3	3	3	4	3	2	1	2	1	3	1	3	1	1	1
Snowfall	Decrease	3	Potential increase	3	Potential increase	3	Decrease	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Drop in levels of waterways	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1	2	3	4	5	1	2	3	N/A	Decrease	N/A
low impact				*very strong/ costly impact*	*uncertain*	*probable*	*very probable*	*data unavailable*	*reduced frequency/ intensity*	

After an in-depth examination of public documents and national adaptation plans, the main phenomena identified at all the sites analyzed were the rise in mean temperatures and heat waves, which could be particularly severe in Houston and Brazil (Barreiro and Jeceaba). This could have an impact on operations at our facilities and on the working conditions of our staff.

Specific risks have been identified at several sites:

- the Houston site is the highest priority due to the risk of cyclones and the depletion of water resources; in addition, floods as an aftermath of cyclones could prevent access to our sites, stop staff from reaching their worksite, and halt the delivery of our products;
- Youngstown is the second highest priority site due to the risk of the depletion of water resources and heavy rains and snowfall with possible flooding;
- Chuzhou is the third highest priority site with a risk of heavy rains and floods;
- Brazilian sites, including the forest, may suffer from a lack of water and heavy rainfall with floods (the torrential rains observed in January 2020 and in 2021 in the State of Minas Gerais are one such example);
- our German sites could suffer from a lowering of the level of waterways, including the Rhine, which could result in disruptions to the supply chain for raw materials including steel bars.

This study concludes by making numerous recommendations for adaptation actions specific to each of the sites studied.

To sum up, as with the previous study in 2014, it appears that different Group sites are impacted in quite different ways.

The findings of this study and its conclusions were presented in 2020 to each of the regional directorates as well as to those at the sites concerned. They will need to further examine, on a local level, the risks identified and design an appropriate adaptation plan that is in line with the emergency plans required by the local authorities.

On adaptation to risks, our mining site in Pau Branco, Brazil, can be cited as an example, with securing of the Santa Barbara and Lisa earth dams that retain runoff waters. The environmental authorities in the State of Minas Gerais recently decided that it should now be sized to absorb potential rainwater for 10,000 years instead of 100 years. Vallourec accordingly began work on an overflow weir. An overflow weir was also built at the mine's other rainwater retention dam, Lisa, which is smaller.

In addition, the Vallourec Mineração teams have implemented a system to continuously monitor the structural soundness of these dams, linked to an alert system. Emergency exercises are organized internally and for the local populations concerned.

In August 2021 and January 2022, our activities were affected by two major climatic events:

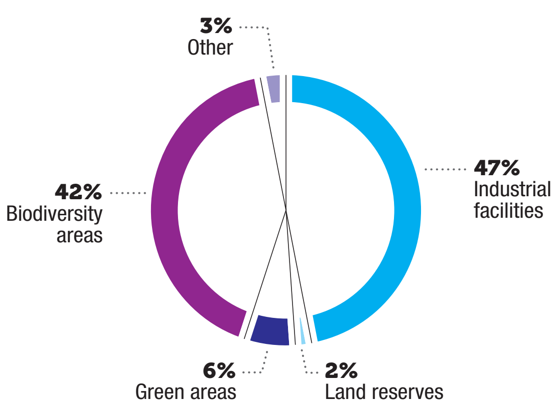
- on August 29, the category-5 hurricane Ida caused structural damage to the Vallourec Tube-Alloy, LLC site at Houma (Louisiana - United States). Pending repair, the site's activities were transferred to VTA Houston and external suppliers, to maintain deliveries to customers;
- under torrential rain at the Vallourec Mineracao site (Minas Gerais - Brazil) on January 8, part of an old stock of sterile waste material from the Cachoeirinha pile capsized into the "Lisa" rainwater retention dike, causing it to overflow, with the resulting wave of sludge running down to the BR040 freeway below. Operations at the iron ore mine were halted to conduct investigations and ensure safety in the area concerned. The inquiry findings are pending.

4.2.4.8 Biodiversity SDG 11.4, 15.1, 15.2, 15.b

Studies have been conducted over the last few years at the main Vallourec sites to evaluate the impact of activities at our plants on biodiversity. No major risk has been identified.

In 2019, a study was conducted on identifying and measuring the surface area of existing "green areas" at our sites. The study related to managed green areas (gardens, lawns, etc.) and areas where local biodiversity was allowed to develop freely.

The findings of this survey conducted by the Environment Managers at each site are summarized in the graph below (this data will be updated regularly):



Excluding the Brazilian forest, which represents a significant portion of the biodiversity areas (48%), "green areas" account for 48% of the surface areas, of which a majority (42%) are for the development of biodiversity.

Measures to preserve biodiversity have been put in place for several years, primarily in Brazil and Indonesia:

- species present in these zones have been counted and listed and the awareness of employees (as well as residents adjacent to each site) has been increased;
- the Group ensures that the various sites do not negatively impact the biodiversity present at the sites by implementing preventive measures for its protection;
- certain specific activities of the Group have a direct link to biodiversity, therefore Vallourec ensures that it is respected. In this respect, it is worth mentioning Florestal, a Brazilian entity involved in forestry activities to produce charcoal that is then used as a source of energy.

The Vallourec Group invests on a long-term basis to preserve the areas of biodiversity around its industrial facilities.

In April 2021, Vallourec chose to respond for the first time to an annual CDP questionnaire on forests (CDP Forest 2021), with regard to the activities of its Florestal subsidiary in the state of Minas Gerais, Brazil. Here, Vallourec owns 115,795 ha of eucalyptus forest, farmed to produce charcoal, along with 98,828 ha of protected natural areas.

The CDP analysis of the Vallourec responses, in December 2021, gave a "C" grade ("Awareness" level), comparable to that of companies in our industry sector ("Metal smelting, refining and forming").

I - IN BRAZIL

The Barreiro site, located in the city of Belo Horizonte, runs an environmental education center at the edge of the city. This 20-hectare center includes three ecosystems: the *cerrado* (savanna), the transitional vegetation, and the *mata atlantica* (Atlantic forest). In 2019, this site developed an environmental recovery project on 2.4 hectares along the edge of the plant.

The Jeceaba site created a reference center on the "Atlantic forest" over a surface area of 660 hectares, with the goal of replanting this area with approximately 400 native species of the region. This space includes the legal reserve as well as the "green belt" and "forest belt". A surveillance system for monitoring wildlife has been established. Numerous specimens have been detected, including protected species, which is an indicator of biodiversity and helps protect regional ecosystems.

The Vallourec Florestal subsidiary operates eucalyptus plantations, which serve to produce the charcoal needed to operate the Jeceaba blast furnace. Approximately half of the areas are preserved in their natural state and positioned so as to create corridors for wildlife to move around. The forest is managed sustainably, as attested by Cerflor - PEFC certification (n° XSQ/0237-02/BH), compliant with the requirements of Brazilian standard NBR 14789: 2012. This subsidiary regularly participates in plant and wildlife study projects with Brazilian administrations (Regional Forest Institute), universities (Federation of Universities of Minas Gerais) or international NGOs. In 2021, the scope of periodic biodiversity monitoring was broadened to include insects, fish, reptiles and amphibians, and bats. Twenty-two wildlife monitoring campaigns were carried out, some in dry and rainy seasons. Through this work two bat species were discovered: Tonatia bidens, at the Corredor farm, and Lonchophylla cf. dekeyseri at the Serra do Cabral farm. These little-known species hold considerable conservation interest.

The Herpetofauna campaign on monitoring reptiles and amphibians at farms in the forest area listed several species of amphibians and reptiles, including endemic species of conservation interest, one of which is recognized as vulnerable and endangered.

Action was also taken to monitor surface water quality in the forest areas. Physical and chemical analysis of samples collected at various forest locations indicate that our forest is managed appropriately, to limit the environmental impacts of eucalyptus plantation and farming.

The Vallourec Mineração subsidiary is located some 50 kilometers from the Jeceaba site, which it supplies with iron ore. As exploitation of this open-pit mine gradually continues, the resulting waste rock is pressed, dried, then put in landfills. The ground is in the end reforested with local species at the rate of six hectares per year. Accordingly, 1,600 replanted hectares have already been returned to nature. Additionally, 200 hectares are allocated for an "Atlantic forest" type natural reserve. Vallourec teams conduct regular monitoring of water and air quality, along with cave surveillance to protect the fauna (bats) and flora specific to these environments. A field monitoring program planned for 2022, on species description improvement, will cover mammals, reptiles and amphibians, fish and birds.

II - IN AULNOYE-AYMERIES, FRANCE

To better understand the biodiversity on this site, an impact study of the Aulnoye-Aymeries area was launched in 2017 with a specialized provider in and around the site, which has several plants and is located close to classified natural spaces, a space belonging to the Natura 2000 network, and listed natural heritage areas. The study, which concerned Vallourec's land holdings, the immediate periphery of Vallourec's industrial site, and a study area that was expanded to a radius of 10 kilometers, concerned unusual and invasive species.

This study, which was finalized in 2018, has shown that the same plants and wildlife exist within the site, in the fallow ground, outside, in the immediate proximity, and in the various ecosystems that comprise the Sambre basin, the marshland and flood zones bordering it, as well as in the surrounding fields and pastures.

These habitats and species are conservation issues that fall primarily outside of Vallourec's remit. However, the diversity noted within the site remains remarkable for a major industrial site such as Vallourec's. Indeed, protected species have been observed on land where there is less human activity, such as the majority of the fallow land, the heap on the road to the plant, and even the stormwater basin.

This observation is thus encouraging in terms of the low impact of the Group's activities on biodiversity, and shows that it is also possible for an industrial company to help protect and develop plant wildlife.

III - IN INDONESIA

For several years, PT Citra Tubindo, in association with Batam Botanical Garden (BBG), 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 toward 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. Accordingly, in 2018, more than 300 trees were placed on the site and more than 100 in the botanical garden.

In 2019, PT Citra Tubindo, in collaboration with the BBG, began the construction of a green space and continues to plant more trees. In 2020 and 2021, planting campaigns (trees, flowers and herbaceous plants) continued despite the Covid-19 pandemic.

Appendix

Appendix 1 - Report by one of the Statutory Auditors, appointed as an independent third party, on the consolidated statement of non-financial performance

This is a free English translation of the Statutory Auditor's report issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

For the year ended December 31, 2021

To the Annual General Meeting,

In our capacity as Statutory Auditor of your company (hereinafter the "entity") appointed as independent third party, and accredited by the COFRAC under number 3-1049 [(1)], we have undertaken a limited assurance engagement on the historical financial information (actual or extrapolated) of the consolidated non-financial statement, prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), for the year ended December 31, 2021 (hereinafter, respectively, the "Information" and the "Statement"), included in the Group's management report pursuant to the requirements of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code *(Code de commerce)*.

At the request of the entity, we conducted works designed to express a reasonable assurance conclusion on the information selected by the entity and identified by the sign ☑.

LIMITED ASSURANCE CONCLUSION

Based on the procedures performed, as set out in the "Nature and scope of our work" section of this report, and the information collected, nothing has come to our attention that causes us to believe that the Statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.

REASONABLE ASSURANCE CONCLUSION ON A SELECTION OF NON-FINANCIAL INFORMATION

Based on the procedures performed, as set out in the "Nature and scope of our work" and "Nature and scope of additional work on the information selected by the entity and identified by the sign ☑" sections of this report, and the evidences collected, the information selected by the entity and identified with the symbol √ in the Statement has been prepared, in all material respects, in accordance with the Guidelines.

PREPARATION OF THE STATEMENT

The absence of a commonly used generally accepted reporting framework or a s established practices on which to draw to evaluate and measure the Information allows for different, but acceptable, measurement techniques that can affect comparability between entities and over time.

Consequently, the Information needs to be read and understood together with the Guidelines, the main elements of which are presented in the Statement (on request from the entity's registered office).

INHERENT LIMITATIONS IN PREPARING THE INFORMATION

As discussed in the Statement, the Information may be subject to inherent uncertainty because of incomplete scientific and economic knowledge and the quality of external data used. Some information is sensitive to methodological choices, assumptions and/or estimates used for their preparation and presentation in the Statement.

RESPONSIBILITY OF THE ENTITY

The Board of Directors is responsible for:

- selecting or establishing suitable criteria for preparing the Information;
- preparing a Statement in accordance with legal and regulatory requirements, including a presentation of the business model, a description of the main extra-financial risks, a presentation of policies applied to mitigate these risks and the outcomes of those policies, including key performance indicators, and the information provided for in Article 8 of Regulation (EU) 2020/852 (the Taxonomy Regulation);
- implementing internal control over information relevant to the preparation of the Information that is free from material misstatement, whether due to fraud or error.

The Statement was prepared by applying the entity's Guidelines as mentioned previously.

(1) Accreditation Cofrac Inspection, number 3-1049, scope available at www.cofrac.fr

RESPONSIBILITY OF THE STATUTORY AUDITOR, APPOINTED AS INDEPENDENT THIRD PARTY

On the basis of our work, our responsibility is to provide a report expressing a limited assurance conclusion on:

- the compliance of the Statement with the requirements of Article R. 225-105 of the French Commercial Code;
- the fairness of the historical financial information (actual or extrapolated) provided in accordance with Article R.225-105-I 3° and II of the French Commercial Code concerning action plans and policy outcomes, including the key performance indicators on the main risks.

As it is our responsibility to provide an independent conclusion on the Information as prepared by Management, we are not authorised to help prepare said Information, as that could compromise our independence.

At the request of the entity and outside of the scope of certification, we may express reasonable assurance that the information selected by the entity, presented in the appendices, and identified by the symbol ☑ has been prepared, in all material respects, in accordance with the Guidelines.

However, it is not our responsibility to comment on:

- the entity's compliance with other applicable legal and regulatory requirements (in particular, the disclosures provided for in Article 8 of Regulation (EU) 2020/852 (the Taxonomy Regulation), the French duty of care law and anti-corruption and tax avoidance legislation);
- the fairness of the disclosures provided for in Article 8 of Regulation (EU) 2020/852 (the Taxonomy Regulation);
- the compliance of products and services with the applicable regulations.

REGULATORY PROVISIONS AND APPLICABLE PROFESSIONAL GUIDANCE

We performed our work described below in accordance with the provisions of Articles A. 225 1 and following of the French Commercial Code, the professional guidance issued by the French Institute of Statutory Auditors *(Compagnie nationale des commissaires aux comptes)* relating to this engagement and International Standard on Assurance Engagements 3000 (Revised) [1].

OUR INDEPENDENCE AND QUALITY CONTROL

Our independence is defined by the provisions of Article L. 822-11-3 of the French Commercial Code and the French Code of Ethics *(Code de déontologie)* for statutory auditors. Our firm maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with applicable legal, regulatory and ethical requirements and the professional guidance issued by the French Institute of Statutory Auditors relating to this engagement.

MEANS AND RESOURCES

Our work was carried out by a team of six people between October 2021 and March 2022 and took a total of approximately ten weeks.

We were assisted in our work by our specialists in sustainable development and corporate social responsibility. We conducted about ten interviews with the people responsible for preparing the Statement.

NATURE AND SCOPE OF OUR WORK

We planned and performed our work to address the areas where we identified that a material misstatement of the Information was likely to arise.

We believe that the work carried out, based on our professional judgement, is sufficient to provide a basis for our limited assurance conclusion:

- we obtained an understanding of all the consolidated entities' activities, and the description of the principal risks associated;
- we assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, where appropriate;
- we verified that the Statement includes each category of social and environmental information set out in article L. 225-102-1 III as well as information regarding compliance with human rights and anti-corruption and tax avoidance legislation;
- we verified that the Statement provides the information required under article R. 225-105 II of the French Commercial Code, where relevant with respect to the principal risks, and includes, where applicable, an explanation for the absence of the information required under article L. 225-102-1 III, paragraph 2 of the French Commercial Code;
- we verified that the Statement presents the business model and a description of principal risks associated with all the consolidated entities' activities, including where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the principal risks;

(1) ISAE 3000 (Revised) - Assurance Engagements Other Than Audits or Reviews of Historical Financial Information

- we referred to documentary sources and conducted interviews to;
  - assess the process used to identify and confirm the principal risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the principal risks and the policies presented,
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important presented in Appendix. Concerning certain risks [1], our work was carried out on the consolidating entity, for the other risks, our work was carried out on the consolidating entity and on a selection of entities [2].
- we verified that the Statement covers the scope of consolidation, i.e. all the consolidated entities in accordance with article L. 233-16 of the French Commercial Code within the limitations set out in the Statement;
- we obtained an understanding of internal control and risk management procedures the entity has put in place and assessed the data collection process to ensure the completeness and fairness of the Information;
- for the key performance indicators and other quantitative outcomes that we considered to be the most important, as presented in Appendix, we implemented:
  - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data;
  - tests of details, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities and covers between 28% and 100% of the consolidated data selected for these tests;
- we assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.

The procedures performed in a limited assurance engagement are less in extent than for a reasonable assurance engagement performed in accordance with the professional guidance issued by the French Institute of Statutory Auditors; a higher level of assurance would have required us to carry out more extensive procedures.

NATURE AND EXTENT OF ADDITIONAL WORK ON THE INFORMATION SELECTED BY THE ENTITY AND IDENTIFIED BY THE SIGN ☑

With regard to the information selected by the entity, presented in the appendix and identified by the symbol ☑ in the Statement, we conducted the same work as described in the paragraph "Nature and scope of our work" above for the Information considered to be the most important, but in a more in-depth manner, in particular with regard to the number of tests.

The selected sample accounts for between 43% and 100% of the information identified by the symbol ☑.

We believe that our work is sufficient to provide a basis for our reasonable assurance opinion on the information selected by the entity and identified by the symbol ☑.

Paris-La Défense, on March 17, 2022

KPMG S.A.

Fanny Houlliot	Alexandra Saastamoinen
Partner Sustainability Services	Partner

(1) *Diversity; Occupational health; Social relations; Corruption; Ethics (excluding corruption); Consequences of global responses to climate change.*

(2) *P.T. Citra Tubindo (Indonesia); VSTAR Youngstown; Vallourec Soluções Tubulares do Brasil Barreiro; Vallourec Soluções Tubulares do Brasil Jeceaba; Vallourec Florestal (Brazil); Vallourec S.A.(France); Vallourec Tianda (China).*

Appendix A -

QUALITATIVE INFORMATION (ACTIONS AND RESULTS) CONSIDERED TO BE THE MOST IMPORTANT
Measures implemented to preserve the health and safety of Group employees
Actions implemented in favour of the Group's internal communication
Actions taken to promote diversity, including gender diversity
Employee development systems
Alert and reporting mechanisms
Anti-corruption measures
Group purchasing policy
Group HSE investments
Actions taken to save resources and reduce environmental impact
Measures implemented for more sustainable energy management
Actions taken to reduce the discharge of pollutants into the air
Measures implemented to promote circular economy
Actions and commitments taken with regard to mitigation and adaptation to the consequences of climate change
Actions taken to preserve natural spaces and biodiversity

Appendix B -

KEY PERFORMANCE INDICATORS AND OTHER KEY QUANTITATIVE RESULTS	
Key performance indicators and other key social quantitative outcomes	**Level of assurance**
Workforce as at December 31 and breakdown by age, gender, category and geographical area	Reasonable
Absenteeism rate	
Lost time injury rate (LTIR)	
Total recordable injury rate (TRIR)	
Number of training hours	Limited
Severity rate of occupational accidents	
Response rate and satisfaction rate of the Social Barometer	
Wage disparity rate	
CMR products replacement rate	
Key performance indicators and other key social quantitative outcomes	**Level of assurance**
Electricity consumption	Reasonable
Natural gas consumption	
Water withdrawals (by source)	
Volume of hazardous waste	
Volume of non-hazardous waste	
Percentage of waste recovered (including recycled)	
CO_2 emissions scopes 1 and 2	
CO_2 emissions scope 3 - related to the losses in energy extraction, storage and transport, to the purchases of materials, goods and services, to the use of products sold, to the upstream & downstream transport of goods	
Percentage of steel used that is made from scrap	
Water discharges	Limited
Amount of metals discharged	
VOC emissions (volatile organic compounds)	
NOx emissions (nitrogen oxides)	
Raw material consumption: ores, pellets and scrap, charcoal and purchased iron	
Key performance indicators and other quantitative societal outcomes	**Level of assurance**
Share of the quantity of purchases from suppliers involved in the formal CSR appraisal process	Limited
Number of internal and external alerts	

Appendix 2 - Methodological note

Chapter 4 of the Universal Registration Document, designed to inform shareholders and the greater public about the actions taken by Vallourec to promote sustainable development, complies with the Grenelle II Law of July 12, 2010, and in particular with Articles L.22-10-36, R.22-10-29 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 Universal Registration Document was verified by an independent third party body, whose report appears on page 157 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 Articles L.22-10-36 and R.225-105 of the French Commercial Code (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 have been drawn from the CR 360 reporting system since late 2016, which has allowed 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 are automatically collected by the GatheringTools system, and then sent to several HR information management system 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 are collected in the LMS (Learning Management System). Calculation and consolidation are completed by the Group Training Department: the Vallourec University Department.

HSE SCOPE OF CONSOLIDATION

The scope of consolidation is determined according to rules established by Vallourec's Sustainable Development Department and include:

1. industrial sites. The following are thus excluded from environmental scope: the Shared Services Center in Valenciennes, 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;
2. as concerns the consolidation of safety indicators, all sites are incorporated, including the registered offices in Boulogne and Rath, except for the small sales offices (less than 20 people), which represent 0.6% of the Group's workforce;
3. sites belonging to Vallourec for more than six months. This rule is to be considered when a disposal or acquisition occurs;
4. sites with active industrial operations during the year. This excludes construction sites that have not been in operation for more than six months;
5. sites for which Vallourec owns more than 50% of the voting rights. Conversely, the sites for which Vallourec is a minority shareholder are not consolidated (for example, this is the case for the HKM steel mill in Germany).

The scope includes companies within the tax consolidation.

CONSOLIDATION PRINCIPLES

1. The 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 wholly owned by the Group.
2. Precautionary principle: consolidation is established on the basis of prudent assessments to avoid transfer risk and reputational risk.
3. Accrual 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 Regions and 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 Executive Management and to all sites.

Safety indicators are issued monthly, after verification, to Executive Management, the Regions and divisions, and all sites.

PRODUCTION CALCULATIONS

By "metric ton processed", Vallourec means 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 (United States), and Vallourec Soluções Tubulares do Brasil (VSB) in Barreiro and Jeceaba (Brazil), the total production is the sum of the steel and tubes produced.

Production of iron ore by Vallourec Mineração, the manufacture of pellets in Jeceaba, as well as the production of charcoal by Vallourec Florestal are, however, not included in the Group's total production.

By "metric ton shipped" or "sold" Vallourec means metric tons of tubes and accessories 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 Universal Registration Document was verified by an independent third party. A selection of indicators identified by the symbol R were checked more thoroughly, to a reasonable level of assurance. 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	Plant concerned	Description
Atmospheric emissions of NO_x and SO_2	All those consuming natural gas	In the absence of measures performed by the site on the quality of the gases emitted from its combustion facilities, the NO_x and SO_2 emissions are calculated by multiplying its natural gas consumption (in kWh) for the following emissions factors: 0.0001944 for NO_x and $1.73913*10^{-6}$ for SO_2 (EF source: suppliers of gas in France).
Wastewater quality	Vallourec Tubes France (tube mills in Saint-Saulve, Déville-lès-Rouen and Aulnoye-Aymeries), Vallourec Deutschland Rath, Vallourec Star Houston, PT Citra Tubindo, VSB Jeceaba	Indicators for monitoring wastewater quality (SPM, COD, TH and 10 metals) are only 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. This data are based on a list of metals established by the Group, with the knowledge that the data reported by the sites only concerns the analyses imposed by the local regulations.
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. Waste is classified as hazardous or non-hazardous according to the local regulations.
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 the other types of dust produced by the other 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 the 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). Since 2019, we differentiate charcoal tonnage produced according to the type of carbonization furnaces: conventional furnaces, furnaces equipped with chimney burners, and the Carboval unit. Methane emissions are calculated for each type based on relevant emission factors.
Sequestration of Florestal	Vallourec Florestal	The method for calculating amounts of CO_2 sequestered by the forest during the reference year is as follows. It derives from information drawn from the study conducted in cooperation with numerous scientific authorities (See Section 4.5.4.1). Annual sequestration is estimated when the tree is cut to be processed into charcoal. The reference value is thus the annual charcoal production. The reference study allowed a 30-year observation period to be identified, considering the amount of charcoal produced, the amount of carbon absorbed by the tree trunk and the amount absorbed by the roots and stumps in the soil. It was thus possible to calculate the ratios of carbon sequestered by the roots in relation to the tonnage of charcoal produced and ultimately consumed in the blast furnaces, and the ratio of carbon absorbed by the tree trunk, also in relation to the charcoal produced. These ratios are then used to calculate the amounts of carbon sequestered annually. The amounts of carbon emitted during carbonization of the trunks and the amounts of methane emitted during the carbonization process in the ad hoc furnaces are also in proportion to the charcoal produced.
Indirect CO_2e emissions linked to electricity purchases (Scope 2)	All plants	The CO_2 emissions of all sites that consume purchased electricity are calculated based on emission factors provided by the suppliers themselves, either directly or calculated based on their energy mixes. These emissions are referred to as "Market-based". We also calculate "Location based" emissions using national or regional emission factors (e.g., states in the United States) provided in public databases (e.g., ADEME).
Indirect CO_2e emissions linked to external steel purchases (Scope 3 upstream)	Steel suppliers	Emissions relating to our steel purchases are calculated by multiplying, for each steel mill, the tonnage purchased by an emission factor (kg CO_2 per metric ton of steel) which is provided by the supplier itself or, failing this, taken from internal databases which include the manufacturing process (blast furnaces or electric arc furnaces). At the present time, we consider the direct emissions (Scopes 1 & 2) of our steel supplier, but not yet their indirect upstream emissions (Scope 3), such as those concerning purchases of raw materials for steel production.
% of steel used, made from scrap	Vallourec steel mills in Jeceaba (Brazil) and Youngstown (United States)	This indicator is calculated based on the metric tons of scrap used during the year (internally purchased and recycled) divided by the total amount of inputs (quantities of cast iron purchased or produced internally and scrap purchased and recycled internally).

<table>
<tr><th>Issue</th><th>Plant concerned</th><th>Description</th></tr>
<tr><td>Scope 3 emissions related to upstream and downstream external transport ordered by the Company</td><td>All plants</td><td>The calculation method was expanded in 2020 to cover the three transport phases (supply of raw materials for steel mills, transport of semi-finished products between plants and transport of finished products to customers), transport methods (truck, train, barge and freight) and distances traveled between each point of departure and arrival.</td></tr>
<tr><td>Indirect CO_2e emissions linked to the use of products sold (Scope 3 downstream)</td><td>All plants</td><td>The calculation method was developed with the support of the Carbone 4 consulting firm.
We started from the amounts of Vallourec's annual revenue (in € millions) for each of its six main markets: Oil & Gas; Petrochemicals; Power Generation; Mechanicals; Automotive; Construction and Other.
Calculation principles: each revenue amount is multiplied by a carbon intensity (metric tons of CO_2 per € million of revenue) specific to each of these markets. These intensities were calculated using recognized sources (ADEME, ATEE, IEA, Ecoinvent). So for example, for the oil market, the calculation was based on the barrel, its price and its energy content.
For the Oil & Gas market, we took into account emissions relating to extraction and processes in place, but did not include upstream emissions relating to transport and the combustion of products. The breakdown (as a %) of revenue between oil and gas is a factor, as is the breakdown (as a %) between coal, nuclear and "renewables" for the Power Generation market.
Carbon intensities used for each market:
<table>
<tr><th>Market</th><th>Carbon intensity (metric tons of CO_2 per € million of revenue)</th></tr>
<tr><td>Oil & Gas</td><td>Oil: 440, Gas: 285</td></tr>
<tr><td>Petrochemicals</td><td>1,747</td></tr>
<tr><td>Power Generation</td><td>Coal: 18,844, Nuclear: 133, Renewables: 2,444</td></tr>
<tr><td>Mechanicals</td><td>150</td></tr>
<tr><td>Automotive</td><td>35</td></tr>
<tr><td>Construction & other</td><td>1,494</td></tr>
</table></td></tr>
<tr><td>Indirect CO_2e emissions linked to the end of life of products sold (Scope 3 downstream)</td><td>All plants</td><td>We calculate these emissions based on the annual tonnage of tubes and accessories sold by the Group, multiplied by the ADEME's standard emission factor which corresponds to the average end of life of "mineral waste".</td></tr>
<tr><td>Water consumption</td><td>Vallourec Mineração</td><td>The water consumption of the site only corresponds to the portion used for the extraction and land watering process, and not to the mine water that is sent directly into the river like rainwater.</td></tr>
<tr><td>Raw materials</td><td>All plants</td><td>Indicators of raw materials (iron ore, iron ore pellets, charcoal, charcoal dust, scrap, cast iron) correspond to the amounts used for steel production.
Scrap is considered by Vallourec as a by-product and is not included in either the waste or the recovery rate indicator.</td></tr>
<tr><td>Compensation</td><td>All</td><td>The "Compensation" indicator is calculated as the sum of staff compensation, social security charges and pension expenses.
(number of departures + number of new joiners for the year)/2 × 100/(headcount as of December 31 of the preceding year).
This takes into account departures, new joiners and transfers within areas.
The reasons for departure included are: retirement, resignation, dismissal, and other (death, change of category, contract termination, termination after trial period).</td></tr>
<tr><td>Turnover</td><td>All</td><td>The turnover rate includes departures and new joiners for the year in question and is defined as follows:
(number of departures + number of new joiners for the year)/2 × 100/(headcount as of December 31 of the preceding year)
This takes into account departures, new joiners and transfers within areas.
The reasons for departure included are: retirement, resignation, dismissal, and other (death, change of category, contract termination, termination after trial period).</td></tr>
<tr><td>Method of accounting for lost days following a workplace accident in the United States and Germany</td><td>All</td><td>In the United States, lost days for workplace accidents are not counted beyond the 180th day in accordance with applicable OHSA regulations.
This accounting method is specific to the United States and differs from the rule recommended by the Group for accounting for lost days.
However, this method of counting shutdown days also applies to the Vallourec Deutschland GmbH entity in Germany.</td></tr>
<tr><td>Number of training hours</td><td>All</td><td>The data relating to the number of training hours published covers in-person learning that exceeds two hours and e-learning. The percentage of employees trained is calculated in relation to the number of employees that have had access to training during the fiscal year and not to the headcount at the end of the period.
In-person learning of less than two hours is excluded from this data.</td></tr>
<tr><td>Number of hours worked</td><td>Vallourec Tianda</td><td>Hours worked do not include the hours of truck drivers who deliver the billets, provide internal transportation between the workshops, and load the products for delivery to a port of destination or to customers. The estimated impact represents less than 0.4% for the Vallourec Group as a whole in 2020.</td></tr>
</table>

Appendix 3 - Cross-reference table between the information required under Articles L.22-10-36 and R.225-105-1 of the French Commercial Code and the information in this chapter

1°	**GROUP BUSINESS MODEL**	Profile (p. 2)/3.2/3.6/3.8 (p. 38/63/74)
2°	**DESCRIPTION OF THE MAIN RISKS**	
a)	**Environmental issues**	4.1.1/4.1.2/4.2 Introduction/5.1.1/ 5.1.2 (p. 87/88/92/164/166)
b)	**Social issues**	4.1.1/4.1.2/4.2 Introduction/5.1.2 (p. 87/88/92/166)
c)	**Corruption and tax evasion issues**	4.1.3/4.2 Introduction/5.1.3 (p. 91/92/168)
d)	**Human rights issues**	4.1.1/4.1.2/4.2 Introduction/5.1.2/ 5.1.3 (p. 87/88/92/166/168)
3°	**DESCRIPTION OF THE POLICIES APPLIED AND THEIR RESULTS**	
a)	**Environmental issues**	4.2.4 (p. 117)
b)	**Social issues**	4.2.2 (p. 96)
c)	**Corruption and tax evasion issues**	4.2.1 (p. 94)
d)	**Human rights issues**	4.2.1/4.2.2.2/4.2.2.3/4.2.2.6 (p. 94/ 104/107/112)
4°	**SOCIAL INFORMATION**	
a)	**Employment**	
1.	Total number and breakdown of employees by gender, age and geographical area	4.2.2.1 (p. 96)
2.	New hires and dismissals	4.2.2.1 (p. 96)
3.	Compensation and compensation trends	4.2.2.4 (p. 109)
b)	**Organization of work**	
4.	Organization of working time	4.2.2.1 (p. 96)
5.	Absenteeism	4.2.2.1 (p. 96)
c)	**Health and safety**	
6.	Health and safety conditions at work	4.2.2.2 (p. 104)
7.	Workplace accidents, including their frequency and severity, and occupational illnesses	4.2.2.2 (p. 104)
d)	**Employee relations**	
8.	Dialog between employers and employees, including procedures for informing, consulting and negotiating with staff	4.2.2.3 (p. 107)
9.	Review of collective bargaining agreements	4.2.2.3 (p. 107)
e)	**Training**	
10.	Training policies implemented, particularly for environmental protection	4.2.2.5 (p. 110)
11.	Total number of training hours	4.2.2.5 (p. 110)
f)	**Equal opportunity**	
12.	Measures taken to promote gender equality	4.2.2.6 (p. 112)
13.	Measures taken to promote the employment and integration of the disabled	4.2.2.6 (p. 112)
14.	Anti-discrimination policy	4.1.3/4.2.2.6 (p. 91/112)
5°	**ENVIRONMENTAL INFORMATION**	
a)	**General environmental policy**	
15.	Organization of the Company to take environmental issues and, where appropriate, environmental assessment or certification efforts into account	4.2.4.1 (p. 117)
16.	Resources devoted to the prevention of environmental risks and pollution	4.2.4.1 and 5.1.2 (p. 117/166)
17.	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	4.2.4.1 (p. 117) and Note 9 to the financial statements (p. 243)

b)	**Pollution**	
18.	Measures to prevent, reduce or remediate discharges into the air, water and soil which seriously impact the environment	4.2.4.6 (p. 130)
19.	Consideration of all forms of pollution specific to a business, particularly noise and light pollution	4.2.4.5 (p. 127)
c)	**Circular economy**	
	Waste prevention and management	
20.	• waste prevention, recycling, reuse, other forms of recovery and elimination methods	4.2.4.5 (p. 127)
21.	• actions to combat food waste	N/A
	Sustainable use of resources	
22.	• water consumption and water supply according to local constraints	4.2.4.4 (p. 122)
23.	• consumption of raw materials and measures to improve efficiency in their use	4.2.4.4 (p. 122)
24.	• energy consumption, measures to improve energy efficiency and use of renewable energy	4.2.4.5 (p. 127)
25.	• land use	4.2.4.6 (p. 130)
d)	**Climate change**	
26.	Significant items for greenhouse gas emissions generated from the Company's activity, particularly through use of goods and services that it produces	4.2.4.7 (p. 136)
27.	Measures taken for adaptation to the consequences of climate change	4.2.4.7 (p. 136)
28.	The medium- and long-term reduction objectives set voluntarily for the reduction of greenhouse gas emissions and the means implemented to this end	4.2.4.7 (p. 136)
e)	**Biodiversity protection**	
29.	Measures taken to preserve or enhance biodiversity	4.2.4.8 (p. 146)
6°	**SOCIETAL INFORMATION**	
a)	**Societal commitments to support sustainable development**	
30.	Impact of the Company's business on employment and local development	4.2.3.3/4.2.3.4 (p. 114/115)
31.	Impact of the Company's activity on neighbors or local populations	4.2.3.3/4.2.3.4 (p. 114/115)
32.	Relations maintained with the Company's stakeholders and dialogue with them	4.2.3 (p. 113)
33.	Partnership or sponsorship actions	4.2.3.4 (p. 115)
b)	**Subcontracting and suppliers**	
34.	Consideration of social and environmental issues in the purchasing policy	4.2.3.3 (p. 114)
35.	Consideration of relations with suppliers and subcontractors and their CSR responsibility	4.2.3.3 (p. 114)
c)	**Fair practices**	
36.	Measures for consumer health and safety	4.2.3.2 (p. 113)
7°	**ANTI-CORRUPTION INFORMATION**	
37.	Actions to prevent corruption	4.2.1/4.2.3.3 (p. 94/114)
8°	**INFORMATION ON ACTIONS THAT SUPPORT HUMAN RIGHTS**	
	Promotion of and respect for the fundamental conventions of the International Labour Organization in relation to:	
38.	• respect for freedom of association and the right to collective bargaining	4.1.2 (p. 88)
39.	• elimination of discrimination in respect of employment and occupation	4.1.2 (p. 88)
40.	• elimination of forced or compulsory labor	4.1.2 (p. 88)
41.	• effective abolition of child labor	4.1.2 (p. 88)
9°	**ADDITIONAL INFORMATION**	
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In light of the Group's activities, the Company considers that it is not relevant to report on its commitments regarding combating food waste, combating food insecurity, promoting respect of animal welfare, and responsible, equitable, and sustainable food.

Appendix 4 - Summary of workforce-related and environmental indicators

Social indicators

	2016	2017	2018	2019	2020	2021
Headcount	20,964	18,325	20,093	18,827	16,636	16,685 ☑
Turnover *(%)*	9	13	14	11	11	13

	2016	2017	2018	2019	2020	2021
Safety						
LTIR [(a)]	1.41	1.24	1.00	1.01	0.760	1.11
TRIR [(b)]	3.25	2.61	3.13	2.23	1.670	1.65 ☑
Severity rate	0.07	0.06	0.045	0.058	0.052	0.06
Training						
Number of employees having participated in a training session	13,779	13,615	13,990	13,550	10,980	11,846
Number of training hours	506,459	282,542	303,588	270,551	135,080	197,070

(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	
	2020	2021	2020	2021	2020	2021	2020	2021
Europe	2%	1%	32%	33%	23%	23%	12%	12%
Brazil	6%	6%	34%	36%	25%	27%	11%	11%
NAFTA	1%	2%	28%	28%	22%	23%	11%	10%
Asia	12%	12%	29%	29%	16%	18%	17%	17%
Middle East	1%	2%	22%	26%	17%	15%	11%	11%
Africa	4%	5%	14%	13%	-	-	9%	8%
WORLD	**5%**	**5%**	**31%**	**32%**	**23%**	**24%**	**12%**	**12%**

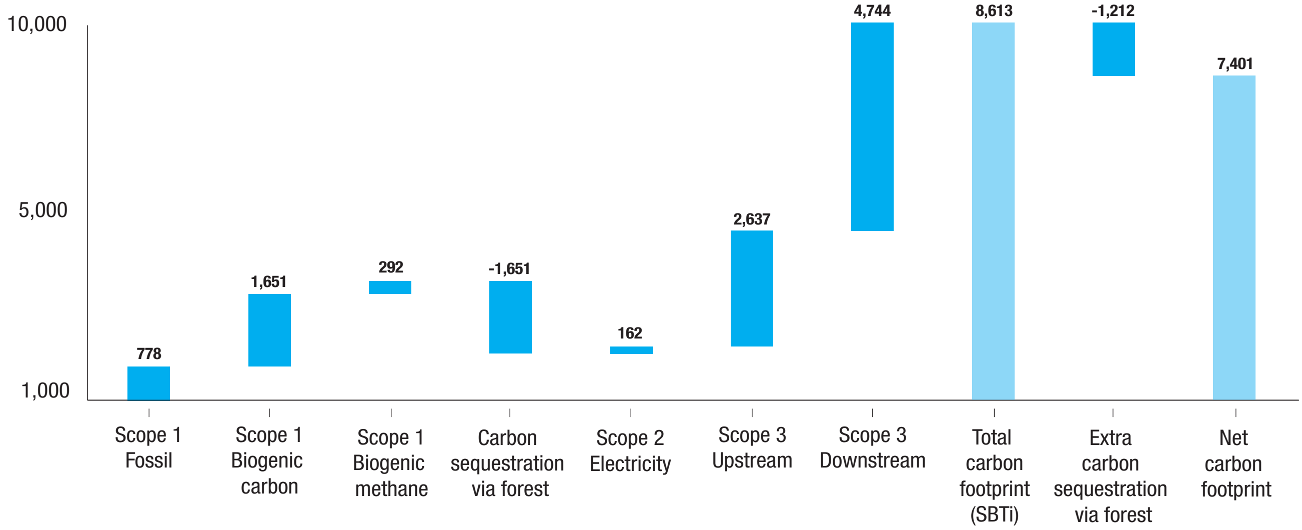
Breakdown between permanent and non-permanent contract staff

	Permanent		Fixed-term contract (including apprentices)		Temporary	
	2020	2021	2020	2021	2020	2021
Europe	5,430	4,693☑	350	400	90	123
Brazil	6,291	6,896☑	185	154	94	189
Asia	2,056	1,916☑	293	248	203	193
NAFTA	1,696	2,030☑	0	0	9	98
Middle East	261	278☑	16	8	0	0
Africa	58	62☑	0	0	8	15

Environmental indicators*

Indicators	Units	2016	2017	2018	2019	2020	2021
Manufacturing	**Metric tons "processed"**	**3,068,607**	**5,245,292**	**5,523,792**	**5,295,678**	**3,518,835**	**4,193,437**
	Metric tons shipped	1,281,500	2,256,100	2,364,000	2,290,900	1,598,725	1,639,800
Water intake	**cu.m./year**	**5,672,035**	**6,483,189**	**6,889,346**	**6,412,486**	**5,711,575**	**6,614,828** ☑
	cu.m./metric ton "processed"	1.85	1.24	1.25	1.21	1.62	1.58
	cu.m./metric ton shipped	4.43	2.87	2.91	2.80	3.57	4.03
Water discharged	**cu.m./year**	**3,179,631**	**3,202,705**	**3,220,811**	**2,920,223**	**2,583,513**	**2,315,127**
	cu.m./metric ton "processed"	1.04	0.61	0.58	0.55	0.73	0.55
	cu.m./metric ton shipped	2.48	1.42	1.36	1.27	1.62	1.41
Waste							
Non-hazardous waste	Metric tons/year	430,980	693,674	706,711	642,584	535,657	656,958
Hazardous waste	Metric tons/year	27,670	26,095	24,777	26,090	15,217	17,207
% recovered waste	%	94.38	94	95.5	95.8	97	97.6 ☑
Total waste	Metric tons/year	458,650	719,769	731,488	668,674	550,874	674,165 ☑
	kg/metric ton "processed"	149	137	132	126	157	161
	kg/metric ton shipped	358	319	309	292	345	411
Energy							
Natural gas	GWh/year	2,531	3,526	3,680	3,280	2,384	2,530 ☑
	kWh/metric ton "processed"	825	779	666	619	678	600
	kWh/metric ton shipped	1,975	1,563	1,557	1,432	1,491	1,535
Electricity	**GWh/year**	**1,376**	**1,797**	**1,881**	**1,717**	**1,434**	**1,614** ☑
	kWh/metric ton "processed"	448	343	341	324	409	351
	kWh/metric ton shipped	1,074	796	796	749	899	899
CO_2 [(a)]							
Total direct emissions (Scope 1) [(a)]	Metric tons/year	(468,853)	33,332	421,397	151,728	5,952	(142,313) ☑
	kg CO_2e/metric ton "processed"	(153)	6	76	29	2	(34)
	kg CO_2e/metric ton shipped	(366)	15	178	66	4	(87)

Analysis of greenhouse gas emissions 2021



Summary of emissions in metric tons of CO_2 equivalent

Scope	Businesses	Mine	Forest	Production of iron and steel	Rolling and heat treatments of tubes	Finishings & Services	Sub-total *(metric tons CO_2e)*	% subtotal	% total
Scope 1 Non-biogenic direct CO_2 emissions	Natural gas combustion			30,669	374,991	61,561	467,221 ☑	60%	
	Fuels for internal transportation	39,451	16,900	1,424	3,938	5,078	66,791☑	9%	
	Production of iron and steel			244,310			244,310 ☑	31%	
	Total – Scope 1 non-biogenic	**39,451**	**16,900**	**276,403**	**378,930**	**66,639**	**778,323** ☑	**100%**	**34%**
Scope 1 Biogenic direct CO_2 emissions	Carbonization of charcoal		980,542				980,542	22%	
	Atmospheric and underground sequestration		(2,863,567)				(2,863,567)	63%	
	Combustion of charcoal			670,649			670,649	15%	
	Total – CO_2 Scope 1 biogenic	**0**	**(1,883,025)**	**670,649**	**0**	**0**	**(1,212,376)** ☑	**100%**	**(53%)**
Scope 1 Biogenic direct CH_4 emissions	Carbonization of charcoal		291,741				291,741	100%	13%
Scope 1 Non-biogenic and biogenic direct emissions	**Total – Scope 1**	**39,451**	**(1,574,384)**	**947,051**	**378,930**	**66,639**	**(142,313)**	**100%**	**(1.9%)**
Scope 2 "Supplier base" indirect emissions	**Electricity purchased** **Total – Scope 2**	**4,007**	**217**	**31,154**	**90,013**	**36,158**	**161,549** ☑	**100%**	**2.2%**
Scope 3 [(a)] Other upstream emissions, indirect	Upstream and downstream external transport ordered by the Company						241,658 ☑	9.2%	
	Waste treatment						84,305	3.2%	
	Employee transportation and travel						29,639	1.1%	
	Purchases of materials, goods and services						2,008,202 ☑	76.2%	
	Emissions related to the carbon content of industrial equipment proportionate to amortization and depreciation						143,429	5.4%	
	Emissions linked to losses during extraction, storage and transportation of energies [(b)]						129,744 ☑	4.9%	
	Total upstream – Scope 3						**2,636,976** ☑	**100%**	**36%**
Scope 3 [(a)] Other downstream emissions, indirect	Use of sold products						4,690,361 ☑	99%	
	End of life of sold products						54,113 ☑	1%	
	Total downstream – Scope 3						**4,744,474**	**100%**	**65%**
TOTAL ACROSS ALL COMPONENTS		43,459	(1,574,167)	978,205	468,943	102,797	7,400,686 ☑		100%

(a) *The items appearing under this entry are those over which the Company has a direct effect or direct influence, and for which data are available. To date, emissions pertaining to client processes are neither known nor taken into account. For the purpose of improving the knowledge of Scope 3 in light of its importance, the Group drafted in 2019, with the assistance of a specialist consultant, a methodology to determine carbon emissions of downstream items relating to the use and end of life of products used by its customers The calculation of these emissions was carried out for 2019, 2020 and 2021, but also, retroactively, for 2017 and 2018.*

(b) *Energies = electricity, natural gas, gasoline, gas oil, propane, bioethanol.*

chapter 5

RISK AND RISK MANAGEMENT

5 RISK AND RISK MANAGEMENT

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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 importance of the specific risks to which it considers itself to be exposed based on the probability of their occurrence and the extent of their negative impact, as estimated after taking into account the action plans in place. These risks are presented below and are organized by category, according to their type. In each category, the most important risk factors, based on the aforementioned assessment, are indicated first and marked with an asterisk (*****).

The risks described below have been assessed as major risks for the Company as at the date of this Universal Registration Document, i.e., those that could have the greatest negative material impact on the Company's operations or earnings (or its ability to achieve its objectives), and/or for which there is a significant likelihood of occurrence.

The Group's broad geographical presence, the diversity of its markets and product lines, and the nature of its development, mean that it is exposed to various types of risk. The Group operates in environments undergoing rapid change, and this could cause exogenous risks with an impact on the risk profiles monitored by the Group.

Investors should note that other risks may exist or could arise that the Group is not currently aware of, or has not considered at the date of this Universal Registration Document, and these could have a material adverse impact on the Group, its operations, its financial position, its earnings and its outlook. The Group has assessed the risk factors as at the date of this Universal Registration Document and may change its assessment of the significance of the risks at any time, particularly in the light of any new internal or external developments.

5.1.1 Risks related to the Group's strategy and operations

Risks related to the Group's dependence on customers in the oil sector*

The Group's business is highly dependent on the level of investment undertaken by Oil & Gas companies in the exploration, production and development of oil and natural gas reserves. In 2021, 54% of the Group's consolidated revenue was earned in the Oil & Gas sector, excluding Petrochemicals. According to the Group's internal estimates, tubular solutions generally account for around 2% of the total cost of a complex and integrated offshore project, although this proportion varies according to the complexities and types of drilling. They may represent up to 10% of the total cost of the project for unconventional onshore drilling in the United States. The level of investment in exploration and production therefore has a direct impact on the consumption of tubes and on the Group's earnings.

Exploration and production investments are affected by oil price volatility, which results from the interplay between supply and demand as well as levels of oil reserves. Over the 2014-2021 period, oil prices peaked at USD 115 per barrel of Brent crude and fell to a low of USD 19.3 per barrel in 2020, owing to a slump in global oil demand resulting from the spread of the Covid-19 virus and associated restrictions.

In 2021, the upturn in global oil demand – mainly in the second half of the year when it averaged 96.4 mb/d – drove up Brent crude prices. Standing at USD 77.8 per barrel on December 31, the price of Brent crude rose by 50% over the year, hitting a peak of USD 85.8 per barrel on October 20, 2021. Spending by oil companies increased by almost 15% in 2021 to USD 347 billion, after having bottomed out at USD 302 billion in 2020. This upward trend was also observed in the active rig count, which increased gradually over the year, particularly in North America with an average of 475 rigs during the year and 586 rigs in operation at the end of the year. In the international market, 157 rigs were added on average over the year, with an average of 834 rigs in operation in December 2021.

Investments by Oil & Gas companies could be subject to other negative factors such as changes in applicable laws and regulations, changes in the political situation (such as with the present conflict between Russia and Ukraine), weather conditions and the policies put in place to address climate change. These factors could consequently have a negative impact on the Group's operations, earnings and outlook.

The Group is anticipating the risk associated with the structural decline in activities linked to fossil fuels by developing its footprint in the energy transition sector, which includes geothermal energy, carbon capture and storage (CCS), and hydrogen.

Risks related to the cyclical nature of the tube market*

The tube market is traditionally subject to cyclical trends which result both from economic changes in the Oil & Gas sector as described above, and from macroeconomic conditions which have an impact on the Group's other business sectors, including Mechanicals, Automotive, Construction and Power Generation which, together with iron ore production, accounted for 36% of Group consolidated revenue in 2021. These sectors have important business cycles which follow the trends in the economic climate and are likewise influenced by other factors, such as the growth outlook.

A deterioration in the global economic climate and the financial markets, such as that seen in 2020 as a result of the Covid-19 pandemic, would have a significant adverse effect on the Group's revenue, income, cash flow and outlook.

Risks related to the industrial reorganization project

In November 2021, Vallourec announced plans to divest its German production facilities and the progressive relocation of their Oil & Gas activities to Brazil in order to serve the international market. The aim of this disposal process for these facilities is to find a new operator to profitably serve the European Industry markets. If no buyer is identified, Vallourec will look at all alternatives, including closure.

The transfer of these activities will be accompanied by the progressive implementation of a capital expenditure program worth approximately €100 million in Brazil, to enable the sites to produce the full range of premium tubular products for Brazilian as well as international Oil & Gas customers.

Although the Group is rolling out the initiatives associated with its industrial reorganization project according to schedule, and is making every effort to achieve the objectives announced in this respect, it could encounter difficulties, notably:

- the Group's customers could turn to other suppliers if they believe that its products and services, product delivery time or product quality no longer meet their expectations following the transfer of production to Brazil;
- the Group cannot guarantee that the industrial reorganization will achieve the expected results within the expected timeframe.

If the Group does not succeed in carrying out the industrial reorganization plan effectively, or if the plan does not have the expected results, this could have a material adverse effect on its earnings, financial position and outlook.

Risks related to dependence on particular customers

In 2021, the Group earned 18% of its consolidated revenue from its five largest customers and 23% of its consolidated revenue from its ten largest customers (see section 3.2.2.2 “Principal customers” of this Universal Registration Document). No customer accounted for more than 10% of the Group’s consolidated revenue in 2021. The Group has a customer base in all regions of the world, thereby diluting exposure to a specific geographic market.

Nevertheless, most customers are not required to purchase a fixed amount of products or services over a given period and could decide to terminate their contracts or to stagger their orders over a longer period of time, not renew their contracts, or renew them on terms that are less favorable for the Group, particularly with respect to pricing. This could have a significant adverse effect on the Group’s business, financial position and earnings.

The Group is also exposed to risk in respect of outstanding customer receivables, particularly from those customers weakened by the recent crisis in the oil market as a result of the Covid-19 pandemic. As a result, it has established specific credit committees to systematically evaluate the financial risks assumed with its customers. However, in a deteriorating world economic environment, to which the Oil & Gas sector is by no means immune, the risk that a deterioration in its customers’ financial position will expose the Group to the risk of payment default cannot be ruled out.

Risks related to the competitive environment

The Group operates in a highly competitive international environment, with varying degrees of intensity in its different sectors of activity:

- 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. Under pressure from environmental regulations and long-term oil prices, oil companies, and especially International Oil Companies (IOCs) are increasingly shifting their focus to projects with lower production costs requiring fewer premium products. They are also developing a strategy of qualifying low-cost suppliers, particularly from China. These low-cost competitors have progressed technically and developed premium connections for the least differentiated categories.

This fierce competition in the OCTG commodity tube market puts pressure on prices throughout the industry, including those for premium connections and tubes, notably in Europe/Africa (EA) and Middle East/Asia (MEA) regions, and with the exception of certain protected markets like the United States.

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 historical 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 decision to close the Reisholz factory in Germany, focused on conventional coal-fired power plants – particularly in China – progressed according to plan in 2021. We maintained the capacity of our VCHA plant in China in order to deliver to this segment,
  - in the Petrochemical, Mechanicals, Automotive and Construction sectors, the Group faces stronger competition as customer requirements are less sophisticated.

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 business 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 on the revenue generated by the Group’s licenses. The Group’s earnings 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. The Group continues to invest in Research and Development to maintain its technological leadership and anticipate its customers’ needs.

Risks related to the Group's operations in developing countries

The Group conducts a significant part of its business in developing 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 markets. The risks associated with doing business in developing countries may include political, economic and social instability (for example, the nationalization and expropriation of assets, uncertainty as to applicable laws and inconsistent application of laws, the impact of international sanctions, etc.), as well as financial instability and more acute 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). Despite the Vigilance Plan in place (see section 4.1) and its insurance cover (see section 5.3), the Group may not be in a position to protect itself or hedge against all of these risks, and may also encounter problems in carrying on business in such countries, which could have an impact on its employees and/or earnings, growth or outlook.

Risks related to political and macroeconomic instability

The Group is faced with an upsurge in geopolitical disputes involving the countries where it does business, such as the trade war between the United States and China, for example, and an increase in the reprisal measures and protectionist regulations that are an indirect result of this conflict.

This trend is being reflected in a proliferation of trade defense measures in Europe, the United States, and China. These procedures – anti-dumping, safeguarding or other protection mechanisms based on a national security threat, as is the case with the US measures based on section 232 of the US Trade Expansion Act – impose customs duties or quotas in the steel sector.

These measures are likely to have a negative impact on the Group's trade flows globally and, therefore, on its earnings and outlook.

With regard to the conflict in Ukraine and the sanctions against Russia, the Group would like to point out that its business in these two countries is very limited, representing less than 0.7% of its consolidated revenue in 2021. The Group is closely monitoring the situation and is complying – and will continue to comply – with all applicable sanctions. Vallourec and Interpipe, a Ukrainian manufacturer of seamless tubes, decided to terminate their cooperation agreement in 2021. Under this agreement, Vallourec was responsible for the sale of non-OCTG carbon seamless tubes rolled by Interpipe in Europe under the Vallourec brand. These tubes were inspected and packaged in a joint finishing unit, Vallourec Niko Tube – Ukraine, which is managed by Vallourec and located in Nikopol (Ukraine). Vallourec's exit from this joint venture, which was due to be finalized at the end of February 2022, has been put on hold due to the conflict in Ukraine.

5.1.2 Operational risks

Risks related to changes in raw material and energy costs*

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.

All of the European rolling mills are primarily supplied with raw materials from European steel mills. In particular, for ordinary steel, it is supplied by the Huckingen mill operated by Hüttenwerke Krupp Mannesmann (HKM), in which Vallourec Tubes has a 20% stake in the capital. HKM produces steel rounds intended exclusively for its shareholders, who are committed to certain volumes. Based on its business outlook as set out in the strategic plan, Vallourec would be unable to absorb the volumes to which it is entitled. An impairment loss was therefore recognized against HKM in its 2020 financial statements in excess of its industrial assets, i.e., €81 million, and Vallourec decided to terminate the cooperation and supply agreements effective December 31, 2028, at the end of the contractually agreed seven-year notice period.

In Brazil, the Group extracts iron ore in its Pau Branco mine in the state of Minas Gerais. The mine supplies the blast furnaces and the pellet plant of its affiliates located at Jeceaba in Minas Gerais, and also markets its production locally. In the second quarter of 2019, Vallourec was granted a license from the Minas Gerais authorities to extend production capacity by building a new processing unit. This should enable it to reach a total production capacity of around 8.7 million metric tons per annum. Production volumes represented 8.1 million metric tons in 2021. The extension of the mine's production capacity is expected to be completed by the end of 2021. Based on a normalized annual output of approximately 8.7 million metric tons, the impact of an average USD 10 change in iron ore prices during the year on the mine's EBITDA would be approximately USD 40 million.

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 production costs for the Group's finished products. Uncertainties about economic trends along with a highly competitive environment in the international market for tubes mean that the Group's ability to pass on any increases in raw materials and energy prices to its orders is uncertain. This could reduce Group margins and have a negative impact on earnings.

Energy or commodity consumption could also be affected by measures imposed by authorities to address climate change and reduce companies' environmental footprint (see environmental and climate-change risks below).

Industrial and environmental risks

The industrial nature of the Group's businesses gives rise to environmental, safety and health risks. The Group's manufacturing processes involve working with molten materials at very high temperatures using heavy machinery and equipment. The risks this poses include industrial accidents, explosions, fires, and environmental hazards such as accidental discharge of polluting or dangerous products, and could lead to unforeseen interruptions to its business, total or partial destruction of facilities, pollution or even personal injury and death.

Such events may involve the Group in legal proceedings for damages against it and/or lead to the application of penalties, and may have an adverse effect on the Group's business, reputation, earnings and outlook.

The Group's production activities in the various countries where it has a presence are subject to numerous and wide-ranging environmental, public health and safety regulations which are constantly being updated. These regulations concern, in particular, the prevention of major accidents, use of chemicals, disposal of wastewater, disposal of hazardous industrial waste, and noise pollution. Their purpose is to ensure that the Group is in control of the various environmental risks inherent to its activity, including atmospheric, aquatic and soil pollution, and the risk of damage to biodiversity.

The Group's activities also require numerous permits and authorizations in areas such as the environment, safety, and public health. These include operating licenses, wastewater discharge permits, water withdrawal permits, and permits for the transport or landfill of hazardous waste products, all of which may be renewed, modified, suspended or potentially revoked by administrative and government authorities. Due to changes in their industrial activities related to the Group's transformation and in accordance with legal provisions, only four plants in France still require authorization to operate and only the Valinox nuclear facility in Montbard is classified "Seveso III" (lower-tier).

The Group strives to strictly comply with these authorizations and, more generally, with environmental laws and regulations. Maintaining compliance with existing regulations and standards results in costs and expenses that could increase significantly in the future if new regulations or stricter standards were to be adopted.

In addition, the authorities and courts might require the Group to carry out investigations and cleanup operations, or even restrict its activities or close its facilities temporarily or permanently, and/or require it to pay fines. As regards its former activities, the Group could be held responsible in the event of damage to persons or property, which could adversely affect its earnings. Under applicable regulations, cleanup costs for the French sites concerned in the event of cessation of their activities were estimated at €0.9 million.

For example on January 8, 2022, following exceptional rainfall in the Brazilian state of Minas Gerais, part of the tailings facility of Vallourec's Pau Branco iron ore mine slipped into the "Lisa"' rainwater dike, causing the dike to overflow and block traffic on the highway below. The structure of the dam was not affected, and there were no casualties. As a result of this incident, operations at the mine were suspended. Vallourec aims to resume operations as soon as possible – subject to obtaining the necessary authorizations – without using the tailings storage facility for the time being. In the meantime, Vallourec is preparing the report on the stability of the waste pile, to be validated by the mining authorities. The mine could therefore reach full capacity during the second quarter. In addition, on January 21, 2022, Vallourec signed an agreement with the Public Prosecutor's Office regarding the consequences of the overflow of the Lisa Dam. The agreement includes the implementation of emergency measures, many of which have already been completed, and a commitment to the environmental restoration of the affected area. It also includes the provision of BRL 200 million (approximately €35 million) as a guarantee in a bank account held by Vallourec. Vallourec was served with a BRL 288 million (approximately €45 million) fine, which the Group intends to appeal.

Inherent climate-change risks

The Group is exposed to the risks inherent to climate change (including, for example, drought, flooding, heat waves or cold spells, flooding and high winds). A study was conducted in 2019 with the assistance of a consultancy firm for the purposes of the Group's carbon policy. Based on the new scope of the Company, it identified risks for all ten of the Group's major industrial areas and estimated their probability of occurrence and severity based on the IPCC's (Intergovernmental Panel on Climate Change) RCP 8.5 scenario, which is more pessimistic than the assessment resulting from compliance with the Paris agreements. This illustrates the difference in the impacts on our sites depending on the risk concerned and their geographical location, and shows that the re-assessed risk is still material (see section 4.2.4.7 "Climate change" of this Universal Registration Document). Any adaptation plans will be defined with the plants.

Measures to combat the effects of climate change may also be imposed by various authorities.

For example, the Brazilian authorities determined that the exceptional rainfall risk for a 100-year period should be substantially increased in relation to the dikes protecting the Santa-Barbara dam built in 1995 to collect the runoff from Vallourec's iron ore mine in Pau Branco. The corresponding work was defined in consultation with the competent environmental authority and then implemented in 2021. A safety spillway was built allowing the dam to withstand a millennial rainfall (occurring every 1,000 years on average). No equivalent request had been received from the authorities for the Lisa dike, which overflowed on January 8, 2022 after part of the tailings facility slipped into the dike following exceptional rainfall in the Brazilian state of Minas Gerais (see section on environmental risks above).

The Group's supply chain is also exposed to climate risks. The Purchasing Department is responsible for working with the suppliers who are most affected to examine the measures to be adopted under the supplier risk assessment plan.

Risks related to manufacturing or service defects

The Group's positioning in the market for premium tubular solutions requires the implementation of a demanding quality management system to guarantee product and service quality. However, despite the emphasis on manufacturing quality, some of the Group's products or services may have production or manufacturing defects which could potentially cause damage to property, personnel or installations using the tubes, lead to business interruption for customers or third parties, or cause environmental damage. Defects in the Group's products or services may result in compensation being due by the Group or in a fall in demand for its products and services, or adversely affect their reputation for safety and quality. This may in turn have a significant impact on the financial position, earnings and image of Company (Vallourec) and Group businesses. A major accident caused by defects in the products or services of players other than the Group might adversely affect the image of the entire Oil & Gas sector.

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 and prevention program to keep all of its assets in good working order, breakdowns could nevertheless 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, earnings and image of the Group.

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 contingency and back-up programs for its information systems, infrastructure (including providing access to service providers and partners), and customers, a failure of any such program could have a material adverse impact on the Group's operations, financial position, earnings or outlook.

The Group's launch of an ambitious strategy to digitize its production tools and the creation of new services for customers could increase the risk of theft or loss of data, including personal information.

Despite a certain number of proactive measures that have already been deployed, the Group could fall victim to complex targeted attacks of its IT networks. A growing number of companies have indeed recently been the victims of hacking or attempted hacking of their information systems. The techniques implemented to hack, disrupt, degrade the quality of, or to sabotage information systems, are constantly evolving; they are often complex and not listed and it is sometimes impossible to identify them before an attack is launched. Despite all of the precautions taken and its multiple means of defense, the Group could potentially be unable to protect itself against such hacking techniques or to prevent them having any impact. Any breakdown or interruption in the Group's IT services that is linked to hacking or other factors could have a material adverse effect on the Group's operations, financial position, earnings or outlook. The Group cannot guarantee that it will not suffer an uninsured loss.

5.1.3 Legal and tax risks

Risks related to business ethics and corruption

Vallourec operates in the Oil & Gas sector – a sector which is considered by the NGO Transparency International as greatly exposed to the risk of corruption, has recourse to sales agents to sell its products and services, and operates in countries in which the risk of corruption may be perceived as high (according to Transparency International's ranking).

Vallourec has a presence in more than 20 countries, mostly with anti-corruption and competition laws. Infringement of such laws, even as a one-off occurrence, may lead to criminal, civil and/or administrative sanctions, including heavy fines, and also harm Vallourec's image and reputation.

The risk of corruption is included in the Group's risk map.

As part of its global compliance program, Vallourec has introduced a number of internal procedures relating to the use of sales agents, gifts and invitations, and commercial sponsorship based on the principles and fundamental values of the Group's Code of Ethics and Anti-Corruption Code of Conduct, these two documents having been updated in 2021. In addition to more traditional communication channels, Vallourec has also rolled out a professional whistleblowing system, which is accessible to all employees and third parties. Internal communication and training initiatives continued in 2021. This prevention scheme was certified by ETHIC Intelligence in 2018 for a period of three years.

It cannot be ruled out, however, that the Group could be impacted by infringements of legislation that could lead to significant civil and/ or criminal sanctions which might have an adverse effect on its financial position or its image.

Risks related to intellectual property

Risks related to intellectual property primarily stem from:

- legal action by third parties against the Group;
- the appropriation of its technologies by competitors; and
- fraudulent use by third parties of its trademarks.

The Group has an Intellectual Property Department and a Legal Department staffed by qualified and experienced personnel who are responsible for (i) taking the necessary measures to protect and enforce its intellectual property rights, while ensuring the rights of third parties are respected, and (ii) educating Group employees on the importance of better protecting and defending its intangible assets. However, the laws and regulations, as well as the legal system in some countries in which the Group operates, do not necessarily currently provide such extensive and effective protection for intellectual property rights, and/or the means to combat counterfeiting as in countries like France, Germany or the United States.

Risks related to counterfeiting

Like other tubular products and accessories manufacturers, the Group has had to contend with the existence of counterfeit products for sale in 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. Multiple risks are therefore 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 earnings.

In 2015, the Group created a Counterfeiting Committee and increased its campaigns to raise awareness among the public authorities and market players concerned.

If, despite all of the measures taken, the Group was unable to successfully protect, maintain and defend its intellectual property, it would risk losing a portion of its technological edge, customers and sources of revenue; this could have a significant adverse effect on its operations, earnings and image.

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 entirely ruled out. The procedures put in place 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 earnings and outlook could therefore be affected.

Tax and tax evasion risks

The Group’s entities conduct sales, industrial and/or financial activities in various countries and have the necessary personnel, equipment, and assets in those countries for that purpose. The contracts entered into by the Group’s entities, with one another or with third parties, formalize these activities. As an international group that carries out its activities in numerous countries, Vallourec has organized its sales, industrial and financial activities, as well as its contracts, in compliance with the various regulatory and legal requirements to which it is subject, and according to its sales, industrial and financial objectives. Thanks to this organization, and to the regular monitoring of changes in these legal and regulatory requirements, the Group particularly aims to limit potential tax risks (including any tax evasion risks).

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 current tax laws and regulations in the countries in which the Group or the Group’s 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 in terms of their interpretation and application by the jurisdictions or tax administrations concerned, in particular in the context of joint international or EU initiatives (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 earnings.

The Group has been and may in the future be subject to reassessment proceedings and tax disputes in some countries in which the Group's entities are located or operate. When the Group considers that a loss relating to the tax disputes is probable, a provision is recognized 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 earnings, French and foreign tax rules, and tax audits or disputes could limit the Group’s capacity to use its tax losses, and thereby impact its financial position.

The Group has significant tax losses (for which the accounting impacts are described in Note 3 to the consolidated financial statements for the year ended December 31, 2021, which appear in section 6.1 of this Universal Registration Document).

The Group’s ability to effectively use these losses will depend on a number of factors, including (i) the ability to generate tax income and the extent to which such income covers losses, (ii) the limits applicable to any tax losses imposed by French and/or 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 earnings.

5.1.4 Financial and market risks

Given its financial structure, the Group is exposed to (i) liquidity risks and (ii) market risks, including interest rate, foreign exchange, credit and equity risks.

A description of market and liquidity risks is provided in Note 7 to the consolidated financial statements in section 6.1.7 of this Universal Registration Document.

On June 30, 2021, Vallourec finalized its financial restructuring further to the successful completion of the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021.

Liquidity risk

As at December 31, 2021, the maturities of current loans and other borrowings totaled €189,662 thousand; the maturities of non-current loans and other borrowings totaling €1,387,281 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 and more**	**Total**
As at Dec. 31, 2020	786,709	399,755	501,690	2,344	60,029	1,750,527
Non-current borrowings	2,066	1,212	2,617	1,165,739	215,647	1,387,281
As at December 31, 2021	**2,066**	**1,212**	**2,617**	**1,165,739**	**215,647**	**1,387,281**

As part of its financial restructuring, Vallourec restructured all of its financial liabilities on June 30, 2021. The financial restructuring reduced gross debt by €1.7 billion and refinanced the residual debt by means of new debt instruments with a maturity of five years (or a maturity of less than five years that can be extended until June 30, 2027 at the initiative of the borrower).

The Group's financial resources are composed of bank and bond financing.

The vast majority of bank financing was arranged in Europe through Vallourec, and to a lesser extent through the Group's subsidiaries in Brazil and China.

Vallourec's €462 million credit facility is not subject to any securities or guarantees, and ranks *pari passu* with its State-guaranteed loans and bonds.

Bond financing is arranged by Vallourec.

FINANCIAL RESTRUCTURING

On June 30, 2021, Vallourec finalized its financial restructuring, reducing the Group's debt by €1.7 billion further to the completion of the following final steps in the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021:

- a €1,331 million debt-for-equity swap by way of a capital increase without shareholders' pre-emptive subscription rights reserved for the converting creditors, for a gross amount (including issue premiums) of €1,331 million, through the issue of 164,523,927 new shares subscribed by the converting creditors (at a price of €8.09 per share, including issue premiums) by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the issue of 30,342,337 share subscription warrants reserved for the commercial banks, subscribed by way of set-off against a portion of their claims in respect of the Company's revolving credit facilities for an amount of €0.3 million;
- a debt write-off granted by the commercial banks in the amount of €169 million;
- the issue of new bonds for a nominal aggregate amount of €1,023 million, subscribed by the converting creditors by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the arrangement by the commercial banks of a €462 million revolving credit facility;
- the arrangement by the commercial banks of a State-guaranteed loan for an aggregate amount of €262 million; and
- the repayment in cash of a portion of the receivables in respect of the Company's bonds and revolving credit facilities for €562 million, financed in particular by the proceeds from the capital increase with preferential subscription rights for a gross aggregate amount (including issue premiums) of €300 million through the issue of 52,954,807 new shares (at a price of €5.66 per share, including issue premiums) subscribed in cash by holders of the Company's preferential subscription rights.

In addition, the commercial banks arranged bonding lines on behalf of Vallourec Tubes and certain subsidiaries, for a total amount €178 million over a period of five years.

Further to these transactions, the former bonds and revolving credit facilities were canceled, and the outstanding bonds were delisted from their respective markets.

BANK FINANCING

As at December 31, 2021, the Group had a committed undrawn bank credit facility of €462 million and available cash of €619 million. The Group's liquidity therefore totaled €1,081 million.

In June 2021 as part of its financial restructuring, Vallourec arranged a committed credit facility for an amount of €462 million, maturing in June 2026. This line was repaid in full on July 30, 2021. As at December 31, 2021, this line had not been drawn.

The €462 million revolving credit facility includes a covenant stipulating that Vallourec's gearing ratio (consolidated net debt to equity) must not exceed 100%. The gearing ratio is defined as the ratio of consolidated net debt (including financial lease debt) to consolidated equity, restated for gains and losses on derivatives and foreign currency translation differences (exchange differences on translating net assets of consolidated foreign subsidiaries).

The covenant will be tested on a trailing 12-month basis on December 31 of each year, with the first test scheduled for end-2023. A breach of the covenant could trigger the mandatory early repayment of the credit facility and redemption of the bond.

In addition to this credit facility, Vallourec set up State-guaranteed loans ("PGE") for a total nominal drawn amount of €262 million.

A change of control at Vallourec could trigger repayment of all or part of the credit facility or State-guaranteed loans, as decided by each participating bank. The agreements also stipulate 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/or its ability to repay its debt.

MARKET FINANCING

In addition to this bank financing, the Group has sought to diversify its funding sources by using market financing. For example, Vallourec issued commercial paper on October 12, 2011 to meet its short-term needs. The program has a €1 billion ceiling. As at December 31, 2021, Vallourec had no outstanding commercial paper. This commercial paper program was rated B by Standard & Poor's.

On June 30, 2021 as part of its financial restructuring, Vallourec issued a €1,023 million bond, maturing in June 2026 and paying a fixed annual coupon of 8.5%. As at December 31, 2021, this bond was rated B+ by the ratings agency Standard & Poor's.

It was included in the financial statements for €1,164 million, as calculated in accordance with IFRS. For information, the fair value (mark-to-market) of this bond was €1,156 million.

It specifically includes 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 in concert) leading to a downgrade in its credit rating.

In addition, it may be subject to a request for early redemption by the bondholder or Vallourec, as appropriate, should any of the common default scenarios for this type of transaction occur, or when there has been a change in Vallourec's position or in tax regulations.

Market risks

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 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 euro value of assets, liabilities, revenues and expenses not denominated in euros, even if the value of these items in their original currency has not changed.

In 2021, a large portion of net income, Group share, was generated by subsidiaries that prepare their financial statements in currencies other than the euro (mainly in US dollars and Brazilian real). A 10% change in exchange rates would have increased or decreased net income Group share by around €27 million. In addition, the Group's sensitivity to long-term foreign exchange rate risk is reflected by previous changes in the foreign currency translation reserves carried in equity (negative €978.6 million impact as at December 31, 2021) which, in recent years, were mainly attributable to changes in the US dollar and Brazilian real.

Foreign currency translation reserve – Group share

(in € thousands)	**Dec. 31, 2020**	**Dec. 31, 2021**
USD	196,633	291,136
GBP	(14,821)	(11,747)
BRL	(1,270,157)	(1,259,048)
CNY	11,780	29,801
Other	(34,947)	(28,791)
Total	**(1,111,512)**	**(978,649)**

As far as the Group is aware, translation risk is unlikely to threaten its financial equilibrium.

Transaction risk

The Group is subject to foreign exchange risks owing to its exposure to sale and purchase transactions entered into by some of its subsidiaries in currencies other than their functional currency.

The main foreign currency concerned is the US dollar (USD), since a significant portion of the Group's transactions (approximately 41% of consolidated revenue in 2021) is 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. However, the impact of such fluctuations is very difficult to quantify for two reasons:

- there is an adjustment mechanism on sales prices denominated in US dollars which is related to market conditions in the various industries in which Vallourec operates;
- certain sales and purchases are influenced by the price of the US dollar, even though they are denominated in euros. 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 earnings to currency fluctuations. Forex exposure is managed by setting up hedges as soon as orders are placed and sometimes when a quotation is given.

Orders, receivables, payables and operating cash flows are hedged using financial instruments, mainly forward purchases and sales.

Order cancellations could therefore result in the cancellation of existing hedges, 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 IFRS 9, the Vallourec Group has developed its cash management and invoicing systems to facilitate the traceability of hedged transactions throughout the term of the hedging instruments.

As at December 31, 2021 and 2020, forward foreign exchange contracts hedging purchases and sales denominated in foreign currencies concerned the following amounts:

Hedging contracts with regard to commercial transactions – Foreign exchange risk

(in € thousands)	Dec. 31, 2020	Dec. 31, 2021
Forward exchange contracts – forward sales	587,207	908,776
Forward exchange contracts – forward purchases	37,789	37,098
Currency options – sales	-	-
Currency options – purchases	-	-
Raw materials and energy – purchases, options	-	-
Total	**619,996**	**945,874**

Contract maturities as at December 31, 2021

Contracts on commercial transactions *(in € thousands)*	Total	1 year	1 to 5 years	> 5 years
Exchange contracts – forward sales	908,776	815,498	93,278	-
Exchange contracts – forward purchases	37,098	37,098	-	-
Currency options – sales	-	-	-	-
Currency options – purchases	-	-	-	-
Raw materials and energy – purchases, options	-	-	-	-
Total	**945,874**	**852,596**	**93,278**	**-**

Forward sales (€909 million of the €946 million total) correspond mainly to sales of US dollars. These contracts were entered into at an average forward EUR/USD rate of 1.19 and an average forward USD/BRL rate of 5.69. In 2021, as in 2020, 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 of commercial transactions, since 2011 Vallourec has entered into forward sales for USD 134.5 million (€118.8 million) and for GBP 24.0 million (€28.3 million), along with forward purchases for CNY 310.0 million (€42.7 million).

These instruments are intended to hedge the foreign currency loans and checking accounts set up 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 2021, as and when the hedged loans and borrowings mature. However, the Group cannot guarantee that it will be able to systematically hedge all its foreign currency denominated contracts. An absence of hedging for these contracts may have a significant adverse effect on the Group's earnings and financial position.

These instruments are intended to hedge the foreign currency loans and checking accounts set up 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 2021, as and when the hedged loans and borrowings mature. However, the Group cannot guarantee that it will be able to systematically hedge all its foreign currency denominated contracts. An absence of hedging for these contracts may have a significant adverse effect on the Group's earnings and financial position. Following the opening of safeguard proceedings on behalf of Vallourec on February 4, 2021 (see section 3.5.1 of this Universal Registration Document), the overall foreign exchange hedging policy continued, albeit with a smaller number of bank counterparties and under less favorable economic conditions.

5.2 Risk management and internal control system

5.2.1 Risk management

Risk management and internal control are rolled out in all companies in which Vallourec directly or indirectly holds the majority of share capital and which it controls. Companies whose shares are listed or jointly controlled have an appropriate internal control system structure, consistent with applicable local legislation.

Internal control and internal audit rely on the results of the risk analysis in order to improve the Group's internal control system and define its internal audit plan, respectively.

5.2.1.1 Objectives and general principles of risk management

Risk management is a key management focus 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; and
- 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
- rally the Group's employees around a common vision of key 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 Audit and Internal Control Department provides methodological support for promoting and implementing this policy. This favors the development of internal control by anticipating risks and reviewing best internal control practices.

Risks are managed by the Regions, the industrial and sales units and the corporate departments.

Each major entity and Region, along with the Executive Committee and Executive Management, assess the risks and determine the controls and action plans needed to limit the impact and/or the probability of these risks occurring.

5.2.1.2 Risk management system

Identifying risks consists of determining the main risks the Group faces with its operational and functional departments. Together with the entity in question, the Audit and Internal Control Department analyzes and maps these risks, with the aim of establishing an agreed list of risks and determining how to mitigate, transfer, eliminate, or accept them. Priorities are determined not only according to probability of occurrence and/or risk impact and degree of control, but also to the progress of controls in relation to benchmark practices in this area.

Risk maps are in place for each of the Group's major entities, its Regions, and its Executive Committee. Each map incorporates key risks, along with their likely scenarios, internal and external past experience of such risks, controls in place and best practices.

Risk management is reviewed by the Regions and Executive Management during the annual committee meetings in which the Audit and Internal Control Department 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 his or her main assistants. Functional managers affected by specific risks may also be invited to attend, in particular managers from the Technology and Industry, Development and Innovation, Human Resources, Purchasing, Information Systems and Sustainable Development Departments. Each Committee meeting handles the following matters:

- validation of diagnosis and follow-up of action plans for each priority risk;
- validation of the key risk indicators, which ensures the relevance of new controls once the action plan has been completed along with the ongoing application of said controls.

The Group works together with its insurers to supplement this work of identifying and mitigating industrial operating risks and to roll out business continuity plans.

5.2.2 Internal control

5.2.2.1 Objectives and general principles of internal control

The Group's internal control system was developed and implemented with significant input 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 General Management;
- proper operation of internal processes (in particular those relating to achieving objectives and safeguarding assets); and
- accuracy of accounting and 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.

In order to ensure the consistency of the daily measures undertaken 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 of its employees and units.

These procedures are at the heart of Vallourec's internal control system and provide a framework for the actions of each employee. They relate particularly to ethics, compliance with laws and regulations, delegation of authority, segregation of duties, confidentiality of information, prevention of insider trading, procedure for relations with the media and financial reporting.

ETHICS AND COMPLIANCE WITH LAWS AND REGULATIONS

The Group's structure and actions in terms of ethics and compliance with laws and regulations are described more extensively in section 4.2.1 "Business ethics and compliance" of this Universal Registration Document.

DELEGATION OF AUTHORITY

The level of authority given to each manager within the Group must remain compatible with 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 legal and/or regulatory provisions.

This procedure is adapted as often as needed. It is implemented in each Region in the areas for which the sub-delegations have been authorized by the Group. The strict application of these delegations of authority is systematically verified during the internal audits of the Group's entities.

CONFIDENTIALITY OF INFORMATION

Amid a fiercely competitive landscape, the Group needed to make all employees aware of their obligations as regards confidentiality. Accordingly, it drew up a Confidentiality Charter with the aim of (i) enabling it to carry out its business under the best possible conditions in the face of competition and (ii) protecting people working for Vallourec by informing them of the confidentiality obligations with which they must comply.

PREVENTION OF INSIDER TRADING

Vallourec has a Code of Good Conduct on the prevention of insider trading that may occur in connection with trading 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 a precautionary approach 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 General Counsel is in charge of ethical matters, and is mainly responsible for overseeing compliance with the provisions of the Code of Good Conduct, even though each employee is ultimately responsible for complying with the applicable regulations. In particular, the General Counsel updates the insider lists required by current regulations and keeps them available for the AMF.

PROCEDURES FOR RELATIONS WITH THE MEDIA

Vallourec has defined procedures for relations with the media, as well as a series 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 intended for the media, both requested or supplied on the Group's own initiative and disclosed in a press release, conference, interview or telephone call, is subject to an internal approval 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.

FINANCIAL REPORTING

Vallourec has drawn up a financial reporting procedure, which aims to ensure that the Group's system of reporting financial information to the public complies with applicable legal 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 French financial markets authority.

5.2.2.2 Internal control system

Executive Management sets the internal control policy and ensures it is implemented by the the management of each Group entity.

To ensure the consistency of the Group's procedures worldwide, Executive Management relies on the Regions and the corporate departments to draw up procedures, give instructions and monitor compliance.

In addition, when conducting their audits, the internal auditors may use the responses to the internal control self-assessment questionnaires submitted annually by each Group entity and approved by each subsidiary manager.

INTERNAL CONTROL SYSTEM FOR FINANCIAL AND ACCOUNTING INFORMATION

Financial and accounting information

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. All accounts are consolidated each quarter and also completed within the same period of one month. The reporting of off-balance sheet commitments is an integral part of the quarterly consolidation process.

External financial information

Vallourec publishes quarterly information as at March 31 and September 30 each year. This notably includes a consolidated statement of financial position and consolidated income statement. Preparation of the quarterly, interim and annual consolidated information is the responsibility of General Management. The Statutory Auditors conduct an audit of the annual financial statements and a limited review of the interim financial statements. They do not generally audit the quarterly financial information.

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:

- cash flow forecasts prepared on a weekly basis by most Group companies;
- pooling euro, pound sterling, Chinese yuan, Canadian dollar, and US dollar cash flows relating to the main European and Middle Eastern companies with Vallourec Tubes;

- pooling Chinese yuan cash flows relating to the main Chinese companies with Vallourec Tubes, through an initial local pooling in China at the level of Vallourec Tianda (Anhui) Co. Ltd.;
- pooling US dollar cash flows relating to US companies with Vallourec Tubes, through an initial local pooling in the United States at the level of Vallourec Holding, Inc.; and
- preparing monthly cash management reports for the Brazilian and Chinese entities.

Long-term (more than one year) financing and investment decisions 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 covering the quality of the banks involved, risk-free investments, and monitoring of the collateral given.

The Cash Management and Financing Department is also responsible for the foreign exchange and interest rate risk management strategy.

To this end, currency hedging operations for sales in US dollars, pound sterling, Brazilian real, Chinese yuan, Kuwaiti dinars, and Canadian dollars 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 cash operations specific to each company are conducted within the framework of a general cash and risk management policy.

The Cash Management and Financing Department monitors subsidiaries' debts, investments and foreign exchange transactions. In this regard, it prepares a monthly report, which is sent to Group Executive Management.

Procedures and instructions for reporting financial and accounting information

In order to produce high-quality financial and accounting information, Vallourec has drawn up procedures and instructions for its French and foreign subsidiaries. These procedures are classified by topic and deal mainly with accounting, cash, and reporting issues, and issues arising in relation to 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 Management Control Manual, which sets out the definitions, principles and rules for management control and the production of financial information. This document is disseminated among employees in charge of preparing and controlling management and financial information. Its purpose is to contribute to the quality and consistency of this information.

OTHER KEY INTERNAL CONTROL PROCEDURES

Capital expenditure

Executive Management reviews the Group's capital expenditure position presented by the Capital Expenditure, Projects and Engineering Department several times per year. It examines budgets, capital expenditure authorizations, and actual and forecast expenses.

According to the "Management of CAPEX projects" procedure, 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 and examines the fundamental aspects of the projects at each of the three stages (market assumptions, technical choices, budget, planning and risks), meeting once a month under the aegis of the Capital Expenditure, Projects and Engineering Department. The Authorization Committee brings together either the Director of Capital Expenditure, Projects and Engineering and the Director of Management Control for projects over €1 million, or General Management for projects worth more than €5 million. 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, Projects and Engineering Department participates as a member of the steering committees for major industrial projects in progress, in order to implement best governance and management practices. The goal is to ensure that these projects are completed in line with expected costs, quality and time frames. It also audits certain projects in progress, in order to ensure that best project management practices are effectively implemented.

The Capital Expenditure, Projects and Engineering Department carries out a monthly check on compliance with annual objectives and, in conjunction with the Regions concerned, ensures that corrective measures are taken if any discrepancy is noted.

Ex-post controls are carried out on expenses, expected objectives and the profitability of capital expenditure projects at the initiative of the Capital Expenditure, Projects and Engineering Department, and with the support of the Management Control Department. Such controls are performed on projects authorized in earlier years that are at the production phase.

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 HR management system, including, in particular, the Talent 360 system, which is used as a basis for performance management, annual appraisals and career appraisals;
- the CAPTEN+ Safe program, which coordinates all actions to continuously improve work safety;
- programs related to sustainable development, in line with the commitments set out in 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 inventory and time to complete orders;
- systems that include activities related to excellence in sales, including marketing, key account management, and the implementation of value offers;
- Research and Development management 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 capital expenditure.

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 corporate departments assist the Group's entities in rolling out VMS, sharing and capitalizing on "best practices", and developing managers' expertise.

Quality – safety

The Group's Safety and Quality Departments are in charge of proposing Group guidelines and objectives in terms of quality and safety to Executive Management, and are also responsible for defining applicable standards on the subject for the Group as a whole.

In the context of VMS, these standards define the appropriate systems, methods and tools to be implemented in order to consistently improve product quality and control over manufacturing processes, along with the safety of people and equipment. These standards are defined in compliance with quality management standards (ISO 9001 or IATF 16949, API, ASME, etc.) and with safety standards (OHSAS 18001, ISO 45001).

The Safety and Quality Departments promote these standards, assist with their implementation, set up the necessary training programs and oversee the sharing of best practices. Through the visits they make to all Group sites, in addition to the audits carried out by external certification bodies, they ensure 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.

The safety improvement program, known as CAPTEN+ Safe, relies on the commitment of management as a whole, the involvement of all employees and the establishment of appropriate follow-up indicators.

Sharing General Management's concern regarding safety and quality, the Board of Directors starts each of its meetings with a progress review of the Group's safety and quality performance.

Sustainable development

Sustainable development is managed within Vallourec by the Sustainable Development Department, which reports to the Group's General Counsel, General Secretary and member of the Executive Committee.

The Sustainable Development Department's main role is to mobilize the Regions and functions in furthering sustainable development and social responsibility aims, in particular by identifying the expectations of the various stakeholders of the business, as well as the best practices to be developed.

Whenever necessary, the Sustainable Development Department submits the decisions to be implemented by the Divisions and corporate departments to the Executive Committee.

The Sustainable Development Department is also directly responsible for environmental initiatives. It coordinates and leads the initiatives of those responsible for environmental matters in the Regions and business units, who are tasked with ensuring that business operations are in compliance with applicable laws and regulations and with improving environmental performance pursuant to Vallourec's Sustainable Development Charter and the Group Environmental Policy covering water, waste, hazardous products, emissions and noise pollution. 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. The Group has an application for the management of environmental and safety data that facilitates the collection and verification of this data as well as the local reporting of sites.

The Sustainable Development Department also supervises the energy performance improvement program led by the sites, with assistance from the Process Communities. The department adjusts practices and ensures that the operational entities invest in new energy-efficient, "eco-designed" equipment. These measures are also aimed at reducing greenhouse gas emissions.

Innovation, Research and Development

The Development and Innovation Department (D&I), which comprises product lines, the R&D centers, industrial property, the Key Account Managers, and the Innovation teams, has established procedures at Group level for the management of new business development projects, new products and industrial processes, the project portfolio for product lines, and the Group's idea generation process (front-end innovation). The defined processes and governance structure are consistently applied by the entities concerned. These procedures also incorporate aspects of intellectual property.

The product line innovation portfolios include ideas under investigation and projects under development. These portfolios are regularly reviewed by the Steering and Innovation Committee for decision-making purposes, so that projects can be prioritized based on relevant value and risk criteria.

Projects under development are selected according to various criteria, including the value they offer both our customers and Vallourec, their technical feasibility and turnaround times, as well as any related risks. The project steering committees analyze the risks of each project. In addition, key projects deemed to be of particular strategic importance to the business are reviewed by a Group Committee which, at each milestone, confirms that all the necessary elements are in place to ensure the product, service or solution is brought to market at the right time.

The project teams receive specific training and assistance from experienced professionals in order to speed up implementation and reduce the time required to bring the solutions to market.

The Group has also developed two new tools to accelerate project execution. The first, known as "Boosters", is an execution tool that enables ideas for new solutions to be implemented with an agile approach to development. To achieve this, projects developed in Boosters are led by a Business Manager and Product Manager working together. The aim of Boosters is to develop our new technology-based solutions as quickly as possible and to enhance the associated new skills. The second tool consists of two innovation platforms. The first is a platform of ideas for employees, while the second is an outward-facing tool focused on developing partnerships with start-ups to increase our success with Open Innovation. These platforms are run as open challenges on specific themes. The fourth edition of the Open Innovation Challenge was devoted to finding solutions to support the Group's customers in relation to new energy production initiatives, the reuse of tubes, and efficient and digitalized tube storage. This initiative was open worldwide to start-ups, laboratories, and companies that can offer and co-develop such solutions tailored to the Group's markets. Nearly 50 proposals were received and some are currently being implemented.

Purchasing

In 2021, the Purchasing Department pursued its continual improvement process for internal control. This process applies from the initial purchase (product specification, selection of suppliers and contracts) through to processing (receipt of the necessary quantities at the agreed price and under the specified delivery and payment conditions).

As part of the Acceleration project, the "No PO/No Pay" [(1)] initiative was launched with the aim of ensuring that any supply needs are automatically referred to the Purchasing Department.

At the start of the process, the Purchasing Department centralizes the analysis of all purchases in order to have good visibility over the most strategic goods and services among the Group's purchases. To ensure this visibility, it set up a specific information system. On this basis, purchase strategies are determined in cooperation with internal customers and validated by management. Taking business practices into account, it focuses on precisely formalizing contracts and orders to avoid later disputes.

In an effort to make competitive, high-quality, and responsible purchases, suppliers are selected based on analytical matrices. These consider the financial health of the suppliers, their level of social and environmental responsibility, and of course criteria in terms of quality, lead times and overall cost.

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 both the internal client and the Purchasing Department. This decision is made based on a comparative analysis of offers and suppliers.

At the end of the purchase process, and in addition to checking supplier invoices, a quality control process is likewise conducted for certain products or services. Purchase orders, delivery inspections and supplier payments are rigorously carried out by different entities.

A process is in place to systematically assess supplier risk. In addition, quarterly reviews are carried out to ensure that every effort is being made to minimize and then eliminate these risks.

In 2021, the Purchasing Department rolled out a "Sourcing School" program in partnership with Human Resources and Vallourec University. The aim of this new training school is to professionalize the Purchasing function by offering tailored training courses to all its members. The first e-learning courses began in late 2020 and were rolled out in 2021. They are available in five languages to encourage sign-up and facilitate comprehension for local teams. A five-day refresher course on purchasing fundamentals was also put in place for all members of the purchasing team.

Information systems

In 2021, the Information Systems Department strengthened its capacity to detect attempts at hacking by putting in place around-the-clock network observation and analysis mechanisms for all sites in all Regions and advanced support in the event of any suspicious activity or cyber attacks.

The IT systems security strategy plan was significantly strengthened and globally aligned, with significant progress made in terms of implementation in areas such as the protection of sensitive information, and infrastructure development and support.

IT security in the industrial environment was reassessed worldwide and significant progress made, for example in the early detection of suspicious activities and in limiting their spread.

The hard drive encryption solution for laptops has been fully rolled out and access to sensitive resources is based on multi-factor authentication.

Projects to better secure administrator and external support access are underway.

Initiatives to educate employees on the protection of information and support for major risk management and internal control projects include:

- performance and follow-up of the internal control campaign action plan for all the Group's Regions;
- communication of a Group IT security policy designed to reinforce users' best practices, including webinars, quizzes, etc;
- sharing practices in terms of processing personal data with the Legal Department;
- a training program on protecting information, particularly with regard to internal phishing campaigns, in all Regions;
- updating IT security rules and procedures, which are published under the Group guidelines available on the Intranet.

Human Resources

All aspects of the Human Resources Department' work rely on an internal control process: duties, training and talent management, the working environment, compliance with the Vallourec Group's internal regulations and applicable legal and regulatory provisions, compensation and payroll management and the protection of private data and information in the corporate and personal fields.

Within the context of talent management, the Human Resources Department identifies key positions in the Group, analyzes the risks of misconduct, and prepares development and succession plans on this basis. Furthermore, Human Resources management ensures that people 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.

Business relations

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.

The Group has a tool to evaluate and summarize the legal risk associated with sales. This tool is used to analyze the legal conditions that apply to sales contracts signed by the Group's subsidiaries with their customers, and allows any discrepancies with the Group's standards to be precisely managed and the related statistics to be recovered. The general sales terms and templates are regularly updated in order to monitor changes in the market and regulations.

(1) No Payment without a Purchase Order.

The Legal Department works closely with the Audit and Internal Control Department, monitoring and identifying best practices for managing contractual legal risk as part of the ongoing improvement approach.

Insurance

The main industrial risks are covered by two types of Group insurance:

- a general insurance policy (material damage to Group property that is direct and not explicitly excluded, 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).

5.2.3 Entities and persons involved in risk management and internal control

5.2.3.1 Executive Management

Executive Management, acting directly or under a delegation of authority, is responsible for the quality of the internal control and risk management systems. It designs and implements internal control and risk management systems tailored to the Group, its businesses and its organization, and in particular defines relevant roles and responsibilities within the Group.

Executive Management provides continuous 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 measures needed to resolve issues that are identified and to remain within risk tolerance limits, and ensures that these measures are properly conducted.

Executive Management ensures that the appropriate information is communicated promptly to the Board of Directors and to the Audit Committee.

5.2.3.2 Board of Directors

The Board of Directors is informed of the basic characteristics of the internal control and risk management procedures adopted and implemented by the Board of Directors, including organization, roles and duties of the main players, approach, risk reporting structure and operational monitoring of control procedures. It acquires an overall understanding of procedures relating to the preparation and processing of accounting and financial information.

The Board of Directors ensures that the major risks identified for the Group are consistent with its strategies and objectives, and that these major risks are taken into account in the Group's management.

In particular, the Board of Directors ensures that the mechanism for managing the internal control and risk management systems is adequate to ensure the reliability of the Group's financial information and provide a true and fair view of its earnings and financial position.

5.2.3.3 Audit Committee

Pursuant to Article L.823-19 of the French Commercial Code *(Code de commerce)*, the Audit Committee is responsible for:

- monitoring the financial reporting process;
- monitoring the effectiveness of the internal control and risk management systems as well as the internal audit system as regards the procedures for the preparation and processing of accounting and financial information, without undermining or compromising their independence;
- making recommendations to the Board of Directors on the Statutory Auditors to be put forward for appointment at the Shareholders' Meeting, having prepared such recommendation in accordance with the provisions of Article 16 of EU Regulation 537/2014;
- monitoring the Statutory Auditors in the conduct of their assignment, particularly the statutory audit of the parent company and consolidated financial statements;
- ensuring compliance with Statutory Auditors independence requirements and taking the necessary steps to comply with the rules on capping fees for non-audit services; and
- approving the provision by the Statutory Auditors of services other than the statutory audit of the financial statements, where such services are not prohibited.

The Audit Committee ensures that the internal control and risk management systems are effectively monitored, based on the information provided to it by Executive Management, or that it requests. It takes note of the results of internal and external audits conducted in this regard, in order to ensure that, in the event of any identified irregularities, appropriate action plans have been put in place and follow-up action has been taken. However, the Audit Committee is not involved in implementing said systems.

5.2.3.4 Head of Risk Management and Internal Control

The Head of Risk Management and Internal Control coordinates the risk management system and provides methodological assistance to the Company's operational and functional departments. A map of the Group's risks is prepared once a year with the help of the heads of Insurance, Quality and Safety.

5.2.3.5 Internal Audit Department

The Group's Internal Audit Department is an independent and objective entity reporting to the Chief Financial Officer, the Deputy Chief Executive Officer and Executive Committee member. Its remit is to deal with any and all issues.

The Internal Audit Department, whose duties, powers and responsibilities are formally set out in an internal audit policy, assesses whether or not the internal control and risk management systems are properly implemented, using a systematic and methodical approach. It contributes to identifying the weaknesses of these systems, issues proposals for corrective measures, and follows up on all audit issues identified until they are resolved.

The Internal Audit Department may also be required to participate in specific engagements, such as business acquisitions or disposals, project assistance, or investigations.

In order to prepare its annual audit plan, the Internal Audit Department notably takes into consideration the Group's risk mapping, as well as the requests of Executive Management and the Heads of Regions and corporate departments. The purpose of this annual audit plan is to audit all entities in which the Group holds either a direct or indirect majority interest over a four-year period.

Upon completion of each audit, the Internal Audit Department issues a report. This gives rise to recommendations which are systematically followed up on. The Internal Audit Department also reports on its work and findings, as well as on the progress of action plans, by providing periodic executive summaries to the Audit Committee.

The Internal Audit Department is implementing an ongoing improvement process, which aims to improve the internal audit process, in particular by adapting the detailed work programs to the most significant risks.

The Internal Audit Department adapted to the ban on foreign travel imposed during the Covid-19 crisis by conducting most of its audits remotely. For these audits, the department sometimes called on local external auditors to assist them where possible.

5.2.3.6 Employees

Each employee concerned and particularly the functional heads, Regions and corporate departments, have the information needed to operate and oversee the internal control and risk management systems to the extent of their responsibilities and objectives.

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, applicable throughout the Company.

5.2.4 Role of the Statutory Auditors

The Statutory Auditors review the internal control and risk management systems, relying on internal audit work to obtain a greater understanding of those systems and form an independent opinion on their effectiveness.

They certify the financial statements and, as part of their work, may identify during the fiscal year significant risks and major internal control weaknesses which could have a significant impact on accounting and financial information.

The Statutory Auditors present their observations on the internal control procedures relating to the preparation and processing of financial and accounting information, and attest to the preparation of the other disclosures required by law.

5.2.5 Limits on 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 systems play a key role in the management and supervision of the Group's various activities. However, like any system of control, they cannot guarantee that the Group's objectives will be achieved or that all risks, particularly the risks of error or fraud, will be wholly eliminated or contained.

The Group's international profile requires complex processes within entities at different levels of internal control maturity, which evolve different legal environments and operate different information systems.

The Covid-19 crisis restricted travel by internal auditors to the location of the entities being audited. Most audits had to be carried out remotely from the Group's headquarters in France. As a result, discussions with local teams were more limited and harder to organize.

These limits increase the risk that erroneous, inappropriate or even fraudulent transactions and operations (theft, misappropriation, etc.) to which Vallourec could be subject may not be detected.

Vallourec's internal control system is based on a series of rules and procedures that are circulated among all subsidiaries and evaluated on a regular basis. These rules and procedures are regularly updated to ensure that they are in line with changes in Vallourec's processes. Vallourec's core values also incorporate an ethical component in terms of conduct, the requirements of which are set out in the Group's Code of Ethics, effective since 2009 and widely circulated among all staff. This Code of Ethics applies throughout the Company.

5.3 Policy with regard to insurance

The Group's policy regarding protection against risks of accident is based on a managerial and operational program of developing, rolling out and managing preventative measures, supplemented by insurance policies. This policy is coordinated by the relevant departments in each field: the Human Resources Department for the life sector (life insurance, mutual health cover), the Quality and Safety Department for the safety of individuals, in particular, and the Risk Management and Insurance Departments for all other areas.

Industrial risks insured within the Vallourec Group are covered by two main types of insurance taken out with leading insurers:

- insurance for property damage;
- civil liability insurance.

The Group's policy with regard to establishing insurance coverage for industrial risks looks to meet the following objectives:

- taking out shared insurance policies to ensure that the risks transferred are consistent with the insurance coverage purchased, and that economies of scale are maximized while taking into account the specific characteristics of the Group's different businesses along with contractual and/or legal constraints;
- optimizing the thresholds and means of intervention in the insurance or reinsurance markets through appropriate deductibles.

The Group's insurance policy consists of defining the overall insurance coverage policy for the Group's business activities based on an analysis of subsidiaries' requirements, selecting adequate insurance solutions with the help of external service providers such as brokers, consultants and insurers, and deciding whether to maintain the financial consequences of such events within the Group or transfer them to the insurance market.

Implementation of the insurance risk coverage policy takes into account the insurability of the risks associated with the Group's business activities, available capacity in the insurance and reinsurance markets, premiums proposed in light of the coverage offered, and exclusions, limits, sublimits and deductibles.

The basic principles of Vallourec's insurance policy consist of:

- pursuing an active policy of prevention and protection for industrial sites, aimed at reducing the frequency and scale of accidental risks of fire or explosion, as well as detecting and preventing the impact of other exposures to natural or environmental disasters. To date, more than 95% of insured values were included in at least one multi-risk audit by the insurers' risk engineers as part of a plan to conduct annual visits to the Group's major industrial sites;
- establishing an active policy for the prevention of contractual risks, in particular through the quasi-systematic use of the CLEAR formula, which primarily aims to control contractual liability clauses that could have a financial impact on the Group's earnings;
- organizing a mechanism for allocating casualty premiums according to the subsidiary scoring criteria established by the insurer, which includes a system of awarding positive or negative points based on the score. This aims to encourage subsidiaries to fine-tune their objectives for preventing damage from fire/ equipment breakdowns/natural disasters;
- 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 property damage. The main insurance contracts covering all Regions and/or Central Departments are detailed below.

5.3.1 Property-casualty insurance and insurance for business interruption

This insurance covers all direct damage to the Group's insured property, not subject to exclusions, as well as any costs and consequential losses.

Deductibles are provided for under property and casualty insurance according to the type and severity of the risk concerned.

Insurance for business interruption and supplementary operating expenses is taken out on a case-by-case basis according to each risk analysis, taking into account the existing business continuity plans (BCPs).

5.3.2 Third-party liability insurance

5.3.2.1 General third-party liability insurance

This insurance covers the Group for any liability arising as a result of damage caused to third parties, either resulting from the Group's operations or after delivery of goods or services, as well as for professional third-party liability.

The indemnity also includes a limit on liability.

In respect of both property and casualty and third-party liability insurance, policies are split between a main Group policy and local policies integrated into the main contract. The Group policy prevails where terms or limits differ from those of the local policies issued by the partners of the lead insurer.

The insured cap for civil third-party and product liability was raised in 2011, 2012, 2014, and 2018 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 Repatriation assistance insurance

A repatriation assistance insurance policy for employees seconded abroad (business travelers, personnel under a site contract (rotators) and expatriates) covers all Vallourec Group subsidiaries.

5.3.2.3 Third-party liability of corporate officers

The Group has taken out third-party 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 losses suffered by third parties that could be attributed to a real or alleged professional error committed by them during the performance of their duties.

5.3.3 Insurance policy

The aforedescribed policy with regard to insurance 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 depending on market conditions, opportunities that may arise, and General Management's assessment of the risks incurred and the adequacy of insurance coverage. The Group cannot guarantee that it will not suffer an uninsured loss.

chapter 6
ASSETS, FINANCIAL POSITION, AND RESULTS

6 ASSETS, FINANCIAL POSITION, AND RESULTS

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6.1 Consolidated financial statements

6.1.1 Valllourec Group consolidated income statement

In € thousands	Notes	2020	2021
Revenue		**3,242,400**	**3,441,743**
Cost of sales [(a)]	2.3	(2,634,268)	(2,605,163)
Selling, general and administrative expenses [(a)]	2.3	(325,660)	(315,553)
Other	2.3	(24,504)	(28,573)
EBITDA	**2.3**	**257,968**	**492,454**
Depreciation and amortization	2.4	(268,084)	(201,603)
Impairment of assets and goodwill	2.5	(850,280)	(5,239)
Asset disposals, restructuring costs and non-recurring items	2.6	(141,936)	88,718
Operating income (loss)		**(1,002,332)**	**374,330**
Interest income	7.1.6	4,017	4,225
Interest expense	7.1.6	(200,514)	(151,253)
Net interest expense	**7.1.6**	**(196,497)**	**(147,028)**
Other financial income and expenses	7.1.6	(30,434)	(47,914)
Net expense attributable to financial restructuring	7.1.6	-	(41,474)
Financial income (loss)	**7.1.6**	**(226,931)**	**(236,416)**
Pre-tax income (loss)		**(1,229,263)**	**137,914**
Income tax	3.1	(96,051)	(101,136)
Share in net income (loss) of equity-accounted companies	5	(3,083)	(5,341)
Net income (loss) from continuing operations		**(1,328,397)**	**31,437**
Net income (loss)		**(1,328,397)**	**31,437**
Attributable to non-controlling interests	6.2	122,266	(8,108)
Group share		**(1,206,131)**	**39,545**
Earnings per share	6.4	(105.4)	0.3
Diluted earnings per share	6.4	(105.4)	0.3

(a) Before depreciation and amortization.

6.1.2 Statement of comprehensive income

In € thousands	2020	2021
NET INCOME (LOSS)	**(1,328,397)**	**31,437**
Actuarial gains and losses on post-employment benefits	5,712	41,141
Tax attributable to actuarial gains and losses on post-employment benefits	(1,480)	(5,286)
Items that will not be reclassified to profit or loss	**4,232**	**35,855**
Translation differences on translating net assets of foreign operations	(536,736)	132,907
Change in fair value of hedging instruments	19,214	(39,878)
Tax attributable to the change in fair value of hedging instruments	373	1,458
Items that may be reclassified subsequently to profit or loss	**(517,149)**	**94,487**
OTHER COMPREHENSIVE INCOME (LOSS) (NET OF TAX)	**(512,917)**	**130,342**
TOTAL COMPREHENSIVE INCOME (LOSS)	**(1,841,314)**	**161,779**
Attributable to non-controlling interests	(183,693)	5,129
Group share	**(1,657,621)**	**156,650**

6.1.3 Statement of cash flows

In € thousands	Notes	2020	2021
Consolidated net income (loss)		**(1,328,397)**	**31,437**
Net additions to depreciation, amortization and provisions	2.7	1,176,005	144,101
Unrealized gains and losses on changes in fair value		(3,160)	(32,548)
Capital gains and losses on disposals		10,200	(79,459)
Share in income (loss) of equity-accounted companies		3,083	5,341
Other cash flows from operating activities		(537)	(1,081)
Cash flow from (used in) operating activities after cost of net debt and taxes		**(142,806)**	**67,791**
Cost of net debt	7.1.6	196,497	147,028
Tax expense (including deferred taxes)	3.1	96,051	101,136
Accelerated amortization of finance costs	2.1 & 8.1.2	-	14,334
Net expense attributable to financial restructuring	2.1 & 8.1.2	-	(29,301)
Cash flow from operating activities before cost of net debt and taxes		**149,742**	**300,988**
Interest paid		(206,730)	(99,373)
Tax paid		(92,559)	(179,609)
Interest received		4,017	4,223
Cash flow from (used in) operating activities		**(145,530)**	**26,229**
Change in operating working capital in the statement of cash flows	2.8	172,813	(172,043)
Net cash from (used in) operating activities		**27,283**	**(145,814)**
Cash outflows for acquisitions of property, plant and equipment, and intangible and biological assets	4.6	(138,245)	(137,659)
Disposals of property, plant and equipment and intangible assets		6,426	91,870
Impact of acquisitions (changes in consolidation scope)		662	383
Impact of disposals (changes in consolidation scope)		1,815	13,919
Other cash flows from investing activities		1,178	1,901
Net cash used in investing activities		**(128,164)**	**(29,586)**
Repayment of shareholder loan	7.4	(7,461)	(9,229)
Increase or decrease in equity		-	165,193
Dividends paid to non-controlling interests		(307)	(1,048)
Movements in treasury shares		(89)	(2,088)
Proceeds from new borrowings	7.1.7	2,654,489	65,229
Repayments of borrowings	7.1.7	(2,807,851)	(770,210)
Repayment of lease liabilities		(30,782)	(28,475)
Other cash flows used in financing activities		(24,614)	(23,231)
Net cash used in financing activities		**(216,615)**	**(603,859)**
Impact of changes in exchange rates		**(89,547)**	**8,969**
Impact of reclassification to assets held for sale and discontinued operations		**(174)**	**(179)**
CHANGE IN CASH		**(407,217)**	**(770,469)**
Opening net cash		**1,793,635**	**1,386,418**
Closing net cash		**1,386,418**	**615,949**
Change		(407,217)	(770,469)

The statement of cash flows has been prepared on the basis of cash and equivalents as defined in Note 7.1, net of overdrafts and other short-term bank facilities with an initial maturity of less than three months.

Reconciliation of net cash in the statements of cash flows and financial position – December 31, 2021 and 2020

In € thousands	Notes	12/31/2020	Change	12/31/2021
Cash and cash equivalents (1)	7.1	1,389,533	(770,175)	619,358
Short-term bank facilities (2)	7.1	3,115	294	3,409
NET CASH (3) = (1) – (2)		**1,386,418**	**(770,469)**	**615,949**

In € thousands	12/31/2019	Change	12/31/2020
Cash and cash equivalents (1)	1,793,843	(404,310)	1,389,533
Short-term bank facilities (2)	208	2,907	3,115
NET CASH (3) = (1) – (2)	**1,793,635**	**(407,217)**	**1,386,418**

6.1.4 Vallourec Group statement of financial position

In € thousands	Notes	12/31/2020	12/31/2021
NON-CURRENT ASSETS			
Net intangible assets	4.3	49,515	44,517
Goodwill	4.1	24,815	37,549
Net property, plant and equipment	4.4	1,718,259	1,665,905
Biological assets	4.5	30,236	37,733
Investments in equity-accounted companies	5	41,912	35,311
Other non-current financial assets	7.3	54,033	70,803
Other non-current assets	2.8.3	74,733	91,022
Deferred taxes	3.2	186,571	239,467
Total non-current assets		**2,180,074**	**2,222,307**
CURRENT ASSETS			
Inventories	2.8.1	663,891	856,136
Trade and other receivables	2.8.2	467,580	541,333
Other current financial assets	7.3	45,283	12,499
Other current assets	2.8.3	195,404	124,860
Cash and cash equivalents	7.1	1,389,533	619,358
Total current assets		**2,761,691**	**2,154,186**
Assets held for sale and discontinued operations	10.1	106,523	371,728
TOTAL ASSETS		**5,048,288**	**4,748,221**

In € thousands	Notes	12/31/2020	12/31/2021
EQUITY			
Equity attributable to owners of the parent	6.1	(187,100)	1,763,044
Non-controlling interests	6.2	320,777	44,663
Total equity		**133,677**	**1,807,707**
Shareholder loan	**7.4**	**8,613**	**-**
NON-CURRENT LIABILITIES			
Loans and other borrowings	7.1	1,750,527	1,387,281
Employee benefits	8	202,635	14,471
Long-term provisions	9	110,328	80,998
Deferred taxes	3.2	19,914	29,100
Other non-current financial liabilities	7.2	83,638	33,389
Other non-current liabilities	2.8.3	32,057	58,607
Total non-current liabilities		**2,199,099**	**1,603,846**
CURRENT LIABILITIES			
Overdrafts and other short-term bank facilities	7.1	1,852,984	189,662
Short-term provisions	9	104,272	40,356
Trade payables	2.8.4	426,097	456,854
Other current financial liabilities	7.2	45,339	34,495
Other current liabilities	2.8.3	241,370	241,144
Total current liabilities		**2,670,062**	**962,511**
Liabilities related to assets held for sale and discontinued operations	10.1	36,837	374,157
TOTAL EQUITY AND LIABILITIES		**5,048,288**	**4,748,221**

6.1.5 Statement of changes in equity

	Share capital	Additional paid-in capital	Consolidated reserves	Foreign currency translation reserve	Revaluation reserve, net of tax	Treasury shares	Net income (loss) for the period	Equity attributable to owners of the parent	Non-controlling interests	Total equity
AS AT JANUARY 1, 2020	**915,976**	**1,417,897**	**106,000**	**(636,741)**	**2,912**	**(1,158)**	**(337,549)**	**1,467,337**	**512,708**	**1,980,045**
Change in foreign currency translation reserve	-	-	-	(475,318)	-	-	-	(475,318)	(61,418)	(536,736)
Financial instruments	-	-	-	-	19,677	-	-	19,677	(90)	19,587
Actuarial gains and losses on retirement commitments	-	-	4,151	-	-	-	-	4,151	81	4,232
Other comprehensive income (loss)	-	-	4,151	(475,318)	19,677	-	-	(451,490)	(61,427)	(512,917)
Net income (loss) for 2019	**-**	**-**	**-**	**-**	**-**	**-**	**(1,206,131)**	**(1,206,131)**	**(122,266)**	**(1,328,397)**
Total comprehensive income (loss)	-	-	*4,151*	*(475,318)*	*19,677*	-	*(1,206,131)*	*(1,657,621)*	*(183,693)*	*(1,841,314)*
Appropriation of 2019 net income (loss)	-	-	(337,549)	-	-	-	337,549	-	-	-
Change in treasury shares	-	-	(1,203)	-	-	1,114	-	(89)	-	(89)
Dividends paid	-	-	-	-	-	-	-	-	(1,160)	(1,160)
Share-based payments	-	-	2,979	-	-	-	-	2,979	-	2,979
Changes in consolidation scope and other*	(915,747)	915,747	(293)	547	40	-	-	294	(7,078)	(6,784)
AS AT DECEMBER 31, 2020	**229**	**2,333,644**	**(225,915)**	**(1,111,512)**	**22,629**	**(44)**	**(1,206,131)**	**(187,100)**	**320,777**	**133,677**
AS AT JANUARY 1, 2021	**229**	**2,333,644**	**(225,915)**	**(1,111,512)**	**22,629**	**(44)**	**(1,206,131)**	**(187,100)**	**320,777**	**133,677**
Change in foreign currency translation reserve	-	-	-	120,130	-	-	-	120,130	12,777	132,907
Financial instruments	-	-	-	-	(38,258)	-	-	(38,258)	(162)	(38,420)
Actuarial gains and losses on retirement commitments	-	-	35,233	-	-	-	-	35,233	622	35,855
Other comprehensive income (loss)	-	-	*35,233*	*120,130*	*(38,258)*	-	-	*117,105*	*13,237*	*130,342*
Net income (loss) for 2020	**-**	**-**	**-**	**-**	**-**	**-**	**39,545**	**39,545**	**(8,108)**	**31,437**
Total comprehensive income (loss)	-	-	35,233	120,130	(38,258)	-	39,545	156,650	5,129	161,779
Appropriation of 2020 net income (loss)	-	-	(1,206,131)	-	-	-	1,206,131	-	-	-
Capital increase with pre-emptive subscription rights (52,954,807 shares at €5.66)	1,059	298,665	-	-	-	-	-	299,724	-	299,724
Capital increase reserved for creditors (164,523,927 shares at €8.09)	3,291	1,327,708	-	-	-	-	-	1,330,999	-	1,330,999
Fair value of gross debt	-	-	(74,034)	-	-	-	-	(74,034)	-	(74,034)
Issuance of share subscription warrants	-	303	58,607	-	-	-	-	58,910	-	58,910
Change in treasury shares	-	-	(1,263)	-	-	(825)	-	(2,088)	-	(2,088)
Dividends paid	-	-	-	-	-	-	-	-	(280)	(280)
Share-based payments	-	-	3,018	-	-	-	-	3,018	-	3,018
Changes in consolidation scope and other*	-	(8,791)	173,180	12,733	(156)	-	-	176,966	(280,963)	(103,997)
AS AT DECEMBER 31, 2021	**4,579**	**3,951,529**	**(1,237,306)**	**(978,649)**	**(15,785)**	**(869)**	**39,545**	**1,763,044**	**44,663**	**1,807,707**

* *The "Changes in consolidation scope and other" line as at December 31, 2020 corresponds primarily to the reduction in the nominal value of the shares, and the purchase of non-controlling interests in VSB in Brazil (recognition of the put option). As at December 31, 2021, this caption corresponds primarily to the acquisition of non-controlling interests in VSB in Brazil (exercise of the put option), VAM USA LLC and Vallourec Star LP (see Note 6.2).*

6.1.6 Statement of changes in non-controlling interests

In € thousands	Consolidated reserves	Foreign currency translation reserve	Revaluation reserve, net of tax	Net income (loss) for the period	Non-controlling interests
AS AT JANUARY 1, 2020	**485,875**	**28,406**	**981**	**(2,554)**	**512,708**
Change in foreign currency translation reserve	-	(61,418)	-	-	(61,418)
Financial instruments	-	-	(90)	-	(90)
Actuarial gains and losses on retirement commitments	81	-	-	-	81
Other comprehensive income (loss)	*81*	*(61,418)*	*(90)*	*-*	*(61,427)*
Net income (loss) for 2020	**-**	**-**	**-**	**(122,266)**	**(122,266)**
Total comprehensive income (loss)	*81*	*(61,418)*	*(90)*	*(122,266)*	*(183,693)*
Appropriation of 2019 net income (loss)	(2,554)	-	-	2,554	-
Dividends paid	(1,160)	-	-	-	(1,160)
Changes in consolidation scope and other*	(7,087)	7	2	-	(7,078)
AS AT DECEMBER 31, 2020	**475,155**	**(33,005)**	**893**	**(122,266)**	**320,777**
AS AT JANUARY 1, 2021	**475,155**	**(33,005)**	**893**	**(122,266)**	**320,777**
Change in foreign currency translation reserve	-	12,777	-	-	12,777
Financial instruments	-	-	(162)	-	(162)
Actuarial gains and losses on retirement commitments	622	-	-	-	622
Other comprehensive income (loss)	*622*	*12,777*	*(162)*	*-*	*13,237*
Net income (loss) for 2021	**-**	**-**	**-**	**(8,108)**	**(8,108)**
Total comprehensive income (loss)	*622*	*12,777*	*(162)*	*(8,108)*	*5,129*
Appropriation of 2020 net income (loss)	(122,266)	-	-	122,266	-
Dividends paid	(280)	-	-	-	(280)
Changes in consolidation scope and other*	(304,950)	23,877	110	-	(280,963)
POSITION AS AT DECEMBER 31, 2021	**48,281**	**3,649**	**841**	**(8,108)**	**44,663**

* *As at December 31, 2021, the "Changes in consolidation scope and other" caption primarily corresponds to the acquisition of non-controlling interests in VSB in Brazil, VAM USA LLC and Vallourec Star LP: (see Note 6.2).*

6.1.7 Notes to the consolidated financial statements for the year ended December 31, 2021

All amounts are expressed in thousands of euros (€ thousands) unless otherwise stated.

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Note 1 ● Accounting standards, basis for the preparation of the consolidated financial statements and key events over the period

1.1 Accounting standards

The consolidated financial statements for the year ended December 31, 2021, including the accompanying notes to the consolidated financial statements, were approved by Vallourec's Board of Directors on February 23, 2022 and will be submitted for approval at the Shareholders' Meeting.

Pursuant to EC Regulation No. 1606/2002 adopted on July 19, 2002 for all listed companies in the European Union, Vallourec has prepared its consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) adopted by the European Union, using the standards and interpretations applicable as at December 31, 2021. These financial statements are available on the Company's website at www.vallourec.com.

International Financial Reporting Standards comprise the IFRS standards issued by the International Accounting Standards Board (IASB), as well as the International Accounting Standards (IAS) and the related interpretations 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 the changes to the standards presented below:

1.1.1 NEW MANDATORY STANDARDS

Main mandatory standards in 2021:

- amendments to IAS 1 and IAS 8 "Definition of Material";
- amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform – Phase 2";
- IFRIC Amendment of May and November 2021 – "Attributing Benefit to Periods of Service".

These standards do not have a material impact on the Group's consolidated financial statements.

1.1.2 NEW STANDARDS NOT EARLY ADOPTED

The Group has not opted for early application of any other standards or interpretations that are mandatory for financial periods beginning on or after January 1, 2022.

1.2 Measurement basis and presentation of the consolidated financial statements

1.2.1 HISTORICAL COST CONVENTION

The Group's consolidated financial statements are prepared using the historical cost convention, except for biological assets, derivative financial instruments that are measured at fair value, and financial assets measured at fair value through profit and loss or equity.

1.2.2 FOREIGN CURRENCY TRANSACTIONS

Translation of the financial statements of subsidiaries whose functional currency is not the euro

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.

Any ensuing translation differences are recorded in equity. The portion of translation differences attributable to the Group is recorded separately within "Foreign currency translation reserve".

Translation of foreign currency transactions

Foreign currency transactions are translated into the functional currency. When the transaction is subject to a hedge, it is translated at the spot rate on the day the hedging instrument is implemented. In the absence of a hedge, foreign currency transactions are translated at the exchange rates prevailing 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 differences between these rates and the rates at which the transactions were initially recorded are included in financial income or loss.

The main exchange rates used (euro/currency) are as follows:

	USD	GBP	BRL	CNY
AS AT DECEMBER 31, 2020				
Average rate	1.14	0.89	5.90	7.87
Closing rate	1.23	0.90	6.37	8.02
AS AT DECEMBER 31, 2021				
Average rate	1.18	0.86	6.38	7.63
Closing rate	1.13	0.84	6.31	7.19

1.2.3 CONSOLIDATION PRINCIPLES

Subsidiaries are fully consolidated from the date on which control is acquired and cease to be consolidated when control is transferred outside the Group.

Definition

Control is deemed to exist when the Group (i) has power over an entity, (ii) is exposed to, or has rights to, variable returns from its involvement with the entity, and (iii) has the ability to use its power over the entity to affect 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. Profits, losses and all other components of other items of comprehensive income are divided between the Group and non-controlling interests. Subsidiaries' comprehensive income is divided between the Group and non-controlling interests, even when this results in allocating a loss to the non-controlling interests.

Changes in the ownership interest in subsidiaries that do not result in a change of control are equity transactions (i.e., transactions with owners in their capacity as owners).

The effects of these transactions are recorded in equity for the amount net of tax and do not therefore impact the Group's consolidated income statement.

They are presented in the statement of cash flows within financing or investing operations, as applicable.

Profits and losses of acquired companies are included in the income statement at the date the Group effectively gains control. Profits and losses of companies sold are included until the date control ceases.

Cash flows in the income statement and statement of financial position relating to intra-Group commercial and financial transactions are eliminated.

The consolidation scope is presented in Note 10.2.

1.2.4 USE OF ESTIMATES AND JUDGMENT

Estimates

The preparation of IFRS consolidated financial statements requires Vallourec's management to use estimates and assumptions that affect the carrying amounts of certain assets and liabilities, income and expenses, as well as certain information in the explanatory notes.

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 the economic outlook, a highly competitive international environment and volatility in the costs of raw materials and energy), the uncertain nature of some estimates may be more pronounced.

Significant estimates made with respect to accounting items and disclosures concern the measurement of:

- the recoverable amount of property, plant and equipment, intangible assets and goodwill (see Notes 4.1, 4.3 and 4.4);
- provisions for disputes, onerous contracts, restructuring and contingent liabilities (see Note 9);
- accounting treatment of the financial restructuring and determining the fair value of new debt and equity instruments (see Note 1.3.1);
- deferred tax assets recognized on tax loss carryforwards (see Note 3.2).

Judgment

The Group must use assumptions and judgments to determine the extent to which it controls certain investments, notably to define relevant activities and identify substantive rights, as well as the type of joint arrangement that exists in the event of jointly controlled businesses. These judgments are revised if facts and circumstances change.

1.3 Key events during the period

1.3.1 FINANCIAL RESTRUCTURING

On June 30, 2021, Vallourec SA finalized its financial restructuring, reducing the Group's debt by €1.7 billion further to the completion of the following final steps in the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021:

- a €1,331 million debt-for-equity swap by way of a capital increase without shareholders' pre-emptive subscription rights reserved for the converting creditors, for a gross amount (including issue premiums) of €1,331 million, through the issue of 164,523,927 new shares subscribed by the converting creditors (at a price of €8.09 per share, including issue premiums) by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the issue of 30,342,337 share subscription warrants reserved for the commercial banks, subscribed by way of set-off against a portion of their claims in respect of the Company's revolving credit facilities for an amount of €0.3 million;
- a debt write-off granted by the commercial banks in the amount of €169 million;
- the issue of new bonds for a nominal aggregate amount of €1,023 million, subscribed by the converting creditors by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the arrangement by the commercial banks of a €462 million revolving credit facility;
- the arrangement by the commercial banks of State-guaranteed loans (*prêts garantis par l'État*) for an aggregate amount of €262 million, and
- the repayment in cash of a portion of the receivables in respect of the Company's bonds and revolving credit facilities for €562 million, financed in particular by the proceeds from the capital increase with pre-emptive subscription rights for a gross aggregate amount (including issue premiums) of €300 million through the issue of 52,954,807 new shares subscribed in cash (at a price of €5.66 per share, including issue premiums) by holders of the Company's pre-emptive subscription rights.

In addition, the commercial banks arranged bonding lines on behalf of Vallourec Tubes and certain subsidiaries, for a total amount €178 million over a period of five years.

Further to these transactions, the former bonds and revolving credit facilities were canceled and the outstanding bonds were delisted from their respective markets.

Impact on financial loss for the six months ended December 31, 2021

The Group considered that the conversion into equity instruments (capital increase, issue of share subscription warrants) and the arrangement of new debt instruments with different characteristics (State-guaranteed loans, new bond issue, new revolving credit facility) represented a single complex transaction with multiple components.

The Group considered that the existing debt had been substantially modified within the meaning of IFRS 9 and in application of IFRIC 19, and should be derecognized. Accordingly, the existing debt was derecognized in full and the new debt and equity instruments put in place as part of the restructuring were recognized at fair value.

This complex transaction resulted in:

- the removal from the statement of financial position of the restructured components (bonds, bank drawdowns [bilateral credit lines/revolving credit facilities] and the corresponding accrued interest);
- the recognition of the various restructuring components:
  - capital increase reserved for the converting creditors,
  - capital increase with pre-emptive subscription rights,
  - issue of share subscription warrants reserved for the commercial banks,
  - State-guaranteed loans,
  - issue of new bonds,
  - initial drawdown on the new revolving credit facility.

Accordingly, these new components were recognized at fair value. The amounts on initial recognition differ from the amounts presented in the safeguard plan.

The difference between the carrying amount of the extinguished bond debt and revolving credit facilities and the fair value of the new equity and debt instruments was recognized in financial loss ("Net expense attributable to financial restructuring") in accordance with the provisions of IFRS 9 and IFRIC 19 applicable to financial restructuring transactions.

The difference between the nominal amount of the State-guaranteed loans and their fair value represents a subsidy to be amortized over the term of the loans. The costs incurred by the Company as part of these transactions were allocated either to the restructuring or to the new debt and equity instruments.

The overall expense attributable to the restructuring breaks down as follows:

In € millions	**Amount**
Capital increase subscribed in cash	(300)
Capital increase by way of set-off of receivables at fair value	(1,257)
New financing share subscription warrants issued at fair value	(59)
New debt instruments (initially recognized at fair value)	(1,902)
Extinguished debt (as per statement of financial position)	3,547
INCOME FROM THE RESTRUCTURING	**29**
Accelerated amortization of finance costs	(14)
Fees and transaction costs recorded in the income statement	(56)
Withholding tax	(1)
NET EXPENSE ATTRIBUTABLE TO THE RESTRUCTURING	**(42)**

Fees and transaction costs amounted to €66 million and were charged against (i) the issue premium associated with the capital increase with pre-emptive subscription rights for €9 million, and (ii) financial expenses for -€56 million.

Impact on the financial position and net debt

Further to the financial restructuring on June 30, 2021, gross debt was reduced by €1.7 billion, breaking down as follows:

	Nominal amount	IFRS 9 impact	Carrying amount as at 06/30/2021	Non-current	Current
GROSS DEBT BEFORE RESTRUCTURING					
Accrued interest			(77)		(77)
Bonds	(1,755)		(1,755)		(1,755)
Revolving credit facility drawdowns	(1,712)		(1,712)		(1,712)
Total	**(3,467)**	**0**	**(3,544)**		**(3,544)**
GROSS DEBT AFTER RESTRUCTURING					
New revolving credit facility	462		462		462
Bond issue – maturing in June 2026	1,023	155	1,178	1,178	
State guaranteed loans	262	(54)	208	208	
Total	**1,747**	**101**	**1,848**	**1,386**	**462**
CHANGE	**(1,720)**		**(1,696)**	**1,386**	**(3,082)**

As at December 31, 2021, debt stood at €1,577 million and is discussed in Note 7.1.

Impacts on corporate governance

In accordance with the resolutions adopted on April 20, 2021 by the Company's Ordinary and Extraordinary Shareholders' Meeting, the Company's new governance structure came into effect on July 1, 2021 upon the decision of the Chairman of the Management Board, acknowledging that the Effective Restructuring Date occurred on June 30, 2021, with:

- the modification of the Company's governance and management structure to a single-tier structure with a Board of Directors rather than the previous two-tier structure with a Management Board and Supervisory Board; and
- the expiration of the terms of office of the members of the Company's Supervisory Board and Management Board.

The Company's new articles of association, which notably abolish double voting rights, came into force on July 1, 2021.

1.3.2 COVID-19 CRISIS AND IMPACT ON BUSINESS

The consolidated financial statements for the year ended December 31, 2021 were prepared on the basis of the information available at that date in the evolving context of the Covid-19 crisis and taking into account the difficulties in assessing its impact and future prospects.

1.3.3 SCOPE OF CONSOLIDATION

- On March 31, 2021, the Vallourec Group acquired Nippon Steel's 15.4% interest in the Brazilian joint venture Vallourec Soluções Tubulares do Brasil (VSB). Further to this transaction, the Vallourec Group holds the entire share capital of VSB.
- On July 27, 2021, the Vallourec Group acquired the non-controlling interests in VAM USA LLC (United States) based on a valuation of USD 85 million for the entire share capital, i.e., the acquisition of the 34% interest held by Nippon Steel Oilfield Services Inc for USD 28.9 million and of the 15% held by Sumitomo Corporation of Americas for USD 12.75 million.
- On September 30, 2021, Vallourec purchased Sumitomo Corporation's 19.5% non-controlling interest in Vallourec Star (United States) for €83 million.
- On November 17, 2021, Vallourec decided to launch a disposal process for its German production units, with the aim of finding a new operator to profitably serve the European Industry markets. The disposal process is targeting a binding offer by the second quarter of 2022. If no buyer is identified, Vallourec will look at all alternatives, including closure. This decision results in the reclassification of the assets and liabilities concerned within items held for sale.

Note 2 • Operating activities

The Vallourec Group is a world leader in premium tubular solutions, primarily for the Oil & Gas, Industry, and Energy markets. Originally based in France and Germany, Vallourec now has frontline positions in the United States, Brazil, Europe, the Middle East and Asia. The Group provides a wide range of premium tubular solutions – high-performance solutions whose manufacturing requires significant technological and industrial expertise – in addition to related specialized services that provide customers with a comprehensive range of innovative solutions.

2.1 Segment information

The Group's customer-focused organizational structure is designed to provide a growing number of integrated services for delivery of comprehensive turnkey solutions and involves analysis of financial information according to a number of areas (markets, regions, sites, and products).

None of these areas taken independently can comprehensively measure profits and losses or assets and liabilities for individual segments.

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:

- Seamless tubes: this segment covers all entities with production and marketing facilities dedicated to the Group's main business, i.e., the production of hot-rolled seamless carbon and alloy steel tubes, both smooth and threaded, for the Oil & 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 production of articles that are suitable for a variety of markets (Oil & Gas, Power Generation, Chemicals and Petrochemicals, Automotive and Mechanicals, etc.);
- Specialty Products: This segment incorporates various businesses which differ significantly from those described above, but which are not presented separately as they are not considered material. This treatment is authorized by IFRS 8.

The following tables provide information on the revenue and results of each operating segment for 2021 and 2020, as well as on assets, liabilities and capital expenditure at the reporting date.

RESULTS, ASSETS AND LIABILITIES BY OPERATING SEGMENT

Position as at December 31, 2021	Seamless tubes	Specialty products	Holding companies and other	Inter-segment transactions	Total
INCOME STATEMENT					
Revenue*	3,428,737	12,193	813	-	3,441,743
EBITDA	512,480	(6,676)	(13,350)	-	492,454
Depreciation of industrial assets	(197,155)	-	(4,448)	-	(201,603)
Impairment of assets and goodwill	(5,239)	-	-	-	(5,239)
Asset disposals, restructuring costs and non-recurring items	91,192	5,890	(8,364)	-	88,718
OPERATING INCOME (LOSS)	**401,278**	**(786)**	**(26,162)**	**-**	**374,330**
Unallocated income	-	-	-	-	4,225
Unallocated expenses	-	-	-	-	(240,641)
Pre-tax income (loss)	-	-	-	-	137,914
Income tax	-	-	-	-	(101,136)
Share in net income (loss) of equity-accounted companies	-	-	-	-	(5,341)
Net income (loss)	-	-	-	-	31,437
STATEMENT OF FINANCIAL POSITION					
Non-current assets	2,254,846	16,590	3,547,072	(3,596,201)	2,222,307
Current assets	1,538,612	9	47,107	(50,900)	1,534,828
Cash and cash equivalents	499,001	-	686,765	(566,408)	619,358
Assets held for sale and discontinued operations	341,991	29,737	-	-	371,728
TOTAL ASSETS	**4,634,450**	**46,336**	**4,280,944**	**(4,213,509)**	**4,748,221**
CASH FLOWS					
Investments in property, plant and equipment, intangible assets and biological assets	(134,047)	(444)	(4,876)	-	(139,367)

* *Sales to external customers.*

Position as at December 31, 2020	Seamless tubes	Specialty products	Holding companies and other	Inter-segment transactions	Total
INCOME STATEMENT					
Revenue*	3,194,766	47,063	571	-	3,242,400
EBITDA	305,641	(11,837)	(35,836)	-	257,968
Depreciation of industrial assets	(261,249)	(2,255)	(4,580)	-	(268,084)
Impairment of assets and goodwill	(761,086)	(8,510)	(80,684)	-	(850,280)
Asset disposals, restructuring costs and non-recurring items	(146,633)	(1,836)	6,533	-	(141,936)
OPERATING INCOME (LOSS)	**(863,327)**	**(24,438)**	**(114,567)**	**-**	**(1,002,332)**
Unallocated income	-	-	-	-	(21,601)
Unallocated expenses	-	-	-	-	(205,330)
Pre-tax income (loss)	-	-	-	-	(1,229,263)
Income tax	-	-	-	-	(96,051)
Share in net income (loss) of equity-accounted companies	-	-	-	-	(3,083)
Net income (loss)	-	-	-	-	(1,328,397)
STATEMENT OF FINANCIAL POSITION					
Non-current assets	2,217,688	20,921	3,316,083	(3,374,618)	2,180,074
Current assets	1,366,154	98	37,659	(31,753)	1,372,158
Cash and cash equivalents	597,101	86	1,202,730	(410,384)	1,389,533
Assets held for sale and discontinued operations	38,014	68,509			106,523
TOTAL ASSETS	**4,218,957**	**89,614**	**4,556,472**	**(3,816,755)**	**5,048,288**
CASH FLOWS					
Investments in property, plant and equipment, intangible assets and biological assets	(135,061)	(1,301)	(4,483)	-	(140,845)

* *Sales to external customers.*

GEOGRAPHIC AREAS

The following tables provide information by geographic area on revenue (by location of customers) and capital expenditure as well as on assets (by location of assets).

2021	Europe	North America	South America	Asia	Rest of the World	Inter-segment transactions	Total
REVENUE							
Sales to external customers	529,136	836,423	1,076,708	765,623	233,853	N/A	3,441,743
STATEMENT OF FINANCIAL POSITION							
Property, plant and equipment, intangible assets and biological assets (net)	116,781	894,483	665,598	108,034	808	N/A	1,785,704
Trade and other receivables	169,455	100,820	223,707	182,947	4,987	(140,583)	541,333
TOTAL ASSETS	**5,129,897**	**1,448,849**	**1,554,486**	**751,275**	**19,982**	**(4,156,268)**	**4,748,221**
CASH FLOWS							
Investments in property, plant and equipment, intangible assets and biological assets	(25,884)	(29,399)	(67,807)	(16,027)	(250)	N/A	(139,367)
Net additions to depreciation, amortization and provisions	(31,568)	98,560	59,340	14,916	2,852	N/A	144,101

2020	Europe	North America	South America	Asia	Rest of the World	Inter-segment transactions	Total
REVENUE							
Sales to external customers	533,345	718,779	756,392	899,919	333,965		3,242,400
STATEMENT OF FINANCIAL POSITION							
Property, plant and equipment, intangible assets and biological assets (net)	216,912	897,158	609,885	98,253	617	N/A	1,822,825
Trade and other receivables	211,651	68,267	150,197	125,357	13,804	(101,696)	467,580
TOTAL ASSETS	**5,119,837**	**1,295,332**	**1,497,660**	**586,438**	**31,375**	**(3,482,354)**	**5,048,288**
CASH FLOWS							
Investments in property, plant and equipment, intangible assets and biological assets	(39,911)	(27,957)	(60,945)	(11,697)	(335)	N/A	(140,845)
Net additions to depreciation, amortization and provisions	485,171	424,946	58,241	201,701	5,947	N/A	1,176,005

2.2 Revenue

Revenue reflects the sale of finished products and services. The Group uses the following five-step approach to determine the principle for revenue recognition:

1. Identify contract.
2. Identify distinct performance obligations within the contract.
3. Determine contract (transaction) price.
4. Allocate overall price to each performance obligation in proportion to their stand-alone selling price.
5. Recognize revenue when a performance obligation has been satisfied.

Revenue is recognized either at a point in time, when the Group has satisfied the performance obligation by transferring control of the asset, or over time based on the percentage of completion, as calculated by reference to costs incurred at the reporting date.

No revenue is recognized if there are significant uncertainties as to the recovery of the amount due.

Revenue corresponds primarily to tube sales and is recognized in full at a point in time, *i.e.*, when the Group has satisfied the performance obligation by transferring control of the asset. In most cases, this is determined by the Incoterms. Long-term contracts that mainly relate to welding activities are recognized over time using the percentage-of-completion method. A smaller proportion of revenue derives from royalties and sales of iron ore.

A breakdown of revenue by segment and geographical area is shown in Note 2.1.

ORDER BOOK

As required by IFRS 15, the order book reflects fixed revenue contracts with customers for which the services have not yet been delivered or have only been partially delivered at the reporting date. The Group’s order book chiefly reflects revenue deriving from contracts for tube sales.

2.3 EBITDA

EBITDA is an important indicator for the Group, enabling it to measure its performance from continuing operations. It is calculated by taking operating income (loss) before depreciation and amortization, and excluding certain operating revenues and expenses that are unusual in nature or occur rarely, such as:

- impairment of goodwill and non-current assets as determined within the scope of impairment tests carried out in accordance with IAS 36;
- significant restructuring expenses, particularly resulting from headcount reorganization measures, in respect of major events or decisions;
- capital gains or losses on disposals;
- income and expenses resulting from major litigation, significant roll-outs or capital transactions (e.g., costs of integrating a new activity).

The Group's income statement is presented by function.

EBITDA breaks down as follows:

	2020	2021
Revenue	**3,242,400**	**3,441,743**
Cost of sales	**(2,634,268)**	**(2,605,163)**
• Of which direct cost of sales	(182,858)	(181,760)
• Of which cost of raw materials consumed	(1,092,340)	(1,227,520)
• Of which labor costs	(580,100)	(563,338)
• Of which other manufacturing costs [(a)]	(709,466)	(742,215)
• Of which change in non-raw-material inventories	(69,504)	109,670
Selling, general and administrative expenses	**(325,660)**	**(315,553)**
• Of which research and development costs	(41,320)	(38,238)
• Of which selling and marketing costs	(61,886)	(59,132)
• Of which general and administrative costs	(222,454)	(218,183)
Other	**(24,504)**	**(28,573)**
• Of which employee profit-sharing, bonuses and other	(15,486)	(35,194)
• Of which other income and expenses	(9,018)	6,621
Total gross operating expenses	**(2,984,432)**	**(2,949,289)**
EBITDA	**257,968**	**492,454**

(a) *"Other manufacturing costs" mainly include energy and consumables, sub-contracting and maintenance expenditure, and provisions.*

PERSONNEL EXPENSES

	2020	2021
Wages and salaries	(594,005)	(594,979)
Employee profit-sharing and bonuses	(17,322)	(35,550)
Expenses related to stock options and performance shares [(a)]	(2,979)	(3,018)
Social security costs	(149,728)	(148,694)
TOTAL	**(764,034)**	**(782,241)**

(a) *Including an expense of €2.3 million for all share subscription plans, and an expense of €0.7 million for all performance share plans.*

Note 8 contains information about retirement commitments.

Headcount of consolidated companies at December 31	2020	2021
Managers	2,902	2,808
Technical and supervisory staff	2,303	2,136
Production staff	10,757	11,081
TOTAL	**15,962**	**16,025**

Group headcount as at December 31, 2021 was 16,025 people, compared with 15,962 people as at December 31, 2020.

2.4 Depreciation and amortization

Depreciation and amortization breaks down as follows:

	2020	2021
Depreciation of industrial assets	(213,769)	(159,949)
Depreciation of right-of-use assets	(28,740)	(16,832)
Amortization of capitalized research and development costs	(8,094)	(4,942)
Depreciation and amortization – sales and marketing	(1,110)	(1,135)
Depreciation and amortization – general and administrative costs	(16,371)	(18,745)
TOTAL DEPRECIATION AND AMORTIZATION	**(268,084)**	**(201,603)**

2.5 Impairment of assets and goodwill

	2020	2021
Impairment of goodwill	(324,846)	-
Impairment of intangible assets	(2,397)	-
Impairment of property, plant and equipment	(393,430)	-
Impairment of right-of-use assets	(36,163)	-
Impairment of biological assets	(1,642)	-
Impairment of equity-accounted companies	(80,685)	-
Impairment of assets held for sale	(11,117)	(5,239)
TOTAL	**(850,280)**	**(5,239)**

In 2020, the impairment tests carried out led the Group to recognize €850 million in impairment of assets and goodwill, mainly in respect of the Vallourec Europe CGU including the HKM associate (€509 million) and the Vallourec North America CGU (€327 million).

In 2021, the impairment tests carried out during the year did not lead the Group to recognize any further impairment of assets and goodwill. A number of industrial assets are shown as held for sale or closed and were written down in an amount of €5 million to reduce their carrying amount to their estimated realizable value.

2.6 Asset disposals, restructuring costs and non-recurring items

	2020	2021
Reorganization measures (net of expenses and provisions)	(125,813)	(6,454)
Gains and losses on disposals of non-current assets and other non-recurring items	(16,123)	95,172
TOTAL	**(141,936)**	**88,718**

The Group pressed ahead with its reorganization measures, mainly in Europe, which generated net costs of €6 million.

Gains on disposals during 2021 mainly concern the land and industrial buildings of the Reisholz plant in Germany for €70 million. During the year, a favorable decision handed down by the Brazilian Supreme Court in connection with tax recovery claims on PIS and COFINS value added taxes led to the recognition of €32 million in non-recurring income (excluding the related translation adjustment, recognized in financial items for €27 million, see Note 7.1.6). Vallourec also recognized €17 million in impairment losses on assets held for sale.

2.7 Reconciliation of net additions to provisions with the statement of cash flows

	Notes	2020	2021
Depreciation and amortization	**2.4**	**(268,084)**	**(201,603)**
Impairment of assets and goodwill	**2.5**	**(850,280)**	**(5,239)**
Provision allowances net of reversals included in EBITDA		(2,208)	34,328
Provision allowances net of reversals included in assets disposals, restructuring costs and non-recurring items		(51,371)	30,722
Provision allowances net of reversals included in financial income (loss)		(4,062)	(2,309)
TOTAL		**(1,176,005)**	**(144,101)**
Net depreciation, amortization and provisions in the statement of cash flows		**1,176,005**	**144,101**

2.8 Working capital

2.8.1 INVENTORIES AND WORK-IN-PROGRESS

Inventories are valued at the lower of cost and 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 the estimated costs of completion and the estimated costs necessary to make the sale.

The cost of inventories of raw materials, goods for resale and other supplies includes the purchase price excluding taxes, less discounts, rebates and other payment reductions obtained, plus any incidental costs of purchase (transportation, unloading expenses, customs duties, purchase commissions, etc.). These inventories are measured at weighted average cost.

The cost of work-in-progress, semi-finished and finished goods consist of the production cost excluding financial expenses. Production costs comprise raw materials, plant 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 production cost.

With the exception of security stocks recorded in property, plant and equipment, spare parts and consumables are included in inventory, including if they are expected to be used over more than one year.

The cost of any idle capacity is excluded from the value of inventories. Where appropriate, the unallocated portion of made-to-order products are written down and valued at scrap prices (if applicable). Inventories are written down based on their net realizable values.

	Dec. 31, 2020			Dec. 31, 2021		
	Gross value	Impairment	Net value	Gross value	Impairment	Net value
Raw materials and goods for resale	319,808	(54,845)	264,963	323,810	(39,760)	284,050
Work-in-progress	195,837	(26,482)	169,355	290,386	(19,905)	270,481
Semi-finished and finished goods	252,367	(22,794)	229,573	325,648	(24,043)	301,605
TOTAL	**768,012**	**(104,121)**	**663,891**	**939,844**	**(83,708)**	**856,136**
Increase in provisions		(45,890)			(50,575)	
Reversals of provisions		56,317			37,839	

Raw materials and goods for resale mainly comprise ferrous alloys, electrodes, refractories, steel rounds/billets, scrap and consumables. Work-in-progress represents products and services at intermediate stages of processing. Semi-finished goods are products that have reached a point of completion but require subsequent finishing.

As at December 31, 2021, inventories classified as "assets held for sale" (IFRS 5, see Note 10.1) amounted to €171 million.

2.8.2 TRADE AND OTHER RECEIVABLES

Receivables are recorded at the transaction price. The Group bases its measurement of expected credit losses on the default rates previously observed by customer, current conditions, and forecasts of future economic conditions.

The Group derecognizes a financial asset when the contractual rights to the cash flows generated by the asset expire, or, in the case of transactions involving receivables factored without recourse, when the rights to receive contractual cash flows and substantially all of the risks and rewards of ownership of the asset have been transferred.

	Dec. 31, 2020			Dec. 31, 2021		
	Gross value	Impairment	Net value	Gross value	Impairment	Net value
Advances and partial payments on orders	6,566	-	6,566	12,508	-	12,508
Trade and other receivables	467,785	(6,771)	461,014	541,008	(12,183)	528,825
TOTAL	**474,351**	**(6,771)**	**467,580**	**553,516**	**(12,183)**	**541,333**
Increase in provisions		(3,947)			(8,802)	
Reversals of provisions		2,648			1,864	

The amount of trade receivables covered by insurance or a letter of credit as at December 31, 2021 was less than 20% of total outstanding trade receivables: the majority of the Group's business is with companies with sound credit quality, namely national and international oil companies or their subcontractors. A residual portion of revenue is generated with industrial customers which may have higher risk profiles and for which credit insurance arrangements are in place.

In the event of country risk, the Group makes specific arrangements when the order is placed to protect itself from any financial loss (for example, it may set up a confirmed letter of credit, or payment in advance).

Reversals of surplus provisions are not material at Group level.

The Group did not incur any significant losses during the year.

The Group does not specifically track the counterparty's historical loss rates by country; the consolidated analysis shows a low loss rate, with the five-year average representing 0.4% of revenue.

In 2021, the Group factored receivables without recourse with financial institutions in an amount of €40.1 million. Based on an analysis of risks and rewards as defined by IFRS 9, the Group derecognized the factored receivables, including any associated insolvency risk of the factored receivables. Under the factoring agreements signed, Vallourec undertakes to transfer all cash flows to the bank, and no longer has any contractual rights with regard to the banks or the customers concerned. The amount of the corresponding receivables therefore no longer appears in the Group's consolidated statement of financial position at the reporting date.

As at December 31, 2021, trade receivables classified within "assets held for sale" (IFRS 5, see Note 10.1) represented an amount of €38 million.

2.8.3 OTHER ASSETS AND LIABILITIES

	Dec. 31, 2020				Dec. 31, 2021			
	Assets		Liabilities		Assets		Liabilities	
	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Tax receivables/liabilities	7,345	117,445	8,335	57,062	28,949	45,504	6,595	29,745
Social security receivables/liabilities	-	4,176	-	138,125	-	4,325	-	158,581
Other	71,471	78,016	23,722	46,183	65,006	82,771	52,012	52,818
Provisions	(4,083)	(4,233)	-	-	(2,933)	(7,740)	-	-
TOTAL	**74,733**	**195,404**	**32,057**	**241,370**	**91,022**	**124,860**	**58,607**	**241,144**

Other assets (current and non-current) consist primarily of tax receivables in Brazil and the United States, deposits and a surety bond paid in China and Brazil in respect of tax litigation (see Note 9), and prepaid expenses.

2.8.4 RECONCILIATION OF WORKING CAPITAL

Changes in working capital during the year 2021 were as follows:

Gross amounts *(in € thousands)*	12/31/2020	Translation difference	Change	Reclassification and other	Items held for sale*	12/31/2021
Inventories	768,012	39,093	324,766	(17,826)	(174,201)	939,844
Trade receivables and supplier advances	474,351	22,132	83,014	(2,368)	(23,613)	553,516
Trade payables	(426,097)	(25,280)	(149,274)	13,566	130,231	(456,854)
Working capital	**816,266**	**35,945**	**258,506**	**(6,628)**	**(67,583)**	**1,036,506**
Other receivables and payables	49,203	1,128	(71,190)	(49,305)	(10,911)	(81,075)
OPERATING WORKING CAPITAL	**865,469**	**37,074**	**187,317**	**(55,933)**	**(78,494)**	**955,432**
Impact of hedging instruments			(15,274)			
TOTAL			**172,043**			
Change in operating working capital in the statement of cash flows			(172,043)			

* *See Note 10.1.*

Changes in working capital during the year 2020 were as follows:

Gross values *(in € thousands)*	12/31/2019	Translation difference	Change	Reclassification and other	Items held for sale	12/31/2020
Inventories	1,122,361	(100,533)	(225,875)	15,016	(42,957)	768,012
Trade receivables	644,071	(69,460)	(67,430)	(17,344)	(15,486)	474,351
Trade payables	(579,739)	37,811	89,623	294	25,914	(426,097)
Working capital	**1,186,693**	**(132,182)**	**(203,682)**	**(2,034)**	**(32,529)**	**816,266**
Other receivables and payables	5,091	(21,795)	19,091	42,706	4,110	49,203
OPERATING WORKING CAPITAL	**1,191,784**	**(153,977)**	**(184,591)**	**40,672**	**(28,419)**	**865,469**
Impact of hedging instruments			11,778			
TOTAL			**(172,813)**			
Change in operating working capital in the statement of cash flows			172,813			

Through its subsidiary Vallourec Deutschland, the Group uses reverse factoring for a contract to purchase steel billets from HKM. In accordance with IFRS 9.3.3, the Group has not derecognized the liabilities included in the reverse factoring program as they have not been extinguished and the initial liability was not substantially modified when the arrangement was put in place. The accounting treatment adopted by the Group for its reverse factoring programs is in accordance with the IFRIC agenda decision published in December 2020.

As at December 31, this program represented outstanding operating liabilities for the Group of €65 million.

Note 3 ● 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, as well as for tax losses, under the conditions set out below.

The main types of deferred tax recognized are:

- long-term deferred tax assets (provisions for French company retirement commitments) which are likely to be recovered in the foreseeable future;
- deferred tax assets for short-term recurring items (provision for paid leave, 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 arising on adjustments resulting from the reconciliation of statutory financial statements with IFRS financial statements and on consolidation adjustments;
- 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 enacted or substantively enacted 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 Note 7.5 dealing with hedge accounting and Note 8 dealing with actuarial gains and losses on post-employment 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.

3.1 Reconciliation of theoretical and effective tax expense

	2020	2021
Current tax expense	(93,360)	(136,652)
Deferred taxes	(2,691)	35,516
Net expense (-), Net benefit (+)	**(96,051)**	**(101,136)**
Consolidated net income (loss)	(1,325,314)	36,778
Tax expense	(96,051)	(101,136)
Pre-tax income (loss)	**(1,229,263)**	**137,914**
Statutory tax rate applicable to the parent	32.02%	28.40%
Theoretical tax	393,647	(39,167)
Impact of main tax loss carryforwards	(376,986)	(16,419)
Impact of permanent differences	(58,329)	1,713
Other impacts	(12)	(12,584)
Impact of differences in tax rates	(54,371)	(34,679)
Net expense (-), Net benefit (+)	**(96,051)**	**(101,136)**
Effective tax rate	**-8%**	**73%**

The 73% rate mainly reflects the items detailed below:

- the impact of tax loss carryforwards and temporary differences mainly concerns the non-recognition of deferred tax assets (DTAs) for the year in France and Germany, and a reversal of impairment recognized against deferred tax assets arising on prior-year tax losses in the United States;
- deferred taxes on the impairment of assets recognized during the year in countries where deferred taxes on losses were not recognized were also written down;
- permanent differences reflect the add-back of financial expenses, primarily in France, as well as the tax credits obtained in Brazil;
- differences in tax rates mainly reflect the diverse range of tax rates applied in the Group's various countries (Germany 31.6%, United States 21%, Brazil 34.0%, China 25.0%, and Saudi Arabia 20%);
- the fall in the income tax rate in France has no impact on the deferred taxes of the Group in France since deferred taxes on tax losses and temporary differences were not recognized.

3.2 Deferred tax assets and liabilities

Deferred taxes are recognized using the liability method.

The rates used are the recovery rates known at the reporting date.

	2020	2021
Deferred tax assets	186,571	239,467
Deferred tax liabilities	19,914	29,100
NET DEFERRED TAX ASSETS/ (DEFERRED TAX LIABILITIES)	**166,657**	**210,367**

12/31/2021	Assets	Liabilities	Net deferred tax assets/ (liabilities)
Non-current assets	-	128,078	-
Other assets and liabilities	46,390	-	-
Inventories	10,870	-	-
Employee benefits	5,186	-	-
Derivatives	-	846	-
Net balance	**62,446**	**128,924**	**(61,707)**
Recognition of tax losses	276,845	-	276,845
TOTAL	**339,291**	**128,924**	**210,367**

12/31/2020	Assets	Liabilities	Net deferred tax assets/ (liabilities)
Non-current assets	-	136,449	-
Other assets and liabilities	16,516	-	-
Inventories	10,231	-	-
Employee benefits	6,649	-	-
Derivatives	436	-	-
Net balance	**33,832**	**136,449**	**(102,617)**
Recognition of tax losses	269,274	-	269,274
TOTAL	**303,136**	**136,449**	**166,657**

Deferred taxes (gross values) as at December 31, 2021 and December 31, 2020 are broken down as follows:

12/31/2021	Gross value	Corresponding deferred tax	Recognized deferred tax	Unrecognized deferred tax
Tax loss carryforwards	3,327,805	845,454	276,845	568,609
Other tax assets	-	-	(37,379)	322,447
Assets reclassified as held for sale	-	-	1	(90,896)
Total tax assets	**-**	**845,454**	**239,467**	**(800,161)**
Tax liabilities	-	-	(29,100)	-
Liabilities reclassified as held for sale	-	-	-	-
Total tax liabilities	**-**	**-**	**(29,100)**	**-**
TOTAL	**-**	**-**	**210,367**	**(800,161)**

12/31/2020	Gross value	Corresponding deferred tax	Recognized deferred tax	Unrecognized deferred tax
Tax loss carryforwards	4,375,024	1,157,420	269,274	888,146
Other tax assets	-	-	(82,703)	274,698
Total tax assets	**-**	**1,157,420**	**186,571**	**(1,162,844)**
Tax liabilities	-	-	(19,914)	-
Total tax liabilities	**-**	**-**	**(19,914)**	**-**
TOTAL	**-**	**-**	**166,657**	**(1,162,844)**

Unrecognized deferred taxes relate primarily to France, Germany and China due to the lack of near-term prospects of recovery.

Deferred tax assets are recognized when there is reasonable assurance that they will be recovered in the foreseeable future (within 5 to 10 years). When the allocation of these carryforwards to future taxable profits is considered to be uncertain, no deferred tax asset is recognized and any deferred tax assets existing at the opening date are written down where applicable.

Tax loss carryforwards not recognized as at December 31, 2021 correspond to companies which are structurally loss-making and which will not return to profit during the period covered by the business plan or the period during which the losses can be utilized:

- for the French tax consolidation group, losses can be carried forward indefinitely, but cannot be offset against more than 50% of annual taxable income in excess of €1 million;
- in Germany, losses can be carried forward indefinitely, but cannot be offset against more than 40% of annual taxable income in excess of €1 million;
- in the United States, losses can be carried forward indefinitely, but losses incurred since January 1, 2018 cannot be offset against more than 80% of annual taxable income;
- in China, losses can only be carried forward for a period of five years, but are fully deductible from annual taxable income.

Changes in deferred taxes are broken down as follows:

	2020	2021
As at January 1	**239,083**	**166,657**
Impact of changes in exchange rates	(58,301)	4,430
Recognized in profit or loss	(2,691)	35,516
Recognized in comprehensive income (loss)	(1,108)	(3,846)
Changes in consolidation scope	-	(1,604)
Other	(10,348)	9,213
Assets held for sale and discontinued operations	22	1
AS AT DECEMBER 31	**166,657**	**210,367**

The amount of the deferred tax recognized in other comprehensive income corresponds mainly to the change in deferred taxes arising on derivatives, and actuarial gains and losses on retirement commitments and similar employee commitments.

Note 4 ● Property, plant and equipment, intangible assets, goodwill and biological assets

4.1 Goodwill

Goodwill is measured as the difference between:

- the aggregate of:
  - the fair value of the consideration transferred,
  - the amount of any non-controlling interests in the acquired entity,
  - in the case of a business combination achieved in stages (step acquisition), the fair value at the acquisition date of the acquirer's previously held interest in the acquiree; and
- the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

For major acquisitions, fair value measurements are done with the help of independent experts and reflect the best estimates of the management. Non-controlling interests may be valued either at the share of the identifiable net assets of the acquired company, or at fair value.

For transactions with non-controlling interests, the Group recognizes within equity attributable to owners of the parent the difference between the price paid and the carrying amount of the share of non-controlling interests 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.

Impairment risks: Pursuant to IAS 36 "Impairment of Assets", goodwill is 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 (CGU) to which the goodwill is assigned or allocated is at least equal to its net carrying amount (see Note 4.2). If an impairment loss is recognized, an irreversible provision is recorded in operating income (loss) under "Impairment of assets and goodwill".

	12/31/2020			12/31/2021		
	Gross value	**Impairment**	**Net value**	**Gross value**	**Impairment**	**Net value**
Goodwill	514,820	(490,005)	24,815	562,037	(524,488)	37,549

BREAKDOWN OF GOODWILL BY CASH-GENERATING UNIT

	Vallourec do Brasil	Vallourec North America	Vallourec Europe	Total
As at December 31, 2019	**33,807**	**316,533**	**13,643**	**363,983**
Impact of changes in exchange rates	(8,992)	(5,237)	(93)	(14,322)
Impairment during the year	-	(311,296)	(13,550)	(324,846)
As at December 31, 2020	**24,815**	**-**	**-**	**24,815**
Impact of changes in exchange rates	340	-	34	374
Impairment during the year	-	-	-	-
Impact of changes in consolidation scope	10,902	-	1,458	12,360
AS AT DECEMBER 31, 2021	**36,057**	**-**	**1,492**	**37,549**

On October 1, 2021, Vallourec Tubos para Industria, a joint venture, was created by Vallourec Soluçoes Tubulares do Brasil Ltda (75%) and Incotep (25%). This company is controlled by the Group and fully consolidated. The creation of the joint venture led to the recognition of €11 million in goodwill corresponding to the recognition at fair value of the assets contributed by Incotep.

4.2 Impairment tests

Impairment of assets

To perform impairment tests, goodwill was allocated to cash-generating units (CGUs). CGUs are groups of assets whose continuing use generates cash inflows that are largely independent of the cash inflows from other groups of assets.

When an asset within a CGU is discontinued or put up for sale and no longer contributes to the cash flows of the CGU, it is tested separately.

The recoverable value of an asset or CGU is the higher of:

- its value in use, which corresponds to the present value of the forecast future cash flows it generates, without taking into account planned capacity investments and expected gains in terms of productivity; and
- its fair value less the costs of disposal.

The carrying amount of a CGU comprises 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 Vallourec Group, comprises goodwill; and
- for the other CGUs, if there is an indication of impairment.

A stock market value for the Group that is less than the value of 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, represent general indications of impairment liable to result in impairment tests on all the Group's CGUs.

When the recoverable amount of a CGU is less than its net carrying amount, an impairment loss is recognized and presented on the "Impairment of assets and goodwill" line within operating items. When a CGU includes goodwill, the impairment loss is first deducted from goodwill and then, where applicable, from the CGU's other assets.

CASH-GENERATING UNITS

The Group has three main CGUs which group together the assets of several subsidiaries involved in the production cycle of the products sold by these CGUs, and represent 99% of the Group's net assets and all of its goodwill:

- Vallourec EA-MEA (formerly Vallourec Europe): this CGU comprises tube mills (France and China) and the finishing lines they supply (in France, the Middle East and Asia). It no longer includes industrial assets in Germany, which have been reclassified within assets and liabilities held for sale;
- Vallourec North America: the CGU comprises a steel mill and tube mills in the United States, along with the finishing lines they supply (in the United States, Mexico, and Canada);
- Vallourec do Brasil: the CGU in Brazil comprises a steel mill, including a mine and forests, which provide the raw material necessary for them to function; tube mills; as well as the finishing lines they supply.

IMPAIRMENT INDICATORS

As at December 31, 2021, impairment tests have been carried out on the Vallourec EA-MEA and Vallourec do Brasil CGUs.

As regards the Vallourec North America CGU, no indicator has been identified that this CGU may be impaired. The CGU is benefiting from higher business levels and prices on the Oil & Gas market in North America, as well as from the recovery in investments by oil operators in 2021, and the consensus on a favorable outlook for the coming years. As a reminder, in 2020, only the goodwill associated with this CGU was impaired.

Impairment tests were carried out on individual assets, in particular assets of Vallourec Bearing Tubes, Valinox Nucléaire Chine, and Vallourec Deutschland reclassified as assets held for sale (Note 10.1).

RECOVERABLE VALUE

For each CGU tested, the recoverable value is considered equal to the value in use, which corresponds to the present value of the forecast future cash flows it generates.

The recoverable value of individual assets was deemed to represent the higher of fair value less costs to sell or value in use, defined as the present value of forecast future cash flows generated by the asset.

The forecasts used are those used in the five-year strategic business plan, which is based on macroeconomic assumptions per market relying on external sources (E&P Oil & Gas investment forecasts by region, Oil & Gas prices, currencies, raw materials, inflation, etc.). In particular, several external sources including IEA, IHS, Rystad and Wood Mackenzie were taken into account to estimate the volume of E&P Oil & Gas investments by region. On the basis of these elements, the regions, under the coordination of the central Development and Innovation (D&I) and Technology and Industry (T&I) Departments, establish their sales forecasts (volumes and prices).

It should be noted that the bulk of our revenue comes from the sale of seamless tubes and connections for the oil industry (tubing and casing for oil and gas wells, pipelines, refining tubes and petrochemicals, etc.). The buying patterns of our clients may differ based on their own business model and how they adapt structurally to price trends (cost structure, stock policy, risk aversion, project portfolio, financing capacity). The experience and know-how of our teams are key elements in the preparation of our forecasts.

Vallourec confirms its ambitions to reduce its direct and indirect carbon footprint by 2025 in line with the Paris Agreement. The potential impacts observed at the reporting date in relation to the issues identified do not call into question the sensitivity analyses on EBITDA and the growth rate.

All forecast information is derived from the budget and the forecasts presented to the Executive Committee.

Vallourec considers that over the term of the strategic plan, there should be a gradual increase in investment by oil companies and expects to see the benefits from the competitiveness plans and new industrial routes launched by the Group.

In addition to the five-year strategic plan, cash flows are extrapolated over three years to take account of the cyclical effects impacting oil investments and therefore Vallourec's business. The normative level corresponds to the levels of investment by oil operators consistent with the long-term outlook for the Oil &Gas market (depletion of existing fields and increased demand for Oil & Gas). These may vary from one year to the next depending on the economic climate.

This period also enables the revenue growth rates for the final year of the strategic plan to converge towards the perpetuity growth rate.

The perpetuity growth rates were reviewed on December 31, 2021 in order to make them consistent with the currency in which the weighted average cost of capital (WACC) and the future cash flows were calculated. These rates result from long-term inflation forecasts for the currency used for each CGU.

CGUs are tested in the main currency in which the future cash flows will be derived, namely:

- EUR for the Vallourec EA-MEA CGU;
- BRL for the Vallourec do Brasil CGU.

DISCOUNT RATE

The CGU discount rates correspond to their weighted average cost of capital (WACC), which is defined as the weighted average cost of equity and the cost of debt after tax. Discount rates are estimated using the capital asset pricing model (CAPM).

The main components of the cost of equity are:

- a risk-free rate estimated by reference to the 10-year yield on French treasury bonds (OAT);
- a systematic risk premium obtained by multiplying the CGU's equity market risk premium by a beta calculated using stock market data from a sample of listed companies with a similar business;
- a specific risk premium linked to the CGU’s country risks.

The cost of the debt after tax of each CGU is calculated by increasing the risk-free rate by a credit spread calculated based on the average data of the listed companies in the sample mentioned above.

Gearing (or debt-to-equity ratio) makes it possible to weight the cost of equity and the cost of debt after tax. Gearing corresponds to the net debt/market capitalization median of the companies in the sample of listed companies selected for reference purposes.

The parameters above are calculated over an average period of two years.

The discount rate for each CGU is calculated in the main currency in which future cash flows will be denominated.

The use of this approach results in discount rates of 9.2% for the Vallourec EA-MEA CGU and 11.5% for Vallourec do Brasil.

IMPAIRMENT TEST RESULTS

Besides the impairment taken against individual assets for €5 million, the tests carried out did not result in the recognition of any impairment losses for the year.

The CGU with the highest sensitivity to a change in assumptions is Vallourec EA-MEA and a sensitivity analysis is presented below. The test carried out did not result in the recognition of any impairment losses for the period, nor in the partial reversal of the impairment losses previously recorded on Properties, Plants and Equipment.

The recoverable amount of the Vallourec do Brasil CGU significantly exceeds its carrying amount and the sensitivity analyses carried out do not call into question the substantial margin of the test.

SENSITIVITY ANALYSIS

The sensitivity analysis presented in the table below were calculated by changing an input.

Analysis of the CGUs *(in € millions)*	**Vallourec EA-MEA**
Net assets	
• Of which current	260
• Of which non-current	184
Base tested as at Dec. 31, 2021	443
CGU value in use	**443**
Impairment loss	**0**
• Of which loss on goodwill	0
• Of which loss on property, plant and equipment	0

Sensitivity analyses of the CGUs *(in € millions)**		
Sensitivity to the discount rate	+0.5 pts	(28)
	-0.5 pts	32
EBITDA sensitivity	+10% per year	27
	-10% per year	(27)
EUR/USD foreign exchange rate sensitivity	+5 cts	(166)
	-5 cts	180
Sensitivity of the perpetuity growth rate	+0.5 pts	16
	-0.5 pts	(14)

* *Tests conducted in dollars and converted into euros at the reporting date.*

The table above shows that CGU flows are sensitive to changes in the value of their export transactions denominated in a currency other than the currency of the country where they are based (mainly USD).

4.3 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.

	12/31/2020			**12/31/2021**		
	Gross value	**Amortization and impairment**	**Net value**	**Gross value**	**Amortization and impairment**	**Net value**
Intangible assets	333,864	(284,349)	49,515	337,036	(292,519)	44,517

Intangible assets include technology, software, patents and licenses, as well as know-how and customer relations acquired mainly in connection with business combinations.

Other than goodwill, there are no intangible assets with indefinite useful lives.

4.4 Property, plant and equipment

Measurement at cost net of depreciation and impairment

Except when acquired as part of a business combination, property, plant and equipment are carried 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".

Component approach

The main components of an asset with 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 components 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.

Maintenance and repair costs

Recurring maintenance and repair costs that do not meet the criteria for the components approach are expensed when they are incurred.

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.

Right-of-use assets

Lease agreements, as defined by IFRS 16 "Leases", are carried in the statement of financial position, resulting in the recognition of:

- an asset that corresponds to the right to use the leased asset for the term of the lease;
- a liability representing the obligation to make lease payments.

The Group’s leases are primarily for property and industrial equipment used to manufacture and transport products.

The Group uses the exemptions permitted by the standard and does not recognize within right-of-use assets:

- short-term leases (with a term of less than 12 months);
- leases with a low-value underlying asset (unit value when new under USD 5,000);
- leases of intangible assets.

Measurement of right-of-use assets

At the inception of a lease agreement, the right to use the leased asset is measured at cost and includes:

- the initial amount of the lease liability, plus any advance payments made to the lessor, less any lease incentives received from the lessor;
- any initial direct costs incurred by the lessee in concluding the agreement and any estimated site clean-up costs.

Right-of-use assets are depreciated on a straight-line basis over the term of the lease.

Depreciation

Depreciation of property, plant and equipment is calculated on a straight-line basis over the useful lives indicated below. Land is not depreciated.

Main categories of property, plant and equipment	Useful life
BUILDINGS	
Buildings	30-40
Fixtures and fittings	10
TECHNICAL PLANT, EQUIPMENT AND TOOLS	
Industrial plant	20-25
Other (automated equipment, etc.)	5-10
OTHER PROPERTY, PLANT AND EQUIPMENT	
Vehicles and office furniture	5-10
Computer equipment	3

Depreciation of new industrial sites in the start-up stage is calculated according to the production-units method for assets used directly in the production process, and the straight-line method for other assets.

	12/31/2020			12/31/2021		
	Gross value	Depreciation and impairment	Net value	Gross value	Deprecation and impairment	Net value
Land	104,566	(37,853)	66,713	107,452	(41,933)	65,519
Buildings	759,048	(524,392)	234,656	758,253	(505,319)	252,934
Technical installations, industrial equipment and tools	3,742,269	(2,531,473)	1,210,796	3,313,216	(2,197,701)	1,115,515
Property, plant and equipment in progress	121,509	(2,339)	119,170	147,364	(2,409)	144,955
Other property, plant and equipment	267,704	(180,780)	86,924	239,234	(152,252)	86,982
TOTAL	**4,995,096**	**(3,276,837)**	**1,718,259**	**4,565,519**	**(2,899,614)**	**1,665,905**

PROPERTY, PLANT AND EQUIPMENT (EXCLUDING RIGHT-OF-USE ASSETS)

	Gross value	Depreciation and impairment	Net value
As at December 31, 2019	**5,644,170**	**(3,127,962)**	**2,516,208**
Acquisitions	133,891	-	133,891
Disposals	(126,500)	116,558	(9,942)
Net depreciation expense for the year	-	(226,080)	(226,080)
Impairment	-	(393,430)	(393,430)
Impact of changes in exchange rates	(554,998)	245,299	(309,699)
Reclassifications and other changes	(6,331)	(10,844)	(17,175)
Assets held for sale and discontinued operations	(276,987)	234,339	(42,647)
As at December 31, 2020	**4,813,245**	**(3,162,120)**	**1,651,126**
Acquisitions	132,687	-	132,687
Disposals [(a)]	(186,981)	168,571	(18,410)
Opening impact of IFRS 16	-	-	-
Net depreciation expense for the year	-	(166,365)	(166,365)
Impairment	-	(4,855)	(4,855)
Impact of changes in exchange rates	233,635	(150,171)	83,464
Reclassifications and other changes [(b)]	(44,200)	53,406	9,205
Assets held for sale and discontinued operations (see Note 10.1)	(469,262)	413,132	(56,130)
AS AT DECEMBER 31, 2021	**4,479,124**	**(2,848,402)**	**1,630,722**

(a) Including the sale of the Reisholz assets in Germany.

(b) Mainly the disposal of Valinox Nucléaire (Montbard plant in France) and the impact of the purchase option on a lease (DBOT) for water treatment facilities at Vallourec Soluções Tubulares do Brasil.

RIGHT-OF-USE ASSETS

	Gross value	Impairment	Net value
As at December 31, 2019	**206,052**	**(80,181)**	**125,871**
Acquisitions	24,437	0	24,437
Disposals	(6,034)	5,313	(721)
Opening impact of IFRS 16	14	2	16
Net depreciation expense for the year	0	(28,740)	(28,740)
Impairment	0	(36,163)	(36,163)
Impact of changes in exchange rates	(36,328)	19,592	(16,736)
Other	(2,587)	1,909	(678)
Assets held for sale and discontinued operations	(3,704)	3,551	(153)
As at December 31, 2020	**181,850**	**(114,717)**	**67,133**
Acquisitions	21,871	-	21,871
Disposals	(27,892)	25,840	(2,052)
Opening impact of IFRS 16	-	-	-
Net depreciation expense for the year	-	(16,832)	(16,832)
Impairment	-	(47)	(47)
Impact of changes in exchange rates	3,824	(2,189)	1,635
Other	(69,600)	33,624	(35,976)
Assets held for sale and discontinued operations	(23,659)	23,110	(549)
AS AT DECEMBER 31, 2021	**86,394**	**(51,211)**	**35,183**

At December 31, 2020, right-of-use assets included the finance lease signed in 2010 for the construction of water treatment equipment (DBOT) at Vallourec Soluções Tubulares do Brasil, representing a net carrying amount of €28.2 million.

In 2021, Vallourec Soluções Tubulares do Brasil exercised the purchase option on this contract, resulting in the reclassification of this asset as property, plant and equipment.

4.5 Biological assets

The Group owns biological assets in Brazil, which mainly consist of eucalyptus plantations cultivated for the Group's coke requirements. These assets 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 the costs of disposal upon initial recognition and at each reporting date.

	12/31/2020	12/31/2021
As at January 1	**62,486**	**30,236**
Investments	5,772	5,527
Measurement at fair value	8,815	10,158
Net depreciation expenses for the period	(4,912)	(2,848)
Impairment	(1,642)	-
Reclassification to inventory	(4,213)	(5,483)
Impact of changes in exchange rates	(17,081)	382
Other changes	(4,047)	(3,718)
Assets held for sale and discontinued operations	(14,942)	3,479
AS AT DECEMBER 31	**30,236**	**37,733**

The Group's Brazilian subsidiary Vallourec Florestal cultivates eucalyptus plantations mainly to produce the charcoal used in the blast furnaces of Vallourec Soluções Tubulares do Brasil.

As at December 31, 2021, the company cultivated approximately 97,651 hectares of eucalyptus over a total area of 211,686 hectares.

In 2021, Vallourec Florestal posted revenue of €31.8 million, as compared to €22.1 million in 2020.

4.6 Reconciliation of outflows related to acquisitions of non-current assets with the statement of cash flows

	2020		2021	
	Property, plant and equipment and intangible assets	Biological assets	Property, plant and equipment and intangible assets	Biological assets
Acquisition of intangible assets	1,182	-	1,153	-
Acquisition of property, plant and equipment	133,891	5,772	132,687	5,527
Total capital expenditure	**135,073**	**5,772**	**133,840**	**5,527**
Changes in liabilities on non-current assets and partner contributions	(2,600)	-	(1,708)	-
TOTAL	**132,473**	**5,772**	**132,132**	**5,527**
Cash outflows in respect of capital expenditure during the period amounted to:	138,245		137,659	

4.7 Operating off-balance sheet commitments

Off-balance sheet commitments received amounted to €6 million as at December 31, 2021, compared with €10 million as at December 31, 2020, and primarily corresponded to orders for non-current assets.

COMMITMENTS GIVEN BY MATURITY

	12/31/2020	12/31/2021	< 1 year	1 to 5 years	> 5 years
Trade receivables	5,260	6,281	5,653	628	-
Other commitments	32,067	80,569	33,807	45,558	1,204
TOTAL	**37,327**	**86,850**	**39,460**	**46,186**	**1,204**

Note 5 ● Investments in equity-accounted companies

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 entity have rights to its net assets.

The Group's investments in joint ventures and associates are accounted for using the equity method.

Equity method

Under the equity method, a company is initially recorded at cost, which is then subsequently adjusted for the change in the Group's share in its income (loss) and other comprehensive income.

An investment is accounted for under the equity method as of the date 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's share in the net fair value of its identifiable assets and liabilities 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.

The Group's share in the net income (loss) of equity-accounted companies is included in net income (loss) from continuing operations, irrespective of whether or not the investee's activities are an extension of the Group's activities.

Impairment testing

If there is an indication of impairment, the total carrying amount of the investment (including goodwill) is tested for impairment in accordance with IAS 36 "Impairment of Assets".

Loss of significant influence or joint control

When an investment no longer meets the definition of an associate or joint venture, the equity method is no longer applied. Any continuing interest in the associate or joint venture that represents a financial asset is measured at fair value on the date the interest ceases to be an associate or joint venture.

Acquisition of control of a joint operation or equity-accounted company

Pursuant to IFRS 3, previously held equity interests are remeasured at fair value, giving rise to gains and losses on disposals ("Asset disposals, restructuring costs and non-recurring items"), and the assets acquired and liabilities assumed are accounted for at fair value at the date control is obtained.

The Group's main equity-accounted companies (individual carrying amount greater than €20 million) are listed below.

	HKM	Other	Total associates	Vallourec Umbilicals	Other	Total joint ventures	Total
Activity	Steel mill			Welded tubes			
Location	Germany			France			
As at December 31, 2020	**-**	**18,871**	**18,871**	**20,793**	**2,248**	**23,041**	**41,912**
Net income (loss) for the year	6	(1,093)	(1,087)	(4,253)	(1)	(4,254)	(5,341)
Dividends paid	-	(1,088)	(1,088)	-	-	-	(1,088)
Impairment	-	-	-	-	-	-	0
Impact of changes in exchange rates	-	1,438	1,438	-	257	257	1,695
Reclassifications and other changes	(6)	(1,906)	(1,912)	45	-	45	(1,867)
AS AT DECEMBER 31, 2021	**-**	**16,222**	**16,222**	**16,585**	**2,504**	**19,089**	**35,311**

HKM is an associate that produces steel rounds exclusively for its shareholders. HKM primarily supplies European tube mills, and is part of the Vallourec EA-MEA CGU. Its value in use was determined on the same basis as that used to carry out the impairment test (IAS 36) on the Vallourec EA-MEA CGU. An impairment loss was recognized against HKM in the 2020 financial statements in excess of its industrial assets, amounting to €81 million.

In 2021, based on the business outlook, Vallourec would also be unable to absorb the volumes to which it is entitled. Accordingly, it decided to terminate the cooperation and supply agreements, effective December 31, 2028, *i.e.*, at the end of the contractually agreed seven-year notice period.

5.1 Data relating to associates

Condensed financial data (100%) for HKM is presented below.

HKM	12/31/2020	12/31/2021
Non-current assets	653,031	561,989
Current assets	586,236	860,725
Non-current liabilities	368,591	404,518
Current liabilities	467,241	614,758
Net assets	**403,435**	**403,438**
Sales	1,989,513	3,135,990
Operating income (loss)	(3,624)	12,769
Total comprehensive income (loss)	-	31
Dividends paid to the Group	-	-

The reconciliation of the condensed financial data relating to the HKM associate with the carrying amount of the Group's interest in this associate is as follows:

HKM	12/31/2020	12/31/2021
Net assets	403,435	403,438
Vallourec Group percentage interest in HKM	20%	20%
Value of investments in equity-accounted companies	-	-
HKM net income (loss)	-	31
Vallourec Group percentage interest in HKM	20%	20%
Share of net income (loss)	-	6

The Group also holds interests in other associates (which, considered individually, are not material) for an aggregate carrying amount of €18.9 million as at December 31, 2021, compared with €22 million as at December 31, 2020.

5.2 Data related to joint ventures

Condensed financial data (100%) for Vallourec Umbilicals is presented below.

Vallourec Umbilicals	12/31/2020	12/31/2021
Non-current assets	45,476	43,026
Current assets excluding cash and cash equivalents	4,460	3,935
Cash and cash equivalents	2,474	3,823
Other non-current liabilities	4,369	4,748
Non-current borrowings	-	-
Other current liabilities	7,271	13,516
Current borrowings	-	-
Net assets	**40,770**	**32,520**

Vallourec Umbilicals	12/31/2020	12/31/2021
Sales	6,680	6,518
Operating income (loss)	(5,161)	(7,278)
Financial income (loss)	(277)	(1,089)
Tax expense	(24)	24
Net income (loss) from continuing operations	(5,462)	(8,343)
Other comprehensive income (loss)	-	-
Total comprehensive income (loss)	(5,462)	(8,343)
Dividends paid to the Group	-	-

The reconciliation of condensed financial data for the joint venture Vallourec Umbilicals with the carrying amount of the Group's interest in this joint venture is as follows:

Vallourec Umbilicals	12/31/2020	12/31/2021
Net assets	40,770	32,520
Vallourec Group percentage interest	51%	51%
Value of investments in equity-accounted companies	20,793	16,585
Vallourec Umbilicals net income (loss)	(5,462)	(8,343)
Vallourec Group percentage interest	51%	51%
Share of net income (loss)	(2,785)	(4,253)

5.3 Related-party transactions

	Associates	Joint ventures
	HKM	Vallourec Umbilicals
Sales to related parties	1,336	858
Purchases from related parties	375,378	-
Receivables from related parties	138	8,944
Payables to related parties	100,450	8

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.

5.4 Executive compensation

Total compensation for members of the Executive Committee in its composition as at December 31, 2021 (11 members in 2021 versus 12 members at end-2020), as well as retirement commitments at the reporting date, can be analyzed as follows:

	2020	2021
Compensation and benefits in kind	6,755	6,799
Share-based payments [(a)]	795	6,044
Retirement commitments	817	835
Supplementary retirement commitments	3,071	2,904

(a) Value of the total amount of commitments under new plans awarded during the year:
- *2020: share subscription and performance share plans;*
- *2021: Management Equity Plan, awarding shares that will vest in annual tranches over a five-year period (see Note 6.3).*

There is no specific plan in terms of retirement commitments for executive management. Executive management is covered by the Vallourec Group's supplementary pension plan (a defined-benefit plan introduced in 2005 and closed to new entrants on December 31, 2015), as well as by plans set up on April 1, 2016 under Articles 82 and 83 of the French Tax Code. These plans do not give rise to any commitments.

As at December 31, 2021, no loans or guarantees had been granted to executive management by Vallourec as the parent company or by its controlled subsidiaries.

The amount of attendance fees and other compensation received by members was €0.9 million in 2021, compared with €1 million in 2020.

Note 6 • Equity, share-based payment and earnings per share

6.1 Equity attributable to owners of the parent

SHARE CAPITAL

At December 31, 2021, Vallourec's share capital comprised 228,928,428 ordinary shares with a nominal value of €0.02 per share, fully paid up, versus 11,449,694 ordinary shares at December 31, 2020. Changes in the Company's share capital over the first half of the year are shown below:

In euros, except for share data	Number of shares	Nominal value	Share capital in euros
Share capital at December 31, 2020	11,449,694	0.02	228,994
Capital increase with pre-emptive subscription rights by issuance of new shares	52,954,807	0.02	1,059,096
Reserved capital increase by set-off of claims	164,523,927	0.02	3,290,479
SHARE CAPITAL AT DECEMBER 31, 2021	**228,928,428**	**0.02**	**4,578,569**

On June 30, 2021, Vallourec SA conducted the following corporate actions:

- a capital increase with pre-emptive subscription rights for a gross aggregate amount (including issue premiums) of €299,724,207.62, through the issue of 52,954,807 new shares subscribed and paid up in cash by holders of pre-emptive subscription rights (at €5.66 per share), this amount having been used for the repayment of a portion of the claims of the converting creditors in respect of the Company's bonds and revolving credit facilities.
- a capital increase without shareholders' pre-emptive subscription rights reserved for the converting creditors, for a gross amount (including issue premiums) of €1,330,998,5-69.43, through the issue of 164,523,927 new shares subscribed by the converting creditors (at €8.09 per share) by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities.

At December 31, 2021, the price of the Vallourec share was €8.80.

RESERVES AND FINANCIAL INSTRUMENTS

Reserves for changes in the fair value of hedging instruments net of tax (revaluation reserves) arise primarily from two types of transaction:

- effective currency hedges assigned to the order book and commercial tenders, for which changes in the currency impact at the reporting date are recognized in equity;
- variable-rate borrowings for which interest rate swaps (fixed rate) have been contracted, which are accounted for in accordance with the cash flow hedge method. Changes in the fair value of swap contracts attributable to fluctuations in interest rates are recognized in equity.

FOREIGN CURRENCY TRANSLATION RESERVE

This reserve arises as a result of translating the equity of subsidiaries outside the eurozone into euros. The change in the reserve corresponds to fluctuations in exchange rates used to translate the equity and net income (loss) of these subsidiaries. Components of the reserve are only written back to income in the case of a partial or total disposal and loss of control of the foreign entity.

	USD	GBP	BRL	CNY	Other	Total
As at December 31, 2019	**277,548**	**(12,294)**	**(902,066)**	**16,710**	**(16,639)**	**(636,741)**
Change	(80,915)	(2,527)	(368,091)	(4,930)	(18,308)	(474,771)
As at December 31, 2020	**196,633**	**(14,821)**	**(1,270,157)**	**11,780**	**(34,947)**	**(1,111,512)**
Change	94,503	3,074	11,109	18,021	6,156	132,863
AS AT DECEMBER 31, 2021	**291,136**	**(11,747)**	**(1,259,048)**	**29,801**	**(28,791)**	**(978,649)**

6.2 Non-controlling interests

CONTRIBUTION OF NON-CONTROLLING INTERESTS TO EQUITY

	2020	2021
Main US entities (Vallourec Star and VAM USA)	212,430	0
Vallourec Soluções Tubulares do Brasil – Brazil	93,920	0
Other	14,427	44,663
TOTAL	**320,777**	**44,663**

In July 2021 in the United States, the Group acquired a 49% non-controlling interest in VAM USA for €35 million. On September 30, 2021, Vallourec purchased Sumitomo Corporation's 19.5% non-controlling interest in Vallourec Star (United States) for €83 million.

The increase in other non-controlling interests corresponds mainly to Açotubo group's 25% stake in Vallourec Tubos para Indústria (VTI).

CONTRIBUTIONS TO INCOME (LOSS)

	2020	2021
Main US entities (Vallourec Star and VAM USA)	102,606	10,006
Vallourec Soluções Tubulares do Brasil – Brazil	(1,400)	(2,351)
Other	21,060	453
TOTAL	**122,266**	**8,108**

6.3 Share-based payments (options and performance shares)

IFRS 2 "Share-based Payment", requires the measurement and recognition of awards arising from share option and performance share plans that are equivalent to compensation of the beneficiaries: these are recognized as personnel expenses over the vesting period of the instruments, 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 stock options that entitle them to purchase an existing share or to subscribe to a capital increase at an agreed price.

Options are measured using a binomial model on the date they are allocated.

Some members of executive management and employees benefit from performance share 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 operates shareholding plans reserved for its employees. These plans are measured using a binomial model to project share prices.

The impact on the income statement of employee share ownership plans is presented in Note 2.3.

Share Subscription Plans

CHARACTERISTICS OF THE PLANS

Vallourec's Management Board authorized share subscription plans from 2010 to 2021 for some of the Group's senior executives, corporate officers and employees.

It should be noted that the characteristics of the 2011 to 2020 plans were revised to take account of the decision of the Chairman of the Management Board on June 30, 2021 to adjust the number and exercise price of the shares in order to protect the rights of the holders following the capital increase of June 30, 2021 (adjustment factor of 0.89929516 applied to the number of options allocated and to the exercise price).

The characteristics of the plans are as follows:

	2011 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
Allocation date	September 1, 2011	September 2, 2013	April 15, 2014	April 15, 2015	May 18, 2016
Maturity date	September 1, 2015	March 3, 2018	April 15, 2018	April 15, 2019	May 18, 2020
Expiration date	September 1, 2021	September 1, 2021	April 15, 2022	April 15, 2023	May 18, 2024
Exercise price in euros	1,310.81	996.42	832.03	488.14	140.29
Number of options allocated	14,164	27,111	16,977	17,656	15,216

	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Allocation date	May 18, 2017	June 15, 2018	June 17, 2019	June 15, 2020	October 13, 2021
Maturity date	May 18, 2021	June 15, 2022	June 17, 2023	June 15, 2024	October 13, 2025
Expiration date	May 18, 2025	June 15, 2026	June 17, 2027	June 15, 2030	October 13, 2031
Exercise price in euros	216.55	197.84	79.14	33.60	7.26
Number of options allocated	8,135	9,851	9,851	89,462	123,518

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	2020	2021
Options outstanding as at January 1	**137,039**	**143,877**
Options exercised	-	-
Options lapsed	(7,825)	(22,782)
Options canceled	(65,744)	(7,396)
Options distributed	80,407	123,518
Impact of the capital increase on plans awarded prior to 2020	-	17,071
OPTIONS OUTSTANDING AS AT DECEMBER 31	**143,877**	**254,288**
Options available for exercise	41,056	25,607

The reported figures correspond to the number of options, with a performance factor of 1 for plans not yet vested, and to the actual number of shares allocated for plans that had matured.

As at December 31, 2021, the average exercise price was €73.34.

VALUATION OF PLANS (a)

	2020 Plan*	2021 Plan
Share price on the allocation date	€37.72	€7.53
Volatility (b)	32%	35%
Risk-free rate (c)	0.03%	-0.03%
Exercise price	€33.60	€7.26
Dividend rate (d)	3.00%	3.00%
Fair value of the option (e)	€9.26	€1.89

(a) The binomial pricing model has been used to measure the fair value of the options allocated.
(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 €1.89 for the 2021 plan.
* *The figures shown for the 2020 plan were revised (i.e., prices multiplied by 0.89929516) to take account of the adjustment factor applied following the decision of the Chairman of the Management Board on June 30, 2021.*

Performance Share Plans

CHARACTERISTICS OF THE PLANS

Vallourec's Management Board authorized performance share plans from 2017 to 2021 for some employees and corporate officers of the Group.

It should be noted that the characteristics of the 2017 to 2020 plans were revised to take account of the decision of the Chairman of the Management Board on June 30, 2021 to adjust the number and exercise price of the shares in order to protect the rights of the holders following the capital increase of June 30, 2021 (adjustment factor of 1.89929156 applied to the number of shares allocated).

The characteristics of the plans are as follows:

Performance share plans	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Allocation date	May 18, 2017	June 15, 2018	June 17, 2019	June 15, 2020	October 13, 2021
Vesting period	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)	3 years	3 years
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)	None	None
Performance conditions	Yes [(a)]	Yes [(b)]	Yes [(c)]	Yes [(d)]	Yes, only for management above grade 20 [(e)]
Theoretical number of shares allocated	9,125	39,756	39,595	64,747	289,396

(a) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2017, 2018 and 2019, in comparison with the planned performance in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2017, 2018 and 2019. 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 1.4. For members of the Management Board and the Executive Committee, vesting will depend on the following two criteria: cost reductions in 2017, 2018 and 2019, in comparison with the Group's planned performance in the medium-term plan over the same period, and the increase in the EBITDA margin between 2017 and 2019 compared with a panel of comparable companies. 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 2.

(b) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2018, 2019 and 2020, in comparison with the planned performance in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2018, 2019 and 2020. 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 2. For members of the Management Board and the Executive Committee, vesting will depend on the following two criteria: cost reductions in 2018, 2019 and 2020, in comparison with the Group's planned performance in the medium-term plan over the same period, and the increase in the EBITDA margin between 2018 and 2020 compared with a panel of comparable companies. 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 2.

(c) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2019, 2020 and 2021, in comparison with the planned performance in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2019, 2020 and 2021. 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 2. For members of the Management Board and the Executive Committee, vesting will depend on the following two criteria: cost reductions in 2019, 2020 and 2021, in comparison with the Group's planned performance in the medium-term plan over the same period, and the increase in the EBITDA margin between 2019 and 2021 compared with a panel of comparable companies. 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 2.

(d) For all beneficiaries, it will depend on two absolute internal criteria:

- *group cost reductions (gross savings as a % of the Y-1 baseline and excluding DCOS) for 2020, 2021 and 2022;*
- *the ratio of carbon emissions from Vallourec's industrial processes and purchases of electricity generated by fossil fuels to sales volumes, in metric tons (emissions of non-biogenic carbon) between 2020 and 2022.*

A further external criterion will be applied: growth in the EBITDA margin between 2020 and 2022 compared to a panel of comparable companies comprising Hunting PLC, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV.

(e) The conditional rights to receive performance shares granted to management (cadres) at grade 20 or below are not subject to any performance conditions. For beneficiaries at grade 21 or above, the award is based on two "absolute" internal criteria:

- *group cost reductions (gross savings as a % of the Y-1 baseline and excluding DCOS) for 2021, 2022 and 2023;*
- *the ratio of carbon emissions from Vallourec's industrial processes and purchases of electricity generated by fossil fuels to sales volumes, in metric tons (emissions of non-biogenic carbon) between 2021 and 2023.*

A further external criterion will be applied: growth in the EBITDA margin between 2020 and 2022 compared to a panel of comparable companies comprising Hunting PLC, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV.

Employee share ownership plans

Free share plans (not subject to performance conditions)	Value 16 Plan	Value 17 Plan
Allocation date	Dec. 14, 2016	Dec. 14, 2017
Vesting period	4.6 years	4.6 years
Theoretical number of shares allocated [(a)]	158	161

(a) *The figures shown for the 2016 and 2017 plans were revised to take account of the decision of the Chairman of the Management Board on June 30, 2021 to adjust the number and exercise price of the shares in order to protect the rights of the holders following the capital increase of June 30, 2021 (adjustment factor of 1.89929156 applied to the number of shares allocated).*

To meet the legal and tax requirements in each country, different formulas exist for the 2016 and 2017 employee share ownership plans (ESOP):

- 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 the currency impact. The increase in the multiple is achieved through the transfer of the discount, from 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 entreprise 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): by buying one share at a price discounted by 15%, employees receive one SAR (protection on their initial investment, excluding currency impact, and a performance multiple on said share), which will be paid by the employer, in cash, at the end of the mandatory 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): by depositing funds in an interest-bearing bank account, employees 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 at the allocation date. In the case of the standard offer, the fair value of the benefit corresponds to the value of the economic benefit granted less the cost to the employee of the non-transferability of the share, while in the case of leveraged plans, the fair value of the benefit corresponds 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 also apply.

No discounts were granted in 2021 or 2020.

The IFRS 2 expense resulting from the Stock Appreciation Rights (SAR) is remeasured at the end of each quarter by reference to the fair value corresponding to the estimated present value of the amounts ultimately paid to the employee. The employee liability resulting from the SARs resulted in an €0.071 million expense included in personnel expenses.

In accordance with IFRS 9, proceeds from warrants are remeasured at the end of each quarter by reference to the fair value of the derivative instrument.

The proceeds corresponding to the warrants paid by the bank to the employer were added to the employees' investment and recognized in personnel expenses for €0.118 million in 2021 since they are intended to cover proceeds associated with SARs (see above).

CHANGE IN NUMBER OF SHARES

For all of these plans, the change in the number of shares not yet vested is as follows:

In number of shares	2020	2021
Number of shares not yet vested as at January 1	**64,470**	**78,664**
Shares delivered over the year	(14,451)	(24,923)
Shares canceled	(5,445)	(9,434)
Shares allocated over the year	34,090	289,396
Impact of the capital increase on plans awarded prior to 2020	-	64,961
NUMBER OF SHARES NOT YET VESTED AS AT DECEMBER 31	**78,664**	**398,664**

The reported figures correspond to the number of shares, with a performance factor of 1 for plans not yet vested, and to the actual number of shares allocated for plans that had matured.

Measurement of plans [(a)]	2020 Plan [(1)]	2021 Plan
Share price on the allocation date	€22.08	€7.53
Risk-free rate [(b)]	-0.52%	-0.44%
Dividend rate [(c)]	3%	3%
Fair value of the share	€20.15	€6.87
NUMBER OF SHARES ALLOCATED	**64,747**	**289,396**

(a) The binomial pricing model has been used to measure the fair value of the shares allocated. The employee benefit corresponds to the fair value of the shares allocated, taking into account the loss of dividend rights 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.

(1) The figures shown for the 2020 plan were revised to take account of the division of the nominal value of the shares by 1.89929156, and the subsequent multiplication of the number of shares by 1.89929156, further to the decision of the Chairman of the Management Board on June 30, 2021.

Management Equity Plan

On October 13, 2021, the Vallourec Group decided to set up a Management Equity Plan ("MEP") for its employees and executive corporate officers.

The MEP plan awards 5,240,288 free shares to employees and corporate officers. This free share award comprises 1,618,690 ordinary shares and 3,621,598 preferred shares.

CHARACTERISTICS OF THE PLAN

The characteristics of the plan awarding ordinary shares are as follows:

Valuation of plans	Tranche 1	Tranche 2	Tranche 3	Tranche 4	Tranche 5
Share price on the allocation date	€7.53	€7.53	€7.53	€7.53	€7.53
Vesting date [(a)]	30% (10/13/2022) 70% (10/13/2026)	30% (10/13/2023) 70% (10/13/2026)	30% (10/13/2024) 70% (10/13/2026)	30% (10/13/2025) 70% (10/13/2026)	30% (10/13/2026) 70% (10/13/2026)
Holding period [(a)]	5	5	5	5	5
Performance conditions [(b)]	Yes	Yes	Yes	Yes	Yes
Risk-free rate [(c)]	-0.51%	-0.48%	-0.44%	-0.39%	-0.33%
Dividend rate [(d)]	3.00%	3.00%	3.00%	3.00%	3.00%
Fair value of the share	€3.15	€3.39	€3.57	€3.54	€3.63
Number of shares allocated [(e)]	319,140	319,140	319,140	319,140	319,140

(a) The "legal" vesting period is between one and five years, depending on the tranche. However, if Apollo still holds a minimum of 5% of the capital at the end of this period, the shares are not transferable. For as long as the shares are not transferable, they will only be bought back from the beneficiaries in the event of retirement, death or disability at 30% or less of their market value. Consequently, based on IFRS 2, beneficiaries vest 30% of their shares at the end of the legal vesting period and 70% at the end of the non-transferability period, estimated at five years.

(b) Each tranche will vest only if, on the vesting date, the market price of the Vallourec share is above €8.09.

(c) The risk-free rate used was determined based on the maturity of each of the tranches (French Bond Association [CNO] zero-coupon yield curve at August 31, 2021).

(d) The expected dividend rates were determined based on analysts' expectations (external information) and the Group's dividend policy.

(e) Net of shares cancelled.

The characteristics of the plan awarding performance shares are as follows:

Valuation of plans	Tranche 1	Tranche 2	Tranche 3
Share price on the allocation date	€7.53	€7.53	€7.53
Vesting period (a)	30%: 3.04 70%: 5	30%: 3.36 70%: 5	30%: 3.72 70%: 5
Holding period (a)	5	5	5
Performance conditions (b)	Yes	Yes	Yes
Risk-free rate (c)	-0.33%	-0.33%	-0.33%
Dividend rate (d)	3.00%	3.00%	3.00%
Fair value of the share	€1.78	€1.15	€0.56
Number of shares allocated (e)	1,595,700	1,595,702	384,219

(a) *The "legal" vesting period is one year for all tranches. However, if Apollo still holds a minimum of 5% of the capital at the end of a five-year period, the shares are not transferable. For as long as the shares are not transferable, they will only be bought back from the beneficiaries in the event of retirement, death or disability at 30% or less of their market value. Consequently, based on IFRS 2, beneficiaries vest 30% of their shares at the end of the average vesting period (see performance conditions) and 70% at the end of the non-transferability period, estimated at five years.*

(b) *Tranches 1, 2 and 3 of the performance share award will be convertible into ordinary shares if the volume-weighted average price (VWAP) of the Vallourec share is equal to or above €16.19, €20.22 and €28.32, respectively, for 90 consecutive business days over a period of five years following the financial restructuring. The valuation models show average vesting periods of 3.04 years, 3.36 years and 3.72 years, respectively.*

(c) *The risk-free rate used was determined based on the maturity of each of the tranches (French Bond Association [CNO] zero-coupon yield curve at August 31, 2021).*

(d) *The expected dividend rates were determined based on analysts' expectations (external information) and the Group's dividend policy.*

(e) *Net of shares cancelled.*

CHANGE IN NUMBER OF SHARES

The change in the number of shares not yet vested under the 2021 Management Equity Plan is as follows:

In number of shares	Ordinary shares	Performance shares
Number of shares not yet vested as at January 1, 2021	**-**	**-**
Shares delivered over the year	-	-
Shares canceled	(22,990)	(45,977)
Shares allocated over the year	1,618,690	3,621,598
NUMBER OF SHARES NOT YET VESTED AS AT DECEMBER 31, 2021	**1,595,700**	**3,575,621**

6.4 Earnings per share

Basic earnings per share are calculated by dividing net income (loss) 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 taking into account the maximum impact of the conversion of dilutive instruments into ordinary shares (options, performance shares) and using the "share repurchase" method as defined in IAS 33 "Earnings per Share".

Details of the earnings and numbers of shares used to calculate basic and diluted earnings per share are presented below:

	2020	2021
Net income (loss) attributable to ordinary shareholders for basic earnings per share	**(1,206,131)**	**39,545**
Weighted average number of ordinary shares for basic earnings per share	11,449,694	120,189,061
Weighted average number of treasury shares for basic earnings per share	(6,627)	(77,446)
Weighted average number of shares for basic earnings per share	11,443,067	120,111,615
Earnings per share *(in euros)*	**(105.4)**	**0.3**

Dividends paid during the year	2020	2021
• in respect of the prior year *(in euro)*	-	-
• interim dividend for the current year *(in euro)*	-	-

Note 7 ● Financing and financial instruments

7.1 Net debt

Loans and other borrowings include interest-bearing bank loans and bonds.

Borrowings are classified as current liabilities for the portion to be repaid within 12 months of the reporting date and as non-current liabilities for payments due in more than 12 months.

Borrowings are initially recorded at fair value less any directly attributable 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, and are recognized in financial income or loss on an actuarial basis over the term of the liability.

At each reporting date, financial liabilities are then measured at amortized cost using the effective interest rate method, and also subject to specific procedures associated with hedge accounting (see below).

This item consists of current bank account balances and marketable securities (units in short-term cash UCITS and mutual and investment funds) that are immediately available (i.e., not pledged), risk-free and have extremely low volatility.

	12/31/2020			12/31/2021		
	Total	Non-current	Current	Total	Non-current	Current
Bonds	1,735,860	1,735,860	-	1,164,259	1,164,259	-
Bank borrowings	1,727,709	14,364	1,713,345	223,912	222,485	1,427
Other financial liabilities	136,827	303	136,524	185,363	537	184,826
Short-term bank facilities	3,115	-	3,115	3,409	-	3,409
Total current and non-current loans and borrowings	**3,603,511**	**1,750,527**	**1,852,984**	**1,576,943**	**1,387,281**	**189,662**
Marketable securities	761,597	-	761,597	293,729	-	293,729
Cash at bank and in hand	627,935	-	627,935	325,628	-	325,628
Cash and cash equivalents	**1,389,533**	**-**	**1,389,533**	**619,358**	**-**	**619,358**
NET DEBT	**2,213,978**	**1,750,527**	**463,451**	**957,585**	**1,387,281**	**(429,696)**

Significant changes

During 2021, Vallourec exercised its purchase option on the DBOT contract in Brazil for an amount of €70 million, giving rise to a €24 million decrease in lease liabilities at December 31, 2021.

As part of its financial restructuring, Vallourec SA restructured all of its financial liabilities on June 30, 2021. The financial restructuring reduced gross debt by €1.7 billion and refinanced the residual debt by means of new debt instruments. Further to these transactions, the previous bonds and committed credit facilities were canceled and the outstanding bonds were delisted from their respective markets. These new debt instruments are analyzed below:

(in € millions)	Nominal amount	Maturity	Rate	Effective rate	Amount in the SOFP as of December 31, 2021
Bond issue – June 2021 [(a)]	1,023	June 2026	8.500%	5.000%	1,164
State-guaranteed loan – June 2021 [(b)]	262	June 2027	1.837%	6.000%	212
Committed credit facility – June 2021	462	June 2026	5.000%	5.000%	-
TOTAL	**1,747**				**1,376**

(a) Includes a redemption option for the borrower exercisable from June 30, 2023.
(b) State-guaranteed loans with an initial term of June 30, 2022, which can be extended at Vallourec's initiative to June 30, 2027, presented at a nominal rate of 1.8370%, including the underwriting fee.

7.1.1 BOND

(in € millions)	Nominal amount	Maturity	Rate	Effective rate	Amount in the SOFP as of December 31, 2021
Bond issue – June 2021 [a]	1,023	June 2026	8.50%	5.00%	1,164
TOTAL	**1,023**				**1,164**

(a) *Includes a redemption option for the borrower exercisable from June 30, 2023.*

The bond was issued on the date of the financial restructuring by way of set-off against a portion of the Restructured Residual Claims. For information, the fair value (mark-to-market) of this bond was €1,156 million as at December 31, 2021.

It specifically includes 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 in concert) leading to a downgrade in its credit rating.

In addition, this bond may be subject to a request for early redemption by the bondholder or Vallourec, as appropriate, should any of the common default scenarios for this type of transaction occur, or when there has been a change in Vallourec's position or in tax regulations.

7.1.2 BANK BORROWINGS

Bank borrowings consist mainly of drawdowns on the State-guaranteed loans granted to Vallourec SA (€212 million), described in further detail in Note 7.1.5, and to a lesser extent of borrowings in Brazil (€10 million).

7.1.3 LOANS AND OTHER BORROWINGS

Loans and other borrowings primarily relate to an ACC (Advance on Exchange Contract) and ACE (Advance on Deposits) program in Brazil.

The ACC and ACE program was arranged in relation to Vallourec Soluções Tubulares do Brasil and is used to finance its export operating requirements. As at December 31, 2021, this program represented €164 million.

7.1.4 BREAKDOWN BY CURRENCY, INTEREST RATE AND MATURITY OF LOANS AND OTHER FINANCIAL LIABILITIES

Debt by currency

	12/31/2020	%	12/31/2021	%
USD	54,813	2%	134,643	8%
EUR	3,533,132	98%	1,430,546	91%
BRL	14,405	0%	10,349	1%
Other	1,161	0%	1,405	0%
TOTAL	**3,603,511**	**100%**	**1,576,943**	**100%**

Breakdown by maturity of loans and other borrowings

	12/31/2020	12/31/2021
< 3 months	1,781,921	43,047
> 3 months and < 1 year	71,063	146,615
> 1 year	786,709	2,066
> 2 years	399,755	1,212
> 3 years	501,690	2,617
> 4 years	2,344	1,165,739
5 years and beyond	60,029	215,647
TOTAL	**3,603,511**	**1,576,943**

Debt by interest rate

	12/31/2020	%	12/31/2021	%
Fixed rate	3,599,405	100%	1,572,860	100%
Variable rate	4,106	0%	4,083	0%
TOTAL	**3,603,511**	**100%**	**1,576,943**	**100%**

7.1.5 CREDIT FACILITIES AND COVENANTS

Credit facilities and State-guaranteed loans

(in € millions)	Nominal amount	Maturity	Rate	Effective rate	Amount drawn as at December 31, 2021	Amount in the SOFP as at December 31, 2021
State-guaranteed loans – June 2021 [(a)]	262	June 2027	1.837%	6.00%	262	212
Committed credit facility – June 2021	462	June 2026	5.00%	5.00%	-	-
TOTAL	**724**				**262**	**212**

(a) The initial June 30, 2022 maturity of the State-guaranteed loans can be extended at Vallourec's initiative to June 30, 2027, presented at a nominal rate of 1.8370%, including the underwriting fee.

A change-of-control at Vallourec could trigger repayment of all or part of its Committed credit facility and its State-guaranteed loan ("the loan"), as decided by each participating bank. The agreements also stipulate 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/or its ability to repay its debt.

Covenants

The €462 million committed credit facility includes a covenant stipulating that Vallourec's gearing ratio ("banking covenant") must not exceed 100%. The gearing ratio is defined as the ratio of consolidated net debt (including financial lease debt) to consolidated equity, restated for gains and losses on derivatives and foreign currency translation differences (exchange differences on translating net assets of consolidated foreign subsidiaries).

The adjusted debt covenant ("banking covenant") will be tested on a trailing 12-month basis on December 31 of each year, with the first test scheduled for end-2023.

A breach of the banking covenant could trigger the mandatory early repayment of the credit facility and redemption of the bond.

7.1.6 FINANCIAL INCOME (LOSS)

	2020	2021
INTEREST INCOME		
Income from marketable securities	5,343	6,496
Proceeds from disposals of marketable securities	(1,326)	(2,271)
Total	**4,017**	**4,225**
Interest expense	**(200,514)**	**(151,253)**
Net interest expense	**(196,497)**	**(147,028)**
OTHER FINANCIAL INCOME AND EXPENSES	-	
Income from securities, loans and receivables	934	1,340
Exchange (losses) and gains and changes in premiums/discounts	(24,846)	(6,666)
Additions to provisions, net of reversals	(274)	(157)
Other financial income and expenses	28,263	(39,799)
Net expense attributable to financial restructuring	-	(41,474)
Total	**4,077**	**(86,756)**
Interest expenses on leases	**(29,695)**	**(23,890)**
OTHER DISCOUNTING EXPENSES		
Interest expense on discounting pension obligations	(3,788)	(2,152)
Interest income (expense) on discounting assets and liabilities	(1,028)	23,410
Total	**(4,816)**	**21,258**
FINANCIAL INCOME (LOSS)	**(226,931)**	**(236,416)**

Other financial income and expenses mainly comprise the cost of exercising the purchase option on the DBOT contract in Brazil for €70 million, and financial income in respect of a tax dispute (monetary portion) for €27 million further to a favorable decision by the Brazilian Supreme Court. Interest income and expense on discounting assets and liabilities essentially reflects the positive impact of the decrease in lease liabilities on the DBOT contract in Brazil further to the exercise of the purchase option, in the amount of €24 million.

7.1.7 RECONCILIATION WITH FINANCIAL LIABILITIES IN THE STATEMENT OF CASH FLOWS

	12/31/2020	Translation difference	Proceeds from new borrowings	Repayments of borrowings	Financial restructuring	Current/ non-current reclassifications and other	12/31/2021
Non-current financial liabilities	1,750,527	1,508	7,329	(307,946)	(1,326,833)	1,262,696	1,387,281
Current financial liabilities	1,852,984	4,555	57,302	(462,264)	(54,037)	(1,208,878)	189,662
Financial liabilities (1)	**3,603,511**	**6,063**	**64,631**	**(770,210)**	**(1,380,870)**	**53,818**	**1,576,943**
Impact of hedging instruments and other (2)			**599**	**-**			
TOTAL (1) + (2)			**65,230**	**(770,210)**			
Change in financial liabilities in the statement of cash flows			65,229	(770,210)			

	12/31/2019	Translation difference	Proceeds from new borrowings	Repayments of borrowings	Current/ non-current reclassifications and other	12/31/2020
Non-current financial liabilities	1,747,061	(7,667)	5,799	1,424	3,910	1,750,527
Current financial liabilities	2,077,321	(58,329)	2,648,547	(2,809,275)	(5,280)	1,852,984
Financial liabilities (1)	**3,824,382**	**(65,996)**	**2,654,346**	**(2,807,851)**	**(1,370)**	**3,603,511**
Impact of hedging instruments and other (2)	**-**	**-**	**143**	**-**	**-**	**-**
TOTAL (1) + (2)	**-**	**-**	**2,654,489**	**(2,807,851)**	**-**	**-**
Change in financial liabilities in the statement of cash flows			2,654,489	(2,807,851)		

7.1.8 FINANCIAL OFF-BALANCE SHEET COMMITMENTS

Financial off-balance sheet commitments received amounted to €4 million as at December 31, 2021 compared with €14 million as at December 31, 2020, and primarily corresponded to guarantees received.

	Dec. 31, 2020	Dec. 31, 2021	< 1 year	1 to 5 years	> 5 years
Market guarantees and letters of credit given	103,428	92,008	43,690	47,174	1,144
Other securities, mortgages and pledges given	2	-	-	-	-
TOTAL	**103,430**	**92,008**	**43,690**	**47,174**	**1,144**

7.2 Other financial liabilities

Other financial liabilities consist primarily of lease liabilities and derivatives (see Note 7.5.3 for a description of the related accounting principles).

At lease inception, a lease liability is recognized in an amount equal to the present value of lease payments over the term of the lease. The amounts included in measuring the lease liability are:

- fixed lease payments (including in-substance fixed payments);
- variable lease payments that depend on a rate or an index, initially measured using the rate or index at lease inception;
- payments to be made by the lessee under residual value guarantees;
- penalties to be paid for terminating or not renewing the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

Discount rates are calculated individually over the ultimate term of the lease.

Lease liabilities are increased by interest expense as determined by applying the discount rate to the liabilities at the start of the period, less any payments made.

	12/31/2020			12/31/2021		
	Total	Non-current	Current	Total	Non-current	Current
Lease liabilities	107,798	83,638	24,160	48,828	33,389	15,439
Call option on non-controlling interests	7,100	-	7,100	-	-	-
Derivatives	14,079	-	14,079	19,056	-	19,056
TOTAL	**128,977**	**83,638**	**45,339**	**67,884**	**33,389**	**34,495**

In 2010, Vallourec Soluções Tubulares do Brasil entered into a finance lease with a nominal value of BRL 570 million (€126.2 million) relating to equipment needed to operate the plant at Jeceaba.

During 2021, Vallourec exercised its purchase option on the DBOT contract in Brazil for an amount of €70 million (recognized in "Other current liabilities"), giving rise to a €24 million decrease in lease liabilities at December 31, 2021.

MATURITY SCHEDULE

	> 1 year	> 2 years	> 3 years	> 4 years	5 years and beyond	Total
Lease liabilities	9,822	7,190	4,319	3,172	8,886	33,389

7.3 Other financial assets

	12/31/2020			12/31/2021		
	Total	Non-current	Current	Total	Non-current	Current
Loans	3,210	2,939	271	3,007	2,725	282
Other financial assets	54,186	46,187	7,999	70,853	63,225	7,628
Derivatives	36,947	-	36,947	4,253	-	4,253
Other financial assets	4,973	4,907	66	5,189	4,853	336
TOTAL	**99,316**	**54,033**	**45,283**	**83,302**	**70,803**	**12,499**

7.4 Shareholder loan

As at January 1, 2021, Vallourec Soluções Tubulares do Brasil had been granted a shareholder loan by NSSMC. This loan was repaid in full during the year.

	12/31/2020	12/31/2021
Shareholder loan	8,613	0
As at January 1	**20,560**	**8,613**
Translation difference	(5,513)	(8)
Proceeds from new borrowings	-	-
Repayments of borrowings	(7,461)	(9,229)
Current/non-current reclassifications and other	1,027	625
AS AT DECEMBER 31	**8,613**	**0**

7.5 Financial instruments

7.5.1 FINANCIAL ASSET AND LIABILITY ACCOUNTING MODEL

Financial assets include:

- non-current financial assets: other equity interests and associated receivables, construction participation loans and guarantees; and
- current financial assets, including trade and other operating receivables, short-term derivative instruments and cash and cash equivalents (marketable securities).

Initial measurement

Non-derivative financial assets are initially measured at fair value plus transaction costs on the transaction date, except for financial assets measured at fair value through profit or loss.

In most cases, fair value on the transaction date represents the historical cost, (i.e., the acquisition cost of the asset).

Classification and measurement at the end of each reporting period

Financial assets (excluding hedging derivatives) are classified according to IFRS 9 in one of the following three categories:

- financial assets at amortized cost;
- financial assets at fair value through other comprehensive income;
- financial assets at fair value through profit or loss.

Classification is based on:

- the Group's business model for managing the financial asset;
- the contractual cash flow characteristics of the financial asset.

Financial assets at amortized cost

These financial assets meet the following two conditions:

- the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

In the Group, this category includes:

- receivables associated with participating interests, long-term loans and construction participation loans;
- trade and other operating receivables.

The amortized cost of short-term receivables such as trade receivables 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.

Financial assets at fair value through other comprehensive income

This concerns the following financial assets:

1. Instruments resulting in cash flows that correspond solely to payments of principal and interest on the principal amount outstanding (SPPI instruments) and which are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets.

   This line item essentially concerns bonds and futures.

   When a financial asset is derecognized, the cumulative loss or gain that was previously recorded under other comprehensive income (loss) is reclassified under equity in the income statement.

   Interest as calculated according to the amortized cost method along with impairment losses are recorded under net income.

2. Equity instruments recorded at fair value under the fair value option within other comprehensive income.

   Changes in the fair value of such instruments are recorded directly in equity and may not be recycled to income. Interest as calculated according to the amortized cost method along with impairment losses are recorded under net income.

In the Group, the main assets in this category are investments in equity instruments, generally:

- unlisted shares whose fair value cannot be reliably estimated. These are recorded at cost and tested for impairment at the end of each reporting period;
- listed shares which are measured at their fair value at the reporting date. This fair value is determined based on the stock market price at the reporting date.

Financial assets at fair value through profit or loss

This category of assets includes financial assets that are not measured at amortized cost or through other comprehensive income.

They are primarily certain cash assets (marketable securities, cash and cash equivalents, etc.) and derivatives with a positive fair value that have not been expressly designated as hedging instruments (security deposits and guarantees).

These cash assets are measured at fair value at the reporting date, and changes in fair value are recognized in financial income (loss). Accordingly, they are not tested for impairment. Fair value is determined mainly by reference to market quotations.

Impairment assessment model for financial assets

At initial recognition, assets at amortized cost and at fair value through other comprehensive income (debt instruments) are written down according to the credit losses expected over the life of the asset. At each reporting date, the Group assesses whether there has been a significant increase in the credit risk associated with a financial instrument since initial recognition. This assessment is based on the change in credit risk over the expected term of the financial instrument.

Vallourec uses several criteria to determine whether the credit risk has increased, including the counterparty credit rating and an assessment of the level of risk.

The amounts recognized in the statement of financial position are based on the measurement methods used for each financial instrument.

December 31, 2021	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Fair value of hedging instruments	Total	Fair value
ASSETS						
Trade and other receivables	541,008	-	-	-	541,008	541,008
Other current and non-current financial assets	74,053	-	4,996	4,253	83,302	83,302
Other current and non-current assets	215,882	-	-	-	215,882	215,882
Cash and cash equivalents	-	619,358	-	-	619,358	619,358
Total financial assets	**830,944**	**619,358**	**4,996**	**4,253**	**1,459,550**	**1,459,550**
Total non-financial assets	**-**	**-**	**-**	**-**	**3,288,671**	**3,288,671**
TOTAL ASSETS	**-**	**-**	**-**	**-**	**4,748,221**	**4,748,221**
LIABILITIES						
Borrowings	1,576,943	-	-	-	1,576,943	1,568,233
Trade payables	456,854	-	-	-	456,854	456,854
Other current and non-current financial liabilities	48,828	-	-	19,056	67,884	67,884
Other current and non-current liabilities	299,751	-	-	-	299,751	299,751
Total financial liabilities	**2,382,376**	**-**	**-**	**19,056**	**2,401,432**	**2,392,722**
Total non-financial liabilities	**-**	**-**	**-**	**-**	**2,346,789**	**2,346,789**
TOTAL LIABILITIES	**-**	**-**	**-**	**-**	**4,748,221**	**4,596,510**

December 31, 2020	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Fair value of hedging instruments	Total	Fair value
ASSETS						
Trade and other receivables	467,785	-	-	-	467,785	467,785
Other current and non-current financial assets	57,321	-	5,049	36,947	99,316	99,316
Other current and non-current assets	270,137	-	-	-	270,137	270,137
Cash and cash equivalents	-	1,389,533	-	-	1,389,533	1,389,533
Total financial assets	**795,243**	**1,389,533**	**5,049**	**36,947**	**2,226,771**	**2,226,771**
Total non-financial assets	**-**	**-**	**-**	**-**	**2,821,517**	**2,821,517**
TOTAL ASSETS					**5,048,288**	**5,048,288**
LIABILITIES						
Borrowings	3,603,511	-	-	-	3,603,511	3,674,336
Trade payables	426,097	-	-	-	426,097	426,097
Other current and non-current financial liabilities	114,897	-	-	14,080	128,977	128,977
Other current and non-current liabilities	273,426	-	-	-	273,427	273,427
Total financial liabilities	**4,417,931**	**-**	**-**	**14,080**	**4,432,012**	**4,502,837**
Total non-financial liabilities	**-**	**-**	**-**	**-**	**616,276**	**616,278**
TOTAL LIABILITIES					**5,048,288**	**5,119,115**

7.5.2 FAIR VALUE HIERARCHY

Financial instruments measured at fair value are classified by category on the basis of their measurement method. Fair value is measured as follows:

- level 1: on the basis of prices quoted on an active market;
- level 2: on the basis of observable financial market inputs other than quoted prices (yield curve, forward prices, etc.);
- level 3: on the basis of an internal model using unobservable inputs.

	12/31/2020			12/31/2021		
	Carrying amount	Fair value	Level	Carrying amount	Fair value	Level
ASSETS						
Other current and non-current financial assets (other investments in equity instruments)	5,049	5,049	2	4,996	4,996	2
Other current and non-current financial assets (derivative instruments)	36,947	36,947	2	4,253	4,253	2
Cash and cash equivalents	1,389,533	1,389,533	1	619,358	619,358	1
LIABILITIES						
Other current and non-current financial liabilities (derivative instruments)	14,079	14,079	2	19,056	19,056	2

7.5.3 HEDGING ACCOUNTING

The measurement and recognition of financial instruments are governed by IFRS 9.

Group exposure to foreign exchange risk on commercial transactions

In addition to the hedging of certain financial liabilities, the Group enters into hedging contracts mainly to manage its exposure to foreign exchange risks arising from orders taken and sales made by certain subsidiaries in currencies other than their functional currency. In particular, a significant portion of Vallourec's revenue is invoiced by European companies in US dollars. Fluctuations in the EUR/USD exchange rate 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 revenue that will be generated by the orders are therefore 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 since they were initially put in place 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

Hedges of commercial transactions fall within the category of cash flow hedges.

The Group applies hedge accounting in strict compliance with the criteria of IFRS 9:

- 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.; and
- in the case of cash flow hedges, an effectiveness test is carried out at hedge inception and at least at each quarter-end.

Hedge accounting within the Group is as follows:

At the reporting date, changes in the hedging instrument since inception are measured at fair value and recognized on the statement of financial position as derivatives with a positive or negative fair value. The following are shown separately:

- the change in the hedging instrument attributable to the currency impact (difference between the spot rate at hedge inception and the spot rate at the measurement date, i.e., the reporting date).
  - if the hedge is effective, and as long as the revenue (or purchase) hedged is not recognized, the change in the fair value of the hedging instrument attributable to the currency impact is recognized under other comprehensive income 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 fair value of the hedging instrument attributable to the currency impact is recognized in financial income or loss;
- the change in the fair value of the hedging instrument attributable to the interest rate impact (premium/discount).

The Group has chosen to recognize this change in financial income 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 at hedge inception. The trade receivable (trade payable) is initially recognized at the same spot rate.

At the end of each reporting period, hedged foreign currency trade receivables and payables are recognized and measured at the exchange rate applicable on the reporting date. The difference between that rate and the rate used on initial recognition (spot rate at hedge inception) or the rate applicable on the last reporting date constitutes an exchange gain or loss which is recognized in financial income 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 fair value of the hedging instrument attributable to the currency impact and previously recognized in equity is recorded in financial income or loss. Changes in the fair value of the hedging instrument and the receivable or debt hedged have a symmetrical impact on financial income or loss.

During 2021, the Group did not make any significant changes to the classification of financial instruments, and there were no significant transfers between different levels of the fair value hierarchy.

As at December 31, 2020, hedging instruments had a net asset position of €22.8 million, versus a net liabilities position of €21.8 million as at December 31, 2021.

Fluctuations in the euro against the US dollar in 2021 account for most of the negative €35.9 million change in the currency impact of hedges of forecast sales and purchases in foreign currencies.

Financial instruments of a speculative nature remain exceptional and are only entered into when a hedging relationship is ineffective under the terms of IFRS 9. Changes in the fair value of these instruments do not have a material impact on foreign exchange gains or losses.

	Accounting classification	OCI reserves (1)	12/31/2021	12/31/2020
Currency forward contracts on commercial transactions	Cash flow hedge	(35,920)	(14,810)	20,885
Currency forward contracts on commercial transactions	Fair value hedge	33	(7,063)	1,187
Currency forward contracts on financial transactions	Fair value hedge	-	(201)	398
Hedging instruments set up in the context of employee share ownership plans	Fair value hedge	17	279	398
Sub-total derivatives		**(35,870)**	**(21,795)**	**22,868**
Of which derivatives – positive fair value		-	4,253	36,947
Of which derivatives – negative fair value		-	(19,056)	(14,079)
Of which net derivatives – reclassified as held for sale		-	(6,992)	-
Receivables (payables) used for commercial hedges	Cash flow hedge	(4,008)	(3,720)	289
Receivables (payables) used for commercial hedges	Fair value hedge	-	(1,848)	(524)
TOTAL		**(39,878)**	**(27,363)**	**22,633**

(1) Assets and liabilities presented in this table are offset: + = positive fair value, ( ) = negative fair value.

The change in the fair value of financial instruments hedging foreign exchange risk, which affected equity as at December 31, 2020, was a positive €20.9 million. In 2021, around 88% of the positive change in fair value associated with the order book and commercial tenders at the end of 2020 was transferred from equity to the income statement, under "Group translation gain/loss". This amount represents the impact of the changes in the fair value of foreign exchange hedges on the order book and commercial tenders as at December 31, 2020, which were fully or partially unwound or converted into receivables during 2021.

This impact corresponds mainly to hedges of receivables in US dollars, which represented nearly all of the hedges with an impact on equity as at December 31, 2021.

	Accounting classification	OCI reserves (1)	12/31/2020	12/31/2019
Currency forward contracts on commercial transactions	Cash flow hedge	19,534	20,885	2,126
Currency forward contracts on commercial transactions	Fair value hedge	(9)	1,187	(15,177)
Currency forward contracts on financial transactions	Fair value hedge	-	398	497
Hedging instruments set up in the context of employee share ownership plans	Fair value hedge	(21)	398	406
Sub-total derivatives		**19,504**	**22,868**	**(12,148)**
Of which derivatives – positive fair value		-	*36,947*	*5,847*
Of which derivatives – negative fair value		-	*14,079*	*17,995*
Receivables (payables) used for commercial hedges	Cash flow hedge	(1,459)	289	1,747
Receivables (payables) used for commercial hedges	Fair value hedge	-	(524)	(1,129)
TOTAL		**18,045**	**22,633**	**(11,530)**

(1) Assets and liabilities presented in this table are offset: + = positive fair value, () = negative fair value.

The change in the fair value of financial instruments hedging foreign exchange risk, which affected equity as at December 31, 2019, represented a positive €2.1 million. In 2020, around 97% of the positive change in fair value associated with the order book and commercial tenders at the end of 2019 was transferred from equity to the income statement, under "Group translation gain/loss". This amount represents the impact of the changes in the fair value of foreign exchange hedges on the order book and commercial tenders as at December 31, 2019, which were fully or partially unwound or converted into receivables during 2020.

This impact corresponds mainly to hedges of receivables in US dollars, which represented nearly all of the hedges with an impact on equity as at December 31, 2020.

7.5.4 FINANCIAL RISK MANAGEMENT

On June 30, 2021, Vallourec finalized its financial restructuring further to the successful completion of the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021.

Market risk is comprised of interest rate, foreign exchange (translation and transaction risk), liquidity, credit and equity 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 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 euro value of assets, liabilities, revenues and expenses not denominated in euros, even if the value of these items in their original currency has not changed.

In 2021, a large portion of net income Group share was generated by subsidiaries that prepare their financial statements in currencies other than the euro (mainly in US dollars and Brazilian real). A 10% change in exchange rates would have increased or decreased net income Group share by around €27.4 million.

In addition, the Group's sensitivity to long-term foreign exchange rate risk is reflected by previous changes in the foreign currency translation reserves carried in equity (negative €978.6 million impact as at December 31, 2021) which, in recent years, were mainly attributable to changes in the US dollar and Brazilian real.

Foreign currency translation reserves are detailed in Note 6.1.

Liquidity risk

The Group's financial resources include financing with banks and on the capital markets.

The vast majority of bank financing was arranged in Europe through Vallourec SA, and to a lesser extent through the Group's subsidiaries in Brazil and China.

As part of its financial restructuring, Vallourec SA restructured all of its financial liabilities on June 30, 2021. The financial restructuring reduced gross debt by €1.7 billion and refinanced the residual debt by means of new debt instruments with a maturity of five years (or a maturity of less than five years that can be extended until June 30, 2027 at the initiative of the borrower).

Vallourec SA's €462 million credit facility, which remained undrawn as at December 31, 2021, is not subject to any securities or guarantees, and ranks *pari passu* with its State-guaranteed loans and bonds. Bond financing is arranged exclusively by Vallourec SA.

In addition to bank financing, the Group has sought to diversify its funding sources by using market financing. For example, Vallourec SA launched a commercial paper program on October 12, 2011 to meet its short-term needs. The program has a €1 billion ceiling. Vallourec SA did not issue any commercial paper during the year.

As at December 31, 2021, Vallourec SA had no outstanding commercial paper. This commercial paper program has a short-term rating of B from Standard & Poor's.

Transaction risk

The Group is subject to foreign exchange risks owing to its exposure to the sale and purchase transactions entered into by some of its subsidiaries in currencies other than their functional currency.

The main foreign currency concerned is the US dollar (USD), since a significant portion of the Group's transactions (approximately 41% of consolidated revenue in 2021) is 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. However, the impact of such fluctuations is very difficult to quantify for two reasons:

1. there is an adjustment mechanism on sales prices denominated in US dollars which is related to market conditions in the various industries in which Vallourec operates;
2. certain sales and purchases are influenced by the price of the US dollar, even though they are denominated in euros or Brazilian real. They are therefore indirectly, and at some point 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 earnings to currency fluctuations. Forex exposure is managed by setting up hedges as soon as orders are placed and sometimes when a quotation is given.

Orders, receivables, payables and operating cash flows are hedged using financial instruments, mainly forward purchases and sales.

Order cancellations could therefore result in the cancellation of existing hedges, 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 arranged by the Group would result in a €70 million decrease or increase in the currency impact recognized in consolidated equity as at December 31, 2021. Most of these amounts would be due to changes in the US dollar against the euro.

To be eligible for hedge accounting as defined under IFRS 9, the Vallourec Group has developed cash management and invoicing systems to facilitate the traceability of hedged transactions throughout the term of the hedging instruments.

As at December 31, 2021, forward foreign exchange contracts hedging purchases and sales denominated in foreign currencies concerned the following amounts:

Hedging contracts with regard to commercial transactions – Foreign exchange risk	12/31/2020	12/31/2021
Forward exchange contract – forward sales	587,207	908,776
Forward exchange contract – forward purchases	32,789	37,098
TOTAL	**619,996**	**945,874**

Contract maturities as at December 31, 2021

Contracts on commercial transactions	Total	< 1 year	1 to 5 years	> 5 years
Forward exchange contract – forward sales	908,776	815,498	93,278	-
Forward exchange contract – forward purchases	37,098	37,098	-	-
TOTAL	**945,874**	**852,596**	**93,278**	**-**

Forward sales (€909 million of the €946 million total) correspond mainly to sales of US dollars. These contracts were entered into at an average forward EUR/USD rate of 1.19 and an average forward USD/BRL rate of 5.69.

In 2021, as in 2020, 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 of commercial transactions, the Vallourec Group has entered into hedging contracts for financial loans and receivables denominated in foreign currencies:

- forward sales for USD 134.5 million (€118.8 million);
- forward sales for GBP 24.0 million (€28.3 million);
- forward sales for CNY 310.0 million (€42.7 million).

These instruments are intended to hedge either the debt denominated in US dollars, or the foreign currency loans set up 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 2022, as and when the hedged loans and borrowings mature.

Other than its foreign-currency-denominated borrowings, the Vallourec Group does not hedge any of the other foreign currency assets and liabilities in its consolidated statement of financial position (foreign currency translation risks).

Interest rate risk

Management of medium and long-term financing within the eurozone is centralized at Vallourec SA and the sub-holding company Vallourec Tubes.

The breakdown of debt between fixed and variable rates is presented in Note 7.1.4.

Loans initially contracted at fixed rates consist of the bond issued by Vallourec SA (see Note 7.1), and the State-guaranteed loans, also issued by Vallourec SA.

Debt contracted at an interest rate higher than 6% corresponds to the €1,023 million bond issue.

Debt initially contracted at a fixed rate of less than 3% relates to the €262 million State-guaranteed loan.

Credit risk

The Vallourec Group is subject to credit risk on unimpaired financial assets whose non-recovery could affect the Company's earnings and financial position.

The Group has identified four main types of receivables that have these characteristics:

- loans granted to Group employees as part of the 1% construction lending scheme;
- security deposits paid in connection with tax disputes and tax receivables due to the Group in Brazil;
- trade and other receivables;
- derivatives with a positive fair value.

1. Loans granted to Group employees as part of the 1% construction lending scheme: 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 cash flows expected through to maturity (contractual interest rates may be lower).
2. 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 the related receivables; the funds have already been paid in full or in part.
3. Derivatives with a positive fair value: the Group only deals with highly-rated counterparties and the credit risk is therefore not considered to be significant.

4. Trade and other receivables: the Group's impairment policy is to recognize a provision whenever there is an indication of impairment. The impairment loss 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 December 31, 2021, there is no reason to assume that there is any risk in respect of unimpaired receivables which are less than 90 days past due. Unimpaired trade receivables more than 90 days past due amounted to €64.4 million as at December 31, 2021, or 11% of the Group's total net trade receivables.

The Vallourec Group 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 its commercial relations with its major customers;
- the collection policy for its trade receivables.

The Vallourec Group remains subject to country risk, which could impact the payment of some of its receivables.

As at December 31, 2021, trade receivables not yet due amounted to €413.8 million, or 73% of total net trade receivables.

The maturities of these trade receivables are as follows (in € thousands):

As at December 31, 2021	0 to 30 days	30 to 60 days	60 to 90 days	90 to 180 days	>180 days	Total
Trade receivables outstanding	246,642	70,342	81,482	15,210	97	413,773

Equity risk

Treasury shares held by the Group are recognized at their acquisition cost as a deduction from equity. Proceeds from the sale of these shares directly increase equity such that the corresponding disposal gains or losses do not affect consolidated net income (loss).

Treasury shares held by the Vallourec Group as at December 31, 2021 include shares allocated to awards for certain members of the Group's staff, executive management or corporate officers.

Accordingly, Vallourec holds 187,665 treasury shares acquired in 2021 after the definitive allocation of 12,335 shares in 2021 under the various performance share plans. These treasury shares are not allocated to any particular performance share plan.

Note 8 ● Employee benefits

The Group participates in the funding of supplementary retirement plans and other long-term employee benefits in accordance with obligations under law or usual practice. 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 into the plans are recognized as expenses for the period. Where applicable, provisions are recognized for outstanding contributions at the reporting date.

Provisions are recognized for retirement commitments and similar obligations 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 as to 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 yield on 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 and similar 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 any plan assets measured at fair value.

	Germany		France		United Kingdom		Other		Total	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Retirement benefits	271,817	258,253	30,654	22,751	114,597	101,766	80,316	85,881	497,384	468,651
Early retirement commitments	50,558	37,000	-	-	-	-	-	-	50,558	37,000
Long-service awards and medical benefits	16,841	14,419	1,627	1,173	-	-	14,611	12,961	33,079	28,553
Present value of the obligation	**339,216**	**309,672**	**32,281**	**23,924**	**114,597**	**101,766**	**94,927**	**98,842**	**581,021**	**534,204**
Fair value of plan assets	(192,835)	(187,270)	(1,903)	(1,816)	(135,951)	(152,027)	(47,697)	(54,223)	(378,386)	(395,336)
Reclassification as assets/liabilities held for sale	-	(122,402)	-	(1,995)	-	-	-	-	-	(124,397)
PROVISIONS	**146,381**	**-**	**30,378**	**20,113**	**(21,354)**	**(50,261)**	**47,230**	**44,619**	**202,635**	**14,471**

	Germany		France		United Kingdom		Other		Total	
Changes in the obligation	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**
As at January 1	**345,879**	**339,216**	**36,476**	**32,281**	**115,065**	**114,597**	**106,159**	**94,927**	**603,578**	**581,021**
Current service cost	10,937	6,580	1,501	1,395	462	321	2,650	2,385	15,550	10,681
Interest cost	2,880	1,154	270	127	2,171	1,655	4,274	3,707	9,596	6,643
Employee contributions	-	-	-	-	-	-	32	30	32	30
Remeasurements	-	-	-	-	-	-	-	-	-	-
Experience adjustments	(3,927)	3,964	(3)	(892)	1,072	(6,679)	(2,659)	1,258	(5,517)	(2,349)
Actuarial gains and losses arising from changes in demographic assumptions	-	-	-	-	595	(7,360)	(1,487)	195	(892)	(7,165)
Actuarial gains and losses arising from changes in financial assumptions	7,907	(9,061)	899	(751)	8,615	(4,126)	5,917	(5,755)	23,338	(19,693)
Acquisitions/disposals	-	-	-	-	-	-	0	-	0	-
Benefit payments	(28,109)	(32,036)	(4,222)	(1,024)	(7,375)	(4,180)	(4,481)	(3,891)	(44,187)	(41,131)
Plan amendments	-	(2,077)	-	-	-	-	-	55	-	(2,022)
Foreign exchange differences	-	-	-	-	(6,228)	7,538	(15,319)	6,349	(21,547)	13,887
Other (a)	3,649	1,932	(2,640)	(7,212)	220	-	(159)	(418)	1,070	(5,698)
AS AT DECEMBER 31	**339,216**	**309,672**	**32,281**	**23,924**	**114,597**	**101,766**	**94,927**	**98,842**	**581,021**	**534,204**

(a) Primarily relating to restructuring in Germany (increase in early retirement plan).

Changes in plan assets are as follows:

	Germany		France		United Kingdom		Other		Total	
	2020	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**
Value of plan assets	**193,392**	**192,835**	**5,518**	**1,903**	**130,317**	**135,951**	**46,564**	**47,697**	**375,791**	**378,386**
Actual return on plan assets	7,619	5,987	(461)	86	16,796	6,101	5,366	4,606	29,320	16,780
Contributions	-	-	-	-	3,330	4,510	2,615	939	5,945	5,449
Benefits paid	(8,176)	(11,552)	(2,889)	(173)	(7,375)	(4,180)	(1,931)	(2,069)	(20,371)	(17,974)
Acquisitions, disposals, settlements	-	-	(265)	-	-	-	(89)	(875)	(354)	(875)
Foreign exchange differences	-	-	-	-	(7,117)	9,645	(4,828)	3,925	(11,945)	13,570
VALUE OF PLAN ASSETS	**192,835**	**187,270**	**1,903**	**1,816**	**135,951**	**152,027**	**47,697**	**54,223**	**378,386**	**395,336**

EXPENSE FOR THE YEAR

	Germany		France		United Kingdom		Other		Total	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Current service cost	10,937	6,580	1,501	1,395	462	321	2,650	2,385	15,550	10,681
Interest cost	2,880	1,154	270	127	2,171	1,655	4,274	3,707	9,596	6,643
Long-term return on plan assets	(1,451)	(964)	(42)	(9)	(2,481)	(1,997)	(1,564)	(1,266)	(5,539)	(4,236)
Net actuarial losses (+)/gains (-) for the year	(1,992)	(156)	(13)	(145)	-	-	(707)	(125)	(2,712)	(426)
Past service cost	-	(2,077)	-	-	-	-	-	55	-	(2,022)
Gains/ (losses) on plan curtailments or settlements	3,649	1,575	(245)	(4,787)	219	-	(160)	454	3,463	(2,757)
NET EXPENSE RECOGNIZED	**14,023**	**6,112**	**1,471**	**(3,419)**	**371**	**(21)**	**4,493**	**5,210**	**20,358**	**7,882**
ACTUAL RETURN ON PLAN ASSETS	**7,619**	**5,987**	**(461)**	**86**	**16,796**	**6,101**	**5,366**	**4,606**	**29,320**	**16,780**

Movements during the year in the net benefit obligation recognized on the statement of financial position were as follows:

	Germany		France		United Kingdom		Other		Total	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Net obligation/ (surplus) at opening	**152,487**	**146,381**	**30,958**	**30,378**	**(15,253)**	**(21,354)**	**59,595**	**47,230**	**227,787**	**202,635**
Total expenses for the year	14,023	6,112	1,471	(3,419)	371	(21)	4,493	5,210	20,358	7,882
Amount recognized in other comprehensive income – Remeasurement	(1,016)	(9,785)	1,131	(1,667)	(4,031)	(22,268)	(1,805)	(7,418)	(5,722)	(41,138)
Benefits or contributions to funds	(19,113)	(20,306)	(748)	(851)	(3,330)	(4,510)	(5,134)	(2,732)	(28,325)	(28,399)
Reclassification as assets/ liabilities held for sale	-	(122,402)	(2,395)	(1,995)	-	-	-	-	(2,395)	(124,397)
Foreign exchange differences	-	-	-	-	889	(2,108)	(10,491)	2,424	(9,601)	317
Changes in scope and other	-	-	(39)	(2,333)	-	-	572	(95)	533	(2,428)
NET OBLIGATION/ (SURPLUS) AT CLOSING	**146,381**	**-**	**30,378**	**20,113**	**(21,354)**	**(50,261)**	**47,230**	**44,619**	**202,635**	**14,471**

The main actuarial assumptions used for the measurement of post-employment benefit obligations, taking account of the duration of the plans, are as follows:

Main actuarial assumptions	Germany	France	United Kingdom	Other
AS AT DECEMBER 31, 2020				
Discount rate	0.50%	0.50%	1.40%	from 2.5% to 8.11%
Expected return on plan assets	0.50%	0.50%	1.40%	from 2.5% to 8.11%
Salary increase rate	2.00%	1.07%	N/A	from 4% to 10%
AS AT DECEMBER 31, 2021				
Discount rate	0.80%	0.80%	1.90%	from 2.7% to 9.59%
Expected return on plan assets	0.80%	0.80%	1.90%	from 0% to 9.59%
Salary increase rate	2.00%	1.11%	N/A	from 4% to 8.5%

Benefit obligations are valued by the Group's independent actuaries. The assumptions used take account of the specific characteristics of the plans and companies concerned.

Experience adjustments in 2021 represented €2.3 million in losses for the Group (losses of €5.5 million in 2020).

In 2022, the Group expects to pay €40.6 million in benefits under defined benefit plans, including €28.4 million in Germany, €3.6 million in the United Kingdom, €2.7 million in France and €1.4 million in Brazil.

Plans that are fully or partially outsourced represented a total obligation of €469 million as at December 31, 2021 and plan assets of €395 million.

In the eurozone, the discount rate is based on the iBoxx index (AA-rated corporate bonds with a maturity of 10 or more years, as estimated on the date the obligation is measured). This index uses a basket of bonds issued by 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 were higher than the estimate of €12.5 million. In 2021, a general increase in discount rates resulted in an overall decrease in the obligation, generating actuarial gains for the year of €19.7 million.

France

Benefit obligations in France correspond to retirement benefits, supplementary pension plans and long-service awards.

As at December 31, 2021, based on a sensitivity analysis of the discount rate, a 1% increase in the discount rate would result in a decrease of around €2.2 million in these benefit obligations.

On September 14, 2005, a supplementary pension plan along with corresponding plan assets was set up for executive management. Management of the plan is partially outsourced to an insurance company. As a defined benefit plan, it is valued on an actuarial basis and recognized in accordance with IAS 19 in the case of active employees.

The plan was closed to new entrants and the rights frozen.

As at December 31, 2021, the benefit obligation represented €4.7 million and plan assets €1.8 million.

Germany

The Group's employees in Germany benefit from various schemes (retirement benefits, deferred compensation, long-service awards and early retirement) which constitute long-term obligations for the Group.

As at December 31, 2021, based on a sensitivity analysis of the discount rate, a 1% increase in the discount rate would result in a decrease of around €26.7 million in these benefit obligations.

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.

As at December 31, 2021, based on a sensitivity analysis of the discount rate, a 1% increase in the discount rate would result in a decrease of around €16.1 million in these benefit obligations.

Brazil

In Brazil, the Group helps fund retirement benefits, long-service awards and a retirement healthcare plan (closed to new entrants).

Management of retirement benefits is partially outsourced to a fund with total assets of €0.3 million in 2021 (€0.9 million in 2020).

Mexico/Indonesia/Saudi Arabia

Benefit obligations in Mexico, Indonesia and Saudi Arabia remain insignificant for the Group.

United States

The Group's employees in the United States are eligible for pension plans that represent long-term commitments for the Group. These plans are partially funded by plan assets.

Other countries

Provisions are made for obligations in other countries in accordance with local laws and regulations. These obligations are not considered material at Group level.

Expenses recognized during the year relate to additional entitlement obtained for an additional year of service, the change in existing entitlement at the beginning of the year due to discounting, past service costs recorded in the period, the expected return on plan assets, the effects of plan curtailments or settlements, and the amortization of actuarial gains and losses. The portion of expenses relating to discounting is recognized in financial income (loss), while the return on plan assets is recorded in interest income.

Plan assets are broken down as follows:

	United Kingdom		United States		Germany	
	12/31/2020	12/31/2021	12/31/2020	12/31/2021	12/31/2020	12/31/2021
Equities	24.00%	26.00%	54.80%	55.65%	20.67%	20.67%
Bonds	0.00%	0.00%	39.90%	37.96%	79.33%	79.33%
Real estate	0.00%	0.00%	5.30%	0.00%	0.00%	0.00%
Other	76.00%	74.00%	0.00%	6.39%	0.00%	0.00%

The "Other" item for the United Kingdom relates to cash and index-linked gilts.

In France, all assets are invested in the general assets of an insurance company.

SENSITIVITY ANALYSIS

The Group's obligation under defined benefit plans is sensitive to the above assumptions.

A change of 1 percentage point in the respective assumptions would have the following impacts on the defined benefit obligation at the reporting date:

In € millions	One percentage-point increase	One percentage-point decrease
Discount rate	(56)	70
Salary increase rate	6	(5)
Pension increase rate	33	(24)

Note 9 • Provisions for contingencies and expenses, and contingent liabilities

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 if the impact of discounting is material (for example, in the case 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 if, and only if, the Company has announced the restructuring and drawn up a detailed plan or started to implement the plan at the reporting date.

Provisions are booked for disputes (technical, guarantees, tax audits, etc.) whenever the Group has an obligation to a third party at the reporting date. They are determined based on the best estimate of the expense required to settle the obligation.

	12/31/2020			12/31/2021		
	Total	**Non-current**	**Current**	**Total**	**Non-current**	**Current**
Disputes and commercial commitments	22,801	8,250	14,551	12,565	8,653	3,912
Backlog – losses on completion	41,981	74	41,907	15,351	-	15,351
Reorganization and restructuring measures	102,222	77,954	24,268	36,667	21,300	15,367
Tax risks (income tax, other levies, inspections, etc.)	9,288	9,288	-	9,580	9,580	-
Other	38,308	14,762	23,546	47,191	41,465	5,726
TOTAL	**214,600**	**110,328**	**104,272**	**121,354**	**80,998**	**40,356**
As at January 1	**165,578**	**44,579**	**120,999**	**214,600**	**110,328**	**104,272**
Allowances	145,609	31,247	114,362	54,090	17,408	36,682
Utilizations	(65,465)	(6,928)	(58,537)	(94,704)	(18,997)	(75,707)
Reversals of surplus provisions	(4,492)	-	(4,492)	(13,594)	(6,078)	(7,516)
Impact of changes in exchange rates	(20,821)	(9,048)	(11,773)	1,568	689	879
Reclassifications and other changes	(4,940)	50,808	(55,748)	(498)	(11,048)	10,550
Liabilities related to assets held for sale and discontinued operations	(869)	(330)	(539)	(40,108)	(11,304)	(28,804)
AS AT DECEMBER 31	**214,600**	**110,328**	**104,272**	**121,354**	**80,998**	**40,356**

9.1 Provisions for disputes, commercial commitments and losses on the backlog

Provisions are booked for disputes whenever the Group has an obligation to a third party at the reporting date. They are determined based on the best estimate of the expense required to settle the obligation.

9.2 Provisions for reorganization and restructuring measures

Provisions are recognized for the cost of redundancy plans and reorganization measures when a detailed formal plan exists and an announcement has been made or the plan has begun to be implemented before the reporting date. They include the following costs:

- severance and compensation paid to personnel no longer required by the Company;
- costs of maintaining personnel after a business has been discontinued and until the site closure (e.g., compensation for unworked notice periods);
- contract termination compensation paid to suppliers;
- outstanding rents payable after the business has been discontinued and until the end of the lease agreement.

In France, the provision amounts to €35 million as at December 31, 2021, compared to €67 million as at December 31, 2020. The adjustment of assumptions concerning departure conditions for existing plans and actual costs led to a €32 million decrease in the provision.

In Germany, the implementation of adaptation measures in 2021 led to the recognition of €20 million in actual costs and a €20 million decrease in the provision. The provision amounts to €19 million as at December 31, 2021 and was reclassified within liabilities held for sale.

9.3 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 2.8.3).

9.4 Other current provisions

This item comprises various provisions for customer discounts, late payment penalties and other risks identified at the reporting date, none of which are material taken individually.

For 2021 and 2020, actual annual greenhouse gas emissions exceeded the emissions allowance granted by the French government. However, since the Group still has unused allowances, no provisions were booked in this regard.

9.5 Contingent liabilities

All of the European rolling mills are primarily supplied with raw materials from European steel mills, and in particular, as concerns ordinary steels, by the Huckingen mill operated by Hüttenwerke Krupp Mannesmann (HKM), in which Vallourec Tubes has a 20% stake in the capital. HKM produces steel rounds intended exclusively for its shareholders, who are committed to certain volumes. Based on its business outlook, Vallourec would be unable to absorb the volumes to which it is entitled. Accordingly, it decided to terminate the cooperation and supply agreements, effective December 31, 2028, at the end of the contractually agreed seven-year notice period.

Vallourec has also initiated discussions with HKM and its shareholders, in particular regarding the consequences of its future withdrawal from the agreements.

Note 10 • Assets held for sale and consolidation scope

10.1 Assets held for sale, liabilities related to assets held for sale, and discontinued operations

When the Group expects to recover the value of an asset or group of assets through a sale transaction rather than through continuing use, that asset is presented separately on the "Assets held for sale and discontinued operations" line of the statement of financial position in accordance with IFRS 5 "Non-current Assets Held for Sale and Discontinued Operations".

Liabilities related to assets held for sale are also shown on a separate line of the statement of financial position ("Liabilities related to assets held for sale and discontinued operations").

An asset classified as held for sale is valued at the lower of its carrying amount and its fair value less the costs of disposal, and is therefore no longer depreciated/amortized.

	12/31/2020	12/31/2021
Assets held for sale and discontinued operations	106,523	371,728
Liabilities related to assets held for sale and discontinued operations	(36,837)	(374,157)
NET ASSETS (LIABILITIES) HELD FOR SALE AND DISCONTINUED OPERATIONS	**69,686**	**(2,429)**

	12/31/2020	12/31/2021
As at January 1	**-**	**69,686**
Translation difference	(2,677)	2,584
Current/non-current reclassifications and other	72,363	(58,099)
AS AT DECEMBER 31	**69,686**	**14,171**

Net values	12/31/2020	12/31/2021
Intangible assets	6	1,066
Property, plant and equipment	41,254	105,750
Right-of-use assets	153	616
Biological assets	13,826	10,448
Deferred tax assets	1,831	-
Other non-current assets	164	7,890
Total non-current assets	**57,234**	**125,770**
Total current assets	**49,289**	**245,958**
TOTAL ASSETS HELD FOR SALE	**106,523**	**371,728**
Pensions	2,395	124,397
Long-term provisions for contingencies and expenses	330	11,634
Deferred tax liabilities	1,853	-
Other non-current liabilities	81	19,869
Total non-current liabilities	**4,659**	**155,900**
Trade payables	25,770	156,875
Short-term provisions for contingencies and expenses	539	28,804
Other current liabilities	5,870	32,578
Total current liabilities	**32,179**	**218,257**
TOTAL LIABILITIES RELATED TO ASSETS HELD FOR SALE	**36,837**	**374,157**
NET ASSETS (LIABILITIES) HELD FOR SALE AND DISCONTINUED OPERATIONS	**69,686**	**(2,429)**

During the year, Vallourec sold assets classified as held for sale at end-December 2020, chiefly including Valinox Nucléaire (Montbard plant in France), Reisholz assets in Germany, and certain biological assets and forestry assets in Brazil.

Vallourec decided to launch a disposal process for its German production units and for Vallourec Bearing Tubes. As at December 31, 2021, these assets – highly likely to be sold or shut down within one year in their present condition – have therefore been classified within "assets held for sale". Assets held for sale were written down in an amount of €22 million (see Note 2.5 & 2.6).

These entities held for sale were not considered as discontinued operations in the income statement within the meaning of IFRS 5, as they do not represent a separate major line of business or geographical area of operations for the Group.

Other items of comprehensive income relating to assets and liabilities held for sale represent €106 million as at December 31, 2021.

10.2 Scope of consolidation

The Group consists of the holding company Vallourec SA and its subsidiaries consolidated in accordance with the principles described in Note 1.2.3.

	12/31/2020	12/31/2021
Fully consolidated companies	54	55
Joint ventures	3	3
Associates	2	2
TOTAL	**59**	**60**

There are no significant unconsolidated subsidiaries or equity interests.

On March 31, 2021, the Vallourec Group acquired Nippon Steel's 15.4% interest in the Brazilian joint venture Vallourec Soluções Tubulares do Brasil (VSB). Further to this transaction, the Vallourec Group holds the entire share capital of VSB.

On July 27, 2021, the Vallourec Group acquired the non-controlling interests in VAM USA LLC (United States) based on a valuation of USD 85 million for the entire share capital, i.e., the acquisition of the 34% interest held by Nippon Steel Oilfield Services Inc for USD 28.9 million and of the 15% held by Sumitomo Corporation of Americas for USD 12.75 million.

On September 30, 2021, Vallourec acquired Sumitomo Corporation's 19.5% non-controlling interest in Vallourec Star (United States) for $99 million.

On October 1, 2021 in Brazil, the Group launched Vallourec Tubos para Indústria (VTI), a joint venture between VSB and the Açotubo group's cold-drawn tubes division. Vallourec owns 75% of VTI.

The table below presents the list of consolidated companies:

	Business activity	% interest	Country
FULLY CONSOLIDATED COMPANIES			
Europe			
Serimax Angola Ltd	Services	80.0	United Kingdom
Serimax Field Joint Coating Ltd	Services	80.0	United Kingdom
Serimax Holdings SAS	Services	80.0	France
Serimax Ltd	Services	80.0	United Kingdom
Serimax SAS	Services	80.0	France
Vallourec Bearing Tubes	Manufacturing and sales of products, services	100.0	France
Vallourec Deutschland GmbH	Manufacturing and sales of products, services	100.0	Germany
Vallourec Oil & Gas France SAS	Manufacturing and sales of products, services	100.0	France
Vallourec Oil & Gas Nederland B.V.	Sales of products, services	100.0	Netherlands
Vallourec Oil & Gas UK Ltd	Manufacturing and sales of products, services	100.0	United Kingdom
Vallourec One SAS	Holding company	100.0	France
Vallourec S.A.	Holding company	100.0	France
Vallourec Services SA	Holding company	100.0	France
Vallourec Tubes France SAS	Manufacturing and sales of products, services	100.0	France
Vallourec Tubes SAS	Holding company	100.0	France
North America			
Serimax North America LLC	Services	80.0	United States
Vallourec Canada Inc.	Manufacturing and sales of products, services	100.0	Canada
Vallourec Drilling Products USA	Dormant	100.0	United States
Vallourec Holdings Inc.	Holding company	100.0	United States

	Business activity	% interest	Country
Vallourec Industries Inc.	Holding company	100.0	United States
Vallourec Oil and Gas Mexico SA de CV	Manufacturing and sales of products, services	100.0	Mexico
Vallourec Star, LP	Manufacturing and sales of products, services	100.0	United States
Vallourec Tube-Alloy LP	Manufacturing and sales of products, services	100.0	United States
Vallourec USA Corporation	Sales of products, services	100.0	United States
VAM USA	Manufacturing and sales of products, services	100.0	United States
South America			
Serimax Do Brasil Serviços de Soldagem e Fabricaçao Ltda	Services	80.0	Brazil
Tubos Soldados Atlântico	Manufacturing and sales of products, services	100.0	Brazil
Vallourec Florestal Ltda	Manufacturing and sales of products	100.0	Brazil
Vallourec Soluções Tubulares do Brasil	Manufacturing and sales of products, services	100.0	Brazil
Vallourec Transportes e Serviços do Brasil Ltda	Services	100.0	Brazil
Vallourec Tubos do Brasil SA	Manufacturing and sales of products, services	100.0	Brazil
Vallourec Uruguay SA	Sales of products, services	100.0	Uruguay
Vallourec Tubos para Industria Ltda	Manufacturing and sales of products, services	75.0	Brazil
Asia			
Kestrel Wave Investment Ltd	Holding company	100.0	Hong Kong
P.T. Citra Tubindo Tbk	Manufacturing and sales of products, services	81.72	Indonesia
Serimax South East Asia Pte Ltd	Services	80.0	Singapore
Serimax Welding Services Malaysia sdn bhd	Services	80.0	Malaysia
Serimax Saudi Arabia Corp.	Services	80.0	Saudi Arabia
Valinox Nucléaire Tubes Guangzhou Co. Ltd	Manufacturing and sales of products, services	100.0	China
Vallourec Al Qahtani Tubes Llc	Sales of products, services	75.0	Saudi Arabia
Vallourec Asia Pacific Corp Pte Ltd	Manufacturing and sales of products, services	100.0	Singapore
Vallourec Changzhou Co. Ltd	Manufacturing and sales of products, services	100.0	China
Vallourec Middle East FZE	Sales of products, services	100.0	United Arab Emirates
Vallourec Oil & Gas (China) Co., Ltd	Sales of products, services	100.0	China
Vallourec Saudi Arabia Ltd	Manufacturing	80.0	Saudi Arabia
Vallourec Tianda (Anhui) Co., Ltd.	Manufacturing and sales of products, services	99.73	China
Vallourec Tubular Services AD	Services	49.0	United Arab Emirates
VAM Far East	Services	51.0	Singapore
Rest of the World			
Serimax Australia Pty Ltd	Services	80.0	Australia
Serimax OOO	Services	80.0	Russia
Vallourec Nigeria Ltd	Manufacturing and sales of products, services	100.0	Nigeria
Vallourec Oil and Gas Nigeria Ltd	Sales of products, services	49.0	Nigeria
Vallourec Oil & Gas Kenya Limited	Sales of products, services	100.0	Kenya
Vallourec Russia	Sales of products, services	100.0	Russia
VAM Field Services Angola	Sales of products, services	100.0	Angola
JOINT VENTURES			
Vallourec Umbilicals SAS	Manufacturing and sales of products	51.0	France
Vallourec Niko Tube Holding GmbH	Holding company	50.1	Germany
Vallourec Niko Tube Llc	Manufacturing	50.1	Ukraine
ASSOCIATES			
Hüttenwerke Krupp Mannesmann (HKM)	Manufacturing	20.0	Germany
Ascoval	In liquidation	40.0	France

Note 11 ● Other information and subsequent events

11.1 Fees paid to Statutory Auditors and members of their networks

	KPMG		Deloitte	
	Amount (excl. tax)		Amount (excl. tax)	
	2020	2021	2020	2021
STATUTORY AUDIT OF PARENT COMPANY AND CONSOLIDATED FINANCIAL STATEMENTS				
Issuer	246	336	246	336
%	14%	17%	18%	24%
Fully consolidated subsidiaries	1,035	1,149	706	753
%	60%	59%	53%	54%
Sub-total	**1,281**	**1,485**	**952**	**1,088**
OTHER NON-AUDIT SERVICES [(a)]				
Issuer	378	376	294	283
%	22%	19%	22%	20%
Fully consolidated subsidiaries	69	88	71	33
%	4%	4%	6%	2%
Sub-total	**447**	**464**	**365**	**316**
TOTAL	**1,728**	**1,948**	**1,317**	**1,404**

(a) *The services provided cover the non-audit services required by applicable laws and regulations, as well as those services provided at the Group's request. For Deloitte & Associés for 2021, these services primarily relate to procedures conducted within the framework of (i) work in preparation for the financial restructuring notably for the capital increase, (ii) compliance reviews of tax returns for subsidiaries outside the European Union. For KPMG for 2021, these services primarily relate to procedures conducted within the framework of (i) work in preparation for the financial restructuring notably for the capital increase, (ii) the engagement of an independent third-party entity in relation to CSR information in the management report, and (iii) compliance reviews of tax returns for subsidiaries outside the European Union.*

11.2 Subsequent events

On Saturday January 8, 2022, following the exceptionally heavy rainfall in Minas Gerais State (Brazil), some material from a waste pile associated with the operations of Vallourec's Pau Branco mine slid into a rainwater dam ("the Lisa Dam") causing it to overflow, and resulting in the interruption of traffic on the nearby highway. The structure of the dam was not affected, and there were no casualties. As a result of this incident, the operations of the mine have been temporarily suspended. Vallourec plans to restart them in the coming weeks subject to receiving the necessary consents, at first without using the waste pile. In the meantime, Vallourec is preparing the report on the waste pile stability to be validated by the mining authorities. The mine could therefore reach its full capacity during Q2. In addition, on January 21, 2022, Vallourec signed an agreement with the Public Prosecutor's Office regarding the consequences of the overflow of the Lisa Dam. The agreement includes the implementation of emergency measures, many of which have already been completed, and a commitment to the environmental restoration of the affected area. It also includes the provision of BRL 200 million (approximatively €35 million) as a guarantee in a bank account held by Vallourec. As previously disclosed, Vallourec confirms that the BRL 288 million (approximately €50 million) fine is currently being challenged. These one-time costs will be registered below EBITDA in Vallourec's 2022 consolidated results. The Group has not experienced any interruption in supply to its Jeceaba blast furnace.

In light of €619 million in available cash and €462 million in undrawn credit facilities as at December 31, 2021, the Group can meet its liquidity needs over the next 12 months.

This has no impact on the value of its assets at December 31, 2021.

6.2 Statutory Auditors' Report on the Consolidated Financial Statements

For the year ended December 31, 2021

This is a free translation into English of the Statutory Auditor's Report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users.

The Statutory Auditor's Report includes information required by European regulations and French law, such as information regarding the appointment of the Statutory Auditor or verification of the management report and other documents provided 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 Annual General Meeting of Vallourec,

Opinion

In compliance with the engagement entrusted to us at your Annual Meeting of Shareholders, we have audited the accompanying consolidated financial statements of Vallourec (hereinafter, "the Company") for the year ended December 31, 2021.

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, 2021 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.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (*Code de commerce*) and the French Code of Ethics (*Code de déontologie*) for statutory auditors for the period from January 1, 2021 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) N° 537/2014.

Justification of Assessments - Key Audit Matters

Due to the global crisis related to the Covid-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, in accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce)* relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Valuation of goodwill, intangible assets and property, plant and equipment

Notes 2.5 "Impairment of assets and goodwill", 4.2 "Impairment tests" to the consolidated financial statements

Key Audit Matter	Audit approach
As at December 31, 2021, the carrying amounts of goodwill, intangible assets and property, plant and equipment were €38 million, €45 million and €1,666 million, respectively, accounting for 37% of consolidated balance sheet assets. As described in Note 4.2 to the consolidated financial statements, the impairment tests were performed on (i) the cash generating units (CGUs) to which goodwill had been allocated, which were "Vallourec EA-MEA" and "Vallourec do Brasil", and (ii) individual assets held for sale in accordance with IFRS 5. With regard to the "Vallourec North America" CGU, no indications of impairment has been identified. Impairment testing methods and assumptions are described in Note 4.2 to the consolidated financial statements. The cash forecasts used to determine recoverable amounts are based on available data at the date of the closing of the accounts, in the context of an upturn in the oil and gas market, particularly in North America. However, uncertainties remain when considering the future outlook, in particular due to (i) changes in the economic and financial environment in which the Group operates, (ii) the impact of climate change, or (iii) developments in the COVID-19 pandemic. Consequently, actual figures may differ significantly from these estimates and the random nature of certain estimates may be accentuated. We believe that the estimation of the recoverable amount of goodwill, intangible assets and property, plant and equipment is a key audit matter, given the materiality of these assets on the consolidated financial statements of the Group, and also given the fact that determining their recoverable amounts requires Management to make judgements and use estimates to forecast the discounted future cash flows used in the tests.	During our work, we gained an understanding of: • the process used to prepare and approve the estimates and assumptions made by Management for the impairment tests, • analyses performed by the Group to identify an indication of impairment, and • procedures for approving the results of these tests by the governance entities. We also assessed the appropriateness of the model adopted to determine the recoverable amounts of the CGUs and individual assets tested. For the "Vallourec North America" CGU, we corroborated the Group's assessment on the absence of any indication of impairment with the macroeconomic and internal information available. We have obtained the cash flow and operating forecasts prepared by the Group for each CGU tested and have assessed their consistency with the 2022 budget, approved by the Management Board, and Management's estimates as set out in the business plan. With the assistance of our valuation experts, we have assessed the appropriateness of the various assumptions underlying the cash flow forecasts, particularly with respect to the Group's internal data and external industry and macroeconomic data analyses, including: • prices and volumes assumptions by region that depend, in particular, on investments in exploration and production of oil and natural gas, • forecasts of changes in costs taking into account the provisional savings plans, and • exchange rates, growth rates and discount rates used. We also assessed the consistency of cash flow forecasts with past performance used in the previous impairment tests, market outlook, and the forward-looking data presented to the Company's Management Board. Lastly, we performed our own sensitivity analyses and verified the arithmetical accuracy of the calculations as well as the appropriateness of the information presented in Note 4.2 to the consolidated financial statements.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the Group's information given in the Board of directors' management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial performance report required under Article L.225-102-1 of the French Commercial Code (*Code de commerce)* is included in the information on the Group provided in the management report. In accordance with the provisions of Article L.823-10 of the French Commercial Code, we have not verified the fair presentation and the consistency with the consolidated financial statements of the information provided in the non-financial performance report, for which a report is issued by an independent third party.

Report on other Legal and Regulatory Requirements

Format of presentation of the consolidated financial statements intended to be included in the annual financial report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by the statutory auditor relating to the annual and consolidated financial statements presented in the European single electronic reporting format, that the presentation of the consolidated financial statements to be included in the annual financial report mentioned in Article L.451-1-2, I of the French Monetary and Financial Code (*Code monétaire et financier*), prepared under the responsibility of the Chief Executive Officer, complies with the single electronic format defined in the European Delegated Regulation N° 2019/815 of December 17, 2018.

As it relates to consolidated financial statements, our work includes verifying that the tagging of these consolidated financial statements complies with the format defined in the aforementioned delegated regulation.

Based on the work we have performed, we conclude that the presentation of the consolidated financial statements to be included in the annual financial report complies, in all material respects, with the European single electronic format.

We have no responsibility to verify that the consolidated financial statements that will ultimately be included by your company in the annual financial report filed with the French financial markets authority (AMF) are in agreement with those on which we have performed our work.

Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of Vallourec at the Annual General Meeting held on June 1, 2006 for both audit firms.

As at December 31, 2021, KPMG S.A. was in its 16th year of uninterrupted engagement and Deloitte & Associés in its 20th year of uninterrupted engagement given the succession of mandates between legal entities of the Deloitte network.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union, and for such internal control as Management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems and where applicable, the internal audit, regarding accounting and financial reporting procedures.

The consolidated financial statements have been approved by the Management Board.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L.823-10-1 of the French Commercial Code (*Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgement throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for the audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the consolidated financial statements;

- assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion on these consolidated financial statements.

Report to the Audit Committee

We submit a report to the Audit Committee, which includes a description of the scope of the audit and the audit programme implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgement, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore key audit matters that we are required to describe in this audit report.

We also provide the Audit Committee with the statement required under Article 6 of Regulation (EU) no. 537/2014 confirming our independence within the meaning of the rules applicable in France as set out in Articles L.822-10 to L.822-14 of the French Commercial Code and in the French Code of Ethics for statutory auditors. Where appropriate, we discuss with the Audit Committee any risks that may bear on our independence, and the related safeguards.

Paris-La-Défense, April 13, 2022

The Statutory Auditors

KPMG S.A.
Alexandra Saastamoinen

Deloitte & Associés
Véronique Laurent

6.3 Vallourec SA parent company financial statements

6.3.1 Statement of financial position

Assets

In € thousands	12/31/2020	12/31/2021
NON-CURRENT ASSETS		
Intangible assets	414	414
Property, plant and equipment	88	88
Equity interests	854,429	2,308,429
Receivables, loans and other financial fixed assets	1,700,230	1,700,875
Total I	**2,555,161**	**4,009,806**
CURRENT ASSETS		
Operating receivables	1,089	1,107
Other receivables	1,897,414	412,180
Marketable securities	5,049	5,879
Cash at bank and in hand	20,059	58
Prepaid expenses	4,014	467
Deferred expenses	9,347	-
Total II	**1,936,972**	**419,691**
TOTAL ASSETS (I + II)	**4,492,133**	**4,429,497**

Equity and liabilities

In € thousands	12/31/2020	12/31/2021
EQUITY		
Share capital	229	4,579
Additional paid-in capital	2,337,333	3,955,219
Revaluation reserve	634	634
Other reserves	85,886	85,886
Retained earnings (accumulated losses)	1,647,222	(1,446,291)
Net income (loss)	(3,093,524)	510,764
Total I	**977,780**	**3,110,791**
Provisions for contingencies and expenses	2,065	1,981
Borrowings	3,502,603	1,306,196
Operating liabilities	2,093	4,568
Other liabilities	7,591	5,961
Translation differences	1	-
Total II	**3,514,353**	**1,318,706**
TOTAL EQUITY AND LIABILITIES (I + II)	**4,492,133**	**4,429,497**

6.3.2 Income statement

In € thousands	12/31/2020	12/31/2021
Revenue	2,706	2,933
Provision reversals and expenses transferred	1,951	919
Other income	-	8
External services	(9,430)	(7,275)
Taxes other than on income	(403)	(310)
Personnel expenses	(2,432)	(3,898)
Other	(2,157)	(1,478)
Depreciation, amortization and provisions	(5,011)	(10,164)
Operating income (loss)	**(14,776)**	**(19,265)**
Financial income	**115,876**	**567,163**
Other marketable securities and non-current receivables	112,342	112,035
Other interest income	6	18
Foreign exchange gains	3,528	1,110
Provision reversals and financial expenses transferred	-	454,000
Financial expenses	**(3,192,651)**	**(149,534)**
Depreciation, amortization and provisions – financial items	(3,002,000)	(1)
Interest expense	(187,122)	(148,346)
Foreign exchange losses	(3,529)	(1,187)
Financial income (loss)	**(3,076,775)**	**417,629**
Net income (loss) from recurring operations before tax	**(3,091,551)**	**398,364**
Non-recurring income	-	168,807
Non-recurring expenses	(2,029)	(56,442)
Non-recurring income (loss)	**(2,029)**	**112,365**
Income tax	56	35
NET INCOME (LOSS)	**(3,093,524)**	**510,764**

6.3.3 Notes to the parent company financial statements for the year ended December 31, 2021

In € thousands unless stated otherwise.

Notes to the statement of financial position (before allocation) as at December 31, 2021, which shows total assets of €4,429 million, and to the income statement for the year then ended, which shows net income of €511 million.

The reporting period runs for 12 months, from January 1 to December 31.

Vallourec SA prepares consolidated financial statements.

A – Significant events, basis of measurement and comparability of financial statements

Significant events

On June 30, 2021, Vallourec SA finalized its financial restructuring, reducing the Group's debt by €1.7 billion further to the completion of the following final steps in the safeguard plan approved by the Nanterre Commercial Court on May 19, 2021:

- a €1,331 million debt-for-equity swap by way of a capital increase without shareholders' pre-emptive subscription rights reserved for the converting creditors, for a gross amount (including issue premiums) of €1,331 million, through the issue of 164,523,927 new shares subscribed by the converting creditors (at a price of €8.09 per share, including issue premiums) by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the issue of 30,342,337 share subscription warrants reserved for the commercial banks, subscribed by way of set-off against a portion of their claims in respect of the Company's revolving credit facilities for an amount of €0.3 million;
- a debt write-off granted by the commercial banks in the amount of €169 million;
- the issue of new bonds for a nominal aggregate amount of €1,023 million, subscribed by the converting creditors by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities;
- the arrangement by the commercial banks of a €462 million revolving credit facility;
- the arrangement by the commercial banks of State-guaranteed loans (*prêts garantis par l'État*) for an aggregate amount of €262 million; and
- the repayment in cash of a portion of the receivables in respect of the Company's bonds and revolving credit facilities for €562 million, financed in particular by the proceeds from the capital increase with pre-emptive subscription rights for a gross aggregate amount (including issue premiums) of €300 million through the issue of 52,954,807 new shares subscribed in cash (at a price of €5.66 per share, including issue premiums) by holders of the Company's pre-emptive subscription rights.

In addition, the commercial banks arranged bonding lines on behalf of Vallourec Tubes and certain subsidiaries, for a total amount €178 million over a period of five years.

Further to these transactions, the former bonds and revolving credit facilities were canceled and the outstanding bonds were delisted from their respective markets.

As of December 31, 2021, the overall expense attributable to the restructuring breaks down as follows:

In € millions	**Amount**
Extinguished debt (as per statement of financial position)	3,540
Capital increase subscribed in cash	(300)
Capital increase by set-off of claims	(1,331)
New debt	(1,747)
Deferred expenses (accelerated amortization of finance costs on debt canceled)	7
INCOME FROM THE RESTRUCTURING	**169**
Fees and transaction costs recorded in the income statement	(56)
Withholding tax	(1)
NON-RECURRING INCOME (LOSS), NET	**112**
FINANCIAL INCOME (LOSS)	**(7)**

Fees and transaction costs amounted to €66 million and were charged against (i) the issue premium associated with the capital increase with pre-emptive subscription rights for €9 million, and (ii) non-recurring expenses for -€57 million.

IMPACT OF THE FINANCIAL RESTRUCTURING ON THE FINANCIAL POSITION AND DEBT

At June 30, 2021, gross debt was reduced by €1.7 billion, breaking down as follows:

	Carrying amount as at 06/30/2021	Non-current	Current
GROSS DEBT BEFORE RESTRUCTURING			
Accrued interest	(77)		(77)
Bonds	(1,755)		(1,755)
Revolving credit facility drawdowns	(1,712)		(1,712)
Total	**(3,544)**		**(3,544)**
GROSS DEBT AFTER RESTRUCTURING			
New revolving credit facility	462		462
Bond issue – maturing in June 2026	1,023	1,023	
State-guaranteed loans	262	262	
Total	**1,747**	**1,285**	
CHANGE	**(1,797)**	**1,285**	**(3,082)**

	Carrying amount as at 12/31/2021	Non-current	Current
Bond issue – maturing in June 2026	1,023	1,023	
State-guaranteed loans	262	262	
Accrued interest	21		21
TOTAL	**1,306**	**1,285**	**21**

COVID-19 CRISIS AND IMPACT ON BUSINESS

These parent company financial statements for the year ended December 31, 2021 were prepared on the basis of the information available at that date in the evolving context of the Covid-19 crisis and taking into account difficulties in assessing its impact and future development.

Basis of measurement and comparability of financial statements

The bases of presentation and measurement used in the preparation of the financial statements for the year under review are the same as those used for the previous year.

Impairment of equity interests is recorded under financial items.

B – Accounting principles

The parent company financial statements are prepared in accordance with French GAAP (ANC Regulation No. 2014-03) and the fundamental accounting principles (accrual basis, no offset, historical cost, prohibition to restate the opening balance sheet, going concern, true and fair view, prudence and consistency of accounting methods).

Property, plant and equipment

In accordance with ANC Regulation No. 2014-03, the Company uses the components approach, which relies on technical analyses to individually account for significant parts of an item of property, plant and equipment based on their specific respective uses and patterns of consumption.

The carrying amount of property, plant and equipment reflects:

- the acquisition or production cost, except for assets acquired before December 31, 1976, which were remeasured. These assets are stated at their transfer value;
- discounts, rebates and other payment reductions;
- costs directly attributable to putting the assets in place;
- any dismantling costs;
- excluding financial expenses (e.g., borrowing costs) related to the asset's acquisition.

Depreciation of property, plant and equipment for accounting purposes is calculated on a straight-line or accelerated basis over the expected useful life of the asset.

Depreciation for tax purposes is calculated using the declining balance method over the shorter of the useful life and the duration of use, except for components depreciated over their actual lives.

Equity interests

The gross value of equity interests comprises their purchase cost, excluding incidental expenses, and the amount of any capital increases.

Securities acquired in foreign currencies are recognized at their acquisition price translated into euros at the exchange rate applicable as at the date of the transaction.

At each reporting date, the Company compares the net carrying amount of its equity interests with their value in use and recognizes a provision in financial income (loss) when value in use is less than the net carrying amount.

Value in use is based on expected cash flows, estimated based on the Group's strategic plan for the first five years, extrapolated over the following three years and a terminal value.

Treasury shares

Treasury shares acquired and available to be allocated to employees are classified as marketable securities. Surplus shares not allocated to specific plans are classified as non-current financial assets.

Pursuant to CRC Regulation No. 2008-15 dated December 4, 2008 relating to the accounting treatment of share purchase or subscription plans and performance share plans for employees, shares allocated to 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 expenses).

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.

Marketable securities

Marketable securities are measured at acquisition cost plus accrued income for the period, or at market value if lower.

Treasury shares acquired and available to be allocated to employees are classified as marketable securities.

Translation of transactions in foreign currencies and financial instruments

Receivables, cash and cash equivalents and payables in foreign currencies on the statement of financial position are translated into euros at the exchange rate applicable as at the reporting date.

Hedged transactions denominated in foreign currencies and eligible for hedge accounting are recorded at the spot rate.

The aggregate amount of the change in time value (i.e., the difference between the forward price of the hedge as at the reporting date and the initial spot rate) is recognized on the statement of financial position at each reporting date within derivative instruments. The change in the premium/discount between the beginning and the end of the period impacts net income (loss) for that period. Since January 1, 2017, these changes have been recorded under operating income (see ANC Regulation 2015-05). They previously appeared under financial items.

The change in time value (premium/discount) is recognized separately from revenue.

In application of ANC Regulation 2015-05, the change in the value of isolated open-positions are recorded in the statement of financial position, with an adjusting entry to suspense accounts:

- within assets for changes that correspond to an unrealized loss;
- within liabilities for changes that correspond to an unrealized gain.

Unrealized gains are not included in the income statement. When a transaction results in an unrealized loss, a provision is recognized within financial income (loss) for the amount of the unrealized loss.

Provisions for contingencies and expenses

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 upon the retirement of employees are measured based on an actuarial calculation and covered by a provision carried in liabilities in the statement of financial position.

Following the publication of a decision by the IFRS IC in May 2021 aimed at clarifying the period for provisioning retirement benefits, the ANC updated its recommendation on the rules for measuring and recognizing retirement commitments in November 2021. Pursuant to ANC Regulation 2013-02 of July 13, 2013 as amended on November 5, 2021, the cost of these benefits should be attributed to the final years of service needed for them to vest before retirement age (and no longer recognized over the entire career of the employee).

The amount of the provision for vested retirement benefits was modified in the 2021 financial statements to take account of this interpretation, which represents a change in accounting policy. The amount recognized is not material.

As at December 31, 2021, the discount rate was based on the iBoxx eurozone index (AA-related corporate bonds with a maturity of more than 10 years). This index uses a basket of bonds issued by financial and non-financial companies. Commitments are calculated 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 method 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 0.80% (including inflation);
- inflation rate of 1.75%;
- variable staff turnover rate according to age and category;
- generational mortality table TPGF05/TPGH05.

PROVISIONS FOR IMPAIRMENT OF SHARES EARMARKED FOR EMPLOYEE SHARE AWARDS

Pursuant to CRC Regulation No. 2008-15 dated December 4, 2008 relating to the accounting treatment of stock option and performance share plans for employees, the Company recognizes a provision for a contingent liability as soon as an outflow of resources becomes probable. This provision is measured based on:

- the acquisition cost of the shares or, if they were already owned prior to the date they were allocated to the share award plan, their net carrying amount less the price likely to be paid by the beneficiaries; multiplied by
- the number of shares that are expected to be awarded given the terms of the plan (satisfaction of conditions regarding continuous service and performance) as assessed as at the reporting date.

A provision for contingencies and expenses has been recognized on a pro rata basis at each reporting date since these plans were put in place, in an amount representing the cost of the awards of performance shares to employees, executive management and corporate officers of Vallourec and its subsidiaries.

OTHER PROVISIONS

Provisions have been recognized for all disputes (technical, tax, etc.) at the amount of the estimated probable risk at the reporting date.

Non-recurring income and expenses

In general, non-recurring income and expenses comprise amounts of an extraordinary nature, i.e., those that arise 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 – Net values	12/31/2020	Increases/ Additions	Decreases/ Reversals	12/31/2021	Of which revaluation reserve	Of which related parties
Intangible assets	**414**	**-**		**414**	**-**	**-**
Trademarks	414	-		414	-	-
Property, plant and equipment	**88**	**-**		**88**	**-**	**-**
Land	88	-		88	-	-
Equity interests	**854,429**	**1,000,000**	**454,000**	**2,308,429**	**-**	**-**
Equity interests	3,856,429	1,000,000		4,856,429	-	-
Provision for impairment of equity interests	(3,002,000)	-	454,000	(2,548,000)	-	-
Long-term securities and treasury shares	**-**	**-**		**-**	**-**	**-**
Receivables, loans, other investments	**1,700,230**	**645**		**1,700,875**	**-**	**-**
Loans	1,700,230	645		1,700,875	-	-
Accrued interest	-	-		-	-	-
TOTAL	**2,555,161**	**1,000,645**		**4,009,806**	**-**	**-**

EQUITY INTERESTS

At December 31, 2021, the investment in Vallourec Tubes SAS, which acts as holding company for the Vallourec Group's equity interests, was measured at its equity value, determined on the same basis as used to carry out the impairment tests on its subsidiaries.

The valuation carried out as at December 31, 2021 led to the reversal of €454 million in impairment against Vallourec Tubes.

On December 23, 2021, further to a unilateral decision of the sole shareholder, Vallourec SA decided to increase the share capital of Vallourec Tubes SAS by €1,000 million by way of set-off against its claim (cash advance carried in other receivables in the statement of financial position).

RECEIVABLES, LOANS AND OTHER FINANCIAL FIXED ASSETS

Loans

Vallourec SA arranged a €1.7 billion loan for its subsidiary Vallourec Tubes to finance its long-term requirements. The loan is being repaid at interest of 6.50% and falls due on December 31, 2023.

Other financial assets

Surplus shares not allocated to specific plans were reclassified as non-current financial assets in an amount of €645 thousand as at December 31, 2021.

2. Marketable securities

Marketable securities include:

Mutual and investment funds

	12/31/2020	12/31/2021	Increases (Decreases)	Additions to provisions	Reversals of provisions
Time deposit account	5,005	5,010	5	-	-
Mutual and investment funds	-	-	-	-	-
TOTAL	**5,005**	**5,010**	**5**	**-**	**-**

Vallourec SA centralizes cash in euros and US dollars for its main European companies as well as hedges of its US dollar sales set up with Vallourec Tubes.

Cash is invested in risk-free money market funds. Vallourec SA only enters into financial transactions with leading financial institutions.

Treasury shares

	12/31/2020	Increases	Decreases	12/31/2021
Treasury shares	44	2,200	(1,374)	869
Provision for impairment	-	-	-	-
TOTAL	**44**	**2,200**	**(1,374)**	**869**

Treasury shares recorded in marketable securities are allocated to members of the Group's staff, executive management and corporate officers under performance and free share plans for Vallourec Group employees.

From January 1 to December 31, 2021, Vallourec carried out a buyback of 220,000 shares and transferred 33,416 shares under its free share and performance share plans.

At December 31, 2021, Vallourec holds 187,665 treasury shares, all allocated to cover free performance share plans.

To the best of its knowledge, the Group was not exposed to any other equity risk at the reporting date.

3. Statement of receivables and payables

Total	Gross value	Of which accrued income	Of which related parties	Gross value <1 year	Gross value >1 year
Receivables, loans and other financial fixed assets	**1,700,875**	**-**	**1,700,000**	**-**	**1,700,875**
Operating receivables	**1,107**	**-**	**-**	**1,107**	**-**
Trade and other receivables	963	-	-	963	-
Other operating receivables	144	-	-	144	-
Other receivables	**412,180**	**-**	**406,471**	**412,072**	**108**
Income tax receivables	5,709	-	-	5,601	108
Intercompany cash advance	406,471	-	406,471	406,471	
TOTAL	**2,114,162**	**-**	**2,106,471**	**413,179**	**1,700,983**

Loans allocated during the year: none.

Loans repaid during the year: none.

Receivables under commercial paper: none.

Payables	Gross value	Of which accrued expenses	Of which related parties	<1 year	>1 year	>5 years
Borrowings	**1,306,196**	**20,837**	**-**	**20,837**	**1,023,359**	**262,000**
Non-convertible bonds	1,023,359	-	-	-	1,023,359	-
Convertible bonds	-	-	-	-	-	-
Bank loans and borrowings	20,837	20,837	-	20,837	-	
Other loans and borrowings	262,000	-	-	-	-	262,000
Operating liabilities	**4,568**	**1,033**	**1,066**	**4,441**	**127**	**-**
Trade payables	2,355	651	1,066	2,337	18	-
Tax and social security liabilities	2,213	382	-	2,104	109	-
Other liabilities	**5,961**	**26**	**5,849**	**5,741**	**96**	**124**
Other non-operating liabilities	5,961	26	5,849	5,741	96	124
TOTAL	**1,316,725**	**21,896**	**6,915**	**31,019**	**1,023,582**	**262,124**

BORROWINGS

Bond

(in € millions)	Nominal amount	Maturity	Rate	Amount in statement of financial position as at December 31, 2021
Bond issue – June 2021	1,023	June 2026	8.500%	1,023
TOTAL	**1,023**			**1,023**

The bond was issued on the date of the financial restructuring by way of set-off against a portion of the Restructured Residual Claims.

It specifically includes a change-of-control clause that would trigger the mandatory early redemption of the bond 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 in concert) leading to a downgrade in its credit rating.

In addition, it may be subject to a request for early redemption by the bondholder or Vallourec, as appropriate, should any of the common default scenarios for this type of transaction occur, or when there has been a change in Vallourec's position or in tax regulations.

Bank borrowings

In € millions	Nominal amount	Maturity	Rate	Amount in statement of financial position as at December 31, 2021
State-guaranteed loans – June 2021 [(a)]	262	June 2027	1.837%	262
Committed credit facility – June 2021	462	June 2026	5.000%	
TOTAL	**724**			**262**

(a) State-guaranteed loans with an initial term of June 30, 2022, which can be extended at Vallourec's initiative to June 30, 2027, presented at an effective interest rate of 1.8370%, including the underwriting fee.

A change-of-control at Vallourec could trigger repayment of all or part of its Committed credit facility and its State-guaranteed loans ("the loan"), as decided by each participating banks. The agreements also stipulate 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/or its ability to repay its debt.

Bank covenant

The €462 million committed credit facility includes a covenant stipulating that Vallourec's gearing ratio ("banking covenant") must not exceed 100%. The gearing ratio is defined as the ratio of consolidated net debt (including financial lease debt) to consolidated equity, restated for gains and losses on derivatives and foreign currency translation differences (exchange differences on translating net assets of consolidated foreign subsidiaries).

The adjusted debt covenant ("banking covenant") will be tested on a trailing 12-month basis on December 31 of each year, with the first test scheduled for end-2023.

A breach of the banking covenant could trigger the mandatory early repayment of the credit facility and redemption of the bond.

Liquidity risk

In addition to bank financing, the Group has sought to diversify its funding sources by using market financing. For example, Vallourec SA launched a commercial paper program on October 12, 2011 to meet its short-term needs. The program has a €1 billion ceiling.

As at December 31, 2021, Vallourec SA had no outstanding commercial paper. This commercial paper program has a short-term rating of B from Standard & Poor's.

As at December 31, 2021, Vallourec SA had a committed, undrawn bank credit facility of €462 million, and cash of €412 million (including the cash advance). The Company's available liquid assets therefore totaled €874 million.

4. Bond issue costs

In accordance with the method recommended by the French Accounting Board (*Conseil National de la Comptabilité*), bond issue costs are recognized on a straight-line basis over the life of the bonds concerned.

	12/31/2020	Increase	Decrease	12/31/2021
Bond issue costs	9,348	-	(9,348)	-

All bond issue costs were recognized in financial income (loss) for the year in connection with the financial restructuring.

5. Equity

Changes in equity were as follows:

	Number of shares	Share capital	Net income (loss) for the period	Additional paid-in capital and reserves	Equity
Position as at December 31, 2019	**457,987,760**	**915,976**	**(63,648)**	**3,218,976**	**4,071,304**
Appropriation of 2019 net income (loss)	-	-	63,648	(63,648)	-
Capital increase	(446,538,066)	(915,747)	-	915,747	-
Revaluation reserve	-	-	-	-	-
Dividends paid	-	-	-	-	-
2020 net income (loss)	-	-	(3,093,524)	-	(3,093,524)
Change	(446,538,066)	(915,747)	(3,029,876)	852,099	(3,093,524)
Position as at December 31, 2020	**11,449,694**	**229**	**(3,093,524)**	**4,071,075**	**977,780**
Appropriation of 2020 net income (loss)	-	-	3,093,524	(3,093,524)	-
Restructuring – Capital increase	217,478,734	4,350	-	1,617,886	1,622,236
Change of accounting policy for post-employment benefits – IFRIC 21	-	-	-	11	11
Dividends paid	-	-	-	-	-
2021 net income (loss)	-	-	510,764	-	510,764
Change	217,478,734	4,350	3,604,288	(1,475,627)	2,133,011
POSITION AS AT DECEMBER 31, 2021	**228,928,428**	**4,579**	**510,764**	**2,595,448**	**3,110,791**

At December 31, 2021, Vallourec's share capital comprised 228,928,428 ordinary shares with a nominal value of €0.02 per share, fully paid up, versus 11,449,694 ordinary shares at December 31, 2020. Changes in the Company's share capital over the year are shown below:

In euros, except for share data	Number of shares	Nominal value	Share capital in euros
Share capital at December 31, 2020	11,449,694	0.02	228,994
Capital increase with pre-emptive subscription rights by issuance of new shares	52,954,807	0.02	1,059,096
Reserved capital increase by set-off of claims	164,523,927	0.02	3,290,479
SHARE CAPITAL AT DECEMBER 31, 2021	**228,928,428**	**0.02**	**4,578,569**

On June 30, 2021, Vallourec SA conducted the following corporate actions:

- a capital increase with pre-emptive subscription rights for a gross aggregate amount (including issue premiums) of €299,724,207.62, through the issue of 52,954,807 new shares subscribed and paid up in cash by holders of pre-emptive subscription rights (at €5.66 per share), this amount having been used for the repayment of a portion of the claims of the converting creditors in respect of the Company's bonds and revolving credit facilities;
- a capital increase without shareholders' pre-emptive subscription rights reserved for the converting creditors, for a gross amount (including issue premiums) of €1,330,998,569.43, through the issue of 164,523,927 new shares subscribed by the converting creditors (at €8.09 per share) by way of set-off against a portion of their claims in respect of the Company's bonds and revolving credit facilities.

Equity increased by €2,133 million to €3,111 million as at December 31, 2021, from €978 million as at December 31, 2020.

6. Employee share ownership

SHARE SUBSCRIPTION PLANS

Characteristics of the plans

Vallourec's Management Board authorized share subscription plans from 2010 to 2021 for some of the Group's senior executives, corporate officers and employees.

It should be noted that the characteristics of the 2011 to 2020 plans were revised to take account of the decision of the Chairman of the Management Board on June 30, 2021 to adjust the number and exercise price of the shares in order to protect the rights of the holders following the capital increase of June 30, 2021 (adjustment factor of 0.89929516 applied to the number of options allocated and to the exercise price).

The characteristics of the plans are as follows:

	2011 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan
Allocation date	09/01/2011	09/02/2013	04/15/2014	04/15/2015	05/18/2016
Maturity date	09/01/2015	03/03/2018	04/15/2018	04/15/2019	05/18/2020
Expiration date	09/01/2021	09/01/2021	04/15/2022	04/15/2023	05/18/2024
Exercise price in euros	1,310.81	996.42	832.03	488.14	140.29
Number of options allocated	14,164	27,111	16,977	17,656	15,216

	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Allocation date	05/18/2017	06/15/2018	06/17/2019	06/15/2020	10/13/2021
Maturity date	05/18/2021	06/15/2022	06/17/2023	06/15/2024	10/13/2025
Expiration date	05/18/2025	06/15/2026	06/17/2027	06/15/2030	10/13/2031
Exercise price in euros	216.55	197.84	79.14	33.60	7.26
Number of options allocated	8,135	9,851	9,851	89,462	123,518

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	2020	2021
Options outstanding as at January 1	**137,039**	**143,877**
Options exercised	-	-
Options lapsed	(7,825)	(22,782)
Options canceled	(65,744)	(7,396)
Options distributed	80,407	123,518
Impact of the capital increase on plans awarded prior to 2020	-	17,071
OPTIONS OUTSTANDING AS AT DECEMBER 31	**143,877**	**254,288**
Options available for exercise	41,056	25,607

The reported figures correspond to the number of options, with a performance factor of 1 for plans not yet vested, and to the actual number of shares allocated for plans that had matured.

As at December 31, 2021, the average exercise price was €73.34.

	2020 Plan *	2021 Plan
Share price on the allocation date	€37.72	€7.53
Volatility [b]	32%	35%
Risk-free rate [c]	0.03%	-0.03%
Exercise price	€33.60	€7.26
Dividend rate [d]	3.00%	3.00%
Fair value of the option [a][e]	€9.26	€1.89

(a) *The binomial pricing model has been used to measure the fair value of the options allocated.*

(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 €1.89 for the 2021 plan.*

* *The figures shown for the 2020 plan were revised (i.e., prices multiplied by 0.89929516) to take account of the adjustment factor applied further to the decision of the Chairman of the Management Board on June 30, 2021.*

PERFORMANCE SHARE PLANS

Characteristics of the plans

Vallourec's Management Board authorized performance share plans from 2017 to 2021 for some employees and corporate officers of the Group.

It should be noted that the characteristics of the 2017 to 2020 plans were revised to take account of the decision of the Chairman of the Management Board on June 30, 2021 to adjust the number and exercise price of the shares in order to protect the rights of the holders following the capital increase of June 30, 2021 (adjustment factor of 1.89929156 applied to the number of shares awarded).

The characteristics of these plans are as follows:

Performance share plans	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Allocation date	05/18/2017	06/15/2018	06/17/2019	06/15/2020	10/13/2021
Vesting period	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)	3 years	3 years
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)	None	None
Performance conditions	Yes [(a)]	Yes [(b)]	Yes [(c)]	Yes [(d)]	Yes, only for management *(cadres)* above grade 20 [(e)]
Theoretical number of shares allocated	9,125	39,756	39,595	64,747	289,396

(a) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2017, 2018 and 2019, in comparison with the planned performance in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2017, 2018 and 2019. 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 1.4. For members of the Management Board and the Executive Committee, vesting will depend on the following two criteria: cost reductions in 2017, 2018 and 2019, in comparison with the Group's planned performance in the medium-term plan over the same period, and the increase in the EBITDA margin between 2017 and 2019 compared with a panel of comparable companies. 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 2.

(b) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2018, 2019 and 2020, in comparison with the planned performance in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2018, 2019 and 2020. 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 2. For members of the Management Board and the Executive Committee, vesting will depend on the following two criteria: cost reductions in 2018, 2019 and 2020, in comparison with the Group's planned performance in the medium-term plan over the same period, and the increase in the EBITDA margin between 2018 and 2020 compared with a panel of comparable companies. 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 2.

(c) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2019, 2020 and 2021, in comparison with the planned performance in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2019, 2020 and 2021. 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 2. For members of the Management Board and the Executive Committee, vesting will depend on the following two criteria: cost reductions in 2019, 2020 and 2021, in comparison with the Group's planned performance in the medium-term plan over the same period, and the increase in the EBITDA margin between 2019 and 2021 compared with a panel of comparable companies. 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 2.

(d) For all beneficiaries, it will depend on two absolute internal criteria:

- *Group cost reductions (gross savings as a % of the Y-1 baseline and excluding DCOS) for 2020, 2021 and 2022;*
- *the ratio of carbon emissions from Vallourec's industrial processes and purchases of electricity generated by fossil fuels to sales volumes, in metric tons (emissions of non-biogenic carbon) between 2020 and 2022.*

A further external criterion will be applied: growth in the EBITDA margin between 2020 and 2022 compared to a panel of comparable companies comprising Hunting Plc, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV.

(e) The conditional rights to receive performance shares granted to management (cadres) at grade 20 or below are not subject to any performance conditions. For beneficiaries at grade 21 or above, the award is based on two "absolute" internal criteria:

- *Group cost reductions (gross savings as a % of the Y-1 baseline and excluding DCOS) for 2021, 2022 and 2023;*
- *the ratio of carbon emissions from Vallourec's industrial processes and purchases of electricity generated by fossil fuels to sales volumes, in metric tons (emissions of non-biogenic carbon) between 2021 and 2023.*

A further external criterion will be applied: growth in the EBITDA margin between 2020 and 2022 compared to a panel of comparable companies comprising Hunting Plc, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV.

EMPLOYEE SHARE OWNERSHIP PLANS

Free share plans (not subject to performance conditions)	**Value 16 Plan**	**Value 17 Plan**
Allocation date	12/14/2016	12/14/2017
Vesting period	4.6 years	4.6 years
Theoretical number of shares allocated [a]	158	161

(a) *The figures shown for the 2016 and 2017 plans were revised to take account of the decision of the Chairman of the Management Board on June 30, 2021 to adjust the number and exercise price of the shares in order to protect the rights of the holders following the capital increase of June 30, 2021 (adjustment factor of 1.89929156 applied to the number of shares awarded).*

Change in number of shares

For all of these plans, the change in the number of shares not yet vested is as follows:

In number of shares	**2020**	**2021**
Number of shares not yet vested as at January 1	**64,470**	**78,664**
Shares delivered over the year	(14,451)	(24,923)
Shares canceled	(5,445)	(9,434)
Shares allocated over the year	34,090	289,396
Impact of the capital increase on plans awarded prior to 2020	-	64,961
NUMBER OF SHARES NOT YET VESTED AS AT DECEMBER 31	**78,664**	**398,664**

The reported figures correspond to the number of shares, with a performance factor of 1 for plans not yet vested, and to the actual number of shares allocated for plans that had matured.

Measurement of plans [a]	**2020 Plan [1]**	**2021 Plan**
Share price on the allocation date	€22.08	€7.53
Risk-free rate [b]	-0.52%	-0.44%
Dividend rate [c]	3%	3%
Fair value of the share	€20.15	€6.87
Number of shares allocated	64,747	289,396

(a) *The binomial pricing model has been used to measure the fair value of the shares allocated. The employee benefit corresponds to the fair value of the shares allocated, taking into account the loss of dividend rights 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.*

(1) *The figures shown for the 2020 plan were revised to take account of the division of the nominal value of the shares by 1.89929156, and the subsequent multiplication of the number of shares by 1.89929156, further to the decision of the Chairman of the Management Board on June 30, 2021.*

MANAGEMENT EQUITY PLAN

On October 13, 2021, the Vallourec Group decided to set up a Management Equity Plan ("MEP") for its employees and executive corporate officers.

The MEP plan of October 13, 2021 awards 5,240,288 free shares to employees and executive corporate officers. This free share award comprises 1,618,690 ordinary shares and 3,621,598 preferred shares.

Characteristics of the plan

The characteristics of the plan awarding ordinary shares are as follows:

Valuation of plans	Tranche 1	Tranche 2	Tranche 3	Tranche 4	Tranche 5
Share price on the allocation date	€7.53	€7.53	€7.53	€7.53	€7.53
Vesting date (a)	30% 10/13/2022 70% 10/13/2026	30% 10/13/2023 70% 10/13/2026	30% 10/13/2024 70% 10/13/2026	30% 10/13/2025 70% 10/13/2026	30% 10/13/2026 70% 10/13/2026
Holding period (a)	5 years	5 years	5 years	5 years	5 years
Performance conditions (b)	Yes	Yes	Yes	Yes	Yes
Risk-free rate (c)	-0.51%	-0.48%	-0.44%	-0.39%	-0.33%
Dividend rate (d)	3.00%	3.00%	3.00%	3.00%	3.00%
Fair value of the share (e)	€3.15	€3.39	€3.57	€3.54	€3.63
Number of shares allocated (e)	319,140	319,140	319,140	319,140	319,140

(a) The "legal" vesting period is between one and five years, depending on the tranche. However, if Apollo still holds a minimum of 5% of the capital at the end of this period, the shares are not transferable. For as long as the shares are not transferable, they will only be bought back from the beneficiaries in the event of retirement, death or disability at 30% or less of their market value. Consequently, based on IFRS 2, beneficiaries vest 30% of their shares at the end of the legal vesting period and 70% at the end of the non-transferability period, estimated at five years.

(b) Each tranche will vest only if, on the vesting date, the market price of the Vallourec share is above €8.09.

(c) The risk-free rate used was determined based on the maturity of each of the tranches (French Bond Association [CNO] zero-coupon yield curve at August 31, 2021).

(d) The expected dividend rates were determined based on analysts' expectations (external information) and the Group's dividend policy.

(e) Net of shares cancelled during the year.

The characteristics of the plan awarding performance shares are as follows:

Valuation of plans	Tranche 1	Tranche 2	Tranche 3
Share price on the allocation date	€7.53	€7.53	€7.53
Vesting period (a)	30%: 3.04 years 70%: 5 years	30%: 3.36 years 70%: 5 years	30%: 3.72 years 70%: 5 years
Holding period (a)	5 years	5 years	5 years
Performance conditions (b)	Yes	Yes	Yes
Risk-free rate (c)	-0.33%	-0.33%	-0.33%
Dividend rate (d)	3.00%	3.00%	3.00%
Fair value of the share	€1.78	€1.15	€0.56
Number of shares allocated (e)	1,595,700	1,595,702	384,219

(a) The "legal" vesting period is one year for all tranches. However, if Apollo still holds a minimum of 5% of the capital at the end of a five-year period, the shares are not transferable. For as long as the shares are not transferable, they will only be bought back from the beneficiaries in the event of retirement, death or disability at 30% or less of their market value. Consequently, based on IFRS 2, beneficiaries vest 30% of their shares at the end of the average vesting period (see performance conditions) and 70% at the end of the non-transferability period, estimated at five years.

(b) Tranches 1, 2 and 3 of the performance share award will be convertible into ordinary shares if the volume-weighted average price (VWAP) of the Vallourec share is equal to or above €16.19, €20.22 and €28.32, respectively, for 90 consecutive business days over a period of five years following the financial restructuring. The valuation models show average vesting periods of 3.04 years, 3.36 years and 3.72 years, respectively.

(c) The risk-free rate used was determined based on the maturity of each of the tranches (French Bond Association [CNO] zero-coupon yield curve at August 31, 2021).

(d) The expected dividend rates were determined based on analysts' expectations (external information) and the Group's dividend policy.

(e) Net of shares cancelled during the year.

Change in number of shares

The change in the number of shares not yet vested under the 2021 Management Equity Plan is as follows:

In number of shares	Ordinary shares	Performance shares
Number of shares not yet vested as at January 1, 2021	-	-
Shares delivered over the year	-	-
Shares canceled	(22,990)	(45,977)
Shares allocated over the year	1,618,690	3,621,598
NUMBER OF SHARES NOT YET VESTED AS AT DECEMBER 31, 2021	**1,595,700**	**3,575,621**

7. Provisions for contingencies and expenses

The change in provisions for contingencies and expenses is shown below:

	12/31/2020	Additions	Utilizations	12/31/2021
Provisions for foreign exchange losses	-	1	-	1
Provisions for retirement commitments	235	-	-	235
Provisions for supplementary retirement commitments	630	-	(37)	593
Provisions for performance share expenses	1,200	792	(855)	1,137
Provisions for claims and litigation	-	15	-	15
TOTAL	**2,065**	**808**	**(892)**	**1,981**
• Of which recognized in operating income (loss)	-	808	(892)	-
• Of which recognized in financial income (loss)	-	-	-	-

Provisions are booked for disputes according to the estimated probable risk at each reporting date, in application of CRC Regulation No. 2000-06 on liabilities.

The balance of the provision for expenses relating to performance share plans (2015, 2016, 2017, 2018, 2019, and 2020 plans) totaled €1.1 million.

PROVISIONS FOR RETIREMENT COMMITMENTS

Total retirement commitments, net of plan assets, totaled €0.2 million as at December 31, 2021, compared with €0.2 million as at December 31, 2020.

PROVISIONS FOR SUPPLEMENTARY RETIREMENT COMMITMENTS

Total supplementary retirement commitments, net of plan assets, totaled €0.6 million as at December 31, 2021.

Actuarial losses and past service costs not recognized totaled €0.1 million. Commitments not recognized in the statement of financial position correspond to changes in assumptions or to the failure of assumptions to materialize, the effect of which is amortized over time using the corridor method.

INFORMATION ON INTEREST RATE RISK

Where appropriate, Vallourec SA uses swaps to convert variable-rate interest on its debt into a fixed rate. As at December 31, 2021, Vallourec SA had no variable-rate debt.

INFORMATION ON FOREIGN EXCHANGE RISK

As at December 31, 2021, Vallourec SA was not exposed to foreign exchange risk.

D – Notes to the income statement

1. Operating income (loss)

REVENUE

Revenue of €2.9 million mainly corresponds to the services reinvoiced to the subsidiary Vallourec Tubes (€2.9 million), and to the costs of employee performance share award plans reinvoiced to Group subsidiaries.

OPERATING EXPENSES

Operating expenses of €23.1 million consist mainly of fees, personnel costs, and the impact of free share programs and commissions, loan issue fees and additions to provisions.

2. Financial income and expenses concerning related companies

Financial expenses: none.

Financial income: €112 million.

3. Financial income (loss)

The Company reported financial income of €418 million for the year.

	12/31/2020	12/31/2021
Interest income [(a)]	112,348	112,052
Interest expense	(187,122)	(148,346)
Net interest expense	**(74,774)**	**(36,294)**
Change in provisions for equity interests	(3,002,000)	454,000
Other financial income and expenses	(1)	(77)
FINANCIAL INCOME (LOSS)	**(3,076,775)**	**417,629**

(a) Of which €112.0 million corresponding to interest on loans with Vallourec Tubes SAS.

4. Net non-recurring income or expense

The Company reported non-recurring income of €112 million, consisting of €169 million in proceeds from the waiver of claims by the commercial banks in connection with the debt restructuring, and -€57 million in associated fees, costs and withholding tax.

E – Other information

1. Breakdown of average headcount

The Company employed three people at the end of 2021, including two corporate officers (members of the Management Board).

2. Taxation

TAX CONSOLIDATION

Since January 1, 1988, the Company has been a member of a tax consolidation group formed under the provisions of Article 223A of the French Tax Code.

This agreement has been renewed automatically for five-year periods since 1999.

In 2021, the tax consolidation group comprised Vallourec SA, Vallourec Bearing Tubes, Vallourec Université France, Vallourec Tubes, Vallourec Tubes France, Vallourec Oil and Gas France, Vallourec One, Vallourec Services, Val27 and Val28.

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.

Any income resulting from tax consolidation recorded by Vallourec SA corresponds mainly to the charge to income of the losses generated by Vallourec SA and the tax loss carryforwards recognized by Vallourec SA.

The Vallourec tax consolidation group reported a loss in 2021 and its tax loss carryforwards represented €2,129.6 million at the end of 2021.

Increase and decrease in future tax liabilities

Nature of temporary differences	Amount (base) as at 12/31/2020	Amount (base) as at 12/31/2021
Increase	**628**	**-**
Decrease	**(680)**	**1,312**
Provision for retirement commitments	569	839
Provision for employee share ownership plans	(616)	468
Provision for paid leave	(5)	5
Provision for tax on passenger vehicles	-	-

As at December 31, 2021, the amount of tax loss carryforwards relating to Vallourec SA stood at €146.2 million.

Breakdown of income tax between net income (loss) from recurring operations and non-recurring income (loss)

	Pre-tax income (loss)	Tax due	Net income (loss)
Recurring	398,364	-	398,364
Non-recurring	112,365	-	112,365
Sub-total	**510,729**	**-**	**510,729**
Expense relating to Vallourec (tax credit)	-	(35)	(35)
Income from tax consolidation	-	-	-
TOTAL VALLOUREC	**510,729**	**(35)**	**510,764**

3. Executive compensation

ADMINISTRATIVE BODIES

Attendance fees and other compensation paid to the administrative bodies during the year amounted to €0.9 million.

MANAGEMENT BODIES

This information is not provided as it is not relevant in relation to the assets and liabilities, financial position and earnings of Vallourec SA.

4. Off-balance sheet commitments

Off-balance sheet commitments are as follows:

- retirement benefits: none;
- supplementary retirement benefits: none;
- long-term vehicle leases: €13 thousand.

The Company has not issued any form of collateral against its liabilities.

5. Subsequent events

None.

6. Vallourec subsidiaries and directly-held equity interests as at December 31, 2021

In € thousands Company	Share capital	Other equity before appropriation of net income (loss)	Percentage of capital held (%)	Carrying amount of the securities held Gross	Net	Loans and advances allocated by the Company and not yet repaid	Securities and guarantees given by the Company	Prior-year revenue excludi ng taxes	Prior-year net income (loss)	Dividends received by the Company during the year
A) SUBSIDIARIES AND EQUITY INTERESTS WITH A CARRYING AMOUNT IN EXCESS OF 1% OF VALLOUREC'S CAPITAL										
I. Subsidiaries (at least 50%-owned)										
French company										
Vallourec Tubes 12, rue de la Verrerie 92190 Meudon	622,643	975,557	100%	4,856,429	1,854,429	2,106,459		63,540	229,040	-

7. Five-year financial summary

In euros, except number of shares and number of employees	2017	2018	2019	2020	2021
SHARE CAPITAL					
Share capital	**915,975,520**	**915,975,520**	**915,975,520**	**228,994**	**4,578,569**
Number of ordinary shares in issue	457,987,760	457,987,760	457,987,760	11,449,694	228,928,428
Number of preferred non-voting shares in issue	-	-	-	-	
Maximum number of new shares to be issued:		-			
• via bond conversions	36,284,470	-			
• via exercise of subscription rights	4,013,201	3,674,986	3,180,339	-	
• via bond redemptions	-	-			
Revenue, excluding taxes	5,050,327	2,335,242	5,381,501	2,706,419	2,932,804
Income (loss) before tax, employee profit-sharing, depreciation, amortization, and provisions	(70,741,338)	(70,504,334)	(59,277,273)	(88,504,562)	66,001,676
Income tax	336,751	37,169,694	566,787	56,340	35,360
Employee profit-sharing for the year	-	-	-	-	
Income (loss) after tax, employee profit-sharing, depreciation, amortization, and provisions	(39,056,082)	(34,718,136)	(63,647,530)	(3,093,523,915)	510,763,663
Distributed earnings	**-**	**-**	**-**	**-**	**-**
EARNINGS PER SHARE					
Income (loss) after taxes and employee profit-sharing but before depreciation, amortization and provisions	(0.16)	(0.07)	(0.13)	(7.73)	0.29
Income (loss) after tax, employee profit-sharing, depreciation, amortization, and provisions	(0.09)	(0.08)	(0.14)	(270.18)	2.23
Dividend allotted to each existing share	**-**	**-**	**-**	**-**	
HEADCOUNT					
Average number of employees during the year	5	5	5	4	4
Total payroll costs for the year	2,708,256	2,309,412	2,313,936	1,532,830	2,359,910
Payroll-related costs (social security, employee benefits, etc.)	1,138,027	1,069,659	1,312,316	1,102,907	1,330,544

6.4 Statutory Auditors' Report on the Financial Statements

For the year ended December 31, 2021

This is a free translation into English of the Statutory Auditors' Report on the financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users.

This Statutory Auditors' Report includes information required by European regulations and French law, such as information regarding the appointment of the Statutory Auditors or verification of the management report and other documents provided 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 Annual General Meeting of Vallourec,

Opinion

In compliance with the engagement entrusted to us at your Annual General Shareholders' Meeting, we have audited the accompanying financial statements of Vallourec S.A. (hereafter, "the Company") for the year ended December 31, 2021.

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, 2021 and of the results of its operations for the year then ended in accordance with French generally accepted accounting principles.

The audit opinion expressed above is consistent with our report to the Financial and Audit Committee.

Basis for opinion

Audit framework

We conducted our audit in accordance with the professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (code de commerce) and the French Code of Ethics (code de déontologie) for statutory auditors for the period from January 1, 2021 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) N° 537/2014.

Observation

Without calling into question the opinion expressed above, we draw your attention to the change in the accounting policy relating to the measurement and recognition of pension liabilities, described in the paragraph "Retirement benefits" of Note B "Accounting principles" of the notes to the annual accounts.

Justification of assessments – Key Audit Matters

Due to the global crisis related to the Covid-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, in accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Measurement of equity interests

Notes B "Accounting policies – Equity interests", C.1 "Equity Interest and Receivables, loans, other financial assets" and E.6 "Subsidiaries and equity investments" to the financial statements

Key Audit Matter	Audit Approach
Equity interests on the balance sheet amounted to €2,308 million as at December 31, 2021, and represent the most significant balance sheet item. They correspond to shares in Vallourec Tubes, a sub-holding of the Vallourec Group. Receivables from equity interest amount to €1,700 million. As described in the Note "Equity interests" to the financial statements, the Company recognizes a provision for impairment when the value in use of equity interests falls below their net carrying amount. Similarly, the related receivables are, where applicable, impaired when the risk is greater than the value of the equity interest and when the latter have already been impaired. Value in use is based on expected cash flows, estimated based on the Group's strategic plan for the first five years, extrapolated over the following three years and a terminal value. The evaluation realized as at December 31, 2021 lead to, as indicated in the section "Equity interests" of the C.1 of financial statements, a reversal of €454 million for the period. Cash forecasts used to identify recoverable values are based on available data at the date of the closing of the accounts, in a context of recovery in the Oil and Gas business, particularly in North America. However, difficulties in understanding future prospects persist, particularly in connection with developments related to the economic and financial environment in which the group operates, the impact of climate change or the evolving context of the Covid-19 crisis. In this context, realization could digress these estimations and the variable nature of some estimation could be strengthened. We considered that Vallourec Tubes equity interests' valuation and related receivables is a key audit matter due to its importance in the financial statements assets and the fact that the determination of the value in use of these interests require judgement and estimations calculation from Management to build future cash flow previsions, used to identify its value.	Our work consisted in gaining an understanding of • the process for preparing and approving the estimates and assumptions used by Management to estimate the value in use of Vallourec Tubes equity interests, and • procedures for approving the results by the governance entities, We also assessed the appropriateness of the model used to determine the utility value of these equity interests and related receivables. We obtained the cash flows and operating forecasts for the Vallourec Group prepared by the Company, and verified their consistency with the 2022 budget as approved by the Board of Directors, and with management's estimates as recorded in the business plan. With the assistance of our valuation experts, we assessed, with regards to the Group's internal and external industry and macroeconomic data, the appropriateness of the various underlying assumptions used in preparing cash flow forecasts, including • regional price and volume assumptions, which are dependent on investments in the exploration and production of oil and natural gas, • forecasts of changes in costs taking into account the provisional savings plans, and • exchange rates, growth rates and discount rates. We also assessed the consistency of cash flow forecasts with past performances, market outlook, and forecast data presented to the Company's Supervisory Board. Lastly, we (i) performed our own sensitivity analysis, (ii) verified the arithmetic accuracy of the calculations and (ii) verified that the value resulting from the cash flow forecasts has been adjusted to take the Vallourec Group's net debt into account.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French laws and regulations.

Information provided in the Management Report and in the other documents with respect to the financial position and the financial statements provided to shareholders

We have no matters to report as to the fair presentation and consistency with the financial statements of the information provided in the Management Report and in the other documents with respect to the financial position and the financial statements provided to the Shareholders.

We attest to the fair presentation and consistency with the financial statements of the information relating to payment terms, required under Article D.441-6 of the French Commercial Code.

Report on corporate governance

We attest that the corporate governance section of the Board of Directors' management report sets out the information required by Articles L.225-37-4, L.22-10-10 and L.22-10-9 of the French Commercial Code.

Concerning the information given in accordance with the requirements of Article L.22-10-9 of the French Commercial Code relating to remuneration and benefits paid or awarded to corporate officers 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 the Company from controlled companies within its scope of consolidation. Based on this work, we attest to the accuracy and fair presentation of this information.

Concerning the information given in accordance with the requirements of Article L.22-10-11 of the French Commercial Code relating to those items the Company has deemed liable to have an impact in the event of a takeover bid or exchange offer, we have verified its consistency with the underlying documents that were disclosed to us. Based on this work, we have no matters to report with regard to this information.

Other information

In accordance with French law, we have verified that the required information concerning the identity of shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on other legal and regulatory requirements

Format of presentation of the financial statements intended to be included in the Annual Financial Report

In accordance with professional standards applicable to the Statutory Auditors' procedures for annual and consolidated financial statements presented according to the European single electronic reporting format, we have verified that the presentation of the financial statements to be included in the annual financial report referred to in paragraph I of Article L.451-1-2 of the French Monetary and Financial Code (Code monétaire et financier) and prepared under the Chief Executive Officer's responsibility, complies with this format, as defined by European Delegated Regulation No. 2019/815 of December 17, 2018.

On the basis of our work, we conclude that the presentation of the financial statements to be included in the annual financial report complies, in all material respects, with the European single electronic reporting format.

It is not our responsibility to ensure that the financial statements to be included by the Company in the annual financial report filed with the AMF correspond to those on which we carried out our work.

Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of Vallourec at the Annual General Shareholders' Meeting held on June 1, 2006 for both audit firms.

As at December 31, 2021, KPMG S.A. was in the 16th year of an uninterrupted engagement and Deloitte & Associés in the 20th year of an uninterrupted engagement, given the succession of mandates between legal entities of the Deloitte network.

Responsibilities of Management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Financial and Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems and where applicable, internal audit, regarding accounting and financial reporting procedures.

The financial statements were approved by the Management Board.

Statutory Auditors' responsibilities for the audit of the financial statements

Objectives and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L.823-10-1 of the French Commercial Code, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements;
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit Committee

We submit a report to the Financial and Audit Committee which includes, in particular, a description of the scope of the audit and the audit programme implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Financial and Audit Committee includes the risks of material misstatement that, in our professional judgment, were the most significant in the audit of the financial statements of the current period and which are therefore key audit matters. We describe these matters in this audit report.

We also provide the Financial and Audit Committee with the statement required under Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France as set out in Articles L.822-10 to L.822-14 of the French Commercial Code and the French Code of Ethics applicable to Statutory Auditors. Where appropriate, we discuss with the Financial and Audit Committee the risks that may bear on our independence, and the related safeguards.

Paris-La-Défense, April 13, 2022

The Statutory Auditors

KPMG S.A.	Deloitte & Associés
Alexandra Saastamoinen	Véronique Laurent

chapter 7
CORPORATE GOVERNANCE

7 CORPORATE GOVERNANCE

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7.1 Corporate governance

7.1.1 Governance structure

At Vallourec's Shareholders' Meeting on April 20, 2021, the shareholders approved the change in the Company's governance structure from a two-tier structure consisting of a Supervisory Board and a Management Board to a single-tier structure with a Board of Directors, with effect from July 1, 2021.

7.1.2 Membership and operating procedures of the Board of Directors

7.1.2.1 Membership of the Board of Directors

7.1.2.1.1 POLICY ON THE MEMBERSHIP STRUCTURE OF THE BOARD OF DIRECTORS

The Board of Directors' policy on its membership structure is based on the following four fundamental objectives:

Selection of skilled members

Aware that its overriding quality reflects that of its members, the Board of Directors makes every effort to ensure that it has members who have performed managerial duties with a high-level of expertise and/or who have recognized operational, financial, strategic, international, industrial or legal expertise.

Balanced membership structure based on diversity

Like all of the Company's stakeholders, the Board of Directors is committed to the value-creating process. The Company's directors come from a variety of backgrounds and have diverse experience and skills that reflect the Group's global presence and its various long-term strategic goals.

The balance sought in terms of the Board's membership also takes into account the structure of and changes in the Company's shareholder base, as well as the proportion of men and women directors required under the applicable regulations, and the proportion of independent directors recommended in the AFEP-MEDEF Code.

The diversity and complementary skills and experience of the directors on the Board as at March 31, 2022 can be seen in their profiles and the tables and images below.

As at March 31, 2022, the Board of Directors had four women members: Corine de Bilbao, Angela Minas, Maria Silvia Marques and Hera Siu, representing 50% of the total number of directors (excluding the employee representative directors, in accordance with Article L.225-27-1 of the French Commercial Code *[Code de commerce])*. The Company therefore complies with French Law 2011-103 of January 27, 2011 concerning gender balance on boards of directors and supervisory boards, and equality in the workplace. It also complies with Articles L.225-18-1 and L.22-10-3 of the French Commercial Code which require women to account for at least 40% of the members of a board of directors.

As at March 31, 2022, five nationalities were represented on the Board, reflecting the Group's international presence, particularly in Brazil, the United States, China and Europe.

The Board also includes an employee representative appointed by the Group Committee.

Acting in the best interests of the Company

The Board considers that each member is responsible for looking after the Company's interests and must accomplish their duties objectively and independently, in order to gain and maintain the trust of all the shareholders.

Consequently, as well as ensuring it has independent directors, the Board ensures that it puts forward candidates of integrity for nomination at the Shareholders' Meeting, with strong ethical standards that lead them to act in the best interests of the Company and all of its shareholders and, specifically, avoid conflicts of interest. To that end, each member is required to inform the Board of any actual or potential conflicts of interest, and to refrain from taking part in discussions or voting on any issues at Board meetings with potential conflicts of interest, and to leave the Board meeting if a subject is discussed that places the member in such a situation.

Lean membership structure

Under French law, a Board of Directors can comprise up to 18 members. However, Vallourec's Board deliberately limits the number of its members in order to facilitate a seamless exchange of views and to allow each member to express themselves, thereby encouraging each person's participation and involvement.

7.1.2.1.2 COMMITTEES OF THE BOARD OF DIRECTORS

The Board of Directors is assisted by specialized standing committees, which have an advisory role and provide the Board with preparatory material for certain decisions. These committees issue proposals, make recommendations and provide advice in their respective areas of expertise.

As at March 31, 2022, the Board of Directors had five specialized committees:

- the Audit Committee;
- the Remuneration Committee;
- the Nomination and Governance Committee;
- the Strategic and Finance Committee; and
- the Corporate Social Responsibility (CSR) Committee.

7.1.2.1.3 MEMBERSHIP OF THE BOARD OF DIRECTORS

Board of Directors

MEMBERS OF THE BOARD

Philippe GUILLEMOT ◆
Chairman and Chief Executive Officer

Pierre VAREILLE ◇
Vice-Chairman of the Board and Lead Independent Director
- Chairman of the NG Committee*
- Chairman of the Remuneration Committee

Corine de BILBAO ◇
- Chairman of the CSR Committee
- SF Committee**
- Audit Committee

William de WULF ◆
- Audit Committee
- Remuneration Committee
- SF Committee**
- NG Committee*

Maria Silvia MARQUES ◇
- CSR Committee
- Audit Committee

Angela MINAS ◇
- Chairman of the Audit Committee
- Remuneration Committee
- CSR Committee
- NG Committee*

Hera SIU ◇
- Audit Committee
- CSR Committee

Gareth TURNER ◆
- Chairman of the SF Committee**
- Audit Committee

Guillaume WOLF ◆ ❈
- Remuneration Committee

OBSERVERS

Paul Marchand

Conor J. Sutherland

◇ Independent member ◆ Non-independent member ❈ Employee director

* *NG Committee: Nomination and Governance Committee*

** *SF Committee: Strategic and Finance Committee*

Summary presentation of the Board of Directors

	PERSONAL INFORMATION				EXPERIENCE	POSITION ON THE BOARD				PARTICIPATION ON BOARD COMMITTEES				
	Age	Gender	Nationality	Number of shares	Number of directorships in listed companies*	Independence	Date of first appointment	Term expires	Seniority on the Board *(in years)*	Audit Committee	SF Committee	CSR Committee	Remuneration Committee	NG Committee
DIRECTORS														
Philippe Guillemot	62	♂	French	463,000	2	◆	March 20, 2022	2026 OSM	< 1					
Pierre Vareille	64	♂	French	70,000	3	◇	April 20, 2021	2025 OSM	< 1				●	●
Corine de Bilbao	55	♀	French	500	2	◇	March 21, 2019	2025 OSM	2	○	○	●		
William de Wulf	39	♂	French	500	1	◆	April 20, 2021	2025 OSM	< 1	○	○		○	○
Maria Silvia Marques	65	♀	Brazilian	500	1	◇	July 1, 2021	2023 OSM	< 1	○		○		
Angela Minas	58	♀	Greek-American	2,000	3	◇	July 1, 2021	2022 OSM	< 1	●		○	○	○
Hera Siu	62	♀	Chinese	500	3	◇	July 1, 2021	2022 OSM	< 1	○		○		
Gareth Turner	58	♂	Canadian	500	1	◆	April 20, 2021	2025 OSM	< 1	○	●			
DIRECTOR REPRESENTING EMPLOYEES														
Guillaume Wolf	42	♂	French	12	1	◆	October 14, 2021	2025 OSM	< 1				○	
OBSERVERS														
Paul Marchand	41	♂	British	N/A	1	◆	July 1, 2021	July 1, 2025	< 1					
Conor J. Sutherland	34	♂	American	N/A	1	◆	July 1, 2021	July 1, 2025	< 1					

** Including Vallourec SA.*

● *Chairman*

○ *Members*

◇ *Independent within the meaning of the AFEP-MEDEF Code as assessed by the Board of Directors.*

◆ *Non-independent within the meaning of the AFEP-MEDEF Code as assessed by the Board of Directors.*

NG Committee: Nomination and Governance Committee

SF Committee: Strategic and Finance Committee

CSR Committee: Corporate Social Responsibility Committee

INDEPENDENCE RATE*
62.5%

GENDER EQUALITY**
50%
4 members of the Board are women

DIVERSITY
4 members of the Board are non-French and 5 nationalities are represented on the Board

AVERAGE AGE
56

EMPLOYEE REPRESENTATION
1
1 employee director, appointed by the Group Committee

AVERAGE ATTENDANCE RATE
97.2%

* *In accordance with the AFEP-MEDEF Code, the employee representative director is not included in the calculation.*
** *In accordance with French law, the employee director is not included in the calculation.*

7.1.2.1.4 DIVERSITY AND EXPERTISE OF EACH BOARD MEMBER

	Industry/ Oil & Gas	Executive/ operational management posts held within major groups	International experience	Financial/ audit expertise	Governance of listed companies	Corporate social responsibility
Philippe Guillemot	X	X	X	X	X	
Pierre Vareille	X	X	X	X	X	
Corine de Bilbao	X	X	X		X	X
William de Wulf			X	X		
Maria Silvia Marques	X	X	X	X	X	X
Angela Minas	X	X	X	X	X	X
Hera Siu		X	X	X	X	X
Gareth Turner	X		X	X		
Guillaume Wolf	X					

7.1.2.1.5 CHANGES IN THE BOARD'S MEMBERSHIP STRUCTURE DURING 2021 AND FIRST-QUARTER 2022

Following the change in the Company's governance structure decided at the April 20, 2021 Ordinary and Extraordinary Shareholders' Meeting which took effect on July 1, 2021, the terms of office of the members of the Supervisory Board ended on that date. The profiles of the former members of the Supervisory Board are provided in the 2020 Universal Registration Document (pages 294 *et seq.*).

Five directors were appointed at the April 20, 2021 Shareholders' Meeting with the same effective date as the Company's new governance structure, i.e., July 1, 2021: Édouard Guinotte, Pierre Vareille, Gareth Turner, William de Wulf, and Corine de Bilbao. As previously announced, three independent directors from the former Supervisory Board were appointed on a provisional basis in order to facilitate the transition between the two forms of governance. These directors then stepped down on July 1, 2021 to allow for the Board's appointment of Angela Minas, Maria Silvia Marques and Hera Siu. These appointments by the Board were ratified at the Shareholders' Meeting held on September 7, 2021.

On July 1, 2021, the Board of Directors appointed Paul Marchand and Conor J. Sutherland as Observers.

Lastly, on October 14, 2021, in accordance with the applicable provisions of the law and of the Articles of Association, the Group Committee appointed Guillaume Wolf as director representing employees.

Further to the completion of an external selection process by a special committee of the Board of Directors, the Nomination and Governance Committee has decided to select Philippe Guillemot for the purpose of succeeding Édouard Guinotte as Chairman and Chief Executive Officer of Vallourec. Vallourec's Board of Directors met on March 20, 2022 and appointed Philippe Guillemot for a four-year term, effective immediately.

As at March 31, 2022, the Board of Directors comprised nine members, including five members who the Board has qualified as independent in accordance with the criteria in the AFEP-MEDEF Code, and one employee director.

7.1.2.1.6 PRESENTATION OF THE MEMBERS OF THE BOARD OF DIRECTORS

Mr. PHILIPPE GUILLEMOT

CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Date of birth: May 6, 1959 – French
Date of first appointment: March 20, 2022
Term expires: 2026 OSM
Number of Vallourec shares held: 463,000

Summary of main areas of expertise and experience

- Graduate of Harvard Business School (MBA) and of French engineering school, École des Mines de Nancy
- Chief Executive Officer of Elior Group, one of the world leaders in contract catering and services with front-ranking positions in five countries, where he undertook a root-and-branch overhaul and put the group on a sound financial footing, implemented a value-creation strategy and built a robust organization, which proved decisive in the extremely challenging environment prompted by the Covid-19 crisis (2017-2022)
- Chief Operating Officer at Alcatel-Lucent, where he devised a business recovery and transformation plan and subsequently oversaw Alcatel-Lucent's integration into Nokia (2013-2016)
- Chief Executive Officer and member of the Board of Directors of Europcar (2010-2012)
- Chairman and Chief Executive Officer of Areva Transmission and Distribution (T&D) (2004-2010)
- Member of the executive committees of automotive suppliers Forvia (formerly Faurecia) (2001-2003) and Valeo (1998-2000)
- Held various positions at Michelin (1983-1989 and 1993-1998) where he was appointed to the Executive Committee in 1996
- Chairman and Chief Executive Officer of Vallourec since March 20, 2022

Main positions and roles outside the Company

- Director of Sonoco*

5 MAIN AREAS OF EXPERTISE

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Financial/audit expertise
- Governance of listed companies

OFFICES HELD BY PHILIPPE GUILLEMOT

OFFICES CURRENTLY HELD

- Chairman and Chief Executive Officer of Vallourec SA [(a)]* (since March 20, 2022)
- Director of Sonoco*
- **Chairman of:**
  - Vallourec Tubes SAS [(a)] (since 2022)
  - Vallourec Tubes France SAS [(a)] (since 2022)
  - Vallourec Oil and Gas France SAS [(a)] (since 2022)

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Vallourec Chief Executive Officer of Elior Group (until March 2022)

Philippe Guillemot does not receive any compensation as a corporate officer of Vallourec's direct or indirect subsidiaries.

(a) Offices held in relation to the Vallourec Group.
** Listed company (for offices currently held).*

Mr. PIERRE VAREILLE

VICE-CHAIRMAN OF THE BOARD OF DIRECTORS
LEAD INDEPENDENT DIRECTOR
CHAIRMAN OF THE REMUNERATION COMMITTEE
CHAIRMAN OF THE NOMINATION AND GOVERNANCE COMMITTEE

Date of birth: September 8, 1957 – French
Date of first appointment: April 20, 2021
Term expires: 2025 OSM
Number of Vallourec shares held: 70,000

Summary of main areas of expertise and experience

- Graduate of École Centrale Paris (now CentraleSupélec), SciencesPo Paris, Paris Sorbonne University (Economics), and Institut de Contrôle de Gestion
- Began his career in 1982 at Vallourec, holding various positions in manufacturing, controlling, sales and strategy before being appointed CEO of several subsidiaries
- Chief Executive Officer, then Chairman and Chief Executive Officer of GFI Aerospace (1995-2000)
- Director of the Exhaust Systems business group and member of the Executive Committee at Faurecia (2000-2002)
- Member of the Executive Committee at Pechiney, in charge of the Aluminum Transformation Sector, and Chairman of Pechiney Rhenalu (2002-2004)
- Chief Executive Officer of Wagon PLC, a company listed on the London Stock Exchange (2004-2007)
- Chairman and Chief Executive Officer of FCI (2008-2011)
- Chief Executive Officer of Constellium, a company listed on the New York Stock Exchange (2012-2016)

Main positions and roles outside the Company

- Investor in Internet and Tech companies
- Director of companies
- Co-Chairman of the Vareille Foundation, the main objective of which is to develop the cognitive skills of children from disadvantaged backgrounds through intensive violin lessons as part of the school curriculum

5 MAIN AREAS OF EXPERTISE

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Governance of listed companies
- Financial/audit expertise

OFFICES HELD BY PIERRE VAREILLE

OFFICES CURRENTLY HELD

- Vice-Chairman and Lead Director of Vallourec SA's Board of Directors*
- Director, Chairman of the Strategic Committee and member of the Nomination and Remuneration Committee at Verallia*
- Director and member of the Remuneration Committee at Outokumpu Oyj*

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Chairman of the Board of Directors of Bic SA (until 2021)
- Director of Etex (until 2019)
- Director of Ferroglobe (until 2019)
- Vice-Chairman of the Board of Directors and Lead Independent Director of Bic SA (until 2018)
- Director of Vectra (until 2018)
- Chief Executive Officer of Constellium (until 2016)

* *Listed company (for offices currently held).*

Ms. CORINE DE BILBAO

INDEPENDENT DIRECTOR
CHAIRMAN OF THE CSR COMMITTEE
MEMBER OF THE AUDIT COMMITTEE
MEMBER OF THE STRATEGIC AND FINANCE COMMITTEE

Date of birth: October 16, 1966 – French
Date of first appointment: March 21, 2019
Date of reappointment: 2020 OSM
Term expires: 2024 OSM
Number of Vallourec shares held: 500

Summary of main areas of expertise and experience

- Graduate of Sciences-Po Bordeaux and holder of an MBA in Sourcing and Supply Chain Management from the MAI Institute of Purchasing Management.
- Sourcing Manager and Service Manager GE Medical Systems, medical imaging equipment sector (1989-2000)
- European Sourcing Director at GE Power Gas Turbines (2000-2003)
- Upstream Sales Director at GE Oil & Gas (2003-2008)
- Sales Vice-President, Products at Areva T&D (2008-2010)
- Head of GE Energy Services (2010-2011), General Manager for Europe then, Vice-President of Sales of the Subsea Division of General Electric Oil & Gas (2011-2016)
- Chairman of General Electric (GE) France (2016-2019)
- Vice-President of AmCham, the American Chamber of Commerce in France (2016-2019)
- Chief Executive Officer of Segula Technologies International (2019-2021)

Main positions and roles outside the Company

- President of Microsoft France
- Director of Orpéa*

5 MAIN AREAS OF EXPERTISE

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Governance of listed companies
- Corporate social responsibility

OFFICES HELD BY CORINE DE BILBAO

OFFICES CURRENTLY HELD

- Director of Vallourec SA*
- Director of Orpéa*

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Chief Executive Officer of Segula Technologies International (until 2021)
- Member of the Supervisory Board of Vallourec SA (until June 2021)
- Chairman of General Electric (GE) France (until 2019)
- Chairman of General Electric (GE) Industrial France (until 2019)
- Member of the Supervisory Board of Segula Technologies (until 2019)
- Director of GEAST (GE Alstom nuclear joint venture) (until 2019)
- Vice-President of AmCham, the American Chamber of Commerce in France (until 2019)

* *Listed company (for offices currently held).*

Mr. WILLIAM DE WULF

DIRECTOR
MEMBER OF THE AUDIT COMMITTEE
MEMBER OF THE REMUNERATION COMMITTEE
MEMBER OF THE NOMINATION AND GOVERNANCE COMMITTEE
MEMBER OF THE STRATEGIC AND FINANCE COMMITTEE

Date of birth: October 9, 1982 – French
Date of first appointment: April 20, 2021
Term expires: 2025 OSM
Number of Vallourec shares held: 500

Summary of main areas of expertise and experience

- Graduate of the École Polytechnique (MSc in Applied Mathematics and Economics in 2006), and of Columbia University (MSc in Financial Engineering in 2007)
- Executive Director at Goldman Sachs (2007-2018) in the Special Situations Department (London and New York)
- Joined SVPGlobal in London in 2018, where he is a Managing Director overseeing investments for the European Investment team

Main positions and roles outside the Company

- Managing Director in charge of the European Investment Team at SVPGlobal

2 MAIN AREAS OF EXPERTISE

- International experience
- Financial/audit expertise

OFFICES HELD BY WILLIAM DE WULF

OFFICES CURRENTLY HELD

- Director of Vallourec SA*
- Director of The Vita Group
- Observer on the Board of Swissport International

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Director of Pfleiderer Group (until 2020)

* *Listed company (for offices currently held).*

Ms. MARIA SILVIA MARQUES

INDEPENDENT DIRECTOR
MEMBER OF THE AUDIT COMMITTEE
MEMBER OF THE CSR COMMITTEE

Date of birth: December 27, 1956 – Brazilian
Date of first appointment: July 1, 2021
Term expires: 2023 OSM
Number of Vallourec shares held: 500

Summary of main areas of expertise and experience

- Bachelor's degree in public administration, PhD in Economics from Fundação Getulio Vargas, Rio de Janeiro
- President of Companhia Siderúrgica Nacional (CSN) (1996-2002)
- Associate Director of MS & CR2 (2002-2006)
- President of Icatu Seguros (2006-2011)
- Secretary of Finance for the City of Rio de Janeiro (2011-2014) – Head of Urban Planning for the Rio Olympic Games
- President of the Brazilian National Bank for Economic and Social Development (BNDES) (2016-2017)
- President and Managing Director of Goldman Sachs Brazil (2018-2019)
- Director of companies, including: Vale (1997-2001), Petrobras (1999-2001), Anglo American (2003-2006), Marsh McLennan (2015-2016)

Main positions and roles outside the Company

- Director of companies

6 MAIN AREAS OF EXPERTISE

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Financial/ audit expertise
- Governance of listed companies
- Corporate social responsibility

OFFICES HELD BY MARIA SILVIA MARQUES

OFFICES CURRENTLY HELD

- Director of Vallourec SA*
- Director of Igua Saneamento
- Director of Grupo Cataratas

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Chairman and Chief Executive Officer of Goldman Sachs Brasil (until 2019)

* *Listed company (for offices currently held).*

Ms. ANGELA MINAS

INDEPENDENT DIRECTOR
CHAIRMAN OF THE AUDIT COMMITTEE
MEMBER OF THE REMUNERATION COMMITTEE
MEMBER OF THE NOMINATION AND GOVERNANCE COMMITTEE
MEMBER OF THE CSR COMMITTEE

Date of birth: March 23, 1964 – Greek-American
Date of first appointment: July 1, 2021
Term expires: 2022 OSM
Number of Vallourec shares held: 2000

Summary of main areas of expertise and experience

- Master of Business Administration (majoring in Finance and Accounting) from Rice University
- Consultant at Sterling Consulting Group (1986-1992), and Partner at Arthur Andersen LLP (1997-2022) in charge of the Oil & Gas sector for North America
- Senior Vice President of Science Applications International Corp. (2002-2006)
- Chief Financial Officer, Chief Accounting Officer and Treasurer of Constellation Energy Partners (2006-2008)
- Vice President and Chief Financial Officer of DCP Midstream Partners (2008-2012)
- Vice President and Chief Financial Officer of Nemaha Oil & Gas (2013-2014)
- Independent director of companies and Audit Committees chair including Ciner Resources (2013-2018), Weatherford International (2018-2019), CNX Midstream (2014-2020), Westlake Chemical Partners, and Crestwood Equity Partners LP
- Member of the Council of Overseers of the Rice University Graduate Business School

Main positions and roles outside the Company

- Director of companies

6 **MAIN AREAS OF EXPERTISE**

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Financial/audit expertise
- Governance of listed companies
- Corporate social responsibility

OFFICES HELD BY ANGELA MINAS

OFFICES CURRENTLY HELD

- Director of Vallourec SA*
- Director, member of the Audit Committee and the Conflicts Committee, Westlake Chemical Partners*
- Director, chair of the Audit Committee and member of the Compensation Committee of Crestwood Equity Partners LP*

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Director of CNX Midstream (until 2020)
- Director of Weatherford International (until 2019)
- Director of Ciner Resources (until 2018)

* *Listed company (for offices currently held).*

Ms. HERA SIU

INDEPENDENT DIRECTOR
MEMBER OF THE AUDIT COMMITTEE
MEMBER OF THE CSR COMMITTEE

Date of birth: September 16, 1959 – Chinese
Date of first appointment: July 1, 2021
Term expires: 2022 OSM
Number of Vallourec shares held: 500

Summary of main areas of expertise and experience

- Master of Business Administration and Bachelor of Science in Finance from the University of Nevada, Reno
- Marketing Specialist at Northern Telecom in the United States (1988-1992)
- Managing Director at Hong Kong Telecom (1994-2000)
- Vice President in charge of China at Computer Associates (2001-2005)
- Vice President and General Manager at Nokia in China (2005-2010)
- Senior Vice President of APAC e-commerce at SAP (2010-2014)
- Senior Vice President and Managing Director, China at Pearson (2014-2016)
- Managing Director, China at Cisco Systems (2016-2020)

Main positions and roles outside the Company

- Director of companies
- Co-founder of B&H Consulting Ltd, based in Beijing, China

5 MAIN AREAS OF EXPERTISE

- Executive/operational management posts held within major groups
- International experience
- Financial/audit expertise
- Governance of listed companies
- Corporate social responsibility

OFFICES HELD BY HERA SIU

OFFICES CURRENTLY HELD

- Director of Vallourec SA*
- Director, member of the Finance Committee and the Committee on Corporate Responsibility and Compliance of Goodyear Tires & Rubber*
- Member of the Supervisory Board of TeamViewer AG*

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Director of AInnovation (until 2021)

* *Listed company (for offices currently held).*

Mr. GARETH TURNER

DIRECTOR
CHAIRMAN OF THE STRATEGIC AND FINANCE COMMITTEE
MEMBER OF THE AUDIT COMMITTEE

Date of birth: February 11, 1964 – Canadian
Date of first appointment: April 20, 2021
Term expires: 2025 OSM
Number of Vallourec shares held: 500

Summary of main areas of expertise and experience

- Master of Business Administration with Distinction (1991) from the University of Western Ontario, and Bachelor's degree from the University of Toronto (1986)
- Employed at RBC Dominion Securities (1986-1989), Salomon Brothers (1991-1992) and Lehman Brothers (1992-1997)
- Managing Director of Goldman Sachs, based in London, in the Industrial and Natural Resources investment banking group (1997-2005)
- Director of Ceva, Phoenix Services, Warrior Met Coal, Constellium, Monier and Noranda Aluminum
- Senior partner of Apollo Global Management, based in New York, where he oversees the firm's investments in the Metals and Mining Industry

Main positions and roles outside the Company

- Senior partner at Apollo Global Management, New York

3 MAIN AREAS OF EXPERTISE

- International experience
- Financial/audit expertise
- Industry/Oil & Gas

OFFICES HELD BY GARETH TURNER

OFFICES CURRENTLY HELD

- Director of Vallourec SA*
- Director of Phoenix Services

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- Chairman of the Finance Committee and member of the Compensation Committee of Warrior Met Coal (until November 2021)

* *Listed company (for offices currently held).*

Mr. GUILLAUME WOLF

DIRECTOR REPRESENTING EMPLOYEES
MEMBER OF THE REMUNERATION COMMITTEE

Date of birth: March 15, 1979 – French
Date of first appointment: October 14, 2021
Term expires: 2025 OSM
Number of Vallourec shares held: 12

Summary of main areas of expertise and experience

- Graduate engineer of École polytechnique universitaire de Lille in embedded systems, majoring in microelectronics
- Hardware engineer in charge of developing consumer electronics and Radio Frequency Identification (RFID) products in several French companies
- Joined Vallourec in 2013 as an R&D project manager, in charge of:
  - Non-Destructive Testing at the Aulnoye-Aymeries research center
  - The traceability/digital project for the Group's innovation team
  - Developing digital solutions as Product Owner at Smartengo's Digital Booster, from its creation in 2019

Main positions and roles outside the Company

- None

1 MAIN AREAS OF EXPERTISE

Industry/Oil & Gas

OFFICES HELD BY GUILLAUME WOLF

OFFICES CURRENTLY HELD

- Director of Vallourec SA*

OFFICES THAT HAVE EXPIRED IN THE LAST FIVE YEARS

- None

* *Listed company (for offices currently held).*

Observers

Mr. PAUL MARCHAND

OBSERVER

Date of birth: October 18, 1980 – British
Date of first appointment: July 1, 2021

Summary of main areas of expertise and experience

- Graduate of St. Catharine's College, Cambridge University where he studied Manufacturing Engineering
- Began his career at Bain & Company
- Senior Professional in the Portfolio and Operations Group at Bain Capital Private Equity, where he drove transformation and operational improvement at portfolio companies across a number of sectors including manufacturing, software, business services, and retail
- Member of SVPGlobal European investment team, and a senior operating partner

Main positions and roles outside the Company

- Managing Director at SVPGlobal – European investment team
- Director of Dolphin International AG
- Director of Swissport International AG
- Director of Auto-Estradas do Douro Litoral SA

Mr. CONOR J. SUTHERLAND

OBSERVER

Date of birth: September 11, 1987 – American
Date of first appointment: July 1, 2021

Summary of main areas of expertise and experience

- Graduated *magna cum laude* from Princeton University with an A.B. in Economics and a Certificate in Finance
- Member of the investment banking group at Moelis & Company
- Joined Apollo Global Management in 2012 as Partner, Private Equity

Main positions and roles outside the Company

- Principal, Private Equity, Apollo Global Management
- Director of Phoenix Services
- Director of Qdoba Restaurant Corporation

Members of the Board of Directors whose terms of office expired in 2022

Mr. ÉDOUARD GUINOTTE

Date of birth: December 10, 1970 – French
Date of first appointment: April 20, 2021
Term expired: March 25, 2022
Vallourec shares held: 108,346 (as at March 20, 2022)

Summary of main areas of expertise and experience

- Graduate of the École des Mines de Paris and the INSEAD Management Program
- Joined Vallourec in 1995, where he has spent his entire career to date:
  - Head of logistics and production at Vallourec Composants Automobile (1995-1998)
  - Group Controller, then Director of an operating entity in Mexico for three years (1998- 2003)
  - Marketing Director in the Automotive Division (2004-2007)
  - Strategy and Development Director of the Group's Oil & Gas business (2007-2011)
  - President of Vallourec USA, based in Houston, then Vice-President of the Group in charge of Trade and Development OCTG in the Eastern Hemisphere region (2011-2017)
  - Senior Vice-President and member of the Group Executive Committee in charge of the Middle East and Asia (2017-2020)
- Chairman of the Management Board of Vallourec (2020-2021)
- Chairman and Chief Executive Officer of Vallourec (from July 1, 2021 to March 20, 2022)

4 **MAIN AREAS OF EXPERTISE**

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Governance of listed companies

OFFICES HELD BY ÉDOUARD GUINOTTE

OFFICES CURRENTLY HELD

- None

POSITIONS EXPIRED WITHIN THE LAST FIVE YEARS

- **Chairman and Chief Executive Officer of:**
  - Vallourec SA (until March 20, 2022)
- **Chairman of the Management Board of:**
  - Vallourec SA (until June 2021)
- **Chairman of the Board of Directors of:**
  - Vallourec Soluções Tubulares do Brasil SA [(1)(a)] (until July 2021)
- **Chairman of:**
  - Vallourec Tubes SAS [(a)] (until March 20, 2022)
  - Vallourec Tubes France SAS [(a)] (until March 20, 2022)
  - Vallourec Oil and Gas France SAS [(a)] (until March 20, 2022)
- **Director of:**
  - Vallourec SA (until March 25, 2022)
  - Vallourec Services SA [(a)] (until December 2021)
  - Vallourec Al Qahtani LLC [(a)] (until 2020)
  - Vallourec (China) Co. Ltd. [(a)] (until 2020)
  - Vallourec Middle East FZE [(a)] (until 2020)
  - Vallourec Tianda (Anhui) Co. Ltd. [(a)] (until 2020)
  - Vallourec Oil & Gas (China) Co., Ltd. [(a)] (until 2020)
  - Vallourec Saudi Arabia LLC [(a)] (until 2020)
  - VAM (Changzhou) Oil & Gas Premium Equipment Co. Ltd. [(2)(a)] (until 2020)
  - VAM Holding Hong Kong [(3)(a)] (until 2019)
  - VAM Field Services (Beijing) Co Ltd. [(4)(a)] (until 2019)
- **Commissioner of:**
  - PT Citra Tubindo Tbk (until 2020)

Édouard Guinotte did not receive any remuneration as a corporate officer of Vallourec's direct or indirect subsidiaries.

(a) Positions held in relation to the Vallourec Group.
(1) The Board of Directors of Vallourec Soluções Tubulares do Brasil SA was dissolved in July 2021.
(2) Dissolved following its merger with Vallourec Tianda (Anhui) Co., Ltd.
(3) Liquidated in October 2019.
(4) Liquidated on December 13, 2019.

7.1.2.2 Operating procedures of the Board of Directors

7.1.2.2.1 DUTIES OF THE BOARD OF DIRECTORS

The members of the Board of Directors are appointed by the Shareholders' Meeting to which the Board reports, in accordance with the applicable laws and regulations.

The Board determines the orientations of the operations of the Company and ensures that they are implemented in compliance with the corporate interest of the Company, taking into consideration the environmental and social issues related to the Company's activity. In all circumstances, it acts in the corporate interests of the Company, seeking to promote long-term value creation

For the purpose of performing its duties, the Board has the following rights, powers and obligations:

(i) to be kept informed of any important event affecting the affairs of the Company, and more generally of trends in the markets, in the competitive environment, and the main challenges faced by the Company, including its social and environmental responsibilities;

(ii) to determine the strategic orientations of the Company and its subsidiaries (the "**Group**") after consulting with and taking into consideration the advice, proposals, recommendations and opinions (if any) from the Strategic and Finance Committee;

(iii) to appoint and dismiss the Chairman, Chief Executive Officer and, as the case may be, any Deputy Chief Executive Officer(s) of the Company that would be appointed or dismissed (upon the Chief Executive Officer's proposal);

(iv) to decide on the separation or combination of the roles of Chairman and Chief Executive Officer;

(v) to establish any Committee and assess the appropriateness of establishing other special Committees on a permanent or temporary basis; to determine the composition of such Committees with regard to the issues they will examine, and ensure they function properly;

(vi) to examine on a regular basis, consistently with the strategy determined by the Board and, taking into consideration the advice, proposals, recommendations and opinions (if any) of the Committees, the opportunities and risks (in particular of a financial, legal, operational, social or environmental nature) to which the Group is exposed, and the measures taken in response;

(vii) to ensure that the necessary mechanisms are in place to prevent and detect corruption and influence peddling, and obtain all necessary information to that effect;

(viii) to set the remuneration of the Chairman and Chief Executive Officer, Deputy Chief Executive Officer(s), as the case may be, and directors, after consulting with and taking into consideration the advice, proposals, recommendations and opinions (if any) from the Remuneration Committee;

(ix) to determine, upon the Chairman and Chief Executive Officer's proposal, and taking into consideration the advice, proposals, recommendations and opinions (if any) of the Nomination and Governance Committee and the CSR Committee, targets in terms of gender balance in the Group's management bodies and ensure that the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s), implement an overall non-discrimination and diversity policy within the Group;

(x) to exercise control over the way the Company is managed and oversee the quality of information provided to the public including establishing the Company's financial communication policy;

(xi) to be kept regularly informed of the financial position, cash position and commitments of the Group by the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s); and

(xii) to convene shareholders' meetings, and determine their agenda.

The prior authorization of the Board is required in the cases provided for by law, in particular for (i) sureties, endorsements and guarantees, it being understood that the Board may delegate authority to the Chairman and Chief Executive Officer to grant such sureties, endorsements and guarantees in accordance with applicable laws, and (ii) the related party transactions referred to in Article L.225-38 *et seq.* of the French Commercial Code. The Board regularly assesses whether the agreements relating to routine transactions and entered into at arm's length conditions meet these conditions.

For the purpose of the Company's internal organization, certain decisions listed in the Board of Directors' Internal Rules must also be approved by the Board before they are implemented by the Chief Executive Officer and/or Executive Management (see section 7.1.3.1.3 "Restrictions on the Chief Executive Officer's powers set by the Board of Directors").

7.1.2.2.2 ORGANIZATION OF THE BOARD OF DIRECTORS

The Board holds at least five meetings per year and decides on the frequency and timing of its meetings. 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 Chairman of the Board of Directors sets the agenda of each Board meeting after consultation with the Vice-Chairman. Each meeting is confirmed on average one week in advance through a notice of meeting, along with the agenda and, except in certain cases, a file containing all the supporting documents relating to the items on the agenda. This information is sent via a secure platform, which only members of the Board can access, using individual personal logins. Where necessary, the Board of Directors draws on preliminary work carried out by the Committees.

All oral discussions and written materials, documents and/or communication, of any kind, are in English (except for statutory documentation which shall be in French).

Members of the Board may take part in Board discussions via video conferencing or via telecommunication systems, except where such means are prohibited by law or regulation (i.e., under currently applicable laws and regulations, for the approval of the parent company and consolidated financial statements, parent company management report and group management report). Such members shall be deemed to be present for the purposes of calculating the quorum and the majority.

The Board may only make decisions if at least half of its members are present or deemed to be present, without regard to represented members. Decisions are taken by a simple majority vote, apart from decisions for which the Board's Internal Rules provide for a qualified majority (see section 7.1.3.1.3 below, "Restrictions on the Chief Executive Officer's powers set by the Board of Directors"). The Board's Internal Rules set out the procedure to follow in the event of a tied vote for a decision subject to a simple majority (i.e., the same number of votes for and against the decision).

Meetings are chaired by the Chairman of the Board (or in his absence by the Vice-Chairman), who ensures that everyone has the opportunity to express their opinion on important matters. Any conflicts of interest are handled in accordance with the principles described in section 7.4.3 ("Management of conflicts of interest") of this Universal Registration Document.

The Company's Statutory Auditors attend the Board meetings at which the annual and half-year financial statements are reviewed.

The Deputy Chief Executive Officer(s), as the case may be, are invited to all Board of Directors' meetings.

In accordance with Article 10.4 of the Company's Articles of Association, the Board has the power to take certain decisions by written consultation, by electronic mail and/or via the Board's remote communication system, such as:

(i) the provisional appointment of members of the Board in the event of a vacancy on the Board as a result of death or resignation;

(ii) the authorization of sureties, endorsements and guarantees given by the Company; and

(iii) the transfer of the registered office in the same département;

and, more generally, any decision falling within the Board's own powers expressly referred to by the law or regulations in force, as being able to be made through written consultation.

7.1.2.2.3 ROLE OF THE LEAD INDEPENDENT DIRECTOR: GUARANTEEING A BALANCED GOVERNANCE STRUCTURE

The Board of Directors pays particular attention to the balance of powers. With this in mind, the Board's Internal Rules provide for the appointment of a Lead Independent Director.

Therefore on July 1, 2021, the Board of Directors appointed Pierre Vareille, an independent director, as Vice-Chairman of the Board and Lead Independent Director.

The Lead Director's roles and responsibilities are as follows:

- the Lead Independent Director ensures that there are no conflicts of interest between directors;
- he/she ensures compliance with the Company's corporate governance rules and the Board's Internal Rules;
- he/she ensures that the members of the Board are in a position to perform their duties under the best possible conditions;
- In the exercise of his/her duties, he/she has the authority to communicate with the shareholders;
- he/she can communicate with the Company's shareholders by organizing formal meetings to listen to their questions and suggestions;
- the Lead Independent Director maintains a regular open dialogue with each Board member and, if necessary, may act as a spokesperson for any request and suggestion made to the Chairman and Chief Executive Officer;
- he/she is in regular contact with the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) and will ensure that any relevant information is reported to the Board;
- he/she reports on the execution of his/her duties to the Board on a semi-annual basis;
- he/she may also convene Board sessions without the presence of the executive corporate officers;
- he/she may attend and participate in any Committee meeting, including Committees of which he/she is not a member.

In 2021, Pierre Vareille's duties as Lead Independent Director included:

- holding regular discussions with the Chairman and Chief Executive Officer and the Executive Management teams about the governance and organization of the Board and relaying comments and remarks made by the directors;
- regularly organizing meetings with the directors in the absence of members of Executive Management, and notably chairing a meeting reserved for independent directors;
- participating in Committee meetings of which he is not a member.

7.1.2.2.4 BOARD OF DIRECTORS' INTERNAL RULES

The Board of Directors has adopted, and regularly updates, a set of Internal Rules, which are a formal documentation of the Board's operating and organizational rules, and its work methods. These Internal Rules are strictly intended for the Company's internal use and are not intended to and do not replace its Articles of Association or the laws and regulations governing commercial companies. They may be amended or added to at any time by way of a decision made by the Board of Directors. They are regularly revised to ensure that their terms are consistent with any new legal and regulatory provisions.

In accordance with their ethical obligations, each member of the Board of Directors is required to:

- familiarize themselves with their general or specific duties prior to assuming their role, including relevant laws and regulations, the Articles of Association of the Company, the recommendations of the AFEP-MEDEF Code which may be supplemented by the Board, as well as the Board's Internal Rules;
- participate, unless specifically prevented from doing so, in Board meetings and, as appropriate, the Committee(s) they sit on as well as shareholders' meetings;
- keep themselves abreast of affairs. To that end, they must request the requisite information to effectively contribute to the items included on the Board's agenda and, as appropriate, the Committee(s) they sit on;
- comply with the legal and regulatory obligations attached to his/her office, and in particular, comply with the law and the recommendations of the AFEP-MEDEF Code on holding multiple directorships;
- conduct themselves as a representative of all shareholders and act in the Company's best interests at all times;
- notify the Board, in the event of any actual or potential conflict of interest situation, and refrain from attending the debates or participating in the vote whenever it discusses a matter that would place them in such a conflict of interest situation.
- be a Company shareholder in a personal capacity for the duration of their term of office, holding a minimum of 500 Vallourec shares throughout the entire term of their office, as specified in the Company's Articles of Association and the Board's Internal Rules [(1)];

(1) *Directors must hold at least 50 Vallourec shares within three months of their appointment. The 450 additional shares must be acquired by December 31 of the year following the year they take up office, in order to allow them to purchase shares using their attendance fees. These provisions do not apply to Board members representing employees or employee shareholders.*

- concerning the confidential information obtained in the course of their duties, consider themselves a person discharging managerial responsibilities within the meaning of market abuse regulation (EU) 516/2014 dated April 16, 2014 and as such to respect in particular the closed periods (*fenêtres negatives*) set by the Company during which such persons may not purchase, sell or take positions in the Company's shares or in any other stock market instrument associated with the Company's shares (options, warrants, etc.), i.e., in the thirty calendar days prior to the publications of annual and half-yearly results, and fifteen calendar days prior to the publications of first- and third-quarter financial releases, as well as on the day of these publications, and the following day, without prejudice to the legal and regulatory provisions in force on "insider" trading;
- consider themselves bound by a strict duty of confidentiality in relation to any non-public information, whatever the format (written or oral), gathered as part of their duties;
- declare, under the conditions set forth by legal and regulatory provisions, to the French financial markets authority (*Autorité des marchés financiers* – AMF) and to the Company, the transactions carried out in financial instruments issued by the Company;
- comply with the "Code of Good Practice on Transactions in Vallourec Shares and Insider Trading";
- comply with the ethical rules set out in Article 19 of the AFEP-MEDEF Code.

When they are first appointed, the members of the Board of Directors receive a guide containing a set of documents related to the Group's governance (the Company's Articles of Association, the Board's Internal Rules, the AFEP-MEDEF Corporate Governance Code, the Code of Good Practice, etc.) and its activities. At the request of Board 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, industry sector and organization. If the members so request, the Group may also organize in-house and external training sessions specific to the duties they are required to carry out on the Board. In-house training is provided by the Group General Counsel. It is supplemented by external training provided by an independent organization specialized in training company directors.

The directors are able to meet with the Group's top executives, including in meetings where Executive Management is not in attendance. In the latter case, Executive Management must be informed in advance.

7.1.2.2.5 ORGANIZATION STRUCTURE OF THE BOARD COMMITTEES

Each Committee has a set of Internal Rules, which specify the roles, membership structure, and operating rules of the Committee. The Board Internal Rules are strictly internal in scope and do not have the purpose or effect of substituting the Articles of Association or laws and rules governing commercial companies.

For each meeting, a preparatory file is sent to Committee members a few days in advance. All presentations at Committee meetings are given by the senior executive specialized in the topic concerned and are followed by discussion and debate. A report of the meetings is drawn up for the members of the Board.

In order to perform their duties, the Committees may carry out any research or analyses they deem appropriate, or may commission any such research or analyses from external specialists, in which case the related fees are charged to the Board of Directors' operating budget. The Committees may also invite any external persons of their choice to their meetings. Where a Committee uses the services of external consultants, it must ensure that the consultants concerned are independent, objective and have the required skills.

7.1.2.2.6 INDEPENDENCE OF MEMBERS OF THE BOARD OF DIRECTORS

The annual review of the independence of directors was conducted by the Board on January 11, 2022, based on the recommendations of the Nomination, Remuneration and Governance Committee. The Board took into account all of the criteria set out in the AFEP-MEDEF Code when assessing the independence of its members, namely:

Criterion 1: Employee, corporate officer or director in the past five years

Not to be and not to have been during the course of the previous five years, (i) an employee or executive corporate officer of the Company, or (ii) an employee, executive corporate officer or director of an entity that the Company consolidates.

Criterion 2: Cross-directorships

Not to be an executive corporate officer of an entity in which the Company holds a directorship, directly or indirectly, or in which an employee appointed as such, or an executive corporate officer of the Company (currently in office or having held such office during the last five years), is a director.

Criterion 3: Significant business relationships

Not to be a customer, supplier, commercial banker, investment banker, or consultant (or be directly or indirectly linked to such persons or entities):

- that is material to the Company or its Group; or
- for which the Company or its Group represents a significant portion of business.

Criterion 4: Family ties

Not to be related by close family ties to a corporate officer.

Criterion 5: Statutory Auditors

Not to have been a Statutory Auditor of the Company within the previous five years.

Criterion 6: Period of office exceeding 12 years

Not to have been a director of the Company for more than twelve years (loss of the status of independent director occurs on the date on which the twelve-year threshold is reached).

Criterion 7: Non-executive director status

A non-executive director cannot be considered independent if he or she receives variable remuneration in cash or in the form of shares or any other remuneration linked to the performance of the Company or Group.

Criterion 8: Major shareholder status

Members representing major shareholders of the Company or its parent company may be considered as being independent, provided that these shareholders do not take part in control of the Company. Nevertheless, beyond a 10% holding of stock or 10% of the voting rights, the Board, upon a report from the Nomination and Governance Committee, should systematically review the qualification of a director as independent in the light of the make-up of the corporation's capital and the existence of a potential conflict of interest.

The Board of Directors conducted a thorough review and reached the following conclusions:

- The Chairman and Chief Executive Officer could not be considered an independent director;
- Gareth Turner, Senior Partner in Apollo Management, a major shareholder owning 28.5% of the Company's capital and voting rights as at December 31, 2021, could not be considered an independent director;
- William de Wulf, Managing Director at SVPGlobal, a major shareholder owning 12.3% of the Company's capital and voting rights as at December 31, 2021, could not be considered an independent director;
- the situation of Pierre Vareille, a director whose appointment was put forward by Apollo, was analyzed in depth by an independent law firm in March 2021. Pierre Vareille had been formerly put forward by Apollo as a corporate officer of Constellium and Verallia, companies in which Apollo held a minority or controlling interest. However, he is not bound by any contract or agreement with Apollo. Based on this study and in accordance with its findings, the Supervisory Board decided that Pierre Vareille could be considered as an independent director. The Board of Directors has confirmed that Pierre Vareille qualifies as an independent director;
- Guillaume Wolf, an employee director, has been an employee of the Vallourec Group since 2013 and should therefore be considered as a non-independent director based on the criteria in the AFEP-MEDEF Code. The Board of Directors nevertheless noted that the AFEP-MEDEF Code excludes employee directors from the analysis of independent members, and therefore did not include Guillaume Wolf when calculating the proportion of independent members on the Board.

The business relationships between (i) the companies (outside the Vallourec Group) in which the other Board members hold offices, and (ii) the Group, were not deemed to be significant, both in terms of the quantitative amounts involved as they represent less than 1% of the Group's overall revenue, and in qualitative terms regarding the continuity, importance, and organization of the relationship.

On the basis of these conclusions, at the publication date of this Universal Registration Document, the proportion of independent directors – as calculated in accordance with the AFEP-MEDEF Code – was 62.5%.

Criteria (1)	1: Employee, corporate officer or director within the past five years	2: Cross-directorships	3: Significant business relationships	4: Family ties	5: Statutory Auditor	6: Period of office exceeding 12 years	7: Non-executive director status	8: Major shareholder status
Philippe Guillemot	●	○	○	○	○	○	○	○
Pierre Vareille	○	○	○	○	○	○	○	○
Corine de Bilbao	○	○	○	○	○	○	○	○
William de Wulf	○	○	○	○	○	○	○	●
Maria Silvia Marques	○	○	○	○	○	○	○	○
Angela Minas	○	○	○	○	○	○	○	○
Hera Siu	○	○	○	○	○	○	○	○
Gareth Turner	○	○	○	○	○	○	○	●
Guillaume Wolf	●	○	○	○	○	○	○	○

(1) *In this table,* ○ *signifies that the independence criterion has been met and* ● *signifies that it has not been met.*

7.1.2.2.7 ACTIVITY OF THE BOARD AND COMMITTEES IN 2021

Activity of the Board (Supervisory Board/Board of Directors)

The Supervisory Board met seven times in 2021, and following the new governance structure that took effect on July 1, 2021, the Board of Directors met four times.

In view of the unprecedented situation caused by the Covid-19 pandemic, most of these meetings were held by videoconference. The average duration of the ordinary meetings was approximately three hours.

The work of the Supervisory Board, and subsequently the Board of Directors, concerning the Group's business activity primarily related to:

- a review of the annual, half-year and quarterly financial statements, and the budget;
- negotiations with creditors and preparation of the Company's financial restructuring;
- adaptation measures, particularly the launch of the asset disposal process in Germany;
- strategic projects;
- safety developments at the Group's plants;
- market and competition trends;
- risk mapping;
- the system for preventing and detecting corruption and influence peddling;
- share buybacks;
- the carbon policy;
- the Group's audit and internal control policy;
- the Group's Corporate Social Responsibility goals.

In regards to the governance plan, the Board tackled the following issues in particular:

- the change in the Company's governance structure;
- the membership structure of the Board of Directors and its Committees;
- the independence of the members of the Board of Directors;
- corporate officers' remuneration, with the introduction of a new remuneration policy for directors and a new share-based compensation system for executive corporate officers;
- compliance of the Group's governance with the recommendations of the AFEP-MEDEF Code;
- the policy and action plans on gender equality and improving the gender balance in the Group's management bodies.

Succession plan of the Board of Directors

Assisted by the Nomination and Governance Committee, the Board of Directors helps prepare for the future by drawing up and regularly reviewing the Executive Management succession plan.

The succession plan covers several time periods: a short-term plan in case of an unexpected vacancy; a medium-term plan that takes into account the expiration of terms of office; and a long-term plan focused on the existing pool of potential candidates.

The people involved in this process are bound by a strict duty of confidentiality.

Attendance of Supervisory Board members in 2021 (during first half of the year)

Attendance	Supervisory Board	Finance and Audit Committee	Nomination, Remuneration and Governance Committee	Strategic Committee	CSR Committee
Vivienne Cox (Chairman of the Supervisory Board)	100% (7/7)	–	–	100% (1/1)	–
Pierre Pringuet (Lead Independent Director and Vice-Chairman of the Supervisory Board)	100% (7/7)	–	100% (6/6)	–	–
Maria-Pilar Albiac-Murillo	100% (7/7)	–	–	–	100% (2/2)
Cédric de Bailliencourt	100% (2/2)	–	–	–	
Corine de Bilbao	100% (7/7)	–	–	100% (1/1)	100% (2/2)
Virginie Banet	100% (7/7)	100% (3/3)	–	–	–
Bpifrance Participations, represented by Alexandre Ossola	86% (6/7)	100% (3/3)	–	100% (1/1)	–
Laurence Broseta	100% (7/7)	–	–	–	100% (2/2)
Antoine Cahuzac	100% (7/7)	100% (3/3)	100% (6/6)	–	–
Pascale Chargrasse	100% (7/7)	–	100% (6/6)	–	–
Mickaël Dolou	100% (7/7)	–	100% (6/6)	–	–
Yuki Iriyama	100% (7/7)	–	–	–	–
Jean-Jacques Morin	100% (7/7)	100% (3/3)	–	–	–
Ayhan Üstün	100% (7/7)	–	–	–	–
AVERAGE ATTENDANCE RATE	**98.9%**	**100%**	**100%**	**100%**	**100%**

Attendance of the members of the Board of Directors in 2021 (during the second half of the year)

Attendance	Board of Directors	Audit Committee	Nomination, Remuneration and Governance Committee	Strategic and Finance Committee	CSR Committee
Édouard Guinotte (Chairman of the Board)	100% (4/4)	–	–	–	–
Pierre Vareille (Vice-Chairman of the Board and Lead Independent Director)	100% (4/4)	–	100% (2/2)	–	–
Corine de Bilbao	75% (3/4)	100% (2/2)	–	100% (2/2)	100% (2/2)
William de Wulf	100% (4/4)	100% (2/2)	100% (2/2)	100% (2/2)	–
Maria Silvia Marques	100% (4/4)	100% (2/2)	–	–	100% (2/2)
Angela Minas	100% (4/4)	100% (2/2)	100% (2/2)	–	100% (2/2)
Hera Siu	100% (4/4)	100% (2/2)	–	–	100% (2/2)
Gareth Tuner	100% (4/4)	100% (2/2)	–	100% (2/2)	–
Guillaume Wolf	100% (1/1)	–	100% (2/2)	–	–
AVERAGE ATTENDANCE RATE	**97.2%**	**100%**	**100%**	**100%**	**100%**

7.1.2.3 Presentation of the Board Committees

7.1.2.3.1 AUDIT COMMITTEE

Membership

Information about the Supervisory Board's Finance and Audit Committee, which was in place until June 30, 2021, can be found in the 2020 Universal Registration Document (pages 315 *et seq.*).

The Board of Directors' Audit Committee comprises at least three and no more than six members, selected from among the members of the Board of Directors. All of the Audit Committee's members have specific skills in finance, accounting and/or statutory audit, and have the necessary expertise, experience and qualifications to effectively perform their duties within the Committee. At least two thirds of the Committee's members must be independent. As at March 31, 2022, the Audit Committee comprises six members: Angela Minas (Chairman), Corine de Bilbao, Maria-Silvia Marques, Hera Siu, William de Wulf and Gareth Turner, all of whom are independent apart from William de Wulf and Gareth Turner. The proportion of independent members on the Audit Committee is therefore 66.6%.

The Committee Chairman – Angela Minas – has over twenty years' experience of working in major groups (DCP Midstream Partners, Constellation Energy Partners and Arthur Andersen LLP), particularly in the areas of finance and management control and already chaired audit committees in several listed companies (see section 7.1.2.1.6 above for a description of the expertise and experience of the Audit Committee members).

When they are first appointed, the members of the Audit Committee are sent detailed information on the Group's specific accounting, financial and operating processes.

The Vice-Chairman/Lead Independent Director may attend and participate in all Audit Committee meetings even if he/she is not a member of the Committee (in which case he/she is not entitled to vote at the meetings). He/she is in regular contact with the Committee Chairman, whom he/she can contact at any time.

The Observers may also attend all Audit Committee meetings but they may not participate in any vote.

Roles and responsibilities

The Audit Committee's role is to (i) prepare and facilitate the Board of Directors' deliberations concerning the monitoring of issues relating to the preparation and verification of accounting and financial information, and (ii) ensure the effectiveness of Vallourec's risk management and internal control and, where applicable, its internal audit systems, in accordance with Article L.823-19 of the French Commercial Code. To this end, it issues opinions, proposals and recommendations in its areas of expertise. The Audit Committee reports regularly to the Board, informing it of the results of the statutory audit, how the audit contributed to the integrity of the financial information, and the role the Committee played in the overall process. It immediately informs the Board of any difficulties it may encounter while executing its duties. The Audit Committee cannot take the place of the Board of Directors, which (i) is the only governance body that has decision-making power for the issues addressed by the Audit Committee, and (ii) remains responsible for the execution of the Committee's tasks.

Within this context, the Audit Committee's duties are to:

- verify the process used to prepare the Group's financial information;
- ensure that the internal control and risk management systems and internal audit procedures – particularly the procedures used to prepare and process accounting and financial information – work effectively, without compromising the independence of the internal audit system;
- make recommendations to the Board on the Statutory Auditors to be put forward for appointment at the Shareholders' Meeting, having prepared such recommendation in accordance with the provisions of Article 16 of EU Regulation 537/2014;
- monitor the work carried out by the Statutory Auditors, particularly the audit of the parent company and consolidated financial statements;
- ensure that the Statutory Auditors respect the applicable independence requirements and that the audit fees are capped in line with the relevant regulatory framework;
- approve any non-audit services provided by the Statutory Auditors where such services are permitted.

Operating procedures

The Audit Committee meets at least four times a year to review the interim and annual financial statements before they are presented to the Board of Directors. Aside from these mandatory meetings, it decides on the frequency and duration of its meetings in agreement with the Chairman and Chief Executive Officer.

Audit Committee meetings are convened by the Committee Chairman with a specific agenda, which is set, as the case may be, in agreement with the Deputy Chief Executive Officer(s).

For the purpose of its work (and only for that purpose), the Committee may also meet with those responsible for finance, accounting, treasury, internal audit, internal control and risk management, as well as with the Compliance Officer and the Statutory Auditors, including, at the request of the Committee, without the presence of the Chairman and Chief Executive Officer.

Activities of the Audit Committee in 2021

In the first half of 2021, the Supervisory Board's Finance and Audit Committee met three times, with a 100% attendance rate. It met with the Statutory Auditors without the presence of Management Board members. During these meetings the Finance and Audit Committee examined and issued opinions on the following subjects:

- negotiations with creditors and preparation of the Company's financial restructuring;
- the annual and quarterly financial statements;
- the Group's draft financial communications;
- the organization of risk management and internal control within the Group, and the anti-corruption risk mapping process;
- the ethics and compliance policy within the Group and the results of this policy;
- the Group's tax practices.

During the second half of 2021, the Board of Directors' Audit Committee met twice, with a 100% attendance rate. The Committee met with the Statutory Auditors without any members of Executive Management attending. During these meetings the Audit Committee examined and issued opinions on the following subjects:

- the half-yearly and quarterly financial statements;
- the Group's draft financial communications;
- the organization of internal audit within the Group and the audit plan.

The Statutory Auditors attended all Committee meetings in 2021. They reported to the Committee on their statutory audit work, highlighting the key findings of their audit and the accounting treatment used.

7.1.2.3.2 NOMINATION, REMUNERATION AND GOVERNANCE COMMITTEE

Information about the Supervisory Board's Nomination, Remuneration and Governance Committee, which was in place until June 30, 2021, can be found in the 2020 Universal Registration Document (pages 316 *et seq*).

On January 11, 2022, the Board of Directors decided to split the Nomination, Remuneration and Governance Committee into two separate committees – a Nomination and Governance Committee and a Remuneration Committee. Until it was split, the Nomination, Remuneration and Governance Committee carried out the roles of both these new committees, as described below, and operated in the same way as them.

Membership

Until its split on January 11, 2022, the Nomination, Remuneration and Governance Committee comprised four members: Pierre Vareille (Chairman), William de Wulf, Angela Minas and Guillaume Wolf (employee representative).

Activities of the Nomination, Remuneration and Governance Committee in 2021

In the first half of 2021, the Supervisory Board's Nomination, Remuneration and Governance Committee met six times, with a 100% attendance rate.

After the Company's new governance structure was put in place on July 1, 2021, the Nomination, Remuneration and Governance Committee met twice, with a 100% attendance rate.

During these meetings the Nomination, Remuneration and Governance Committee examined and issued opinions on the following subjects:

- the change in the Company's governance structure;
- the membership structure of the Board of Directors and its Committees;
- the independence of the members of the Board of Directors;
- corporate officers' remuneration, with the introduction of a new remuneration policy for directors and a new share-based compensation system for executive corporate officers;
- compliance of the Group's governance with the recommendations of the AFEP-MEDEF Code;
- the annual report of the French financial markets authority (*Autorité des marchés financiers* – AMF) on corporate governance and executive management remuneration, and the annual report of the High Committee on Corporate Governance.

7.1.2.3.3 REMUNERATION COMMITTEE

The Remuneration Committee was set up by the Board of Directors on January 11, 2022.

Membership

The Remuneration Committee comprises a minimum of three and a maximum of five members. As at March 31, 2022, it had four members: Pierre Vareille (Chairman), William de Wulf, Angela Minas and Guillaume Wolf (employee representative). Out of these members only William de Wulf and Guillaume Wolf are not independent, it being specified that as a director representing employees, Guillaume Wolf is not included in the calculation of the independence rate [(1)].

Observers may attend all Remuneration Committee meetings but they may not participate in any votes.

(1) In accordance with the recommendations of the AFEP-MEDEF Code.

Roles and responsibilities

The Remuneration Committee is responsible for preparing and facilitating the Board of Directors' work on (i) the remuneration of the Company's directors and executive corporate officers (the Chairman of the Board of Directors, the Chairman and Chief Executive Officer, the Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) (together the "corporate officers")). To this end, it formulates opinions, proposals and recommendations in its areas of expertise. It reports to the Board and informs it of any difficulties it may encounter while performing its duties. The Remuneration Committee cannot take the place of the Board of Directors, which (i) is the only governance body that has decision-making power for the issues addressed by the Remuneration Committee, and (ii) is, and remains, responsible for the performance of the Committee's tasks.

The responsibilities of the Remuneration Committee are as follows:

- proposing the amounts of directors' remuneration and the rules for allocating said remuneration among the Board members, particularly taking into account their actual attendance at meetings of the Board and its Committees and whether they serve as Chairman of a Committee;
- putting forward proposals to the Board regarding the remuneration policies for the Chairman and Chief Executive Officer, as the case may be, the Deputy Chief Executive Officer(s) and, as the case may be, the other corporate officers as well as the structure and level of their remuneration (fixed portion, variable portion, benefits in kind, performance shares and stock options);
- proposing a policy for granting performance shares and stock options to the Group's executives, managers and/or other staff;
- reviewing significant changes in pension/profit-sharing plans.

In addition, the Committee must be kept informed of the remuneration policy applicable to Executive Committee members who are not executive corporate officers (with executive corporate officers meaning the Chairman and Chief Executive Officer, the Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s)), in which case the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) must be involved in the Committee's work.

Operating procedures

The Remuneration Committee meets at least twice a year and always before any meeting held to approve corporate officers' remuneration or the allocation of directors' remuneration. Aside from these mandatory meetings, it decides on the frequency and duration of its meetings.

The Committee's decisions are only valid if at least half of its members are present or deemed to be present (for meetings held by videoconference or conference call).

7.1.2.3.4 NOMINATION AND GOVERNANCE COMMITTEE

The Nomination and Governance Committee was set up by the Board of Directors on January 11, 2022.

Membership

The Nomination and Governance Committee comprises a minimum of three and a maximum of five members. As at March 31, 2022, it had three members: Pierre Vareille (Chairman), William de Wulf and Angela Minas. The only non-independent member is William de Wulf.

Observers may attend all Remuneration Committee meetings but they may not participate in any votes.

Roles and responsibilities

The Nomination and Governance Committee is responsible for preparing and facilitating the Board of Directors' work concerning (i) the appointment of directors and executive corporate officers, and (ii) the Group's governance. To this end, it formulates opinions, proposals and recommendations in its areas of expertise. It reports to the Board and informs it of any difficulties it may encounter while performing its duties. The Nomination and Governance Committee cannot take the place of the Board of Directors, which (i) is the only governance body that has decision-making power for the issues addressed by the Nomination and Governance Committee, and (ii) is, and remains, responsible for the performance of the Committee's tasks.

The responsibilities of the Nomination and Governance Committee are as follows:

Nominations

- Preparing the procedure for selecting members of the Board of Directors, particularly independent members, as well as the executive corporate officers (the Chairman and Chief Executive Officer, the Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer (s)) and deciding on the selection criteria to be used.
- Submitting to the Board of Directors proposals for appointing and reappointing members of the Board of Directors (by the Shareholders' Meeting or by the Board, with subsequent ratification by the Shareholders' Meeting) and corporate officers (the Chairman of the Board of Directors, the Chairman and Chief Executive Officer, the Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s)) and Observers on the Board.
- Keeping an up-to-date succession plan for corporate officers and the members of the Board of Directors, in order to be able to put forward succession solutions to the Board, particularly in the event of an unexpected vacancy or in cases where there is a risk of non-compliance with gender equality and the proportion of independent members.
- Regularly reviewing the membership structure of the Board and its Committees and making recommendations on changes to this structure where appropriate.

The Committee must also (i) organize a procedure for selecting future members and independent members and (ii) carry out research on potential candidates before contacting them.

Governance

- Reviewing each year, prior to the publication of the report on the Company's corporate governance, the situation of each member of the Board of Directors with respect to the independence criteria adopted by the Company, and submitting its opinions to the Board with a view to the latter's examination of the situation of each member in the light of these criteria.
- Preparing (i) the annual assessment of the Board of Directors and the recommendations resulting from the assessment, and (ii) the meetings held without the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) attending.
- Reviewing and following up on any situation involving a conflict of interest between a Board member and the Company or its Group, and recommending what information should not be shared with the member in question as a result of that situation.
- Reviewing requests from Board members concerning new offices or duties outside the Company.
- Reviewing the operating procedures of the management bodies, particularly as regards changes in French regulations concerning the governance of listed companies and in the recommendations of the AFEP-MEDEF Code and, where applicable, making proposals to the Board on updating the Company's corporate governance rules.
- Based on proposals put forward by the Chairman and Chief Executive Officer, examining the gender balance targets for the Board's membership structure and ensuring that the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) implement an overall non-discrimination and diversity policy within the Board.

Specific assignment

- To issue an opinion to the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) on any plan to (i) recruit, suspend or dismiss any members of the Group Executive Committee or any other corporate officer or senior manager or any employee reporting directly to the Chairman and Chief Executive Officer, (ii) make a significant change to the remuneration of such persons (including changes to their pension or profit-sharing plan(s) or introducing special departure conditions), and/or (iii) enter into, amend or terminate an agreement with any such person.

Operating procedures

The Nomination and Governance Committee meets at least twice a year and always before the Board examines the independence status of each Board member based on the independence criteria adopted by the Company. Aside from these mandatory meetings, it decides on the frequency and duration of its meetings.

The Committee's decisions are only valid if at least half of its members are present or deemed to be present (for meetings held by videoconference or conference call).

7.1.2.3.5 STRATEGIC AND FINANCE COMMITTEE

Information on the Supervisory Board's Strategic Committee, which was in place until June 30, 2021, can be found in the 2020 Universal Registration Document (page 318).

Membership

The Strategic and Finance Committee comprises a minimum of three and a maximum of five members. As at March 31, 2022, it had three members: Gareth Turner (Chairman), Corine de Bilbao and William de Wulf.

The Vice-Chairman/Lead Independent Director may attend and participate in all Strategic and Finance Committee meetings even if he/she is not a member of the Committee (in which case he/she is not entitled to vote at the meetings). He/She is in regular contact with the Committee Chairman, whom he/she can contact at any time.

Observers may attend all meetings of the Strategic and Finance Committee:, but they may not participate in any votes.

Roles and responsibilities

The Strategic and Finance Committee is responsible for preparing the Board of Directors' deliberations on the Group's strategic issues, as well as on matters related to financing and the Company's capital structure. To this end, it issues opinions, proposals and recommendations in its areas of expertise. It reports to the Board and informs the Board of any difficulties it may encounter while performing its duties. The Strategic and Finance Committee cannot take the place of the Board of Directors, which (i) is the only governance body that has decision-making power for the issues addressed by the Strategic and Finance Committee, and (ii) remains responsible for the execution of the Committee's tasks.

As part of its duties, the Strategic and Finance Committee considers the following matters before submitting them to the Board:

(i) proposals put forward by the Chairman and Chief Executive Officer related to the strategic orientations of the Company and its subsidiaries (the "Group");

(ii) any planned material reorganization;

(iii) the delisting of the Company and/or the listing of a Group company;

(iv) a proposal to the Company's Shareholders' Meeting of a merger or demerger or spin-off transaction or contribution or any transaction of similar effect, whether by the Company or its subsidiaries (excluding intra-Group reorganizations), in each case with a transaction value in excess of €50 million either per transaction or per series of related transactions;

(v) any disposal of significant shareholdings or strategic assets, transfer of any entity or activity, whether by the Company or its subsidiaries, with a transaction value in excess of €50 million;

(vi) any acquisition of shareholdings or assets for consideration (adjusted as appropriate on a debt free and cash free basis) in excess of €50 million, whether by the Company or its subsidiaries;

(vii) any inception, material amendment or termination of a material joint venture or partnership, whether by the Company or its subsidiaries, subject to a materiality threshold of €50 million of committed investment for the inception or amendment of a joint-venture/partnership, or subject to the relevant Group company being liable to make a payment or incurring costs of more than €50 million for the termination of a joint-venture/ partnership;

(viii) any proposal to carry out a capital increase or issue of equity securities or securities granting access, whether immediately or in the future, to the share capital of the Company or a material subsidiary, of any kind whatsoever, in each case to the benefit of a third party to the Group;

(ix) any proposal for the redemption and cancellation of equity securities by any Group company (save for intra-Group transactions and non-material transactions);

(x) any proposal for a material change in the strategy of a material business line or branches of activity (through the creation, abolition, reduction, restructuring or relocation of such material business line or branches of activity);

(xi) any proposal to the Company's shareholders of material changes to the Articles of Association or of any of its material subsidiaries or joint ventures (except for amendments imposed by law or regulation);

(xii) the Group's annual budget and business plan and any amendments thereto proposed by the Chairman and Chief Executive Officer;

(xiii) any proposal to set up any borrowings or other debt financing with third parties for an amount in excess of €50 million (other than drawings under the RCF), guarantees or security interests given to third parties in relation to such borrowings or debt financing, excluding, for the avoidance of doubt, operational financing in the ordinary course of business (factoring, etc.), and bonds, endorsements, indemnity undertakings for contracts or agreements entered into in the operation of the business;

(xiv) any proposal or payment concerning any dividend, reserve distribution or any other distribution, of any nature whatsoever, by the Company for the benefit of its shareholders;

(xv) any proposal to make a decision to initiate or implement any insolvency procedure, dissolution, winding-up or liquidation (or any similar procedure in each applicable jurisdiction), of the Company or one of its material subsidiaries (except if intra-Group), or to appoint a court-appointed administrator, in each case other than as required by law or regulations or which involves the liability of the relevant legal representatives for failing to take the relevant decision;

(xvi) any proposal to make a decision to participate in any project or enter into any agreement (including contracts with guaranteed rents) for an annual amount exceeding €100 million;

(xvii) any proposal to establish material operations in a new jurisdiction or country;

(xviii) any proposal concerning the initiation or settlement by a Group company of any litigation or arbitral proceedings where the amount at stake for the Group is in excess of €10 million or relating to a claim having a material reputational impact on the Group.

The Strategic and Finance Committee may carry out any other regular or occasional duties assigned to it by the Board of Directors, that fall within its area of expertise. It may suggest that the Board refer to it for any specific issues which it considers would be necessary or useful for the Committee to review.

Operating procedures

In the first half of 2021, the Supervisory Board's Strategic Committee met once, with a 100% attendance rate. In the second half of 2021, the Board of Directors' Strategic and Finance Committee met twice, with a 100% attendance rate.

The Strategic and Finance Committee meets at least four times a year. Aside from these mandatory meetings it decides on the frequency and duration of its meetings in agreement with the Chairman and Chief Executive Officer.

The Committee's decisions are only valid if at least half of its members are present or deemed present (for meetings held by videoconference or conference call).

7.1.2.3.6 CORPORATE SOCIAL RESPONSIBILITY (CSR) COMMITTEE

New members were appointed to the CSR Committee when the Company's new governance structure was put in place on July 1, 2021.

Information about the Supervisory Board's CSR Committee, which was in place until June 30, 2021, can be found in the 2020 Universal Registration Document (pages 318 *et seq.*).

Membership

The CSR Committee comprises a minimum of three members and a maximum of five members. As at March 31, 2022, it had four members: Corine de Bilbao (Chair), Maria-Silvia Marques, Angela Minas and Hera Siu. They are all independent directors.

The Chairman and Chief Executive Officer is involved in the work of the Committee.

The Vice-Chairman/Lead Independent Director may attend and participate in all CSR Committee meetings even if he/she is not a member of the Committee (in which case he/she is not entitled to vote at the meetings). He/she is in regular contact with the Committee Chairman, whom he/she can contact at any time.

Observers may attend all CSR Committee meetings, but they may not participate in any votes.

Roles and responsibilities

The CSR Committee is responsible for preparing the Board of Directors' deliberations concerning the review and oversight of CSR matters and the way in which the Group strives to promote the creation of long-term value while taking into account the CSR aspects and imperatives of its business. To this end, it issues opinions, proposals and recommendations in its areas of expertise. It reports to the Board and informs the Board of any difficulties it may encounter while performing its duties. The CSR Committee cannot take the place of the Board of Directors, which (i) is the only governance body that has decision-making power for the issues addressed by the CSR Committee, and (ii) remains responsible for the execution of the Committee's tasks.

The duties of the CSR Committee are as follows:

- examining the Group's issues, risks and opportunities related to CSR;
- reviewing the Group's CSR policies and pledges, how these policies are implemented and the results obtained;
- reviewing all non-financial information published by the Group;
- reviewing, where requested by the Chairman and Chief Executive Officer, the Group's gender equality objectives for its senior management team, and reexamining the overall non-discrimination and diversity policy applied within the Group;
- conducting a regular review of the Group's non-financial ratings.

The CSR Committee may carry out any other regular or occasional duties assigned to it by the Board of Directors, that fall within its area of expertise. It may suggest that the Board refer to it for any specific issues which it considers would be necessary or useful for the Committee to review.

Operating procedures

The CSR Committee meets at least twice a year. Aside from these mandatory meetings, it decides on the frequency and duration of its meetings in agreement with the Chairman and Chief Executive Officer.

During the first half of 2021, the CSR Committee met twice, with a 100% attendance rate.

After the Company's new governance structure was put in place on July 1, 2021, the CSR Committee met twice, with a 100% attendance rate.

During these meetings the CSR Committee examined and issued opinions on the following subjects:

- the CSR objectives underlying the variable portion of the Management Board's remuneration;
- the deployment and analysis of the Women@Vallourec diversity plan;
- the safety improvement plan;
- the analysis of the results of the product quality customer satisfaction survey and ensuing action plans;
- presentation of the materiality analysis approach and review of its results;
- presentation of the CSR Committee's priorities and the Group's CSR commitments and performance;
- presentation of the CSR Committee roadmap.

7.1.2.4 Assessment of the Board's operating procedures

The Board of Directors must assess its ability to meet shareholders' expectations by periodically analyzing its composition, organization and operation. To this end, once a year the Board of Directors – on the basis of a report from the Nomination and Governance Committee – devotes an item on its agenda to the assessment of its operating procedures. The aim is to ensure that important issues are properly prepared and debated, and to measure the effective contribution of each of its members to the Board's work.

During the first quarter of 2022, the Board of Directors conducted its first assessment of the composition, organization and operation of the Board and its Committees, based on the responses to an individual, anonymous questionnaire sent to each Board member.

The questionnaires were collected and analyzed by the Lead Independent Director and the Board Secretary. Based on this assessment, the Board of Directors considers that it has the characteristics needed to effectively perform its role. In particular:

- the composition of the Board of Directors is balanced and the skills identified as necessary or useful are duly represented: the members of the Board of Directors come from varied backgrounds and have appropriate and wide-ranging experience and expertise;
- the Board of Directors receives clear and comprehensive information, and the documentation is detailed and well-structured. The frequency of meetings is considered adequate, and the quality and transparency of its discussions and debates are good;
- the Board of Directors has expressed the wish to devote more time to discussions of the Group's medium- and long-term strategy.

7.1.3 Executive Management

Vallourec's Executive Management is exercised by the Chairman and Chief Executive Officer. An Executive Committee steers the Group's operational management.

7.1.3.1 Chairman and Chief Executive Officer

7.1.3.1.1 COMBINING THE DUTIES OF CHAIRMAN AND CHIEF EXECUTIVE OFFICER

At its meeting on July 1, 2021, the Board of Directors decided to combine, as from that date, the roles of the Chairman of the Board of Directors and the Chief Executive Officer, and appointed Édouard Guinotte as Chairman and Chief Executive Officer for the duration of his directorship, i.e., four years.

The Board of Directors elected to maintain the combination of the roles of Chairman and Chief Executive Officer on the appointment of Philippe Guillemot on March 20, 2022 to succeed Édouard Guinotte as Chairman and Chief Executive Officer, for the duration of his term of office as director, i.e., four years.

The Board of Directors considered that combining these roles is well suited to Vallourec and makes the Company's governance and the execution of its strategy more agile and effective. The combination of these roles, together with the lower number of Board members, has improved governance.

The Chairman and Chief Executive Officer may be removed from office at any time by the Board of Directors.

7.1.3.1.2 DUTIES OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The Chairman and Chief Executive Officer performs the duties of both the Chairman of the Board of Directors and the Chief Executive Officer as described below.

The Chairman shall exercise the assignments and powers vested by law. He chairs over the meetings of the Board and sets the agenda thereof. He organizes and directs its work and reports to the General Shareholders' Meeting. He ensures that the Company's governance bodies operate effectively, and particularly that the directors are able to perform their duties and have all the information they require in order to do so. He chairs the Shareholders' Meetings and draws up the reports required by law.

The Chief Executive Officer is responsible for the Company's executive management and represents the Company in its dealings with third parties. He has the broadest powers to act on behalf of the Company in all circumstances, within the scope of the corporate purpose, except for the powers which (i) are vested by law in the Board of Directors or Shareholders' Meetings, or (ii) require the Board of Directors' prior authorization pursuant to the Company's Articles of Association and/or the Board of Directors' Internal Rules.

7.1.3.1.3 RESTRICTIONS ON THE CHIEF EXECUTIVE OFFICER'S POWERS SET BY THE BOARD OF DIRECTORS

For the purposes of the Company's internal organization, the matters listed below shall be authorized by the Board prior to their implementation by the Chief Executive Officer and/or management ("**Reserved Matters**").

The following Reserved Matters shall be subject to the Qualified Majority rule ("**Major Decisions**"); "**Qualified Majority**" shall mean, for a Board of 10 members, 8 Board members including 2 independent Board members (such majority being adapted downwards in case the number of employee representatives would be reduced or more generally the number of Board members is less than 10, i.e., for a Board of 9 members, the Qualified Majority would be 7 Board members including 2 independent Board members and for a Board of 8 members, the Qualified Majority would be 6 Board members including 2 independent Board members) to vote in favor for the Major Decisions to approve:

(i) any material reorganization;

(ii) the delisting of the Company and/or the listing of a Group company;

(iii) a proposal to the Company's shareholders meeting of a merger or demerger or spin-off transaction or contribution or any transaction of similar effect, whether by the Company or its subsidiaries (excluding intra-Group reorganizations), in each case with a transaction value in excess of €50 million either per operation or per series of related operations;

(iv) any disposal of significant shareholdings, strategic assets, transfer of any entity or activity, whether by the Company or its subsidiaries, with a transaction value in excess of €50 million;

(v) any acquisition of shareholdings or assets for consideration (adjusted as appropriate on a debt free and cash free basis) in excess of €50 million, whether by the Company or its subsidiaries;

(vi) inception, material amendment or termination of any material joint venture or partnership, whether by the Company or its subsidiaries, subject to a materiality threshold of €50 million of committed investment for the inception or amendment of a joint-venture/partnership, or subject to the relevant Group company being liable to make a payment or incurring costs of more than €50 million for the termination of a joint-venture/partnership;

(vii) any capital increase or issue of equity securities or securities granting access, whether immediately on in the future, to the share capital of the Company or a material subsidiary, of any kind whatsoever, in each case to the benefit of a third party to the Group;

(viii) any redemption and cancellation of equity securities by any Group company (save for intra-Group transactions and non-material transactions);

(ix) any material change in the strategy of a material business line or branches of activity (through the creation, abolition, reduction, restructuring or relocation of such material business line or branches of activity);

(x) any proposal to the Company's shareholders of substantial changes to the Articles of Association or of any of its material subsidiaries or joint ventures (except for amendments imposed by law or regulation);

(xi) approval and amendment of the Group's annual budget and business plan, it being specified that the Board will be informed quarterly on the performance of the Group in comparison to the budget;

(xii) any borrowing or other debt financing with third parties for an amount in excess of €50 million (other than drawings under the RCF), guarantees or security interest to third parties in relation to such borrowing or debt financing, excluding, for the avoidance of doubt, operational financing in the ordinary course of business (factoring, etc.) and bond, endorsement, indemnity undertaking for contracts or agreements entered into in the operation of the business;

(xiii) any proposal or payment concerning any dividend, reserve distribution or any other distribution, of any nature whatsoever, by the Company for the benefit of its shareholders;

(xiv) any decision to initiate or to implement any insolvency procedure, dissolution, winding-up or liquidation (or any similar procedure in each applicable jurisdiction), of the Company or one of its material subsidiaries (except if intra-Group), or to appoint a court-appointed administrator, in each case other than as required by law or regulation or which involves the liability of the relevant legal representatives for failing to take the relevant decision;

(xv) any decision to participate in a project or enter into an agreement (including contracts with guaranteed rents) for an annual amount exceeding €100 million;

(xvi) any significant change in the pension plans and profit-sharing plans;

(xvii) the creation or material amendment to stock option plans, stock subscription plans, performance share or free share plans in respect of of the Company or of any other Group company (or any other similar instrument or incentive plan) to the benefit of the officers and/or employees of the Group or of certain categories of employees;

(xviii) any establishment of material operations in a new jurisdiction or starting up a new business involving material expenditures (excluding, for the avoidance of doubt, the launching of new seamless tubular products); and

(xix) the initiation or settlement by a Group company of any litigation or arbitral proceedings where the amount at stake for the Group is in excess of €10 million or relating to a claim having a material reputational impact on the Group.

The Chairman and Chief Executive Officer of the Company will discuss with the Board members on an ad hoc basis any item from the above Reserved Matters which falls below the threshold specified or any other item which is not specifically captured in the Reserved Matters but, in each case, is considered by the Chairman and Chief Executive Officer material or important to the operations and affairs of the business.

The following Reserved Matters shall be dealt with at the Board level subject to simple majority rule of members present or represented:

a) approval of the Company's financial statements and consolidated financial statements and of any material change in the accounting principles applied by the Group companies for the preparation of their financial statements, except for amendments imposed by applicable law or accounting standards;

b) any transaction with related parties (whether or not contemplated in the budget) as defined under Articles L.225-38 of the French Commercial Code, save for intra-Group transactions referred to under L. 225-39 of the French Commercial Code (which are not subject to any authorization from the Board);

c) the appointment, renewal or dismissal of the Statutory Auditors; and

d) any decision submitted to the Board other than the Major Decisions.

7.1.3.2 Deputy Chief Executive Officer

Following the change in the Company's governance structure that took effect on July 1, 2021, the Board of Directors appointed Olivier Mallet as Deputy Chief Executive Officer of the Company for a four-year term.

In accordance with the French Commercial Code, the duties of Olivier Mallet as Deputy Chief Executive Officer expired as at March 20, 2022 upon the appointment of Philippe Guillemot as the new Chairman and Chief Executive Officer.

Mr. OLIVIER MALLET

CHIEF FINANCIAL OFFICER

Date of birth: July 14, 1956 – French
Date of first appointment: September 30, 2008
Date of reappointment: July 1, 2021
Term expired: March 20, 2022
Number of Vallourec shares held: 74,294 (as at March 20, 2022)

Expertise and managerial experience

- Graduate of the École nationale d'administration
- General Inspector of Finance (1981-1985)
- French Ministry of Finance – Technical advisor within several cabinet offices, including that of the Prime Minister (1985-1993)
- Thomson CE – Director of Planning, Budgeting and Management Control (1993-1995)
- Thomson Multimedia – CFO and member of the Executive Committee in charge of finance (1995-2001)
- Pechiney – CFO and member of the Executive Committee (2001-2004)
- Areva – group Deputy CFO (2004-2006), then Head of the Mining, Chemistry and Enrichment sector (2006-2008)
- Member of the Vallourec Management Board, Chief Financial and Legal Officer (2008-2021)
- Deputy Chief Executive Officer of Vallourec from July 1, 2021 until March 20, 2022

5 MAIN AREAS OF EXPERTISE

- Industry/Oil & Gas
- Executive/operational management posts held within major groups
- International experience
- Financial/audit expertise
- Governance of listed companies

OFFICES HELD BY OLIVIER MALLET

Offices currently held

- **Chief Executive Officer and director of:**
  - Vallourec Tubes SAS [a] (since 2008)
- **Chairman of:**
  - Vallourec Services SAS [a] (since 2008)
  - Vallourec Industries Inc. [a] (United States) (since 2008)
  - Vallourec Holdings Inc. [a] (United States) (since 2009)
- **Chairman of the Supervisory Board of:**
  - Vallourec Tianda (Anhui) Co. Ltd. [a] (since 2016)
- **Member of the Supervisory Board of:**
  - Vallourec Deutschland GmbH [a] (Germany) (since 2008)
- **Director of:**
  - Vallourec USA Corporation [a] (United States) (since 2008)
  - Vallourec Tube-Alloy, LLC [a] (United States) (since 2008)
  - Vallourec Drilling Products USA, Inc. [a] (United States) (since 2008)
- **Member of the Executive Committee of:**
  - VAM USA LLC [a] (United States) (since 2009)
  - Vallourec Star, LP [a] (United States) (since 2008)
- **Commissioner of:**
  - P.T. Citra Tubindo Tbk (since 2018)
- **Legal Manager of:**
  - Vallourec One SARL [a] (since 2017)

Offices that have expired in the last five years

- **Deputy Chief Executive Officer of:**
  - Vallourec SA [a] (until March 2022)
- **Member of the Management Board of:**
  - Vallourec SA [a] (until June 2021)
  - **Director of:**
  - Vallourec Soluções Tubulares do Brasil SA [1] [a] (Brazil) (until July 2021)
  - Vallourec Tubos do Brasil SA [2] [a] (Brazil) (until 2017)
  - Vallourec Canada Inc. [a] (Canada) (until 2017)

Olivier Mallet does not receive any remuneration for any offices that he holds in Vallourec's direct or indirect subsidiaries.

(a) Positions held related to the Vallourec Group.
(1) The Board of Directors of Vallourec Soluções Tubulares do Brasil SA was dissolved in July 2021.
(2) Vallourec Tubos do Brasil Ltda following the change in the company's legal form that took place on November 20, 2021.

7.1.3.2.1 DUTIES OF THE DEPUTY CHIEF EXECUTIVE OFFICER(S)

The Deputy Chief Executive Officer(s), as the case may be, assist the Chairman and Chief Executive Officer. They represent the Company with respect to third parties.

7.1.3.3 Executive Committee

The Executive Committee assists Executive Management with implementing its strategies and key decisions. The Executive Committee examines and drafts proposals that it puts forward to Executive Management regarding all actions necessary for implementing the Group's overall business strategy. It is responsible for the day-to-day running of the Company and for overseeing support functions.

The members of the Executive Committee also contribute, as a team, to creating and relaying the Group's management culture. Vallourec's Executive Committee meets once every two weeks.

As at April 19, 2022, the Executive Committee members were:

7.2 Corporate officers' remuneration and benefits

7.2.1 Remuneration policies for corporate officers

The sections below set out the remuneration policies for the Company's corporate officers, particularly for 2022. They describe the components of the corporate officers' fixed and variable remuneration and explain the decision-making process followed for setting, reviewing and applying the remuneration policies.

In accordance with Article L.22-10-8 of the French Commercial Code, the remuneration policies presented below are subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting to be held on May 24, 2022. The previous remuneration policies for corporate officers were approved at the April 20, 2021 Ordinary and Extraordinary Shareholders' Meeting and amendments to those policies were approved at the September 7, 2021 Ordinary and Extraordinary Shareholders' Meeting.

Vallourec operates worldwide on the seamless tube production market, a sector that requires specific expertise possessed by only a limited number of talented people. Having people who have high potential and the capacity to tackle ambitious challenges is essential for ensuring the Group's profitability and for generating value. The remuneration policies aim to attain this objective by allowing the Group to attract and retain the most talented people, whose contributions help create more value for shareholders. The Board thus ensures that the remuneration policies for corporate officers comply with the Company's corporate interest, contribute to its sustainability, and are in line with its business strategy.

7.2.1.1 Governance regarding the remuneration policies for corporate officers

The remuneration policies for corporate officers are determined by the Board of Directors based on the proposals put forward by the Remuneration Committee. The definition of this policy takes into account the work accomplished, the performance achieved and the responsibility assumed, and relies on analyses of the market context, which are in particular based on compensation surveys conducted by external consultants. It is reviewed annually.

7.2.1.1.1 ROLE OF THE REMUNERATION COMMITTEE

The roles and responsibilities of the Remuneration Committee are described in section 7.1.2.3.3 of this chapter of this Universal Registration Document.

In order to prepare its work on remuneration, the Remuneration Committee 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 Committee itself determines the composition of the reference panels.

The Remuneration Committee likewise meets with the heads of the functional departments, in particular the Human Resources Department and the Legal Department, with which it organizes interdepartmental meetings to ensure that its work is consistent with the Group's social and governance policies.

In its deliberations, the Remuneration Committee also draws on expectations and observations made by shareholders with which the Company has discussions on a regular basis, in particular prior to the Annual Shareholders' Meetings.

7.2.1.1.2 ROLE OF THE BOARD IN TERMS OF THE REMUNERATION FOR CORPORATE OFFICERS

Remuneration and benefits awarded to executive corporate officers

Based on the Remuneration Committee's recommendations, the Board of Directors sets all of the components of the short- and long-term remuneration and benefits of the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) (fixed portion, variable portion and performance shares), as well as benefits in kind, personal insurance, pension benefits and specific termination benefits.

Directors' remuneration

Acting on proposals put forward by the Remuneration Committee, the Board of Directors allocates remuneration to each director out of the total annual amount authorized by the shareholders.

7.2.1.2 Remuneration policies for executive corporate officers

7.2.1.2.1 GENERAL PRINCIPLES OF THE REMUNERATION POLICIES SET BY THE BOARD OF DIRECTORS FOR THE EXECUTIVE CORPORATE OFFICERS

The Board of Directors conducts an overall assessment of the components of remuneration and benefits for the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) and its decisions are based on the following principles:

- **balanced consideration of short-term performance:** the structure of the remuneration and benefits for the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) includes a variable cash component based on performance during the past year. The performance criteria used correspond to the Company's financial and operating objectives. The Board is careful to balance the weighting of the short-term components of the executive corporate officers' remuneration and benefits (annual fixed and variable portions);
- **taking into account mid- and long-term performance:** a share-based compensation plan was set up in 2021 at the suggestion of a number of the Company's shareholders, in order to align the interests of the executive corporate officers with those of the shareholders. The remuneration provided for in the plan is contingent on performance and is based on the terms and conditions generally applied by private equity funds;
- **competitiveness:** the Board ensures that remuneration is in line with the market in which Vallourec operates. To that end, the Remuneration Committee 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 remuneration and benefits for the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) would be close to the top quartile of the sample;

- **consistency with the prevailing conditions governing employee remuneration and employment within the Group:** a significant portion of the Group's managers and executives are entitled to a remuneration and benefits structure which, like that of the executive corporate officers, is made up of a fixed portion and a variable portion, along with long-term incentive equity instruments.

7.2.1.2.2 STATUS OF EXECUTIVE CORPORATE OFFICERS

The Chairman and Chief Executive Officer does not have an employment contract. As an exception, a Group employee appointed as Chairman and Chief Executive Officer could continue to benefit from their employment contract, which would be suspended for the duration of their term as executive corporate officer, subject to this being justified, and provided that it does not give rise to situations of non-compliance with the other provisions of the AFEP-MEDEF Code, in particular severance pay.

The Board wishes to give preference to internal successions, which ensure better transitions and guarantee that there is an excellent understanding of the business and markets in which the Group operates, the Group's stakeholders, and its corporate culture. The possibility of maintaining employment contracts, on a case by case basis, is likely to encourage internal applications from employees with significant seniority.

Under its former governance arrangements, the Supervisory Board authorized Édouard Guinotte, who has been a Group employee since 1995 and was appointed Chairman of the Management Board on March 15, 2020, to retain his employment contract, which was suspended for the duration of his term of office as Chairman of the Management Board. The Supervisory Board considered that Édouard Guinotte's career within the Group, over a period of more than 25 years, could very well continue in a salaried capacity, if necessary in a temporary manner to facilitate a transition, if his term of office as Chairman of the Management Board were not renewed or if he were to be replaced in his role as Chairman of the Management Board. The Supervisory Board ensured that maintaining his contract did not cause any non-compliance with the other provisions of the AFEP-MEDEF Code, in particular in relation to severance pay. In this respect, Édouard Guinotte's employment contract did not include any contractual severance pay, non-compete clause or special notice period, and essentially referred to the *Convention collective des cadres et ingénieurs de la métallurgie* (the French collective agreement for executives and engineers in the metal industry), the application of which is mandatory for Vallourec. The total amount of remuneration for the severance pay under the national collective agreement, together with the termination benefit and non-compete compensation, could not under any circumstances exceed the ceiling set by the AFEP-MEDEF Code (see section 7.2.2.6 below).

The Deputy Chief Executive Officer(s), as the case may be, may hold an employment contract, in which case it is suspended for the duration of their term of office as Deputy Chief Executive Officer.

7.2.1.2.3 COMPONENTS OF EXECUTIVE CORPORATE OFFICERS' REMUNERATION

The primary components of executive corporate officers' remuneration, along with their purposes, are defined as follows:

Components		Purposes
Fixed portion		Role and responsibility
Annual variable portion		Linked to short-term performance by the achievement of annual objectives
Medium- and long-term incentive equity instruments	Performance shares	Linked to long- and medium-term performance and alignment with shareholders' interests

Fixed portion of executive corporate officers' remuneration

In general, the fixed portion is reviewed regularly based on the responsibility assumed by each executive corporate officer and with reference to Vallourec's business sector.

To that end, the Remuneration Committee relies on compensation surveys conducted by external 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 Board of Directors devotes particular attention to ensuring that the fixed portion is reasonable applying the principles described in point 7.2.1.2.1 above.

The Board of Directors also ensures that changes in the fixed portion for the executive corporate officers appear moderate as compared to the overall wage increases of Group employees over the same period.

For example, for the 2022 fiscal year:

- the annual fixed portion payable to Édouard Guinotte, Chairman of the Management Board from March 16, 2020 until June 30, 2021, then Chairman and Chief Executive Officer from July 1, 2021 until March 20, 2022, remained unchanged at €600,000;
- the annual fixed portion payable to Olivier Mallet, Deputy Chief Executive Officer from July 1, 2021 until March 20, 2022, which had remained unchanged at €420,000 since 2014, and was increased to €470,000 as of March 15, 2020 (1), remained unchanged at €470,000 until the expiration of his term as Deputy Chief Executive Officer;
- the annual fixed portion payable to Philippe Guillemot, Chairman and Chief Executive Officer since March 20, 2022, was set at €1,000,000 as of March 20, 2022, corresponding on a pro rata basis to €780,821.91 for the 2022 fiscal year.

(1) *This increase, which was decided in February 2020 before the spread of Covid-19 and the ensuing restrictions that resulted in a sharp decline in global demand for oil, was justified by increased responsibilities as part of the optimization of the Group's financing resources, as well as its transition with the arrival of a new Chairman of the Management Board.*

Annual variable portion of executive corporate officers' remuneration

The aim of allocating a variable portion of annual remuneration is to ensure that the executive corporate officers have a vested interest in the Group's short-term performance. The Board of Directors reviews and sets the structure of this remuneration each year based on proposals put forward by the Remuneration Committee.

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 Board of Directors are met, and maximum levels when target objectives have been exceeded.

With regard to the 2022 fiscal year, the variable portion payable to the Chairman and Chief Executive Officer 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.

The variable portions are subject to achievement of several precise and previously established quantitative or qualitative objectives, for which the minimum, target and maximum thresholds are set by the Board of Directors, upon recommendation from the Remuneration Committee. 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.

The achievement of quantitative objectives is verified by the Remuneration Committee based on information provided by the various Departments in question according to the nature of these objectives (Finance, Human Resources, Quality and Safety Department, Sustainable Development Department, etc.) and audited. The achievement of qualitative objectives is assessed by the Remuneration Committee and the Board of Directors based on priorities defined at the beginning of the year according to the Group's strategy, priorities and challenges.

For 2022, the Board of Directors has decided to structure the variable portion of the Chairman and Chief Executive Officer's remuneration as follows:

	Chairman and Chief Executive Officer (target variable portion: 100% of fixed portion)
1. Financial performance: Net free cash flow, EBITDA	Weighting: 60%
2. Operational performance: Rapid performance improvement	Weighting: 20%
3. CSR: Quality, safety and composite CSR indicator including: carbon emissions and diversity	Weighting: 20%

For the 2022 fiscal year, Mr. Philippe Guillemot will receive a guaranteed bonus corresponding to 50% of the 2022 annual variable remuneration (calculated pro rata) (i.e., €390,410.95 gross) and the maximum variable remuneration will be capped at 100% of the gross fixed remuneration (calculated pro rata) (i.e., €780,821.91 gross).

For the period from January 1, 2022 to March 20, 2022, Mr. Edouard Guinotte will, by way of exception, receive a variable remuneration of €130,434.78 gross, calculated *prorata temporis* on the basis of an achievement of 100% of the targets.

For the 2022 fiscal year, the target variable portion of Mr. Olivier Mallet's remuneration as Deputy Chief Executive Officer has been set at 75% of the fixed portion of his remuneration, based on the following weightings: 45% for financial performance, 15% for operational performance and 15% for the CSR. Olivier Mallet's duties as Deputy Chief Executive Officer expired on March 20, 2022. For the period from January 1, 2022 to March 20, 2022, Mr. Olivier Mallet will, by way of exception, receive a variable remuneration calculated *prorata temporis* on the basis of an achievement of 100% of the targets.

Pursuant to Article L.22-10-16 of the French Commercial Code, the payment of the elements of variable remuneration to the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) is subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of the elements of remuneration of the individual concerned under the terms provided for in Article L.22-10-34 of the French Commercial Code.

Executive corporate officers' long-term incentive equity instruments

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 for many years used a dynamic employee profit-sharing policy, by establishing performance share and stock options allocation plans.

Acting on a proposal of certain shareholders, and further to the authorization of the Ordinary and Extraordinary Shareholders' Meeting of September 7, 2021, on October 13, 2021 the Board of Directors set up a share-based compensation plan. The compensation under the plan is contingent on performance and is based on the terms and conditions generally applied by private equity funds. Under the plan, provided that the applicable conditions relating to continuous service and/or performance are met, the beneficiaries (the Chairman and Chief Executive Officer, the Deputy Chief Executive Officer(s), as the case may be, the Executive Committee members and certain managers) are awarded ordinary shares and preferred shares convertible into ordinary shares. The total number of free shares that may be issued in this context may not under any circumstances represent more than 5% of the Company's share capital on the date of the decision to allocate them by the Board of Directors.

Two different types of shares may be granted to the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) under this plan:

- ordinary shares, representing 33.33% of the shares allocated under the basic plan (representing 29% of the overall plan when accounting for additional Tranche 4 shares, as defined below); and
- preferred shares of various classes, convertible into ordinary shares, representing 66.66% of the shares allocated under the basic plan (representing 71% of the overall plan when accounting for additional Tranche 4 shares, as defined below).

Furthermore, on March 26, 2022 the Board of Directors approved certain amendments to the plan, in particular the deletion of the aforementioned requirement to have ordinary shares represent 33.33% of the shares allocated to the beneficiaries, following the appointment of Philippe Guillemot as Chairman and Chief Executive Officer on March 20, 2022, in order to allow the Board of Directors to increase the ratio of preferred shares (and correlatively decrease the number of ordinary shares) in the overall allocation to the beneficiaries, and subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of such remuneration policy.

The ordinary shares allocated under the plan may be existing shares or shares to be issued, while the preferred shares are shares to be issued in accordance with the Company's Articles of Association.

The **ordinary shares** allocated under this plan will vest over five years from the date of grant, with one-fifth of the shares vesting definitively in each beneficiary on each anniversary date, subject to the following two cumulative service and performance conditions:

(i) the beneficiary remains an employee or corporate officer of the Company on the anniversary date in question; and

(ii) the share price of an ordinary share is at least equal to €8.09 on such anniversary date.

These ordinary shares are subject to a one-year retention period, with the exception of ordinary shares that vest on or after the second anniversary of the date of allocation (for which the vesting period will therefore be at least two years).

The **preferred performance shares** allocated under the plan are of different categories, in accordance with the Company's Articles of Association:

- half of them consist of "Tranche 2" preferred shares (the "Tranche 2 Shares"); and
- the other half consist of "Tranche 3" preferred shares (the "Tranche 3 Shares").

The vesting period of these preferred shares is one year, starting from their allocation date. They are also subject to a retention period of one year.

Once definitively vested, these preferred shares may become convertible into ordinary shares of the Company, in accordance with the terms of the Company's Articles of Association, under the following performance conditions:

- the Tranche 2 Shares are convertible into ordinary shares, at the request of each holder, as from the day on which the Company's volume weighted average share price on the regulated market of Euronext Paris of the ordinary shares of the Company is at least equal to €16.19 during a period of 90 consecutive trading sessions, within a maximum period of five years from the effective restructuring date (i.e., June 30, 2021); and
- the Tranche 3 Shares will be convertible into ordinary shares, at the request of each holder, as from the day on which the Company's volume weighted average share price on the regulated market of Euronext Paris of the ordinary shares of the Company is at least equal to €20.22 during a period of 90 consecutive trading sessions, within a maximum period of five years as from the effective restructuring date (i.e., June 30, 2021).

Both the Tranche 2 Shares and the Tranche 3 Shares will be convertible into ordinary shares on a one-for-one basis.

The ordinary shares obtained upon conversion will be ordinary shares of the Company, to be assimilated to all other ordinary shares of the Company. Prior to their conversion, neither the Tranche 2 Shares nor the Tranche 3 Shares will carry any voting rights at the General Meeting of the Company, any right to dividends or any right to a share of the Company's assets in the event of liquidation of the Company, but will carry a pre-emptive subscription right in the event of a capital increase.

In addition to the above, in October 2021 the former Chairman and Chief Executive Officer, Édouard Guinotte, and the former Deputy Chief Executive Officer, Olivier Mallet, were granted another category of preferred shares, known as "Tranche 4" shares (the "**Tranche 4 Shares**"), which represent 21% of the total amount of Tranche 2 Shares and Tranche 3 Shares granted.

The Tranche 4 Shares are subject to the same vesting and holding obligations as the Tranche 2 Shares and the Tranche 3 Shares. Moreover, in accordance with the Articles of Association of the Company, they have the same pecuniary and political rights as the Tranche 2 Shares and the Tranche 3 Shares.

The Tranche 4 Shares are convertible into ordinary shares, at the request of each holder, as from the day on which the Company's volume weighted average share price on the regulated market of Euronext Paris of the ordinary shares of the Company is at least equal to €28.32 during a period of 90 consecutive trading sessions, according to the same ratio as the Tranche 2 Shares and the Tranche 3 Shares.

The Board of Directors considers that the performance criteria applicable to the performance based shares allocated to the former Chairman and Chief Executive Officer, Édouard Guinotte, and the former Deputy Chief Executive Officer, Olivier Mallet, are correlated to the medium and long term development of the Group's results and overall performance.

Consequently, in total the Board of Directors allocated the following in 2021:

- 1,002,767 shares to the former Chairman and Chief Executive Officer, Édouard Guinotte; and
- 667,224 shares to the former Deputy Chief Executive Officer, Olivier Mallet;

These shares comprised ordinary shares and the various categories of preferred shares as stated above.

In principle, the share grants described above will cover a period of five years and the Company does not intend to set up annual share allocation plans.

It is contemplated that the Board of Directors will grant in respect of fiscal year 2022 a number of free shares to Philippe Guillemot as Chief Executive Officer, as follows, subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of the corresponding resolutions regarding the principle of the approval of the amendment of the plan for the allocation of the free shares:

- 957,938 Tranche 2 Shares;
- 957,938 Tranche 3 Shares; and
- 143,000 Tranche 4 Shares.

It is specified that the above-mentioned grant will basically cover a period of four years and are not intended to be renewed annually.

The Chairman and Chief Executive Officer shall, upon decision of the Board of Directors, either (a) not sell the shares allocated free of charge before the termination of their functions, or (b) hold in registered form until the termination of their functions a quantity of shares allocated free of charge. He shall also undertake not to use hedging instruments relating to the sale of performance shares.

In accordance with the recommendations of the AFEP-MEDEF Code, the Board of Directors may provide, at the time of the allocation of performance shares, for a stipulation authorizing it to decide on the retention of all or part of the long-term remuneration plans not yet vested or of the shares not yet vested at the time of the beneficiary's departure. Performance conditions would in any event be applied for the entire performance assessment period prescribed by each plan.

Benefits in kind for executive corporate officers

In terms of benefits in kind, executive corporate officers are entitled, as are the majority of the Group's senior executives, to a Company car.

Attendance fees for executive corporate officers

Executive corporate officers do not earn any remuneration or attendance fees for the corporate offices they hold in direct or indirect subsidiaries of the Vallourec Group.

Supplementary pension plan for executive corporate officers

In accordance with market practices and to retain the Group's senior executives, the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) are offered a comprehensive supplementary pension 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 plan previously in effect. This new plan will ensure that each of its beneficiaries, individually, receives a net annuity level equal to that of the previous plan, while allowing Vallourec to achieve savings of around 22%.

The supplementary pension plan introduced in 2016 includes three components:

Closure of the defined benefit plan (Article 39 of the French Tax Code)

The former Deputy Chief Executive Officer, Olivier Mallet, who benefits, along with 22 other senior executives meeting the eligibility requirements, from the defined benefit plan under the terms and conditions set by the closure regulation, under which no new potential rights could be accrued under the closed plan and beneficiaries could only benefit from accrued and vested rights at the time they retire.

Mandatory group defined contribution plan (Article 83 of the French Tax Code)

The Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s), benefit from a mandatory group defined contribution pension plan open to all employees who meet the eligibility requirements (1). The contribution to this plan is set at 12% of remuneration falling between four and eight times the social security ceiling. The plan can only be realized at the time the beneficiary retires.

The Company's financial obligation is strictly limited in terms of amount and time since it can close the plan at any time.

Individual plan subject to performance criteria (Article 82 of the French Tax Code)

Individual defined contribution pension plans have been set up for the Chairman and Chief Executive Officer, and, as the case may be, the Deputy Chief Executive Officer(s), as well as for other eligible senior executives (2). In the spirit of France's "Macron Law", performance criteria have been set for the entitlements under these plans to vest.

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%.

This mechanism remains applicable to employees who have benefited from this plan since 2016.

For employees who had not benefited from the 2016 plan, it is proposed that an individual plan subject to performance criteria (Article 82 of the French Tax Code) be put in place, with the contribution rate to the individual pension plan defined based on the age of the beneficiary and according to the following scale:

- under 50 years of age: 5%;
- between 51 and 54 years of age: 7.5%;
- between 55 and 59 years of age: 10%;
- over 60 years of age: 15%.

This individual pension plan will be implemented for eligible new corporate officers and senior executives (appointees to the Executive Committee). Contributions shall be based on fixed remuneration plus the variable portion actually paid during the reference fiscal year.

In order to finance the contribution, the Company's share is equal to a gross amount after deduction of employee contributions and the income tax generated by this contribution. The plan can only be wound up after the social security pension has been paid.

The latter will continue to benefit from the provisions of the mandatory group defined contribution plan (Article 83 of the French Tax Code) implemented in 2016.

The Company may terminate this plan at any time in such a way that it does not represent a deferred obligation.

The supplementary pension plan will be reviewed based on the new provisions of the French pension reform.

These plans exist to improve the replacement income of beneficiaries and grant no specific advantage to the Chairman and Chief Executive Officer compared with eligible executive officers employed by the Group.

The determination of the overall remuneration of the Chairman and Chief Executive Officer took into account the benefits under this supplementary pension plan.

The Group's supplementary pension plan has a replacement rate that remains well below market practices, regardless of the reference panel used.

Provisions applicable to the termination of executive corporate officers' duties

Non-compete obligation applicable to the Chairman and Chief Executive Officer

Considering his steel industry expertise, the Board has sought to enable the Group to safeguard its know-how and activities by imposing a conditional non-compete obligation on the Chairman and Chief Executive Officer should he leave the Group.

At its entire discretion, the Board may decide to prohibit the Chairman and Chief Executive Officer, at the time of his departure, and for a period of 18 months following the termination of his duties as Chairman and Chief Executive Officer of Vallourec, for whatever reason, from working in whatever manner with a company or a group of companies generating more than 50% of their annual consolidated revenue in the design, production, sale or use of seamless carbon tubes or any kind of solution that competes with seamless tubes in the steel industry for application in the energy field. Such non-compete obligation will cover the following geographical scope: Europe, Middle-East, United States of America, Mexico, Argentina, Brazil, China, Ukraine and Russia. No payments shall be made under the non-compete compensation after the executive concerned retires, and no compensation can be paid beyond the

(1) Eligible employees are Vallourec employees in France whose annual remuneration exceeds four times the social security ceiling (in 2021: 4 x €41,136), i.e., around 40 senior executives of the Group, including corporate officers.

(2) Eligible employees are Vallourec and Vallourec Tubes employees who have at least three years' seniority in the Group and whose remuneration exceeds eight times the social security ceiling, i.e., potentially eight senior executives, including corporate officers.

age of 70 (subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of the change proposed by the Board of Directors on March 26, 2022 to the Company's Articles of Association with respect to the age limitation for the Chairman and Chief Executive Officer).

Should this clause be implemented by the Board, it would result in a payment to the Chairman and Chief Executive Officer of non-compete compensation equal to 12 months of gross fixed and variable monetary remuneration, which is calculated based on the average of the gross fixed and variable annual monetary remuneration 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 departure date of the Chairman and Chief Executive Officer.

Monetary termination benefit for the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s)

The Board of Directors takes into account all the benefits which may be claimed by the executive corporate officer 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 executive corporate officer 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.

The Board of Directors considers that when no contractual severance pay is awarded, the executive corporate officers in question may benefit from a monetary termination benefit.

In accordance with the AFEP-MEDEF Code, the termination benefit for the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) will only be due in the event of dismissal. No benefit will be due if it is possible for the interested party to claim his retirement rights within a short period of time.

The amount of the termination benefit is limited to twice the average gross fixed and variable annual remuneration payable in respect of the two fiscal years preceding the date of departure (hereinafter the "Maximum Benefit").

The benefit will 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.

In accordance with the AFEP-MEDEF Code, the aggregate remuneration due for the termination of the employment contract under the Collective Bargaining Agreement, compensation due under the non-compete clause, for the Chairman and Chief Executive Officer, 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 below.

In order to make the benefit easier to understand and more transparent, the Supervisory Board decided to simplify the structure of the performance conditions applicable to this cash termination benefit as from March 15, 2020.

The amount of the termination benefit will depend on the rate of achievement of objectives set by the Board for the annual variable cash portion over the last three fiscal years preceding the departure date (the "Reference Period").

For an average achievement rate equal to or greater than 50%, the termination benefit will be equal to the achievement rate multiplied by the Reference Remuneration. The benefit may not exceed 100% of the Reference Remuneration. For an average achievement rate of less than 50%, no termination benefit will be paid.

For the 2019 fiscal year: the rate of achievement of objectives is calculated based on the method set out in the remuneration policies applicable to members of the Management Board in office during this period. The result, expressed as the number of months of remuneration, is reduced to 24 to obtain the achievement rate for the year. The achievement rate for this fiscal year is as follows:

- fiscal year 2019: 100%.

For fiscal years beginning as of January 1, 2020: the achievement rate taken into account is the achievement rate of the objectives set by the Board for the annual variable monetary portion, i.e.:

- fiscal year 2020: 76.4%,
- fiscal year 2021: 98.93%.

Executive corporate officers' extraordinary remuneration

As recommended in the AFEP-MEDEF Code, the Board of Directors may, on the recommendation of the Remuneration Committee, award extraordinary remuneration to the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) if very specific circumstances justify this (for example, due to the importance of these circumstances to the Group, the involvement they require and the difficulties they present). Its decision must be substantiated. The amount of this extraordinary remuneration may not under any circumstance exceed the amount of the fixed annual monetary portion of the interested party.

Pursuant to Article L.22-10-26 of the French Commercial Code, the payment of the elements of extraordinary remuneration to the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) is subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of the elements of remuneration of the individual concerned under the terms provided for in Article L.22-10-34 of the French Commercial Code.

Signing bonuses

As recommended in the AFEP-MEDEF Code, the Board of Directors may, on the recommendation of the Remuneration Committee, award a new Chief Executive Officer and, as the case may be, Deputy Chief Executive Officer(s) coming from an outside company a signing bonus in order to offset the loss of benefits previously received by the executive. This bonus must be clearly stated and made public at the time it is decided.

7.2.1.3 Remuneration policy for directors

7.2.1.3.1 GENERAL PRINCIPLES OF THE BOARD POLICY FOR THE REMUNERATION OF THE CHAIRMAN AND MEMBERS OF THE BOARD

Members of the Board of Directors receive only monetary remuneration for the performance of their duties.

Based on proposals put forward by the Remuneration Committee, the Board of Directors allocates individual remuneration amounts to its members out of the €1,250,000 annual total set at the September 7, 2021 Ordinary and Extraordinary Shareholders' Meeting.

Members of the Board of Directors receive a portion of their remuneration as a fixed amount and another portion based on their attendance at Board meetings and meetings of Committees of which they are members.

The Vice-Chairman will receive an additional fixed annual amount for his duties. The Chairmen and members of the Board Committees shall receive an additional amount for their participation in such committees.

Directors (other than the Chairman and Chief Executive Officer) are not entitled to any allocated free shares or performance shares or to severance pay of any kind in respect of their duties on the Board of Directors.

Directors are required to be shareholders of the Company in a personal capacity throughout their term of office, in accordance with the conditions set out in the Articles of Association and the Internal Rules of the Board of Directors (with the exception of the director representing employees).

7.2.1.3.2 COMPONENTS OF REMUNERATION FOR THE CHAIRMAN AND MEMBERS OF THE BOARD

Attendance at meetings of the Board of Directors

In accordance with the recommendations of the AFEP-MEDEF Code, which require that the portion of directors' remuneration based on attendance should take precedence over the fixed portion, the latter amounts to €30,000 (€45,000 for the Vice-Chairman), while attendance at a meeting of the Board of Directors gives rise to payment of €3,000 per meeting.

In addition, the Vice-Chairman receives €15,000 per meeting of the Board of Directors attended.

Travel expenses will be paid in an amount equal to €8,000 per Board Meeting (United States, China and Brazil) or €2,000 per Board Meeting (Europe, excluding France).

Observers do not receive any remuneration.

Attendance at Committee meetings

Chairman and members of each of the Committees receive additional remuneration based on their actual attendance at meetings of said Committees, as follows:

- for members of the Board Committees: €5,000 per meeting;
- for the Chairs of the Board Committees: €5,000 per meeting.

7.2.2 Board of Directors' Report on total remuneration in 2021 for corporate officers

This report was drawn up pursuant to Articles L.22-10-9, L.22-10-16 and L.22-10-34 of the French Commercial Code, in preparation for the say-on-pay shareholder votes at the Annual General Meeting on May 24, 2022. These votes relate to the total remuneration and benefits paid or awarded for the year ended December 31, 2021 to (i) all corporate officers and (ii) Édouard Guinotte, Chairman of the Management Board until June 30, 2021 and then Chairman and Chief Executive Officer from July 1, 2021 until March 20, 2022; Olivier Mallet, member of the Management Board until June 30, 2021 and then Deputy Chief Executive Officer from July 1, 2021 until March 20, 2022; and Vivienne Cox, Chairman of the Supervisory Board until June 30, 2021.

The corporate officers' remuneration is set by the Board of Directors in compliance with the remuneration policies approved by the shareholders at the Annual General Meeting.

7.2.2.1 Compliance of total remuneration with the remuneration policies for corporate officers approved by the shareholders

The Board of Directors, at its meeting of February 23, 2022, ensured that the fixed, variable and extraordinary items comprising the total remuneration and benefits paid or awarded for the year 2021 to corporate officers complies with the remuneration policies for corporate officers approved by the Shareholders' Meeting of April 20, 2021 and amended by the Shareholders' Meeting of September 7, 2021.

The Board also ensured that the remuneration for executive corporate officers contributes to the Company's long-term performance.

The Board took note of the conditions for the approval of resolutions relating to the remuneration policies for corporate officers by the Shareholders' Meeting of April 20, 2021 and by the Shareholders' Meeting of September 7, 2021, as summarized below. The Board considers that the very high approval rate of these resolutions shows that the remuneration policies for the Company's corporate officers are in line with shareholder expectations.

April 20, 2021 Shareholders' Meeting resolution	Approval rate
6th resolution - Remuneration policy for the Chairman of the Management Board for 2021	92.15%
10th resolution - Remuneration policy for members of the Management Board (other than the Chairman) for 2021	94.93%
11th resolution - Remuneration policy for the Chairman of the Supervisory Board for 2021	95.30%
12th resolution - Remuneration policy for members of the Supervisory Board (other than the Chairman) for 2021	95.14%

September 7, 2021 Shareholders' Meeting resolution	Approval rate
5th resolution - Approval of the modification of the remuneration policy for the Chairman and Chief Executive Officer for 2021	88.26%
6th resolution - Approval of the modification of the remuneration policy for the Deputy Chief Executive Officer for 2021	88.40%
7th resolution - Approval of the modification of the remuneration policy for directors (other than the Chairman) for 2021	90.44%

7.2.2.2 Executive corporate officers' remuneration

7.2.2.2.1 GENERAL PRINCIPLES

The remuneration for executive corporate officers presented below includes fixed, variable and extraordinary components of total remuneration and benefits paid or awarded for 2021.

7.2.2.2.2 STATUS OF EXECUTIVE CORPORATE OFFICERS

- Édouard Guinotte's employment contract was suspended for the duration of his term as Chairman and Chief Executive Officer, which ended on March 20, 2022, and is set to be terminated in April 2022;
- Since March 21, 2022, the provisions of Olivier Mallet's employment contract as Chief Financial Officer, which were suspended during his term as Deputy Chief Executive Officer, are back in force. Olivier Mallet will carry out his employee duties as Chief Financial Officer under the same remuneration conditions as those provided for in relation to his duties as Deputy Chief Executive Officer of the Company.

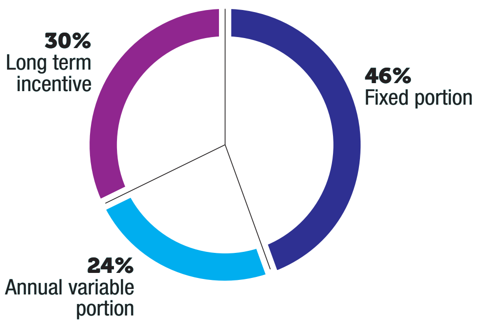
Édouard Guinotte and Olivier Mallet respectively held 108,346 and 74,294 Vallourec shares as at March 20, 2022.

7.2.2.2.3 COMPONENTS OF REMUNERATION AND BENEFITS FOR EXECUTIVE CORPORATE OFFICERS

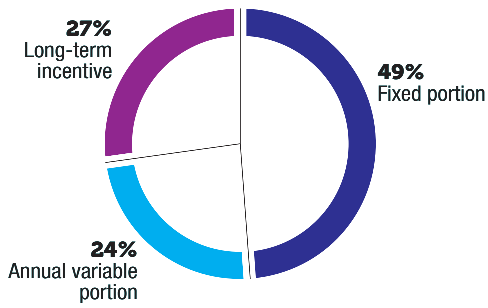
Respective weighting of the components of executive remuneration

The respective weighting of each of the components of the remuneration of corporate officers was as follows in 2021 (as the MEP is intended to be a multi-year plan, one-fifth of its value has been taken into account):

Edouard Guinotte



Olivier Mallet



Fixed portion

In accordance with the remuneration policy applicable since January 1, 2021:

- **the fixed portion of remuneration for Édouard Guinotte**, Chairman of the Management Board until June 30, 2021 and then Chairman and Chief Executive Officer until March 20, 2022, amounts to €600,000;
- **the fixed portion of remuneration for Olivier Mallet**, member of the Management Board until June 30, 2021 and then Deputy Chief Executive Officer until March 20, 2022, amounts to €470,000.

Relative to the general salary increases of French employees between 2012 and 2021, the changes in the fixed portions for the executive corporate officers over the same period appear moderate, as shown in the table below.

Change in the fixed remuneration of French employees of the Group and members of the Management Board for the period 2012-2021, on a full-year basis

Executive corporate officers	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total change
Édouard Guinotte									€600,000	€600,000 i.e., 0%	0%
Olivier Mallet	€400,000	€400,000	€420,000	€420,000	€420,000	€420,000	€420,000	€420,000	€470,000 i.e., 11.90%	€470,000 i.e., 0%	+17.5% over the period
Total salary increase budgets for Group employees (2012 to 2021 budgets)											+21.8% over the period

Variable portion

The variable portion is a percentage of the fixed portion, and takes account of minimum thresholds, below which no payment is made, target levels when the objectives set by the Board are met, and maximum levels when objectives are exceeded.

For 2021, the variable portions of remuneration for executive corporate officers changed in terms of their structure, as detailed below, while the target and maximum levels remained unchanged. The variable portion of remuneration payable for 2021 to Édouard Guinotte for his duties as Chairman of the Management until June 30, 2021 and then Chairman and Chief Executive Officer from July 1, 2021 until March 20, 2022, could vary from 0% to 100% of his target fixed portion and could represent 135% of that same fixed portion if the maximum objectives were reached. The variable portion of remuneration payable for 2020 to Olivier Mallet, member of the Management Board until June 30, 2021 and then Deputy Chief Executive Officer from July 1, 2021 until March 20, 2022, could vary from 0% to 75% of his target fixed portion and could represent 100% of that same fixed portion if the maximum objectives were reached. The table below shows the components of monetary remuneration for the members of the Management Board:

	Édouard Guinotte former Chairman and Chief Executive Officer	Olivier Mallet former Deputy Chief Executive Officer
Fixed portion *(in €)*	600,000	470,000
Target variable portion *(as a % of fixed portion)*	100%	75%
Maximum variable portion *(as a % of fixed portion)*	135%	100%

The 2021 variable portions were contingent on the achievement of several precise and pre-defined quantitative or qualitative objectives, for which the minimum, target and maximum thresholds were set by the Supervisory Board and upheld by the Board of Directors.

For 2021, the executive corporate officers' objectives were based on the same three fundamental priorities for the Group as were used in 2020, as these priorities were still relevant:

- three objectives linked to the Group's financial performance:
  - net free cash flow,
  - EBITDA,
  - cost reductions;
- two objectives linked to operating performance:
  - rapid performance improvement,
  - quality through reduction of customer claims;
- three objectives linked to CSR:
  - TRIR: total recordable incident rate per million hours worked,
  - LTIR: lost time incident rate per million hours worked,
  - social and environmental responsibility, based on a composite indicator including the Group industrial waste recovery rate (as a %), the average satisfaction rate of Group employees in "Opinion" surveys, diversity and the ratio of non-biogenic carbon emissions to sales volume.

In 2021, quantitative objectives represented 80% of the target variable portion of remuneration for Édouard Guinotte and for Olivier Mallet; the share of financial performance objectives was 60% of the variable target share (identical to 2020); the portion of CSR performance objectives represented 15% of the target variable portion (identical to 2020).

In view of the results achieved, the variable portions of remuneration for each Management Board member for 2021 were set as follows:

2021 variable portion	Édouard Guinotte	Olivier Mallet
STRUCTURE AND LEVEL OF THE VARIABLE PORTION *(as a percentage of the fixed portion)*	Variable portion: 100% if the objectives set by the Board are achieved (on-target), and 135% maximum for exceptional performance	Variable portion: 75% if the objectives set by the Board are achieved (on-target), and 100% maximum for exceptional performance
FINANCIAL PERFORMANCE OBJECTIVES	**WEIGHTING IN TARGET VARIABLE PORTION: 60%**	**WEIGHTING IN TARGET VARIABLE PORTION: 45%**
Net cash flow from operating activities	Criterion ranging from 0 to 20% if the target was met, and up to a maximum of 27%	Criterion ranging from 0 to 15% if the target was met, and up to a maximum of 20%
The achievement rate for this indicator is	24.22%	18.01%
EBITDA	Criterion ranging from 0 to 20% if the target was met, and up to a maximum of 27%	Criterion ranging from 0 to 15% if the target was met, and up to a maximum of 20%
The achievement rate for this indicator is	27.00%	20.00%
Cost reductions	Criterion ranging from 0 to 20% if the target was met, and up to a maximum of 27%	Criterion ranging from 0 to 15% if the target was met, and up to a maximum of 20%
The achievement rate for this indicator is	27.00%	20.00%
TOTAL FINANCIAL PERFORMANCE OBJECTIVES (IN €)[A]	**€469,320**	**€272,649**
OPERATIONAL PERFORMANCE OBJECTIVES	**WEIGHTING IN TARGET VARIABLE PORTION: 25%**	**WEIGHTING IN TARGET VARIABLE PORTION: 18.75%**
Continued roll-out of the Transformation Plan	Criterion ranging from 0 to 20% if the target was met, and up to a maximum of 27%	Criterion ranging from 0 to 15% if the target was met, and up to a maximum of 20%
The achievement rate for this indicator is	10.00%	7.50%
Quality	Criterion ranging from 0 to 5% if the target was met, and up to a maximum of 6.75%	Criteria ranging from 0 to 3.75% if the target was met, and up to a maximum of 5%
The achievement rate for this indicator is	5.88%	4.38%
TOTAL OPERATIONAL PERFORMANCE OBJECTIVES (IN €)	**€95,280**	**€55,837**
CSR OBJECTIVES	**WEIGHTING IN TARGET VARIABLE PORTION: 15%**	**WEIGHTING IN TARGET VARIABLE PORTION: 11.25%**
Safety (TRIR)/(LTIR) [a]	Criteria ranging from 0 to 10% if the target was met, and up to a maximum of 13.5%	Criteria ranging from 0 to 7.5% if the target was met, and up to a maximum of 10%
The achievement rate for these indicators is	0.83%	0.63%
Social and environmental responsibility composite indicator	Criteria ranging from 0 to 5% if the target was met, and up to a maximum of 6.75%	Criteria ranging from 0 to 3.75% if the target was met, and up to a maximum of 5%
The achievement rate for these indicators is	4.00%	3.00%
TOTAL CSR PERFORMANCE OBJECTIVES (IN €)	**€28,980**	**€17,061**
Percentage of the variable portion calculated in relation to the target variable portion	98.93%	98.03%
VARIABLE PORTION CALCULATED AS A PERCENTAGE OF THE FIXED PORTION OF REMUNERATION	**98.93%**	**73.52%**
VARIABLE PORTION CALCULATED IN €	**€593,580**	**€345,547**

(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 monetary variable portion of remuneration for executive corporate officers reflects their performance in relation to the objectives set for them in terms of financial, operational and CSR performance. In terms of operational performance, the Board of Directors – on the recommendation of the Remuneration Committee – decided to set the achievement rate at 10%, emphasizing that:

- the financial restructuring was completed in line with the Company's objectives;
- the Acceleration program has been implemented and the first results are available;
- the scope of the European business continues to evolve, with the announcement of the launch of the disposal process for German assets, the sale of Valinox Nucléaire, the closure of the Déville-lès-Rouen site and the sale of the real estate assets of the Reisholz site;
- the commitment and loyalty of the management teams.

Pursuant to Article L.22-10-26 of the French Commercial Code, the payment of the components of individual variable remuneration for the former Chairman and Chief Executive Officer and the former Deputy Chief Executive Officer is subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting, under the terms provided for in Article L.22-10-34 of the French Commercial Code.

Long-term incentive equity instruments

On October 13, 2021 the Board of Directors set up a share-based compensation plan. The compensation under the plan is contingent on performance and is based on the terms and conditions generally applied by private equity funds.

Two different types of shares may be granted to the Chairman and Chief Executive Officer and, as the case may be, the Deputy Chief Executive Officer(s) under this plan:

- ordinary shares, representing 33.33% of the shares allocated under the basic plan (representing 29% of the overall plan when accounting for additional Tranche 4 shares, as defined below); and
- preferred shares of various classes, convertible into ordinary shares, representing 66.66% of the shares allocated under the basic plan (representing 71% of the overall plan when accounting for additional Tranche 4 shares, as defined below).

Furthermore, on March 26, 2022 the Board of Directors approved certain amendments to the plan, in particular the deletion of the aforementioned requirement to have ordinary shares represent 33.33% of the shares allocated to the beneficiaries, following the appointment of Philippe Guillemot as Chairman and Chief Executive Officer on March 20, 2022, in order to allow the Board of Directors to increase the ratio of preferred shares (and correlatively decrease the number of ordinary shares) in the overall allocation to the beneficiaries, and subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of such remuneration policy.

The **ordinary shares** allocated under this plan will vest over five years from the date of grant, with one-fifth of the shares vesting definitively in each beneficiary on each anniversary date, subject to the following two cumulative service and performance conditions:

(i) the beneficiary remains an employee or corporate officer of the Company on the anniversary date in question; and

(ii) the share price of an ordinary share is at least equal to €8.09 on such anniversary date.

These ordinary shares are subject to a one-year retention period, with the exception of ordinary shares that vest on or after the second anniversary of the date of allocation (for which the vesting period will therefore be at least two years).

The **preferred performance shares** allocated under the plan are of different categories, in accordance with the Company's Articles of Association:

- half of them consist of "Tranche 2" preferred shares (the "Tranche 2 Shares"); and
- the other half consist of "Tranche 3" preferred shares (the "Tranche 3 Shares").

The vesting period of these preferred shares is one year, starting from their allocation date. They are also subject to a retention period of one year.

Once definitively vested, these preferred shares may become convertible into ordinary shares of the Company, in accordance with the terms of the Company's Articles of Association, under the following performance conditions:

- the Tranche 2 Shares are convertible into ordinary shares, at the request of each holder, as from the day on which the Company's volume weighted average share price on the regulated market of Euronext Paris of the ordinary shares of the Company is at least equal to €16.19 during a period of 90 consecutive trading sessions, within a maximum period of five years from the effective restructuring date (i.e., June 30, 2021); and
- the Tranche 3 Shares will be convertible into ordinary shares, at the request of each holder, as from the day on which the Company's volume weighted average share price on the regulated market of Euronext Paris of the ordinary shares of the Company is at least equal to €20.22 during a period of 90 consecutive trading sessions, within a maximum period of five years as from the effective restructuring date (i.e., June 30, 2021).

Both the Tranche 2 Shares and the Tranche 3 Shares will be convertible into ordinary shares on a one-for-one basis.

The ordinary shares obtained upon conversion will be ordinary shares of the Company, to be assimilated to all other ordinary shares of the Company. Prior to their conversion, neither the Tranche 2 Shares nor the Tranche 3 Shares will carry voting any rights at the General Meeting of the Company, any right to dividends or any right to a share of the Company's assets in the event of liquidation of the Company, but will carry a pre-emptive subscription right in the event of a capital increase.

In addition to the above, the former Chairman and Chief Executive Officer, Édouard Guinotte, and the former Deputy Chief Executive Officer, Olivier Mallet, have been granted another category of preferred shares, known as "Tranche 4" shares (the "**Tranche 4 Shares**"), which represent 25% of the total amount of Tranche 2 Shares and Tranche 3 Shares granted.

The Tranche 4 Shares are subject to the same vesting and holding obligations as the Tranche 2 Shares and the Tranche 3 Shares. Moreover, in accordance with the Articles of Association of the Company, they have the same pecuniary and political rights as the Tranche 2 Shares and the Tranche 3 Shares.

The Tranche 4 Shares are convertible into ordinary shares, at the request of each holder, as from the day on which the Company's volume weighted average share price on the regulated market of Euronext Paris of the ordinary shares of the Company is at least equal to €28.32 during a period of 90 consecutive trading sessions, according to the same ratio as the Tranche 2 Shares and the Tranche 3 Shares.

The Board of Directors considers that the performance criteria applicable to the performance based shares allocated to the former Chairman and Chief Executive Officer, Édouard Guinotte, and the former Deputy Chief Executive Officer, Olivier Mallet, are correlated to the medium and long term development of the Group's results and overall performance.

Consequently, in total the Board of Directors allocated the following in 2021:

- 1,002,767 shares to the former Chairman and Chief Executive Officer, Édouard Guinotte; and
- 667,224 shares to the former Deputy Chief Executive Officer, Olivier Mallet;

These shares comprised ordinary shares and the various categories of preferred shares as stated above.

In principle, the share grants described above will cover a period of five years and the Company does not intend to set up annual share allocation plans.

Out of this total, representing 2.2589% of share capital as at December 31, 2021, the portion allocated to the executive corporate officers stood at 31.9% of total awards, and 0.7295% of the share capital.

Pursuant to the plan rules and the terms and conditions of the free shares, all of Édouard Guinotte's Tranche 2 Shares, Tranche 3 Shares and Tranche 4 Shares, and 80% of his Tranche 1 Shares shall lapse. Édouard Guinotte shall only be entitled to 20% of the 292,852 Tranche 1 Shares.

Subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting of the corresponding resolutions concerning the approval of the amendment to the free share allocation plan, the Board of Directors will allocate free shares to Philippe Guillemot in his capacity as Chief Executive Officer in respect of the 2022 fiscal year, as follows:

- 957,938 Tranche 2 Shares;
- 957,938 Tranche 3 Shares; and
- 143,000 Tranche 4 Shares.

The share grant described above will cover a period of around four years and the Company does not intend to set up annual share allocation plans.

Upon decision of the Board of Directors, the Chairman and Chief Executive Officer shall either (a) not sell the shares allocated free of charge before the termination of his duties, or (b) hold in registered form until the termination of his duties a quantity of shares allocated free of charge. He shall also undertake not to use hedging instruments relating to the sale of performance shares.

In accordance with the recommendations of the AFEP-MEDEF Code, the Board of Directors may provide, at the time of the allocation of performance shares, for a stipulation authorizing it to decide on the continued application of all or part of the long-term remuneration plans not yet vested or of the shares not yet vested at the time of the beneficiary's departure. Performance conditions would in any event be applied for the entire performance assessment period prescribed by each plan.

Performance shares vested in 2021

The performance assessment period for the performance share plan, which began on June 15, 2018, ended on July 16, 2021. The shares allocated under this plan, under the twenty-seventh resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of May 12, 2017, were subject to the following performance conditions:

- Group cost reduction (gross savings as a % of the Y-1 baseline and excluding "Direct Cost of Sales") over the period: 153.0% achieved;
- the increase in the EBITDA margin over the period compared with a panel of 13 companies (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, NOV): 200.0% achieved.

After applying these stringent conditions, the following shares versted to corporate officers:

2018 performance share plan

Members of the Management Board	Édouard Guinotte	Olivier Mallet	Total
Number of shares allocated on June 15, 2018 [(a)]	**618**	**1,864**	**2,482**
Number of shares vested on July 16, 2021 after performance conditions applied	1,091	3,290	4,381
Percentage of shares vested on July 16, 2021 compared to the number of shares allocated on June 15, 2018	176.50%	176.50%	176.50%

(a) Adjusted for the 2021 capital increase.

Corporate officers 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 stock options exercised. Moreover, they agree not to use hedging instruments in connection with exercising options, sell shares resulting from exercising options, or sell performance shares.

Stock options vested in 2021

The performance assessment period for the stock option plan, which began on May 18, 2017, ended on May 17, 2021. The stock options allocated under this plan, under the nineteenth resolution approved by the Ordinary and Extraordinary Shareholders' Meeting of May 12, 2017, were subject to the following performance conditions for 2017, 2018, 2019, and 2020:

- for 50%, on the Group's cumulative free cash flow (FCF) for the period: 14% achieved;
- for 50%, on Vallourec's TSR compared with a panel of 13 companies (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, AcelorMittal SA, and TMK, NOV): 50% achieved.

After applying these stringent conditions, the number of options that were vested to each corporate officer stood as follows:

2017 stock option plan

Members of the Management Board	Édouard Guinotte	Olivier Mallet	Total
Number of stock options allocated on May 18, 2017 [a]	**473**	**1,237**	**1,710**
Number of stock options vested on May 18, 2021 after performance conditions applied	152	396	548
Percentage of options vested on May 18, 2021 compared to the number of shares allocated on May 18, 2017	32.00%	32.00%	32.00%

(a) Adjusted further to the capital increase.

History of past shares vested to corporate officers

Performance shares

Allocation year	2013[a]	2014	2015	2016	2017	2018	2019	2020	2021
Vesting year	2016	2017	2018	2019	2020	2021	2022	2023	See specific section on MEP
Number of shares allocated to the Management Board [b]	425	1,188 [b][c]	518 [b]	1,068	2,799	6,530	5,912	9,610	
Number and % of shares vested, compared to the number of shares allocated	**85 (i.e., 20.1%)**	**149 (i.e., 12.7%)**	**- (i.e., 0%)**	**- (i.e., 0%)**	**3,975 (i.e., 142%)**	**11,526 (i.e., 176.5%)**	**Not available**	**Not available**	

(a) Adjusted further to the June 2021 capital increase.
(b) After applying pro rated service in 2021.
(c) Taking into account the performance conditions applicable to other Vallourec executives.

Stock options

Allocation year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Number of shares allocated to the Management Board [a]	2,777	1,624	786 [b][c]	1,624	4,351	4,955 [f]	4,955 [f]	27,456	0
Number and % of options compared to the maximum number of options allocated	**1,209 (i.e., 25.9%)**	**659 (i.e., 23.8%)**	**496 [b][d] (i.e., 75.0%)**	**896 [d][e] (i.e., 75.0%)**	**1,394 (i.e., 32.0%)**	**Not available**	**Not available**	**Not available**	**N/A**
Exercise price	€996.42	€832.03	€488.14	€140.29	€216.55	€197.84	€79.14	€33.60	N/A

(a) Adjusted further to the 2021 capital increase and the Vallourec reverse stock split carried out in 2020.
(b) Philippe Crouzet waived his right to the stock options allocated in 2015.
(c) Including, until 2016, the allocation to Jean-Pierre Michel as a member of the Management Board and the allocations to Philippe Crouzet as Chairman of the Management Board until 2019.
(d) The number of options vested in Jean-Pierre Michel was reduced pro rata to the period of his continuous service.
(e) The number of options vested in Philippe Crouzet was reduced pro rata to the period of his continuous service.
(f) Allocations to Philippe Crouzet and to Olivier Mallet alone.

Benefits in kind

In 2021, Management Board members had use of a Company car. The value of this benefit in kind was unchanged compared to 2020.

Remuneration paid or awarded by consolidated companies

Corporate officers did not receive any remuneration in 2021 relating to corporate offices held in Vallourec Group subsidiaries included within the consolidation scope, within the meaning of Article L.233-16 of the French Commercial Code.

Supplementary pension plans

The pension plan for corporate officers comprises a defined benefit plan (closed), a mandatory group defined contribution plan, and an individual defined contribution plan.

Closed defined benefit plan (Article 39 of the French Tax Code)

As the accrual of benefits and the benchmark remuneration were frozen as at December 31, 2015, the benefits accrued individually by the corporate officers as at December 31, 2021 are identical to those as at December 31, 2020, as follows:

Corporate officer	Benchmark annual remuneration as at December 31, 2021	Annual potential rights for 2021 [(a)]	Total annual rights accrued as at December 31, 2021 [(b)]	Cap on accrued rights	Service conditions
Olivier Mallet	€470,000	0%	12.81%	20%	36 months

(a) As a percentage of the benchmark remuneration (basic pay excluding the variable portion).

(b) Limited to 20% of the average basic remuneration for the last three years, excluding the variable portion and limited to four times the annual social security ceiling.

The Group's supplementary pension plan has a replacement rate that remains well below market practices, regardless of the reference panel used.

Mandatory group defined contribution plan (Article 83 of the French Tax Code)

In 2021, the contribution paid for this purpose to Management Board members was:

- €17,864.78 for Édouard Guinotte;
- €17,864.78 for Olivier Mallet.

For Édouard Guinotte, this amount was in addition to the €15,711.30 paid for 2020.

For Olivier Mallet, this amount was in addition to the €12,357.12 paid for 2016, €18,829.44 for 2017, €19,071.36 for 2018, €19,451.52 for 2019 and €19,745.28 for 2020.

Individual defined contribution plan subject to performance criteria (Article 82 of the French Tax Code)

The Supervisory Board has confirmed that the performance condition applicable for payment of contribution to the Management Board's individual pension plan for 2021 was fulfilled. The maximum contribution is due, in light of the achievement of at least 50% of the annual bonus calculated for 2021. Note: Vallourec's commitment is limited to payment of an annual amount for retirement comprising 50% contributions made to an insurance company and 50% in cash, given the tax features of the plan with taxation on entry.

Corporate officers	Total amount paid for 2021	Amount of contributions paid	Amount paid in cash
Édouard Guinotte	€77,568	€38,784	€38,784
Olivier Mallet	€187,840	€93,920	€93,920

Provisions applicable to termination of the duties of members of the Management Board

Provisions applicable to the termination of the duties of Édouard Guinotte, former Chairman and Chief Executive Officer

In 2021, Édouard Guinotte was eligible under the terms of his employment contract for severance pay of €478,800 and non-compete compensation.

In accordance with the provisions approved by the Shareholders' Meeting of April 6, 2020, Édouard Guinotte was eligible in 2021 for a termination benefit.

No termination benefit was paid in 2021.

Provisions applicable to the termination of duties of Olivier Mallet, former Deputy Chief Executive Officer

In 2021, Olivier Mallet was eligible for severance pay under the terms of his employment contract of €190,358.

In accordance with the provisions approved by the Shareholders' Meeting of April 6, 2020, Olivier Mallet was eligible in 2021 for a termination benefit.

No termination benefit was paid in 2021.

Performance conditions applicable to the termination benefit of Édouard Guinotte, former Chairman and Chief Executive Officer, and of Olivier Mallet, former Deputy Chief Executive Officer

Termination package of Édouard Guinotte

In accordance with the provisions approved by the Shareholders' Meeting of April 6, 2020, after application of the performance conditions assessed for the three preceding fiscal years, the performance factor (PF) calculated for fiscal years 2019, 2020 and 2021 would be 100%, 76.4% and 98.9% respectively.

Termination package of Olivier Mallet

In accordance with the provisions approved by the Shareholders' Meeting of April 6, 2020, after application of the performance conditions assessed for the three preceding fiscal years, the performance factor (PF) calculated for fiscal years 2019, 2020 and 2021 would be 100%, 75.9% and 98% respectively.

Extraordinary remuneration

No extraordinary compensation was paid to Édouard Guinotte or Olivier Mallet.

Signing bonuses

No signing bonuses were paid to Édouard Guinotte or Olivier Mallet.

Deferred variable remuneration

No deferred variable remuneration was paid to Édouard Guinotte or Olivier Mallet.

7.2.2.3 Remuneration for the Chairman of the Supervisory Board (until June 30, 2021)

The Chairman of the Supervisory Board received only fixed annual remuneration, justified by her involvement in the Group's affairs as she performed duties and exercised due diligence that went far beyond merely attending Board and Committee meetings.

The amount of this fixed annual remuneration has not changed since it was set at €320,000 in 2014.

Consequently, the remuneration awarded to the Chairman of the Supervisory Board for her duties from January 1 to June 30, 2021 amounted to €160,000.

7.2.2.4 Remuneration of the members of the Supervisory Board (until June 30, 2021) and the Board of Directors (from July 1, 2021)

Remuneration paid to members of the Supervisory Board and the Board of Directors

Members of the Supervisory Board *In €*		**Amounts due and paid in 2020**	**Amounts due and paid in 2021**	
			First half	**Second half**
Ms.	Vivienne Cox	314,667	160,000	N/A
Mr.	Pierre Pringuet	97,473	54,625	N/A
Ms.	Maria-Pilar Albiac-Murillo	39,825	21,500	N/A
Mr.	Philippe Altuzarra	5,716	N/A	N/A
Mr.	Cédric de Bailliencourt	32,450	5,000	N/A
Ms.	Corine de Bilbao	36,076	21,500	N/A
Ms.	Virginie Banet	47,692	24,000	N/A
	Bpifrance Participations, represented by Alexandre Ossola	48,368	22,500	N/A
Ms.	Laurence Broseta	45,971	24,625	N/A
Mr.	Antoine Cahuzac	56,234	39,000	N/A
Ms.	Pascale Chargrasse [(a)]	54,575	31,500	N/A
Mr.	Mickaël Dolou [(b)]	54,575	31,500	N/A
Mr.	Yuki Iriyama	31,159	13,000	N/A
Mr.	Jean-Jacques Morin	61,950	30,250	N/A
Mr.	Ayhan Üstün [(c)]	18,253	16,500	N/A
Ms.	Alexandra Schaapveld	8,174	N/A	N/A
TOTAL		**953,158**	**495,500**	

(a) These amounts are in addition to the fixed and variable remuneration received by Pascale Chargrasse under her employment contract with the Group.
(b) This amount is in addition to the fixed and variable remuneration received by Mickaël Dolou under his employment contract with the Group.
(c) This amount is in addition to the fixed and variable remuneration received by Ayhan Üstün under his employment contract with the Group.

Members of the Board of Directors *In €*		**Amounts due and paid in 2020**	**Amounts due and paid in 2021**	
			First half	**Second half**
Mr.	Édouard Guinotte	N/A	_	N/A
Mr.	Pierre Vareille	N/A	_	106,500
Ms.	Corine de Bilbao	N/A	_	64,000
Mr.	William de Wulf*	N/A	_	N/A
Ms.	Maria Silvia Marques	N/A	_	60,000
Ms.	Angela Minas	N/A	_	83,000
Ms.	Hera Siu	N/A	_	47,000
Mr.	Gareth Turner*	N/A	_	N/A
Mr.	Guillaume Wolf*	N/A	_	N/A
TOTAL		_	_	**360,500**
GRAND TOTAL		**953,158**	**495,500**	**360,500**

* *Gareth Turner, William de Wulf and Guillaume Wolf have waived their entitlement to directors' remuneration.*

7.2.2.5 Summary of the remuneration paid or awarded for the year ended December 31, 2021 to the executive corporate officers and to the Chairman of the Supervisory Board

7.2.2.5.1 REMUNERATION PAID OR AWARDED FOR 2021 TO PHILIPPE CROUZET

Components of remuneration paid or awarded for 2021	Amount or value submitted for vote	Presentation
Fixed remuneration	€0	
Annual variable remuneration	€107,730	See section 7.6.2.3.3 of the 2020 Universal Registration Document for a description of the annual variable remuneration.
Deferred or multi-annual variable remuneration	N/A	There is no deferred or multi-annual variable remuneration.
Extraordinary remuneration	N/A	Philippe Crouzet did not receive any extraordinary remuneration.
Long-term incentive equity instruments	Options = €0	No allocation in 2021.
	Shares = €0	No allocation in 2021.
Attendance fees	N/A	Philippe Crouzet does not earn attendance fees for corporate offices held within the Vallourec Group.
Value of benefits in kind	€0	Car.

Components of remuneration paid or awarded for the year ended that are or were voted on by the Shareholders' Meeting under the related-party agreements and commitments procedure	Amount or value submitted for vote	Presentation
Termination payment	€0	See section 7.6.2.3.8.1 of the 2020 Universal Registration Document for a description of the termination payment plan.
Right to exercise options or receive performance shares allocated prior to departure maintained	€0	See section 7.6.2.3.8.1 of the 2020 Universal Registration Document for a description of the conditions under which this option could be exercised.
Non-compete compensation	€0	See section 7.6.2.3.8.1 of the 2020 Universal Registration Document for a description of the non-compete compensation plan.
Supplementary pension plan	€26,080	See section 7.6.2.3.7 of the 2020 Universal Registration Document for a description of the supplementary pension plan.

7.2.2.5.2 REMUNERATION PAID OR AWARDED FOR 2021 TO ÉDOUARD GUINOTTE

Components of remuneration paid or awarded for 2021	Amount or value submitted for vote	Presentation
Fixed remuneration	€600,000	
Annual variable remuneration	€593,580	See sections 7.2.1.2.3 and 7.2.2.2.3 of this report for a description of the annual variable remuneration.
Deferred or multi-annual variable remuneration	N/A	There is no deferred or multi-annual variable remuneration.
Extraordinary remuneration	N/A	Édouard Guinotte did not receive any extraordinary remuneration.
Long-term incentive equity instruments	Ordinary shares = €1,012,097	
	Preferred shares = €927,615	
Attendance fees	N/A	Édouard Guinotte does not receive attendance fees for corporate offices held within the Vallourec Group.
Value of benefits in kind	€3,356	Car.
Components of remuneration paid or awarded for the year ended that are or were voted on by the Shareholders' Meeting under the related-party agreements and commitments procedure	**Amount or value submitted for vote**	**Amount or value submitted for vote**
Termination payment	€0	See section 7.2.1.2.2 of this report for a description of the termination payment plan.
Non-compete compensation	N/A	There is no non-compete compensation.
Supplementary pension plan	€56,649	See section 7.2.1.2.3 of this report for a description of the supplementary pension plan.

7.2.2.5.3 REMUNERATION PAID OR AWARDED FOR THE YEAR ENDED DECEMBER 31, 2021 TO OLIVIER MALLET

Components of remuneration paid or awarded for 2021	Amount or value submitted for an advisory vote	Presentation
Fixed remuneration	€470,004	Taking into account a 10% reduction over two months following the recommendations of the AFEP-MEDEF relating to Vallourec's recourse to short-time working.
Annual variable remuneration	€345,547	See sections 7.2.1.2.3 and 7.2.2.2.3 of this report for a description of the annual variable remuneration.
Deferred or multi-annual variable remuneration	N/A	There is no deferred variable remuneration.
Extraordinary remuneration	N/A	Olivier Mallet did not receive any extraordinary remuneration.
Long-term incentive equity instruments	Ordinary shares = €673,061	
	Preferred shares = €617,085	
Attendance fees	N/A	Olivier Mallet does not receive attendance fees for corporate offices held within the Vallourec Group.
Value of benefits in kind	€5,175	Car.

Components of remuneration paid or awarded for the year ended that are or were voted on by the Shareholders' Meeting under the related-party agreements and commitments procedure	Amount or value submitted for vote	Presentation
Termination payment	€0	See section 7.2.1.2.2 of this report for a description of the termination payment plan.
Non-compete compensation	N/A	There is no non-compete compensation.
Supplementary pension plan	€111,785	See section 7.2.1.2.3 of this report for a description of the supplementary pension plan.

7.2.2.5.4 REMUNERATION PAID OR AWARDED FOR 2021 TO VIVIENNE COX

Components of remuneration paid or awarded for 2021	Amount or value submitted for vote	Presentation
Fixed remuneration	€160,000	Amount unchanged since 2014 and taking into account a 10% reduction over two months following the recommendations of the AFEP-MEDEF relating to Vallourec's recourse to short-time working.
Annual variable remuneration	N/A	There is no annual variable remuneration.
Deferred or multi-annual variable remuneration	N/A	There is no deferred or multi-annual variable remuneration.
Extraordinary remuneration	N/A	Vivienne Cox did not receive any extraordinary remuneration.
Long-term incentive equity instruments	N/A	There are no long-term incentive equity instruments.
Attendance fees	N/A	
Value of benefits in kind	N/A	None.

7.2.2.6 Remuneration and benefits awarded to executive corporate officers

The following tables show the remuneration of the executive corporate officers in office at December 31, 2021.

Summary of remuneration and stock options and performance shares allocated to each executive corporate officer (based on the format of Table 1 recommended by the AFEP-MEDEF Code)

The following table summarizes the remuneration and the value of the stock options and performance shares allocated for fiscal years 2020 and 2021.

In €	**2020**	**2021**
PHILIPPE CROUZET, CHAIRMAN OF THE MANAGEMENT BOARD – UNTIL MARCH 15, 2020		
Remuneration awarded for the year	298,130	133,810
Value of stock options allocated during the year [(a)]	0	0
Value of performance shares allocated during the year [(b)]	0	0
TOTAL	**298,130**	**133,810**
ÉDOUARD GUINOTTE, CHAIRMAN OF THE MANAGEMENT BOARD FROM MARCH 16, 2020 THEN CHAIRMAN AND CHIEF EXECUTIVE OFFICER FROM JULY 1, 2021 UNTIL MARCH 20, 2022		
Remuneration awarded for the year	815,576	1,286,455
Value of stock options allocated during the year [(a)]	150,895	
Value of performance shares allocated during the year [(b)]	114,993	
Value of ordinary shares allocated during the year		1,012,097
Value of preferred shares allocated during the year		927,615
TOTAL	**1,081,464**	**3,226,167**
OLIVIER MALLET MEMBER OF THE MANAGEMENT BOARD THEN DEPUTY CHIEF EXECUTIVE OFFICER FROM JULY 1, 2021 UNTIL MARCH 20, 2022		
Remuneration awarded for the year	774,973	914,646
Value of stock options allocated during the year [(a)]	103,412	
Value of performance shares allocated during the year [(b)]	78,655	
Value of ordinary shares allocated during the year		673,061
Value of preferred shares allocated during the year		617,085
TOTAL	**957,050**	**2,204,792**

(a) All stock options allocated to members of the Management Board in 2020 are contingent upon performance conditions. Their value, which is shown in the table, is theoretical and results from the application of the binomial model used for the consolidated financial statements.

(b) All the performance shares allocated to members of the Management Board in 2020 were subject to performance conditions. The value of the performance shares shown in the table is theoretical and results from the application of the binomial pricing model used for the consolidated financial statements.

Summary of remuneration of executive corporate officers (according to the format of Table 2 recommended by the AFEP-MEDEF Code)

	2020		2021	
In €	**Amounts due for the year**	**Amounts paid during the year**	**Amounts due for the year**	**Amounts paid during the year**
PHILIPPE CROUZET, CHAIRMAN OF THE MANAGEMENT BOARD – UNTIL MARCH 15, 2020				
Fixed remuneration	163,227	163,227		
Annual variable remuneration	107,730	758,100		107,730
Article 82 payment in cash [(a)]	26,080	127,500		26,080
Extraordinary remuneration	-	-	-	-
Attendance fees	-	-	-	-
Benefits in kind [(b)]	1,093	1,093		-
TOTAL	**298,130**	**1,049,920**		**133,810**
ÉDOUARD GUINOTTE, CHAIRMAN OF THE MANAGEMENT BOARD FROM MARCH 16, 2020 THEN CHAIRMAN AND CHIEF EXECUTIVE OFFICER FROM JULY 1, 2021 UNTIL MARCH 20, 2022				
Fixed remuneration	467,273	467,273	600,000	600,000
Annual variable remuneration	308,400	-	593,580	308,400
Article 82 payment in cash [(a)]	38,784	-	89,519	38,784
Extraordinary remuneration	-	-	-	-
Attendance fees	-	-	-	-
Benefits in kind [(b)]	1,119	1,119	3,356	3,356
TOTAL	**815,576**	**468,392**	**1,286,455**	**950,540**
OLIVIER MALLET, MEMBER OF THE MANAGEMENT BOARD THEN DEPUTY CHIEF EXECUTIVE OFFICER FROM JULY 1, 2021 UNTIL MARCH 20, 2022				
Fixed remuneration	451,942	451,942	470,004	470,004
Annual variable remuneration	223,711	299,250	345,547	223,711
Article 82 payment in cash [(a)]	93,920	73,500	93,920	93,920
Extraordinary remuneration	-	-	-	-
Attendance fees	-	-	-	-
Benefits in kind [(b)]	5,400	5,400	5,175	5,175
TOTAL	**774,973**	**830,092**	**914,646**	**792,810**

(a) *Amount paid in cash under the individual supplementary defined contribution pension plan (Article 82), of which 50% paid in the form of a contribution and 50% in cash, as explained in section 7.2.2.2.3.*

(b) *Benefits in kind correspond to the value of a company car.*

Stock options allocated by Vallourec and each Group company in 2021 to each executive corporate officer

No stock options were allocated to executive corporate officers in 2021.

Stock options exercised during the year 2021 by each executive corporate officer

No executive corporate officer exercised any stock options during fiscal year 2021 under stock option plans implemented in previous years.

Ordinary and preferred shares allocated by Vallourec and each Group company in 2021 to each executive corporate officer (according to the format of Table 6 recommended by the AFEP-MEDEF Code)

Name of executive corporate officer	Plan number and date	Type of shares	Number of shares allocated during the year	Number of shares vesting at each expiration date	Vesting date	Availability date	Value in the consolidated financial statements	Performance conditions
Édouard Guinotte	2021 MEP October 13, 2021	Ordinary [(a)]	292,852 (Tranche 1), i.e., 0.1279% of share capital [(a)]	58,570	10/13/2022	10/13/2023	€1,012,097	Yes [(c)]
				58,570	10/13/2023	10/13/2023		
				58,570	10/13/2024	10/13/2024		
				58,571	10/13/2025	10/13/2025		
				58,571	10/13/2026	10/13/2026		
		Preferred [(b)]	709,915 (Tranches 2, 3 and 4), i.e., 0.3101% of share capital [(a)]	292,852	10/13/2022	10/13/2023	€927,615	Yes [(d)]
				292,852	10/13/2022	10/13/2023		
				124,211	10/13/2022	10/13/2023		
Olivier Mallet	2021 MEP October 13, 2021	Ordinary [(b)]	194,751 (Tranche 1), i.e., 0.0851% of share capital [(a)]	38,950	10/13/2022	10/13/2023	€673,061	Yes [(c)]
				38,950	10/13/2023	10/13/2023		
				38,950	10/13/2024	10/13/2024		
				38,950	10/13/2025	10/13/2025		
				38,951	10/13/2026	10/13/2026		
		Preferred [(b)]	472,473 (Tranches 2, 3 and 4), i.e., 0.2064% of share capital [(a)]	194,751	10/13/2022	10/13/2023	€617,085	Yes [(d)]
				194,751	10/13/2022	10/13/2023		
				82,971	10/13/2022	10/13/2023		
Total		**Ordinary/ Preferred**	**1,669,991, i.e., 0.7295% OF SHARE CAPITAL**				**€3,229,858**	

(a) Based on the share capital as at December 31, 2021.

(b) Ordinary shares (Tranche 1) vest at a rate of 20% per year over five years. Preferred shares (Tranches 2, 3 and 4) vest after one year. At the end of the first year, vested shares are subject to a one-year holding obligation.

(c) Shares vest if the Vallourec share price is greater than or equal to €8.09 at each vesting date.

(d) Shares are convertible if the weighted average share price over a period of 90 consecutive days is greater than or equal to:

- *€16.19 for Tranche 2*
- *€20.22 for Tranche 3*
- *€28.32 for Tranche 4*

PERFORMANCE SHARES THAT BECAME AVAILABLE IN 2021 FOR EACH EXECUTIVE CORPORATE OFFICER (ACCORDING TO THE FORMAT OF TABLE 7 RECOMMENDED BY THE AFEP-MEDEF CODE)

Performance shares that vested in 2021 for each corporate officer

Name of executive corporate officer	Plan number and date	Number of shares allocated on June 15, 2018 [(a)]	Number of shares vested on July 16, 2021	Percentage of shares vested on July 16, 2021
Édouard Guinotte	2018 Plan June 15, 2018	618	1,091	176.50%
Olivier Mallet	2018 Plan June 15, 2018	1,864	3,290	176.50%
Total		**2,482**	**4,381**	**176.50%**

(a) Adjusted further to the capital increase.

History of stock option awards

The history of the stock options allocated is provided in section 7.3.1.1 of this chapter.

History of performance share awards

The history of the performance shares allocated is provided in section 7.3.1.2 of this chapter.

Stock options awarded to the top ten employee grantees who are not corporate officers and options exercised by those grantees

	Total number of stock options allocated/ shares subscribed or purchased	Weighted average exercise price *(in €)*	Stock option plans
Options allocated during the year to the 10 Group employees to whom the largest number of options was allocated	48,388	7.2565	2021 Plan 06/13/2021
Options exercised during the year by the 10 Group employees who purchased or subscribed for the largest number of options	–	–	–

The vesting of the stock options issued under the plan put in place on October 13, 2021 is subject to continuous service and performance conditions.

Summary and status of severance benefits for executive corporate officers (according to the format of Table 11 recommended by the AFEP-MEDEF Code)

	Employment contract [(c)]		Supplementary pension plan [(d)]		Benefits or entitlements due or likely to become due as a result of termination or change of position [(e)]		Benefits relating to a non-compete clause [(f)]	
	Yes	No	Yes	No	Yes	No	Yes	No
ÉDOUARD GUINOTTE *Chairman and Chief Executive Officer* *Date of first appointment: March 16, 2020* [(a)] *Date of appointment as Chairman of the Management Board: March 15, 2020* *Chairman and Chief Executive Officer: July 1, 2021* *Term expired: March 20, 2022*	X [(c)]		X		X		X	
OLIVIER MALLET Deputy Chief Executive Officer *Date of first appointment: Sept. 30 2008* [(b)] *Date of reappointment: July 1, 2021* [(b)] *Term expired: March 20, 2022* [(b)]	X [(c)]		X		X			X

(a) At its meeting on February 18, 2020, the Supervisory Board appointed Édouard Guinotte as Chairman of the Management Board from March 15, 2020, thereby succeeding Philippe Crouzet, until March 15, 2024. Édouard Guinotte was appointed Chief Executive Officer and Chairman of the Board of Directors, effective from July 1, 2021 until March 20, 2022.

(b) On September 29, 2008, the Supervisory Board appointed Olivier Mallet as member of the Management Board as from September 30, 2008 until March 15, 2012. On February 22, 2012, the Supervisory Board reappointed him as member of the Management Board, effective from March 15, 2012 until March 15, 2016. On January 29, 2016, the Supervisory Board reappointed him as member of the Management Board, effective from March 15, 2016 until March 15, 2020. On February 18, 2020, the Supervisory Board reappointed him as member of the Management Board, effective from March 15, 2020 until the 2023 OSM. The Board of Directors appointed Olivier Mallet as Deputy Chief Executive Officer, effective from July 1, 2021 until July 1, 2025. His term expired on March 20, 2022.

(c) His employment contract was suspended for the duration of his term as corporate officer.

(d) For a description of the supplementary pension plan, see 7.3.3.2 below.

(e) For a description of payments or benefits that are due or that may be due as a result of a termination or change of office, see 7.3.1.2.3.8 above.

(f) For a description of the compensation for the non-compete clause, see 7.3.1.2.3.8 above.

7.2.2.7 Remuneration and retirement commitments for the Group's main executives

7.2.2.7.1 REMUNERATION FOR THE GROUP'S MAIN SENIOR EXECUTIVES

The total amount of all direct and indirect remuneration paid in 2021 by the Group's French and foreign companies to all of the Group's main senior executives (i.e., the members of the Executive Committee as constituted in 2021, excluding the corporate officers) amounted to €4,923 thousand. Variable remuneration represented 16% of this total.

The ordinary and preferred shares allocated during the year to members of the Executive Committee are valued using the same method as for the consolidated financial statements, at €2,814 thousand.

7.2.2.7.2 RETIREMENT COMMITMENTS

On the recommendation of the Nomination, Remuneration and Governance Committee, the Supervisory Board Meeting of February 17, 2016 authorized the establishment of a new supplementary pension plan to replace the mandatory group supplementary defined benefit pension plan, which it authorized to be closed to the accrual of further benefits. In accordance with Articles L.225-86 *et seq.* and Article L.225-90-1 of the French Commercial Code, this new plan was approved by the Shareholders' Meeting of April 6, 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 plan (closed), a mandatory group defined contribution plan, and an individual defined contribution plan whose main characteristics are provided below.

- Main characteristics of the closed defined benefit pension plan;
  - this plan related to Article L.137-11 of the French Social Security Code *(Code de la sécurité sociale)* and was approved by the Shareholders' Meetings of June 1, 2006 and June 4, 2009,
  - the plan was closed to new beneficiaries and the accrual of any further rights on December 31, 2015,
  - twenty senior executives or corporate officers were entitled to this plan, it being stated that the rights to the defined retirement benefits entail a risk factor. The seniority condition was three years at the time the plan was closed on December 31, 2015,
  - the annuity did not exceed 20% of the average basic remuneration for the last three years and was limited to four times the annual social security ceiling. The reference remuneration is the average remuneration for the last three years (excluding the variable portion) as at December 31, 2015,

- the plan is financed by contributions paid to an insurance company and is subject to an employer contribution as set out in Article L.137-11 of the French Social Security Code at the rate of 24%. The plan cannot be financed by Vallourec on an individual basis,
- the estimated amount of the annual annuity that will be paid to corporate officers under this plan upon settlement of French social security retirement rights, calculated as at December 31, 2021, is indicated below:

Corporate officer	Estimated annuity as at December 31, 2021
Olivier Mallet	€52,950

- Main characteristics of the mandatory group defined contribution pension plan;
  - this plan, referred to in Article L.242-1 of the French Social Security Code and falling under Article 83 of the French Tax Code and was approved by the Shareholders' Meeting of April 6, 2016,
  - this plan is mandatory for all Vallourec Tubes and Vallourec employees and corporate officers who meet the eligibility requirements, i.e., whose gross annual remuneration exceeds four times the annual social security ceiling. There is no seniority requirement. The plan includes around 50 managers or corporate officers,
  - Vallourec's commitment is limited to payment to the insurance company of a contribution of 12% of the fixed and variable remuneration that falls between five and eight times the social security ceiling (Tranche C). For full-year 2021, the contribution paid for executive corporate officers was €19,745.28. The contribution is partly subject to social security charges,
  - Vallourec's financial commitment is strictly limited in terms of amount and time since it can close the plan at any time,
  - the estimated amount of the annuity that will be paid to executive corporate officers under this plan upon settlement of French social security retirement rights, calculated as at December 31, 2021, is indicated below for each corporate officer:

Corporate officers	Estimated annuity as at December 31, 2021 [(a)]
Édouard Guinotte	€1,679
Olivier Mallet	€5,366

(a) On the basis of a post-retirement life expectancy of 20 years.

- Main characteristics of the individual pension plan:
  - this plan, which falls under Article 82 of the French Tax Code, was approved by the Shareholders' Meeting of April 6, 2016,
  - the plan is individual and discretionary. In addition, beneficiaries must have three years' seniority within the Group and a gross annual remuneration exceeding eight times the annual social security ceiling. The plan includes around ten senior executives and corporate officers,
  - Vallourec's commitment is limited to payment of an annual amount for retirement comprising 50% in contributions to an insurance company and 50% in cash, given the tax features of the plan with taxation on entry,
  - in the spirit of the Macron law, the payment made under this plan for executive corporate officers is subject to performance conditions: the maximum contribution is due for a year where an annual bonus is awarded, calculated at 50% of the target bonus and no contribution is paid where the annual bonus is zero. The contribution varies on a linear basis between 0%-50%,
  - Vallourec's financial commitment is strictly limited in terms of amount and time since it can close the plan at any time,
  - for employees who had not benefited from the 2016 plan, it is proposed that an individual plan subject to performance criteria (Article 82 of the French Tax Code) be put in place, with the contribution rate to the individual pension plan defined based on the age of the beneficiary and according to the following scale:
    - under 50 years of age: 5%,
    - between 51 and 54 years of age: 7.5%,
    - between 55 and 59 years of age: 10%,
    - over 60 years of age: 15%,
    - this individual pension plan will be implemented for new corporate officers and new senior executives who meet eligibility requirements (corporate officers, appointed to the Executive Committee). Contributions will be based on fixed remuneration plus the variable portion actually paid during the reference fiscal year,
    - in order to finance the contribution, the Company's share is equal to a gross amount after deduction of employee contributions and the income tax generated by this contribution. The plan can only be wound up after the social security pension has been paid,
    - the latter will continue to benefit from the provisions of the mandatory group defined contribution plan (Article 83 of the French Tax Code) implemented in 2016;
  - according to the applicable performance criteria and after deducting contributions, employee contributions and the related income tax, the estimated annuity amount that will be paid to executive corporate officers under this plan upon payment of French social security retirement benefits, calculated as at December 31, 2021, is indicated below for each corporate officer:

Corporate officers	Estimated annuity as at December 31, 2021 [(a)]
Édouard Guinotte	€6,415
Olivier Mallet	€24,092

(a) On the basis of a post-retirement life expectancy of 20 years.

7.2.3 Remuneration and severance for the former Executive Management

7.2.3.1 Remuneration of Édouard Guinotte, Chairman and Chief Executive Officer until March 20, 2022

Fixed portion

The fixed remuneration of Édouard Guinotte for the 2022 fiscal year shall be €130,434.78 gross. It was calculated pro rata from January 1, 2022 until the termination of his duties as Chairman and Chief Executive Officer.

Variable portion

For the period from January 1, 2022 to March 20, 2022, the Board of Directors decided to calculate Édouard Guinotte's variable remuneration on a pro rata basis using a 100% achievement rate for the applicable targets, corresponding to an amount of €130,434.78 gross.

In accordance with the applicable legal provisions, the payment of this variable compensation will be subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

Severance and non-compete indemnities

The Board of Directors authorized Vallourec Oil and Gas France to conclude a settlement agreement (the "Agreement") with Édouard Guinotte in the context of the termination of his duties as Chairman and Chief Executive Officer.

The Agreement provides for the payment to Édouard Guinotte of a settlement indemnity and the implementation of the non-compete obligation provided for at the time of the appointment of Édouard Guinotte. The conclusion of the Agreement was necessary for Vallourec in order to preserve its interests in the context of the departure of the former executive corporate officer, whose employment contract was suspended, by providing for a waiver of any recourse or claim by the latter with regard to the execution and/or the termination of all his duties within the Vallourec Group and by confirming the implementation of the non-compete obligation for a period of 18 months. The conclusion of this Agreement is in line with the objectives of the AFEP-MEDEF Corporate Governance Code.

The commitments made by Vallourec under the Agreement will be subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

Settlement indemnity

Under the Agreement, a settlement indemnity in the amount of €883,237.84 gross shall be paid to Édouard Guinotte for the purpose of settling amicably and definitively the terms of the termination of all his duties within the Vallourec Group. The payment of this settlement indemnity will be subject to shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

Severance pay as employee

In addition, the employment contract between Édouard Guinotte, who joined the Group in 1995, and Vallourec Oil and Gas France, which had been suspended since his appointment as Chairman and Chief Executive Officer on March 15, 2020, shall be terminated. Édouard Guinotte is therefore entitled to severance pay under the *Convention collective des cadres et ingénieurs de la métallurgie* (the French collective agreement for executives and engineers in the metallurgy industry), i.e. a gross amount of €439,200, as well as a pay in lieu of notice in an amount equal to 6 months of salary, i.e., a gross amount of €180,000.

Financial consideration for the non-compete obligation

Given the nature of his duties, it was important, in order to preserve the legitimate interests of the Group, to require Édouard Guinotte to be bound by a non-compete obligation, which he accepted. Such non-compete obligation will cover the following geographical scope: Europe, Middle-East, United States of America, Mexico, Argentina, Brazil, China, Ukraine and Russia.

As consideration for this non-compete obligation, which will apply for 18 months following the termination of his duties as Chairman and Chief Executive Officer, Édouard Guinotte will receive financial consideration equal to €728,857.84 gross, corresponding to 12 months of gross fixed and variable monetary remuneration, to be paid in 18 monthly instalments equal to €40,492.10 gross.

This non-compete obligation and the payment of the associated financial consideration will be subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

Benefits

Édouard Guinotte will benefit for a period of 12 months from outplacement services, up to €50,000 (excluding VAT).

Supplementary pension plan

Édouard Guinotte will retain the rights acquired under the "Article 82" defined contribution pension plan as at the date of termination of his duties as Chairman and Chief Executive Officer.

The payment of the matching contribution by Vallourec, consisting of a portion paid to the insurer (50%) and a portion paid directly to Édouard Guinotte (50%), will amount in total to €39,130 gross for 2022. Such payments will be subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

7.2.3.2 Remuneration of Olivier Mallet, Deputy Chief Executive Officer until March 20, 2022

Fixed portion

The fixed compensation of Olivier Mallet for the 2022 fiscal year will be €102,174.78 gross. It was calculated pro rata from January 1, 2022 until the termination of his duties as Deputy Chief Executive Officer.

Variable portion

For the period from January 1, 2022 to March 20, 2022, the Board of Directors decided to calculate Olivier Mallet's variable remuneration on a pro rata basis using a 100% achievement rate for the applicable targets, corresponding to an amount of €76,631.09 gross.

In accordance with the applicable legal provisions, the payment of this variable compensation will be subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

Termination benefit as corporate officer

Since March 21, 2022, the provisions of Olivier Mallet's employment contract as Chief Financial Officer, which were suspended during his term as Deputy Chief Executive Officer, are back in force. Olivier Mallet will carry out his employee duties as Chief Financial Officer under the same remuneration conditions as those provided for in relation to his duties as Deputy Chief Executive Officer of the Company.

Therefore, no termination benefit will be paid to him in relation of the termination of his duties as Deputy Chief Executive Officer.

Supplementary pension plan

Olivier Mallet will retain the rights acquired under the "Article 82" defined contribution pension plan as at the date of termination of his duties as Deputy Chief Executive Officer.

The payment of the matching contribution by Vallourec, consisting of a portion paid to the insurer (50%) and a portion paid directly to Olivier Mallet (50%), will amount in total to €40,835 gross for 2022. Such payments will be subject to the shareholders' approval at the Ordinary and Extraordinary Shareholders' Meeting.

7.3 Executive incentives and employee profit sharing

The Board of Directors has implemented an employee profit-sharing policy at the Vallourec Group.

As part of this policy, in 2021, it set up a share-based compensation plan. The compensation under the plan is contingent on performance and is based on the terms and conditions generally applied by private equity funds. Under the plan, provided that the applicable conditions relating to continuous service and/or performance are met, the beneficiaries (the Chairman and Chief Executive Officer, the Deputy Chief Executive Officer(s), as the case may be, the Executive Committee members and certain managers) are awarded ordinary shares and preferred shares convertible into ordinary shares.

The Board of Directors also allocated performance shares and stock subscription options to certain executives who were not eligible for the above mechanism.

Through this policy, Vallourec aims to supplement the remuneration paid to its employees with various plans designed to allow them to share in the Group's long-term performance.

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 stock options and/or performance shares subject to the achievement of performance objectives over several fiscal years.

These grants have been gradually extended to a growing number of managerial staff members, according to a scope and volume that has been defined based on the global Hay Guide Chart.

They are contingent upon:

- continuous service within the Company; and
- meeting pre-defined objectives and performance conditions.

Beneficiaries are thus encouraged to make greater efforts to improve earnings and help the Group achieve the objectives it has set.

7.3.1 Stock options and performance shares

The number of performance shares and stock options mentioned in sections 7.3.1.1 and 7.3.1.2 below correspond to a factor of 1, equivalent to the performance target. Where appropriate, certain data have been adjusted to take account of the reverse stock split carried out in 2020 and the capital increases with pre-emptive subscription rights in 2016 and 2021.

7.3.1.1 Stock options

	Plan decided by the Shareholders' Meeting of June 4, 2009	Plans decided by the Shareholders' Meeting of May 31, 2012	
	2011 Plan	2013 Plan	2014 Plan
Allocation date	September 1, 2011	September 2, 2013	April 15, 2014
Number of beneficiaries when plan implemented	743	406	399
Total number of shares that can be subscribed, including by:	14,164	27,111	16,977
● Philippe Crouzet	611	1,528	838
	i.e., 0.0003% of share capital [(a)]	i.e., 0.0007% of share capital [(a)]	i.e., 0.0004% of share capital [(a)]
● Jean-Pierre Michel	277	694	393
	i.e., 0.0001% of share capital [(a)]	i.e., 0.0003% of share capital [(a)]	i.e., 0.0004% of share capital [(a)]
● Olivier Mallet	222	555	393
	i.e., 0.0001% of share capital [(a)]	i.e., 0.0002% of share capital [(a)]	i.e., 0.0002% of share capital [(a)]
Percentage of the share capital that may potentially be allocated to executive corporate officers [(a)]	0.0005%	0.0012%	0.0008%
Total number of stock options allocated to the ten Group employees who are not corporate officers and to whom the largest number of options was allocated	757	2,153	1,777
Total potential dilution of the plan at the allocation date	0.080%	0.22%	0.14%
Date from which options may be exercised	September 1, 2015	March 3, 2018	April 15, 2018
Last date of exercise period	September 1, 2021	September 1, 2021	April 15, 2022
Exercise price [(b)]	€1,310.81	€996.42	€832.03
Performance conditions	Yes [(c)]	Yes [(d)]	Yes [(e)]
Number of shares subscribed	-	-	-
Total number of options canceled or lapsed since the allocation date	14,164	27,111	8,201
Options outstanding as at December 31, 2021	0	0	8,776
Total potential dilution of the plan as at December 31, 2021 [(a)]	0.0%	0.0%	0.0038%

(a) Based on the 228,928,428 shares comprising the share capital as at December 31, 2021.

(b) Average undiscounted price of the Vallourec share over the 20 trading days preceding the allocation date. Changes were made to the exercise prices to take account of the adjustments linked to the capital increase in June 2021.

(c) Performance condition: ratio of consolidated EBITDA to consolidated revenue for 2011, 2012, 2013 and 2014.

(d) The vesting of stock options issued under the plan put in place on September 2, 2013 is subject to performance and continuous service conditions. For grants to employees (other than members of the Operational Committee), performance is assessed over fiscal years 2014, 2015, 2016 and 2017 and is subject to achieving a target ratio of the Group's consolidated EBITDA to consolidated revenue. As concerns grants to members of the Operational Committee, performance is assessed over fiscal years 2014, 2015, 2016 and 2017, and is measured based on the following four quantitative criteria: the estimated consolidated rate of return on capital employed, the growth of consolidated like-for-like sales and revenue, the relative stock market performance of Vallourec shares, and the relative performance of consolidated EBITDA measured against a panel of comparable companies, comprising Tenaris and TMK.

(e) The vesting of stock options issued under the plan put in place on April 15, 2014 is subject to continuous service and performance conditions. For allocations to employees (other than members of the Executive Committee), performance is assessed over fiscal years 2014, 2015, 2016 and 2017 and is subject to achieving a target ratio of the Group's consolidated EBITDA to consolidated revenue. As concerns grants to members of the Executive Committee, performance is assessed over fiscal years 2014, 2015, 2016 and 2017, and is measured based on the following four quantitative criteria: the estimated consolidated rate of return on capital employed, the growth of like-for-like consolidated sales and revenue, the relative stock market performance of Vallourec shares, and the relative performance of consolidated EBITDA measured against a panel of comparable companies, comprising Tenaris and TMK.

	Plans decided by the Shareholders' Meeting of May 28, 2014		
	2015 Plan [c]	**2016 Plan**	**2017 Plan**
Allocation date	April 15, 2015	May 18, 2016	May 18, 2017
Number of beneficiaries when plan implemented	486	445	11
Total number of shares that can be subscribed, including by:	17,656	15,216	8,135
● Philippe Crouzet	-	838	2,641
		i.e., 0.0004% of share capital [b]	i.e., 0.0012% of share capital [a]
● Jean-Pierre Michel	393	393	-
	i.e., 0.0002% of share capital [a]	i.e., 0.0002% of share capital [a]	
● Olivier Mallet	393	393	1,237
	i.e., 0.0002% of share capital [a]	i.e., 0.0002% of share capital [a]	i.e., 0.0005% of share capital [a]
Percentage of the share capital that may potentially be allocated to executive corporate officers [a]	0.0004%	0.0008%	0.0017%
Total number of stock options allocated to the ten Group employees who are not corporate officers and to whom the largest number of options was allocated	1,494	1,365	4,257
Total potential dilution of the plan at the allocation date	0.15%	0.120%	0.060%
Date from which options may be exercised	April 15, 2019	May 18, 2020	May 18, 2021
Last date of exercise period	April 15, 2023	May 18, 2024	May 18, 2025
Exercise price [b]	€488.14	€140.29	€216.55
Performance conditions	Yes [d][e]	Yes [f]	Yes [c]
Number of shares subscribed	-	-	-
Total number of options canceled or lapsed since the allocation date	11,041	7,458	5,677
Options outstanding as at December 31, 2021	6,615	7,758	2,458
Total potential dilution of the plan as at December 31, 2021 [a]	0.0029%	0.0034%	0.0011%

(a) *Based on the 228,928,428 shares comprising the share capital as at December 31, 2021.*

(b) *Average undiscounted price of the Vallourec share over the 20 trading days preceding the allocation date. Changes were made to the exercise prices to take account of the adjustments linked to the capital increase in June 2021.*

(c) *As from the 2015 plans, the maximum factor has been 1.33, i.e., a maximum of 18,831 options.*

(d) *At its meeting on February 7, 2016, the Supervisory Board formally recorded Philippe Crouzet's waiver of the stock options allocated during the year 2015 after the approval of the financial statements for that year. Consequently, the value of the stock options allocated in 2015 (i.e., €97,740) is nil in this table.*

(e) *For grants to employees (other than members of the Executive Committee), performance is assessed over fiscal years 2015, 2016, 2017 and 2018 and is subject to achieving a target ratio of the Group's consolidated EBITDA to consolidated revenue. As concerns grants to members of the Executive Committee, performance is assessed over four years and measured based on the following two quantitative criteria: 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 panel of comparable companies, comprising: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, US Steel, ThyssenKrupp, ArcelorMittal and Salzgitter AG).*

(f) *As concerns grants to employees (excluding members of the Executive Committee), performance is assessed for the 2016, 2017, 2018 and 2019 fiscal years, and is subject to achieving a target ratio of the Group's EBITDA to the budget. As concerns grants to members of the Executive 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 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 panel of comparable companies, comprising: NSSMC, Halliburton, NOV, Schlumberger, Technip, Baker Hughes, TMK, Tenaris, Alstom, Areva, US Steel, ThyssenKrupp, ArcelorMittal and Salzgitter AG).*

	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Allocation date	**June 15, 2018**	**June 17, 2019**	**June 15, 2020**	**October 13, 2021**
Number of beneficiaries when plan implemented	10	10	113	36
Total number of shares that can be subscribed, including by:	9,851	9,851	89,462	123,518
• Philippe Crouzet	3,392	3,392	-	-
	i.e., 0.0015% of share capital [(a)]	i.e., 0.0015% of share capital [(a)]		
• Édouard Guinotte	-	-	16,291	
			i.e., 0.0071% of share capital [(a)]	-
• Olivier Mallet	1,563	1,563	11,165	
	i.e., 0.0007% of share capital [(a)]	i.e., 0.0007% of share capital [(a)]	i.e., 0.0049% of share capital [(a)]	-
Percentage of the share capital that may potentially be allocated to executive corporate officers [(a)]	0.0022%	0.0022%	0.012%	-
Total number of stock options allocated to the ten Group employees who are not corporate officers and to whom the largest number of options was allocated	4,896	4,896	21,757	48,388
Total potential dilution of the plan at the allocation date	0.080%	0.077%	0.702%	0.054%
Date from which options may be exercised	June 15, 2022	June 17, 2023	June 15, 2024	October 13, 2025
Last date of exercise period	June 15, 2026	June 17, 2027	June 15, 2030	October 13, 2031
Exercise price [(b)]	€197.84	€79.14	€33.60	€7.2565
Performance conditions	Yes [(d)]	Yes [(e)]	Yes [(f)]	Yes [(g)]
Number of shares subscribed	-	-	-	-
Total number of options canceled or lapsed since the allocation date			4,001	-
Options outstanding as at December 31, 2021	9,851	9,851	85,461	123,518
Total potential dilution of the plan as at December 31, 2021 [(a)]	0.0043%	0.0043%	0.0373%	0.054%

(a) Based on the 228,928,428 shares comprising the share capital as at December 31, 2021.

(b) Average undiscounted price of the Vallourec share over the 20 trading days preceding the allocation date. Changes were made to the exercise prices to take account of the adjustments linked to the capital increase in June 2021.

(c) As concerns allocations to members of the Executive Committee, performance is assessed over four years and measured based on the following two quantitative criteria: free cash flow (FCF) for 2017, 2018, 2019 and 2020, and the change in Vallourec's TSR between 2017 and 2020 (versus a panel of competitors, comprising: Hunting PLC, United States Steel Corp., Nippon Steel & Sumitomo Metal Corp., Tubacex SA, Tenaris SA, Voestalpine AG, Seah Steel Corp., Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK, and NOV).

(d) As concerns allocations to members of the Executive Committee, performance is assessed over four years and measured based on the following two quantitative criteria: free cash flow (FCF) for 2018, 2019, 2020 and 2021, and the change in Vallourec's TSR between 2018 and 2021 (versus a panel of competitors, comprising: Hunting PLC, United States Steel Corp., Nippon Steel & Sumitomo Metal Corp., Tubacex SA, Tenaris SA, Voestalpine AG, Seah Steel Corp., Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK, and NOV).

(e) As concerns allocations to members of the Executive Committee, performance is assessed over four years and measured based on the following two quantitative criteria: free cash flow (FCF) for 2019, 2020, 2021 and 2022, and the change in Vallourec's TSR between 2019 and 2022 (versus a panel of competitors, comprising: Hunting PLC, United States Steel Corp., Nippon Steel Corporation (NSC, formerly NSSMC), Tubacex SA, Tenaris SA, Voestalpine AG, Seah Steel Corp., Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK, and NOV).

(f) An internal absolute criterion: aggregate Group free cash flow for 2020, 2021, 2022, and 2023 compared to the performance target in the Group's medium-term plan for the same period.

Two external relative criteria:

- *Total Shareholder Return (TSR) for 2020, 2021, 2022 and 2023 compared to a panel of comparable companies comprising: Hunting PLC, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV;*
- *the average rating attributed to the Company by the following three non-financial performance rating agencies: Vigeo, Sustainalytics and EcoVadis.*

(g) An internal absolute criterion: aggregate Group free cash flow for 2021, 2022, 2023, and 2024 compared to the performance target in the Group's medium-term plan for the same period.

Two external relative criteria:

- *Total Shareholder Return (TSR) for 2021, 2022, 2023 and 2024 compared to a panel of comparable companies comprising: Hunting PLC, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, TimkenSteel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV;*
- *the average rating attributed to the Company by the following three non-financial performance rating agencies: Vigeo, Sustainalytics and EcoVadis.*

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 stock option and performance share plans, Vallourec's Management Board decided to preserve the rights of holders of performance shares and stock options, by ensuring that the capital increase determined on June 2, 2021 would be neutral for them. The figures below have been updated.

The value of the stock option plans is included in Note 6 to the consolidated financial statements, in section 6.1 of this Universal Registration Document.

7.3.1.2 Performance share and free share plans

PERFORMANCE SHARE PLANS

	Plans decided by the Shareholders' Meeting of May 12, 2017			Plan decided by the Shareholders' Meeting of April 6, 2020	Plan decided by the Shareholders' Meeting of April 6, 2020
	2017 Plan	**2018 Plan**	**2019 Plan**	**2020 Plan**	**2021 Plan**
Allocation date	May 18, 2017	June 15, 2018	June 17, 2019	June 15, 2020	October 13, 2021
Number of beneficiaries when plan implemented	553	531	524	519	439
Total number of shares that can be allocated, including by [(a)]:	20,506	39,756	39,595	65,001	289,396
● Philippe Crouzet	1,662	4,048	4,048	-	-
	i.e., 0.0007% of share capital [(c)]	i.e., 0.0018% of share capital [(c)]	i.e., 0.0018% of share capital [(c)]		
● Édouard Guinotte	-	-	-	5,706	-
				i.e., 0.0025% of share capital [(a)]	
● Olivier Mallet	787	1864	1864	3,904	-
	i.e., 0.0003% of share capital [(c)]	i.e., 0.0008% of share capital [(c)]	i.e., 0.0008% of share capital [(c)]	i.e., 0.0017% of share capital [(c)]	
Percentage of the share capital that may potentially be allocated to executive corporate officers [(b)(c)]	0.001%	0.0026%	0.0026%	0.0042%	0.0%
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	3,110	5,803	5,676	10,052	20,175
Total potential dilution of the plan at the date [(c)]	None	None	None	None	0.1264%
Performance conditions	Yes [(d)]	Yes [(e)]	Yes [(f)]	Yes [(g)]	Yes [(h)]
End of vesting period	May 18, 2020 or 2021	June 15, 2021 or 2022	June 17, 2022 or 2023	June 15, 2023	October 13, 2024
Total number of performance shares canceled or expired since the allocation date	20,506	7,738	4,670	3,980	0
Performance shares outstanding as at December 31, 2021	0	32,018	34,925	61,021	289,396
Total potential dilution of the plan as at December 31, 2021 [(b)]	None	None	None	None	0.1264%

(a) Based on a factor of 1.

(b) Corporate officers at the end of the year.

(c) Based on the share capital at the end of each year.

(d) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2017, 2018 and 2019, in comparison with the performance target in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2017, 2018 and 2019. 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 1.4. For members of the Management Board and the Executive Committee, the vesting will depend on the following two criteria: cost reductions in 2017, 2018 and 2019, in comparison with the performance target in the Group's medium-term plan over the same period, and the increase in the EBITDA margin between 2017 and 2019 compared with a panel of comparable companies. 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 2.

(e) For all beneficiaries (excluding members of the Management Board and the Executive Committee), this will depend on cost reductions in 2018, 2019 and 2020, in comparison with the performance target in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2017, 2018 and 2019. 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 1.4. For members of the Management Board and the Executive Committee, the vesting will depend on the following two criteria: cost reductions in 2017, 2018 and 2019, in comparison with the performance target in the Group's medium-term plan over the same period, and the increase in the EBITDA margin between 2017 and 2019 compared with a panel of comparable companies. 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 2.

(f) For all beneficiaries, this will depend on cost reductions in 2019, 2020, and 2021 in comparison to the performance target in the Group's medium-term plan for the same period, and on the Group's cumulative free cash flow (FCF) for 2018, 2019 and 2020. 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 2.

(g) Two absolute internal criteria:

- *Group cost reductions (gross savings as a % of the Y-1 baseline and excluding DCOS) for 2020, 2021 and 2022;*
- *the ratio of carbon emissions from Vallourec's industrial processes and the purchase of electricity generated by fossil fuels to sales volumes, in metric tons (emissions of non-biogenic carbon) between 2020 and 2022.*

A relative external criterion: growth in the EBITDA margin between 2020 and 2022 compared to a panel of comparable companies, comprising: Hunting PLC, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV.

(h) Two absolute internal criteria:

- *Group cost reductions (gross savings as a % of the Y-1 baseline and excluding DCOS) for 2021, 2022 and 2023;*
- *the ratio of carbon emissions from Vallourec's industrial processes and the purchase of electricity generated by fossil fuels to sales volumes, in metric tons (emissions of non-biogenic carbon) between 2021 and 2023.*

A relative external criterion: growth in the EBITDA margin between 2021 and 2023 compared to a panel of comparable companies, comprising: Hunting PLC, United States Steel Corp., Nippon Steel Corp., Tubacex SA, Tenaris SA, Schlumberger, Halliburton, Tubos Reunidos SA, Timken Steel Corp., Salzgitter AG, ArcelorMittal SA, TMK and NOV.

	Plan decided by the Shareholders' Meeting of September 7, 2021		
	Management Equity Plan 2021		
Allocation date			October 13, 2021
Number of beneficiaries when plan implemented			73
Type of shares	Ordinary (Tranche 1)	Preferred (Tranches 2, 3 and 4)	Total
Total number of shares that can be allocated, including by:	1,618,690	3,621,598	5,240,288
● Édouard Guinotte	292,852, i.e., 0.1279% of share capital [(a)]	709,915, i.e., 0.3101% of share capital [(a)]	1,002,767, i.e., 0.438% of share capital [(a)]
● Olivier Mallet	194,751, i.e., 0.0851% of share capital [(a)]	472,473, i.e., 0.2064% of share capital [(a)]	667,224, i.e., 0.2915% of share capita l[(a)]
Percentage of the share capital that may potentially be allocated to executive corporate officers [(a)]	0.213%	0.5165%	0.7295%
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	461,842	1,091,431	1,553,273
Total potential dilution of the plan at the date [(a)]	0.7071%	1.582%	2.2891%
Performance conditions	Yes [(c)]	Yes [(d)]	
End of vesting period [(b)]	October 13, 2026	October 13, 2022	
Total number of performance shares canceled or expired since the allocation date	22,990	45,977	68,967
Performance shares outstanding as at December 31, 2021	1,595,700	3,575,621	5,171,321
Total potential dilution of the plan as at December 31, 2021 [(a)]	0.6970%	1.5619%	2.2589%

(a) Based on the share capital as at December 31, 2021.

(b) Ordinary shares (Tranche 1) vest at a rate of 20% per year over five years. Preferred shares (Tranches 2, 3 and 4 for the Vallourec Executive Committee) vest after one year. At the end of the first year, vested shares are subject to a one-year holding obligation.

(c) Shares vest if the Vallourec share price is greater than or equal to €8.09 at each vesting date.

(d) Shares are convertible if the weighted average share price over a period of 90 consecutive days is greater than or equal to:

- *€16.19 for Tranche 2*
- *€20.22 for Tranche 3*
- *€28.32 for Tranche 4 (for the Vallourec Executive Committee).*

Ordinary shares (Tranche 1) vest at a rate of 20% per year over five years. Preferred shares (Tranches 2, 3 and 4 for the Vallourec Executive Committee) vest after one year. At the end of the first year, vested shares are subject to a one-year holding obligation.

FREE SHARE PLANS

Free share plans (without performance conditions) have been implemented only under the terms of the Value employee share ownership offerings (see section 7.3.2 "Employee share ownership" below), carried out every year between 2008 and 2017, and for the sole benefit of employees and those with similar rights who are non-French residents for tax purposes of certain Group companies, to replace the employer matching contribution allocated to other employees and those with similar rights of the Vallourec Group's French entities. No Value operation was implemented in 2021, 2020, 2019 or 2018.

	Value 16 Plan	Value 17 Plan
Date of Shareholders' Meeting	04/06/2016	05/12/2017
Allocation date	12/14/2016	12/14/2017
Number of beneficiaries when plan implemented	255	265
Total number of free shares	158	161
of which total number of free shares allocated to executive corporate officers (*at the time the plan was implemented*)	0	0
Number of executive management members concerned	0	0
Total number of free shares allocated to the ten employees who are not corporate officers and to whom the largest number of shares was allocated	190	285
Potential dilution	None	None
Performance conditions	None	None
Vesting period	4.6 years	4.6 years
Holding period	0	0
Number of free shares allocated, canceled since allocated	N/A	17
Free shares as at December 31, 2020	0	144

The value of performance share and free share plans is provided in Note 6 to the consolidated financial statements in section 6.1 of this Universal Registration Document.

PROFIT SHARING AND INCENTIVE PLANS

Most Group companies have put in place profit sharing and incentive plans that give employees a stake in the Company's performance, based on the ratio of net income to revenue.

The amounts paid under these plans during the last five fiscal years are as follows:

In € millions	2017	2018	2019	2020	2021
	21.67	15.57	31.65	17.32	35.55

COMPANY SAVINGS PLAN

The Group set up 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, this plan been supplemented by the implementation by collective agreement of a Group retirement savings plan (*plan d'épargne retraite collectif* – PERCO).

Employees' voluntary payments are matched by the Company in accordance with a scale updated each year based on the Group's net income.

The amounts paid by way of employer matching contribution over the last five fiscal years were as follows:

	2017		2018		2019		2020		2021	
In € millions	PEE	PERCO	PEE	PERCO	PEE	PERCO	PEE	PERCO	PEE	PERCO
	1.2 [(a)]	0.2 [(a)]	2.1	0.4	2.0	0.3	2.0	0.4	1.3	0.3

(a) Including €234,043.88 gross for the Value 17 Plan.

7.3.2 Employee share ownership

Every year between 2008 and 2017, the Group offered an international employee share ownership plan in its main countries of operation entitled Value (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, 2015, 2016, and 2017 Registration Documents).

The ten international employee share ownership plans offered between 2008 and 2017 have proved highly successful, with an average subscription rate of 63.2%, and raised employee share ownership from 0.16% as at December 31, 2007, to 0.26% as at December 31, 2021. 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. In this context, Pascale Chargrasse joined the Supervisory Board as a member representing employee shareholders on December 13, 2010. Pascale Chargrasse was reappointed twice for four-year terms by the Shareholders’ Meetings of May 28, 2015 and May 23, 2019. Pascale Chargrasse's term of office expired in 2021.

These plans have enabled the Group to achieve the three objectives it had set for each of these operations:

- to give as many employees as possible a stake 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 Value 12, Value 13, Value 14, Value 15, Value 16 and Value 17 plans are provided in Note 19 to the consolidated financial statements in section 6.1 of the corresponding Registration Documents.

7.3.3 Remuneration multiple and annual change in remuneration, company performance and the average remuneration of employees during the last five fiscal years

In accordance with Article L.225-37-3 of the French Commercial Code, the ratios between the level of remuneration of the executive corporate officers and (i) the average remuneration based on a full-time equivalent basis of employees (excluding corporate officers), and (ii) the median remuneration based on the full-time equivalent of employees (excluding corporate officers), are listed below. The tables also present the annual change in remuneration, company performance and the average remuneration of employees during the last five fiscal years.

	2017	2018	2019	2020	2021
VIVIENNE COX – CHAIRMAN OF THE SUPERVISORY BOARD					
Remuneration (1)	€320,000	€320,000	€320,000	€314,667	€320,000
(Year-on-year change)	*0.00%*	*0.00%*	*0.00%*	*-1.67%*	*1.69%*
Average remuneration of employees (full-time equivalent basis excluding corporate officers) (2)(3)	€41,703	€45,370	€45,192	€49,462	€49,354
(Year-on-year change)	*-8.4%*	*8.8%*	*-0.4%*	*9.4%*	-0.2%
Ratio compared with the average remuneration of employees (full-time equivalent basis excluding corporate officers)	7.7	7.1	7.1	6.4	6.5
(Year-on-year change)	*9.2%*	*-8.1%*	*0.4%*	*-9.9%*	*1.9%*
Median remuneration of employees (full-time equivalent basis excluding corporate officers) (2)(3)	€29,188	€31,991	€31,363	€33,774	€30,785
(Year-on-year change)	*-8.8%*	*9.6%*	*-2.0%*	*7.7%*	*-8.8%*
Ratio compared with the median remuneration of employees (full-time equivalent basis excluding corporate officers)	11.0	10.0	10.2	9.3	10.4
(Year-on-year change)	*9.7%*	*-8.8%*	*2.0%*	*-8.7%*	11.6%
NET INCOME (LOSS) (COMPANY PERFORMANCE)	**(559,729,000)**	**(500,367,000)**	**(340,103,000)**	**(1,328,396,592)**	**31,436,520**
(Year-on-year change)	*30.7%*	*10.6%*	*32.0%*	*-290.6%*	*102.4%*

(1) Vivienne Cox's remuneration has been annualized for 2021.

(2) Remuneration taken into account: remuneration on a full-time equivalent basis paid or awarded during the year (basic fixed remuneration, seniority bonus, benefits in kind (including supplementary pension plans), year-end bonus, 13th-month bonus, annual variable portion, vacation bonus, foreign travel allowances, performance bonus, gross profit sharing, gross employer matching contribution). Long-term profit sharing plans were measured at the fair value applicable at the time of the award.

(3) Employees taken into account: employees on permanent and short-term employment contracts in one of the Group's French entities and continuously present between 2017 and 2021 (excluding Serimax Holdings and Serimax SAS, considering the different specific remuneration structure relating to the business activity of these entities and which are therefore not representative).

	2017	2018	2019	2020	2021
PHILIPPE CROUZET/ÉDOUARD GUINOTTE (FROM 2020)					
Remuneration (1)(4)	€2,165,940	€2,378,169	€1,907,520	€786,785 (4)	€2,929,036
(Year-on-year change)	*140.96%*	*9.80%*	*-19.79%*	*-58.75%*	*272.28%*
Average remuneration of employees (full-time equivalent basis excluding corporate officers) (2) (3)	€41,703	€45,370	€45,192	€49,462	*€49,354*
(Year-on-year change)	*-8.4%*	*8.8%*	*-0.4%*	*9.4%*	*-0.2%*
Ratio compared with the average remuneration of employees (full-time equivalent basis excluding corporate officers)	51.9	52.4	42.2	15.9	59.3
(Year-on-year change)	*163.1%*	*0.9%*	*-19.5%*	*-62.3%*	*273.1%*
Median remuneration of employees (full-time equivalent basis excluding corporate officers) (2)(3)	€29,188	€31,991	€31,363	€33,774	€30,785
(Year-on-year change)	*-8.8%*	*9.6%*	*-2.0%*	*7.7%*	*-8.8%*
Ratio compared with the median remuneration of employees (full-time equivalent basis excluding corporate officers)	74.2	74.3	60.8	23.3	95.1
(Year-on-year change)	*164.2%*	*0.2%*	*-18.2%*	*-61.7%*	*308.4%*
NET INCOME (LOSS) (COMPANY PERFORMANCE)	**(559,729,000)**	**(500,367,000)**	**(340,103,000)**	**(1,328,396,592)**	**31,436,520**
(Year-on-year change)	*30.7%*	*10.6%*	*32.0%*	*-290.6%*	*102.4%*

(1) Remuneration of Philippe Crouzet until 2019, remuneration of Édouard Guinotte as of 2020, in respect of their role as Chairman of the Management Board and, for Édouard Guinotte, then Chairman and Chief Executive Officer.

(2) Remuneration taken into account: remuneration on a full-time equivalent basis paid or awarded during the year (basic fixed remuneration, seniority bonus, benefits in kind (including supplementary pension plans), year-end bonus, 13th-month bonus, annual variable portion, vacation bonus, foreign travel allowances, performance bonus, gross profit sharing, gross employer matching contribution). Long-term profit sharing plans were measured at the fair value applicable at the time of the award.

(3) Employees taken into account: employees on permanent and short-term employment contracts in one of the Group's French entities and continuously present between 2017 and 2021 (excluding Serimax Holdings and Serimax SAS, considering the different specific remuneration structure relating to the business activity of these entities and which are therefore not representative).

(4) Variable portion not paid to Édouard Guinotte for his role as Chairman of the Management Board in 2020.

	2017	2018	2019	2020	2021
OLIVIER MALLET					
Remuneration	€1,045,133	€1,137,772	€934,887	€1,109,371	€2,179,521
(Year-on-year change)	43.51%	8.86%	-17.83%	18.66%	96.46%
Average remuneration of employees (full-time equivalent basis excluding corporate officers) (1)(2)	€41,703	€45,370	€45,192	€49,462	€49,354
(Year-on-year change)	*-8.4%*	*8.8%*	*-0.4%*	9.4%	*-0.2%*
Ratio compared with the average remuneration of employees (full-time equivalent basis excluding corporate officers)	25.1	25.1	20.7	22.4	44.2
(Year-on-year change)	56.7%	0.1%	-17.5%	8.4%	96.9%
Median remuneration of employees (full-time equivalent basis excluding corporate officers) (1)(2)	€29,188	€31,991	€31,363	€33,774	€30,785
(Year-on-year change)	*-8.8%*	9.6%	*-2.0%*	7.7%	*-8.8%*
Ratio compared with the median remuneration of employees (full-time equivalent basis excluding corporate officers)	35.8	35.6	29.8	32.8	70.8
(Year-on-year change)	57.4%	-0.7%	*-16.2%*	*10.2%*	*115.5%*
NET INCOME (LOSS) (COMPANY PERFORMANCE)	**(559,729,000)**	**(500,367,000)**	**(340,103,000)**	**(1,328,396,592)**	**31,436,520**
(Year-on-year change)	*30.7%*	*10.6%*	*32.0%*	*-290.6%*	*102.4%*

(1) Remuneration taken into account: remuneration on a full-time equivalent basis paid or awarded during the year (basic fixed remuneration, seniority bonus, benefits in kind (including supplementary pension plans), year-end bonus, 13th-month bonus, annual variable portion, vacation bonus, foreign travel allowances, performance bonus, gross profit sharing, gross employer matching contribution). Long-term profit sharing plans were measured at the fair value applicable at the time of the award.

(2) Employees taken into account: employees on permanent and short-term employment contracts in one of the Group's French entities and continuously present between 2017 and 2021 (excluding Serimax Holdings and Serimax SAS, considering the different specific remuneration structure relating to the business activity of these entities and which are therefore not representative).

7.4 Additional information

7.4.1 Declarations concerning executives and Board Members

To the Company's knowledge:

- no member of Executive Management or of the Board of Directors has been convicted of fraud during the past five years;
- no member of Executive Management or of the Board of Directors has been involved in a bankruptcy, receivership or liquidation or placement of a company under judicial administration during the past five years. However, Angela Minas informed the Company that she was a director of Weatherford International PLC when it filed for Chapter 11 bankruptcy proceedings in the United States in 2019;
- no member of Executive Management or of the Board of Directors 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 Executive Management or of the Board of Directors 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 Executive Management or of the Board of Directors has a current or potential conflict of interest between their duties to Vallourec and their private interests and/or other duties.

7.4.1.1 Individual statements of executive managers

Summary of individual statements relating to the operations involving Vallourec shares carried out by the persons referred to in Article L.621-18-2 of the French Monetary and Financial Code, during the 2021 fiscal year

Person concerned	Financial instruments	Nature of transaction	Transaction date	Unit price *(in €)*	Volume	Transaction amount *(in €)*
AGABRIEL Jean-Marc	Shares	Purchase	09/24/2021	7.0350	5,300	37,285.50
BIRKHAUSER Lothar	Shares	Purchase	10/08/2021	7.4228	5,369	38,852.01
BORDESSOULE-BARAGNON Aude	Shares	Purchase	10/08/2021	7.4228	6,711	49,814.41
Bpifrance Participations SA	Shares	Sale	06/04/2021	16.0631	514,572	8,265,621.49
	Shares	Sale	06/07/2021	9.0316	247,095	2,231,663.20
	Shares	Sale	06/08/2021	9.5191	21,910	208,563.48
	Shares	Sale	06/09/2021	8.1332	119,799	974,349.28
	Shares	Sale	06/10/2021	5.6600	3,533,574	20,000,028.80
	Shares	Purchase	06/24/2021	5.6600	3,533,574	20,000,028.80
BRAQUEHAIS Pascal	Shares	Purchase	10/08/2021	7.4228	22,150	164,415.02
CARLIER Philippe	Shares	Purchase	10/08/2021	7.4228	13,424	99,643.67
CHAZOT Luc	Shares	Purchase	10/08/2021	7.4228	4,698	34,872.31
CURIE François	Shares	Purchase	09/30/2021	7.5985	39,200	297,861.20
DE LA CROIX Eric	Shares	Purchase	09/29/2021	7.5050	4,191	31,453.45
DELAHOUSSE Jacques	Shares	Purchase	06/14/2021	8.5500	1,440	12,320.55
	Shares	Purchase	06/15/2021	5.6600	6,660	37,694.60
	Shares	Purchase	09/14/2021	7.3296	6,760	49,548.10
DELCOUR Vincent	Shares	Purchase	10/08/2021	7.4228	3,087	22,914.18
DE ROTALIER Betrand	Shares	Purchase	10/08/2021	7.4228	13,424	99,643.67
EGO Nicolas	Shares	Purchase	09/27/2021	7.0700	5,000	35,350.00
FINDLAY Scott	Shares	Purchase	10/08/2021	7.4228	4,564	33,877.66

Person concerned	Financial instruments	Nature of transaction	Transaction date	Unit price *(in €)*	Volume	Transaction amount *(in €)*
FRIBOULET Jérôme	Shares	Purchase	09/14/2021	7.2000	1,000	7,200.00
	Shares	Purchase	09/16/2021	7.3000	500	3,650.00
	Shares	Purchase	09/17/2021	7.2250	1,650	11,921.25
	Shares	Purchase	09/20/2021	6.9235	350	2,423.22
	Shares	Purchase	09/21/2021	6.5795	360	2,368.62
	Shares	Purchase	09/22/2021	6.5550	340	2,228.70
FRISCHMANN Bertrand	Shares	Purchase	06/12/2021	5.6600	1,591	9,005.06
	Shares	Purchase	10/08/2021	7.4228	33,562	249,124.01
GIOVANNI Naïla	Shares	Purchase	06/30/2021	7.1260	8,067	57,485.44
GUINOTTE Édouard	Shares	Purchase	06/15/2021	7.9333	9,000	71,399.70
	Shares	Purchase	06/30/2021	5.6600	45,474	257,382.84
	Shares	Purchase	09/09/2021	7.2310	2,000	14,462.00
	Shares	Purchase	09/14/2021	7.2490	11,700	84,813.30
	Shares	Purchase	10/05/2021	7.6614	6,500	49,799.10
	Shares	Purchase	10/08/2021	7.4228	40,274	298,945.85
HAOND Pascal	Shares	Purchase	09/21/2021	6.9712	5,753	40,105.31
HORNET Didier	Shares	Purchase	06/04/2021	11.7117	1,001	11,723.41
	Shares	Purchase	06/07/2021	10.1147	3,499	35,391.33
	Shares	Purchase	06/29/2021	5.6600	20,831	117,903.46
	Shares	Purchase	08/02/2021	8.0343	14,000	112,480.20
	Shares	Purchase	08/03/2021	7.9047	3,719	29,397.58
	Shares	Purchase	09/09/2021	7.0000	600	4,200.00
	Shares	Purchase	09/09/2021	7.1106	4,850	34,486.41
KLEIN Sébastien	Shares	Purchase	09/20/2021	6.5800	2,425	15,956.50
	Shares	Purchase	10/08/2021	7.4228	1,879	13,947.44
LANGELIER Claire	Shares	Purchase	06/30/2021	5.6600	688	3,894.08
	Shares	Purchase	09/21/2021	6.4413	8,660	55,781.66
	Shares	Purchase	09/24/2021	6.9342	5,900	40,911.78
LUCQUIN Cédric	Shares	Purchase	10/08/2021	7.4228	5,369	38,852.01
MALLET Olivier	Shares	Purchase	06/07/2021	8.7023	8,000	69,618.40
	Shares	Sale	06/11/2021	8.6600	7	60.62
	Shares	Purchase	06/14/2021	8.5500	6,000	51,300.00
	Shares	Purchase	06/14/2021	5.6600	64,443	364,747.38
	Shares	Purchase	06/15/2021	5.6600	261	1,477.26
	Shares	Purchase	08/06/2021	7.6350	18,395	140,445.82
	Shares	Sale	08/06/2021	7.6350	18,395	140,445.82
	Shares	Purchase	08/12/2021	7.4800	19,000	142,120.00
	Shares	Sale	08/12/2021	7.4800	19,000	142,120.00
	Shares	Purchase	08/13/2021	7.4850	10,000	74,850.00
	Shares	Sale	08/13/2021	7.4850	10,000	74,850.00
	Shares	Purchase	08/23/2021	7.2350	9,000	65,115.00
	Shares	Sale	08/23/2021	7.2350	9,000	65,115.00
	Shares	Purchase	09/14/2021	7.4200	4,000	29,680.00
	Shares	Purchase	09/15/2021	7.3870	4,000	29,548.00
	Shares	Purchase	09/16/2021	7.4400	4,515	33,591.60

Person concerned	Financial instruments	Nature of transaction	Transaction date	Unit price *(in €)*	Volume	Transaction amount *(in €)*
MAISONNEUVE Pierre	Shares	Purchase	09/21/2021	6.6356	10,500	69,673.80
	Shares	Purchase	09/24/2021	6.9274	1,500	10,391.10
	Shares	Purchase	09/24/2021	6.6721	12,000	80,065.20
MASSAGLIA Jacky	Shares	Purchase	10/08/2021	7.4228	8,055	59,790.65
MENNE Ulrich	Shares	Purchase	10/01/2021	7.6000	5,245	39,862.00
MESSAGER Samuel	Shares	Purchase	09/20/2021	6.6483	2,000	13,296.60
	Shares	Purchase	10/08/2021	7.4228	2,282	16,938.83
MOREAU Nicolas	Shares	Purchase	09/16/2021	7.2900	3,500	25,515.00
	Shares	Purchase	11/26/2021	7.8300	2,000	15,660.00
	Shares	Purchase	11/26/2021	6.5700	2,000	13,140.00
MOREL Frédéric	Shares	Purchase	10/08/2021	7.4228	5,235	40,160.113
PARIS Hubert	Shares	Purchase	06/21/2021	5.6600	6,068	34,344.88
PEULTIER Jérôme	Shares	Purchase	10/08/2021	7.4228	4,027	29,891.61
RAUSCHER COOPER Trina	Shares	Purchase	10/08/2021	7.4228	3,355	24,903.49
REIGNIER Vincent	Shares	Purchase	06/30/2021	5.6600	666	3,769.56
	Shares	Purchase	09/27/2021	7.0700	350	2,474.50
	Shares	Purchase	09/28/2021	7.4500	3,800	28,310.00
	Shares	Purchase	09/29/2021	7.5000	1,200	9,000.00
SHUSTER Eric	Shares	Purchase	10/08/2021	7.4228	17,184	127,553.39

7.4.2 Related-party agreements

Loans and guarantees

No loans or guarantees have been granted by the Company or by a Group company to any member of Executive Management or of the Board of Directors.

Service agreements providing for the grant of benefits

To the Company's knowledge, there is no service agreement between any member of Executive Management or of the Board of Directors and the Company providing for the grant of benefits.

7.4.3 Management of conflicts of interest

To prevent any risk of a conflict of interest between a member of the Board of Directors and executive management or any of the Group's companies, the Nomination and Governance Committee keeps a constant watch on the independence of members with regard to the Board of Directors, and includes this as an item on its agenda at least once a year.

Each director 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 in a conflict of interest, and to leave the Board meeting if a subject exposing the member to such a situation is discussed.

The Lead Independent Director acts in a precautionary manner to raise awareness about conflicts of interest among the members of the Board of Directors, and draws said Board's attention to any identified or potential conflict of interest.

If any of its members has a conflict of interest, whether actual or potential, regarding an issue to be debated by the Board, the Board ensures, through the Nomination and Governance Committee, that the information regarding the issue in question is not communicated to the member concerned. A director may not 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. By way of exception, this rule does not apply to any legal entities who are Board members whose acceptance of another similar directorship or position will in each case be subject to discussions with the Board with a view to avoiding any risk of a conflict of interest. Members of the Board and the Observers must inform the Chairman of the Board of Directors before accepting any new appointments in other companies. The Chairman then communicates an opinion to the Board after consulting with the Nomination and Governance Committee.

The information presented in this section is taken from the Internal Rules of the Board of Directors, which are available on the Company's website (www.vallourec.com).

7.4.4 Declaration on corporate governance

The Board of Directors has adopted the AFEP-MEDEF Corporate Governance Code. Vallourec complies with all of the recommendations prescribed in the Code under the conditions set out in the summary table.

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 detailed explanations for this.

Recommendations of the AFEP-MEDEF Code (January 2020)	Application by Vallourec
Paragraph 23 of the AFEP-MEDEF Code recommends that the Board *"defines a minimum number of registered shares that the company officers must retain through to the end of their term of office. This decision is reviewed at least on each extension of their term of office. (...) Until this objective regarding the holding of shares has been achieved, the company officers will devote a proportion of exercised options or awarded performance shares to this end as determined by the Board"*.	Given the significant number of Vallourec shares already held by executive corporate officers, 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 executive corporate officers to purchase additional shares with their own funds and to build a securities portfolio almost exclusively composed of Vallourec shares.

In view of the above, Vallourec believes that it complies with the corporate governance guidelines in force in France.

7.4.5 Delegations in force

Authorizations to issue shares and marketable securities providing access to the Company's capital valid as at December 31, 2021 are described in section 2.2.3.1 of this Universal Registration Document.

7.4.6 Shareholders' participation in shareholders' meetings

Every shareholder is entitled to attend the Company's Shareholders' Meetings in accordance with applicable legal and regulatory provisions and regardless of the number of shares held.

Article 12 of the Articles of Association concerning Shareholders' Meetings does not provide any specific conditions for attendance.

The double voting right was abolished by the Ordinary and Extraordinary Shareholders' Meeting and Special Meeting of shareholders entitled to double voting rights held on April 20, 2021, with effect from the date of completion of the Company's financial restructuring on June 30, 2021.

The attendance register at the Ordinary and Extraordinary Shareholders' Meeting of September 7, 2021 showed that 1,644 shareholders were represented or had voted by post, owning 130,389,901 shares out of 228,740,763 shares with voting rights, representing a quorum of 57.00%.

7.4.7 Information on factors likely to have an impact in the event of a public takeover bid or a public exchange offer

Items that may have an impact in the event of a public offering are described out below:

7.4.7.1 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 is presented in section 2.3 of this Universal Registration Document.

7.4.7.2 Statutory restrictions on the exercise of voting rights

Article 8, paragraph 5 of the Company's Articles of Association 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 the share capital (see section 2.1.9 of this Universal Registration Document).

In the event of failure to comply with this disclosure obligation, 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 over a period of two years following the date of the proper disclosure notification.

7.4.7.3 Holders of any security containing special rights of control

There are no other securities that have special rights of control.

7.4.7.4 Control mechanisms within an employee share ownership system

In accordance with Article L.214-40 of the French Monetary and Financial Code, the Supervisory Boards of 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.

7.4.7.5 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

The shareholders' agreements entered into on February 1, 2016 with Nippon Steel Corporation (NSC) and on February 1, 2016 with Bpifrance Participations, neither of which are deemed to represent actions in concert, expired on the date of completion of the Company's financial restructuring on June 30, 2021.

As part of the Company's financial restructuring on June 30, 2021, two separate governance agreements were entered into by the Company for terms of 15 years (unless terminated early, in the event that the shareholder concerned no longer holds any shares in the Company), with Apollo and SVPGlobal (the "**Shareholders' Agreements**"). These agreements do not constitute an action in concert with the Company or between Apollo and SVPGlobal vis-à-vis the Company. These agreements set certain rights and obligations in terms of governance, as well as the sale of shares in the Company by Apollo and SVPGlobal.

Governance agreements:

The membership of the Board of Directors is decided in compliance with the recommendations of the AFEP-MEDEF Code as well as with the following rules:

- Apollo may propose the appointment of two directors for as long as it holds more than 15% of the Company's share capital and the appointment of one director for as long as it holds 5% of the share capital; one of the two directors appointed by Apollo will be the Vice-Chairman of the Board of Directors (and Lead Independent Director [*administrateur référent*] if he meets the AFEP-MEDEF Code criteria for this position); if Apollo holds less than 15% of the share capital, it shall cause one of the directors appointed on its proposal to resign; if Apollo holds less than 5% of the share capital, it shall cause the other director appointed on its proposal to resign;
- SVPGlobal may propose the appointment of a director for as long as it holds more than 5% of the share capital. In the event that SVPGlobal holds more than 15% of the Company's share capital, SVPGlobal may request the appointment of a second director, in which case the parties would determine whether the total number of directors can be maintained or should be increased; the same rules as those set forth above regarding Apollo shall apply in the event of a reduction in the ownership interest of SVPGlobal below the 15% threshold (to the extent that it had previously been crossed) and 5% threshold of the share capital;
- in accordance with the law, the proportion of directors of each gender must be at least 40%, excluding the employee director.

The Board of Directors have appointed two Observers, one put forward by Apollo and the other put forward by SVPGlobal (acting in an advisory capacity only).

Transfer restrictions:

- Restrictions on the sale of shares: both Apollo and SVPGlobal undertakes not to sell, on any trading day, a number of Company's shares exceeding 25% of the average daily number of Company's shares traded during the 30 days preceding the date of the contemplated sale (subject to the same exceptions as mentioned above, as well as in the event of an off-market transfer).
- Right of first offer: both Apollo and SVPGlobal undertake to inform the Company in the event of a proposed sale of shares to a competitor of the Company. The Company then has the right to make an offer to purchase the shares offered for sale at a price set by the Company. If the Company exercises its right of first offer, Apollo and SVPGlobal may not sell the relevant shares to the third party competitor unless the price paid by the third party is higher than the price set by the Company in its offer and the sale is completed within six months.
- Apollo and SVPGlobal undertake not to solicit or facilitate the launch by a competitor of a tender offer on the Company.

Concert:

Apollo and SVPGlobal have declared that they do not intend to act in concert and will not act in concert with respect to the Company, or with the Company, at the Effective Restructuring Date.

7.4.7.6 Rules applicable to the appointment and replacement of the Company's executive corporate officers

No provision in the Articles of Association, or agreement concluded between the Company and a third party, contains an obligation or particular rule regarding the appointment and/or the replacement of the executive corporate officers and/or directors of the Company that is likely to have an impact in the event of a takeover bid.

The existing Shareholders' Agreements provide for certain obligations regarding the membership of the Board of Directors (see section 7.4.7.5 of this Universal Registration Document).

7.4.7.7 Powers of the Board of Directors in the event of a takeover bid

The Shareholders' Meeting of May 24, 2022 will be asked to renew the prohibition on share buybacks during public offers of the Company's shares.

The Shareholders' Meeting of May 24, 2022 will also be asked to suspend the Board of Directors' ability to use the resolutions to increase the Company's share capital (with the exception of capital increases reserved for employees or grants of medium/long-term incentive instruments [performance shares and options]) during public offers concerning the Company's shares, except with the prior authorization of the Shareholders' Meeting.

The Board of Directors is not authorized by the Shareholders' Meeting to issue share subscription warrants during public offers concerning the Company's shares, as stipulated in Article L.233-32-II of the French Commercial Code. No proposed resolution for this purpose is due to be submitted to the Shareholders' Meeting of May 24, 2022.

7.4.7.8 Agreements made by the Company that would be amended or terminated in the event of a change in control of the Company

Certain agreements entered into by the Company contain change-of-control clauses. The most significant agreements that may have an impact in the event of a public offering are:

- in the event of a change of control of Vallourec Oil & Gas France (VOGFR), Vallourec Tubes, or Vallourec, Nippon Steel Corporation (NSC) has the right to cancel the Research and Development contract entered into by VOGFR and NSC on April 1, 2007, while retaining the right to use the collective research and development findings and to enable any licensees to benefit from such findings, as VOGFR benefits from the same rights in the event of a change of control of NSC. If NSC exercises its right of termination, it will also be entitled to continue using the VAM® trademarks for six years from the date of such cancellation;
- the €462 million committed credit facility maturing in June 2026 and entered into on June 30, 2021, and the State-guaranteed loans entered into on the same date for a total nominal amount of €262 million, with an initial term of June 30, 2022, and which can be extended at Vallourec's initiative to June 30, 2027.

7.4.7.9 Agreements providing for payments to the executive corporate officers 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 provisions applicable to the termination of executive corporate offices and/or, where applicable, the employment contracts of Édouard Guinotte, former Chairman and Chief Executive Officer, and Olivier Mallet, former Deputy Chief Executive Officer, are described in the remuneration policies for corporate officers in section 7.2.2.1 of this Universal Registration Document and in the Board of Directors' Report on the 2021 remuneration of corporate officers, in section 7.2.2 of this Universal Registration Document.

chapter 8
ADDITIONAL INFORMATION

8 ADDITIONAL INFORMATION

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8.1 Statutory Auditors' special report on regulated agreements

Annual General Meeting held to approve the financial statements for the year ended December 31, 2021

This is a free translation into English of the statutory auditors' special report on regulated agreements 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 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 ("Code de commerce") and that the report does not apply to those related party transactions described in IAS 24 or other equivalent accounting standards.

To the Vallourec Annual General Meeting,

In our capacity as statutory auditors of your Company, we hereby report to you on regulated agreements.

The terms of our engagement require us to communicate to you, based on information provided to us, the principal terms and conditions of those agreements brought to our attention or which we may have discovered during the course of our audit, and the reasons justifying that these agreements are in the company's interest, without expressing an opinion on their usefulness and appropriateness or identifying such other agreements, if any. It is your responsibility, pursuant to article R. 225-31 of the French Commercial Code ("Code de Commerce"), to assess the interest involved in respect of the conclusion of these agreements for the purpose of approving them.

Our role is also to provide you with the information stipulated in article R. 225-31 of the French Commercial Code relating to the implementation during the past year of agreements previously approved by the Annual General 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 SUBMITTED TO THE APPROVAL OF THE SHAREHOLDERS' MEETING

Agreements authorised since the year-end closing

We hereby inform you that we have not been advised of any agreement authorised since the year-end closing to be submitted for the approval of the Shareholders' Meeting pursuant to article L. 225-38 of the French Commercial Code (*Code de commerce*).

AGREEMENTS PREVIOUSLY APPROVED BY THE ANNUAL GENERAL MEETING

Agreements approved in previous years and whose execution continued during the past year

We hereby inform you that we have not been advised of any agreements, previously approved by the Annual General Meeting, which did not have continuing effect during the year.

Agreements approved during the past financial year

We were also informed of the execution, during the past financial year, of the following agreements, already approved by the general meeting of April 20, 2021, on the special report of the auditors of March 25, 2021.

Support and subscription commitment entered into between Nippon Steel Corporation and the Company

Shareholder concerned: Nippon Steel Corporation ("NSC"), shareholder of the Company owning 14.56% of share capital and 14.86% of voting rights (before the completion of the Financial Restructuring operations).

In connection with the Financial Restructuring of the Company as agreed in principle between the Company and its main creditors and reached on February 3, 2021 ("the Financial Restructuring") including in particular a capital increase of approximately €300 million with maintenance of preferential subscription rights open to shareholders to subscribe in cash at a price of €5.66 per new share (the "2021 Capital increase"), on February 3, 2021, after authorization by your Supervisory Board meeting of January 31, 2021, the Company entered into an agreement with NSC ("Shareholder Support Agreement") by which NSC undertakes, provided that usual conditions apply:

- To vote in favour of the resolutions necessary for the implementation of the Financial Restructuring;
- To subscribe for an amount of €35 million, à titre irreducible only, to the 2021 Capital increase;
- To keep its Vallourec shares (lock-up commitment) from February 3, 2021 until the expiration of a 6-month period from the completion date of the 2021 Capital Increase; and
- To waive its right provided in the agreement entered into with the Company on February 1, 2016, to propose to the Annual General meeting ruling on the accounts for the 2020 financial year a candidate for the functions of member of the Supervisory Board, it being specified that taking into account the dilution that will result from the Financial Restructuring, this agreement ended on the date of completion of the Financial Restructuring.

The commitments made by NSC were honored in the second quarter of 2021 as part of the Financial Restructuring operations which were finalized on June 30, 2021.

Support and subscription commitment entered into between Bpifrance Participations SA and the Company

Shareholder concerned: Bpifrance Participations SA ("Bpifrance"), shareholder of the Company owning 14.56% of share capital and 14.82% of voting rights, represented by M. Alexandre Ossola (before the completion of the Financial Restructuring operations).

In connection with the Financial Restructuring of the Company including in particular the 2021 Capital increase, the Company entered on February 3, 2021, after authorization by your Supervisory Board meeting of January 31, 2021, into an agreement with Bpifrance ("Shareholder Support Agreement") by which Bpifrance undertakes, provided that usual conditions apply:

- To vote in favor of the resolutions necessary for the implementation of the Financial Restructuring;
- To subscribe for an amount of €20 million, à titre irreducible only, to the 2021 Capital increase; and
- To keep its Vallourec shares (lock-up commitment), from February 3, 2021 until the completion date of the 2021 Capital Increase (provided it is carried-out), within the limit of a 6 month period after fulfilment of its subscription commitment.

It is also specified that given the dilution that will result from the Financial Restructuring, the agreement entered into between Bpifrance and the Company on February 1, 2016 ended on the date of completion of the Financial Restructuring.

The commitments made by Bpifrance were honored in the second quarter of 2021 as part of the Financial Restructuring operations which were finalized on June 30, 2021.

Paris-La-Défense, April 13, 2022

The Statutory Auditors

KPMG S.A.	Deloitte & Associés
Alexandra Saastamoinen	Véronique Laurent

8.2 Report on payments made to governments (Article L.225-102-3 of the French Commercial Code)

Article L.225-102-3 of the French Commercial Code (1) requires large undertakings and public interest entities active in the extractive industry or operation of primary forestry to disclose in an annual report any payment equal to or greater than €100,000 made to governments in the countries and territories in which they operate.

Vallourec's consolidated report is presented below in accordance with the above-mentioned provisions. This report details the payments made by Vallourec's extractive companies, as defined below, to each government in the states and territories in which Vallourec operates, specifying the total amount, the total amount by payment type and the total amount by project.

This report was approved by the Board of Directors of Vallourec SA.

A) DEFINITIONS

The terms defined below are used in this report as follows:

Extractive companies: any company or undertaking whose activities partially or fully entail the exploration, prospection, discovery, exploitation and extraction of mineral, oil and natural gas deposits in particular, that are fully consolidated by Vallourec SA, including the parent company.

Payment: any single payment or series of related payments, equal to or greater than €100,000 (or the equivalent), made in cash or in kind for extractive activities.

The types of payments included in this report are as follows:

- **Taxes and other levies:** taxes and levies paid on income, production or profits, excluding consumption taxes such as VAT, customs duties, personal income tax and sales taxes.
- **License fees:** annual license fees, surface rights or rental fees, and any other form of levy related to licenses and/or concessions for extraction areas.
- **Infrastructure upgrade payments:** payments made for local development, including infrastructure upgrades, that are not directly necessary for extractive activities but are required as part of a production-sharing agreement or in accordance with a law relating specifically to oil and gas operations.

Government: any national, regional or local authority of a state or territory, or any administration, agency or undertaking controlled by it.

Project: operating activities governed by a single agreement, license, lease, concession or similar arrangement and forming the basis for obligations to pay consideration to a government. Where several such agreements are interrelated, they are considered a single project.

B) REPORTING PRINCIPLES

This report details all payments as they appear in the financial statements of the extractive companies that are project operators.

Payments made in local currency have been converted into euros using the average annual translation rate for 2021.

In € thousands	Taxes and other levies			License fees			Infrastructure upgrade payments	Total payments
As at December 31, 2021								
Payments by government type	Central state	Province/ State	Municipal	Central state	Province/ State	Municipal		
Iron ore mining								
Brazil	153,468	-	1,853	5	2	-	60	155,388
Total		**155,321**			**7**		**60**	**155,388**

(1) *Article L.225-102-3 of the French Commercial Code transposes certain provisions of Directive 2013/34/EU of the European Parliament and of the Council of June 26, 2013.*

8.3 Cross-reference tables and information incorporated by reference

8.3.1 Cross-reference table between the Universal Registration Document and Annexes 1 and 2 to Commission Delegated Regulation (EU) 2019/980 of March 14, 2019

Annexes 1 and 2 to Commission Delegated Regulation (EU) 2019/980 of March 14, 2019	Universal Registration Document Chapters/Sections	Pages
1. Persons responsible, third party information, experts' reports and competent authority approval		
1.1 Persons responsible	1.1	12
1.2 Declaration of persons responsible	1.2	12
1.3 Expert's declaration or report	N/A	N/A
1.4 Certifications relating to third-party information	N/A	N/A
1.5 Declaration without prior approval of the competent authority	Cover page	
2. Statutory Auditors		
2.1 Name and address of the Statutory Auditors	1.3	13
2.2 Statutory Auditors who have resigned, been removed or who have not been re-appointed during the period covered	N/A	N/A
3. Risk factors	**5.1**	**164**
4. Information about the issuer		
4.1 Legal and commercial name	2.1.1	16
4.2 Place of registration, registration number and legal entity identifier (LEI)	2.1.2	16
4.3 Date of incorporation and term	2.1.3	16
4.4 Registered office, legal form, legislation, country of incorporation, address and telephone number of the registered office and website	2.1.1/2.1.2	16/16
5. Business overview		
5.1 Principal activities	3.2/3.3/3.8	38/53/74
5.1.1. Nature of operations and principal activities	3.2/3.5/3.8	38/60/74
5.1.2. New products and/or services	3.3	53
5.2 Principal markets	3.2.2	42
5.3 Key business development events	3.1/3.3.1.3/3.5/3.6/3.7.1/3.8	36/54/60/63/65/74
5.4 Strategy and objectives	3.2/3.3/3.6/3.8	38/53/63/74
5.5 Dependence on patents, licenses, industrial, commercial or financial contracts and new manufacturing processes	3.3	53
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5.7 Investments	3.7.2.3	71
5.7.1. Material investments made	3.7.2.3	71
5.7.2. Investments in progress or for which firm commitments have already been made	3.7.2.3	71
5.7.3. Joint ventures and undertakings in which the issuer holds a proportion of the capital likely to have a significant effect on the assessment of its own assets and liabilities, financial position or profits and losses	6.1.7 (Note 5)	215
5.7.4. Environmental issues that may affect the issuer's utilization of property, plant and equipment	3.10.2/4.2.4	76/117
6. Organizational structure	**3.2.6**	**46**
6.1 Brief description of the Group	3.2.6	46
6.2 List of significant subsidiaries	3.2.6/6.1 (Note 10)	46/245

Annexes 1 and 2 to Commission Delegated Regulation (EU) 2019/980 of March 14, 2019	Universal Registration Document Chapters/Sections	Pages
7. Operating and financial review	**3.7/3.8/3.9/6.1/6.3**	**65/74/75/184/253**
7.1 Financial position	3.7/3.8/3.9/6.1/6.3	65/74/75/184/253
7.1.1. Development and performance of the issuer's business and of its position for each year and interim period for which historical financial information is required	3.7/3.8/3.9/6.1/6.3	65/74/75/184/253
7.1.2. Likely future development of the issuer's business and activities in the field of research and development	3.3/3.8	53/74
7.2 Operating results	3.7.1/3.9	65/75
7.2.1. Significant factors, unusual or infrequent events or new developments, materially affecting income from operations	3.7.1	65
7.2.2. Reason for material changes in revenue or income	3.7.1	65
8. Liquidity and capital resources	**3.7.2/6.1.3**	**70/186**
8.1 Information on capital resources	6.1.4	187
8.2 Sources, amounts and description of cash flows	6.1.3	186
8.3 Borrowing requirements and funding structure	6.1 (Note 7)	225
8.4 Information regarding any restrictions on the use of capital resources that have materially affected, or could materially affect, directly or indirectly, the issuer's operations	6.1 (Note 7)	225
8.5 Information regarding the expected sources of funds needed to fulfill the commitments referred to in item 5.7.2	6.1 (Note 7)	225
9. Regulatory environment	3.10.2/4.2.4/5.1.2/5.1.3	76/117/166/168
9.1 Description of the regulatory environment that the issuer operates in and that may materially affect its business, together with information regarding any governmental, economic, fiscal, monetary or political policies or factors that have materially affected, or could materially affect, directly or indirectly, the issuer's operations	3.10.2/4.2.4/ 5.1	76/117/164
10. Trend information	**3.4**	**58**
10.1 Significant recent trends in production, sales and inventory, and costs and selling prices since the end of the last financial year up to the date of the Universal Registration Document	3.4	58
10.2 Known trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the issuer's prospects for at least the current financial year	3.8/5.1	74/164
11. Profit forecasts or estimates	**3.8.1**	**74**
11.1 Published profit forecasts or estimates	3.8.1	74
11.2 Main assumptions upon which the issuer has based its forecast or estimate	3.8.1	74
11.3 Statement of comparability with historical financial information and consistency with the issuer's accounting policies	N/A	N/A
12. Administrative, management and supervisory bodies and senior management	**7.1**	**278**
12.1 Information concerning members of the administrative and management bodies	7.1.2/7.1.3	278/305
12.2 Administrative and management bodies and conflicts of interest	2.3.3/7.1.2/7.4.1/7.4.3	28/278/345/348
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13.1 Amount of remuneration paid and benefits in kind granted by the issuer and its subsidiaries	7.2	309
13.2 The total amounts set aside or accrued by the issuer or its subsidiaries to provide for pension and retirement benefits	6.1 (Note 8)/7.1.2/7.2	239/278/309

Annexes 1 and 2 to Commission Delegated Regulation (EU) 2019/980 of March 14, 2019	Universal Registration Document Chapters/Sections	Pages
14. Board practices	**7.1.2.2**	294
14.1 Date of expiration of the current term of office and the date the person took office	7.1.2.1.6	283
14.2 Information about members of the administrative, management or supervisory bodies' service contracts with the issuer or any of its subsidiaries providing for benefits upon termination of employment, or an appropriate statement to the effect that no such benefits exist	7.4.2	347
14.3 Information about the issuer's audit committee and remuneration committee	7.1.2.2.7	298
14.4 Statement as to whether or not the issuer complies with the corporate governance regime(s) applicable to the issuer	7.4.4	348
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15. Employees	**4.2.2.1**	96
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16. Major shareholders	**2.3.1**	**23**
16.1 Name of any person other than a member of the administrative, management or supervisory bodies who, directly or indirectly, holds an interest in the issuer's share capital or voting rights which are to be notified under the issuer's national law, together with the amount of each interest, or an appropriate statement to that effect that no such person exists	2.3.1	23
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16.3 Direct or indirect ownership or control of the issuer	2.3.1/2.3.2	23/28
16.4 Arrangements, known to the issuer, which may at a subsequent date result in a change of control	N/A	N/A
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17.1 Details of related-party transactions	6.1 (Note 5.3)	217
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18.1.2. Change of accounting reference date	N/A	N/A
18.1.3. Accounting standards	6.1 (Note 1)	192
18.1.4. Change of accounting framework	6.1 (Note 1)	192
18.1.5. Audited financial information prepared in accordance with national accounting standards	6	182
18.1.6. Consolidated financial statements	6.1	184
18.1.7. Age of financial information	6.1	184
18.2 Interim and other financial information	N/A	N/A
18.2.1. Half-yearly or quarterly financial information	N/A	N/A

Annexes 1 and 2 to Commission Delegated Regulation (EU) 2019/980 of March 14, 2019	Universal Registration Document Chapters/Sections	Pages
18.3 Auditing of historical annual financial information	N/A	N/A
18.3.1. Independent audit of historical annual financial information	6.2/6.4	249/272
18.3.2. Other information audited by the auditors	4.2	92
18.3.3. Financial information not extracted from the audited financial statements	N/A	N/A
18.4 *Pro forma* financial information	N/A	N/A
18.4.1. Significant change in gross values	N/A	N/A
18.5 Dividend policy	2.5	30
18.5.1. Description of the policy for dividend distributions and any restrictions thereon	2.5	30
18.5.2. Amount of dividend per share	2.5	30
18.6 Legal and arbitration proceedings	6.1 (Note 9)	243
18.6.1. Significant proceedings	N/A	N/A
18.7 Significant change in the issuer's financial position	6.1 (Note 11)	248
18.7.1. Description	6.1 (Note 11)	248
19. Additional information		
19.1 Share capital	2.2.2	18
19.1.1. Amount of capital issued and authorized, number of shares issued and fully paid and issued but not fully paid, par value per share, reconciliation of the number of shares outstanding at the beginning and end of the year	2.2.2/2.2.5	18/22
19.1.2. Information about shares not representing capital	2.2.6	22
19.1.3. Number, book value and face value of shares in the issuer held by or on behalf of the issuer itself or by subsidiaries of the issuer	2.2.4	20
19.1.4. Information about convertible securities, exchangeable securities or securities with warrants	2.2.3.3	20
19.1.5. Information about and terms of any acquisition rights and/or obligations over authorized but unissued capital or an undertaking to increase the capital	2.2.3	19
19.1.6. Information about any capital of any member of the Group which is under option or agreed conditionally or unconditionally to be put under option	2.3.1	23
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19.2 Memorandum and Articles of Association	N/A	N/A
19.2.1. Register and issuer's objects and purposes	2.1.4	16
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20. Material contracts	**3.3.1/5.1.3/5.1.4/ 6.1 (Note 7)/6.1 (Note 11)**	**53/168/170/225/248**
20.1 Summary of each material contract	3.3.1/5.1.3/5.1.4/6.1 (Note 7)/ 6.1 (Note 11)	53/168/170/225/248
21. Documents available	**2.1.5/2.6**	**16/31**
21.1 Statement on available documents	2.1.5/2.6	16/31

8.3.2 Cross-reference table between the Universal Registration Document and the Annual Financial Report

	Universal Registration Document	
Annual financial report	**Chapters/Sections**	**Pages**
1. Parent company financial statements	6.3	253
2. Consolidated financial statements	6.1	184
3. Statutory Auditors' report on the parent company financial statements	6.4	272
4. Statutory Auditors' report on the consolidated financial statements	6.2	249
5. Management report including at least the information referred to in Articles L.22-10-34, L.225-100-2, L.225-100-3 and L.225-211 paragraph 2 of the French Commercial Code *(Code de commerce)*	8.3.3	362
6. Statement by the person responsible for the annual financial report	1.2	12
7. Statutory Auditors' fees (Article 222-8 of the AMF's General Regulations)	6.1 (Note 11)	248
8. Board of Directors' report on remuneration for 2021 for corporate officers	7.2.2	315

8.3.3 Cross-reference table between the Universal Registration Document and the management report of the Board of Directors

This Universal Registration Document includes all elements from the Board of Directors' management report as required by the applicable law and regulations. The table below identifies the sections and pages of this Universal Registration Document constituting the management report.

	Universal Registration Document	
Management report	**Chapters/Sections**	**Pages**
1. Activities and business development of the Group – Progress and challenges	3.2/3.4	38/58
2. Results of Group operations – Financial position and performance indicators	3.7	65
3. Changes to the presentation of the annual financial statements or the valuation methods applied in prior years	6.3.3	254
4. Material events between the reporting date and the date the report was prepared	3.5	60
5. Foreseeable developments and the Company's outlook*	3.8	74
6. Payment terms for suppliers and customers	3.9	75
7. Amount of dividends paid during the past three years	2.5	30
8. Vallourec five-year financial summary	6.3.E.7	271
9. Description of the principal risks and uncertainties the Group faces – Exposure to interest rate, credit, liquidity and cash risks – Internal control and risk management procedure *	5.1	164
10. Use of financial instruments by the Group, where it is relevant for the assessment of its assets, liabilities, financial position and net income or loss	2.2.6/5.1.4	22/170
11. Significant equity stakes in companies headquartered in France	N/A	N/A
12. Injunctions or monetary penalties for anti-competitive practices	N/A	N/A
13. Research and development activities	3.3	53
14. Vigilance Plan	4.1	87
15. Consolidated statement of non-financial performance	4.2	92
16. Composition of share capital	2.3.1	23
17. Employee share ownership	2.3.1/7.3.2	23/342
18. Share buybacks	2.2.4	20
19. Share transfers made to regularize cross-shareholdings or takeovers of such companies	N/A	N/A
20. Summary of valid authorizations for capital increases and use made of these authorizations during fiscal year 2021	2.2.3	19
21. Adjustments of the rights of holders of transferable securities giving access to capital or options	N/A	N/A

* *Subsequent events.*

8.3.4 Cross-reference table between the Universal Registration Document and the Corporate Governance Report

This Universal Registration Document includes all elements from the Board of Directors' corporate governance report as required by the applicable law and regulations. The table below identifies the sections and pages of this Universal Registration Document constituting the corporate governance report.

	Universal Registration Document	
Corporate governance report	**Chapters/Sections**	**Pages**
1. Composition of the Board of Directors	7.1.2.1	278
2. Mandates and functions of corporate officers	7.1.2.1.6	283
3. Diversity policy applied to members of the Board of Directors	7.1.2.1.1	278
4. Conditions for preparation and organization of the Board's work	7.1.2.2	294
5. Declaration on corporate governance – Compliance with the AFEP-MEDEF Code	7.4.4	348
6. Remuneration policies for corporate officers	7.2.1	309
7. Remuneration of corporate officers	7.2.2.5	325
8. Allocation of stock options	7.3.1.1	336
9. Allocation of shares free of charge or performance shares	7.3.1.2	339
10. Employee share ownership	7.3.2	342
11. Board of Directors' report on remuneration in 2021 for corporate officers	7.2.2	315
12. Securities transactions made by executives	7.4.1.1	345
13. Valid delegations regarding capital increases	7.4.5	349
14. Shareholders' participation in shareholders' meetings	7.4.6	349
15. Measures having an impact in the event of a takeover bid	7.4.7	349
16. Supervisory Board observations on the management report of the Management Board and the financial statements	N/A	N/A

8.3.5 Information incorporated by reference

In accordance with Annex 1 to Commission Delegated Regulation (EU) 2019/980 of March 14, 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council, this Universal Registration Document incorporates the following information by reference (available on Vallourec's website: https://www.vallourec.com/en/hub-finance/informations-reglementees):

- the parent company and consolidated financial statements for the year ended December 31, 2019, the Statutory Auditors' reports thereon, and the management report, presented respectively in Sections 6.3 (pages 236 to 250), 6.1 (pages 170 to 231), 6.2 (pages 232 to 235), 6.4 (pages 251 to 254), 8.1 (pages 330 to 331) and 8.2.3 (page 337) of the 2019 Universal Registration Document, filed with the French financial markets authority (*Autorité des marchés financiers* – AMF) on March 20, 2020 under No. D. 20-0154; and
- the parent company and consolidated financial statements for the year ended December 31, 2020, the Statutory Auditors' reports thereon, and the management report, presented respectively in Sections 6.3 (pages 259 to 275), 6.1 (pages 192 to 254), 6.2 (pages 255 to 258), 6.4 (pages 276 to 280), 8.1 (pages 368 to 369) and 8.2.3 (page 374) of the 2020 Registration Document, filed with the AMF on March 29, 2021 under No. D. 21-0226.

8.4 Other periodic information required under the General Regulations of the French financial markets authority (*Autorité des marchés financiers* – AMF)

The Universal 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 Universal Registration Document on which this information appears.

	Universal Registration Document	
	Sections	**Pages**
Board of Directors' report on remuneration for 2021 for corporate officers	7.2.2	315
Statutory Auditors' fees (Article 222-8 of the AMF's General Regulations)	6.1 (Note 11)	248
Description of the share buyback program (Article 241-2 of the AMF's General Regulations)	2.2.4	20

Design and production: côtécorp.

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A French limited company (*société anonyme*) with a Board of Directors

and issued capital of €4,578,568.56